

**CORPORATE INTERNET REPORTING PRACTICES BY COMPANIES LISTED
ON THE NAIROBI STOCK EXCHANGE (NSE).**

KANG'OTOLE, JOHNSTONE KIMANZI MCOM/052129

**SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF COMMERCE AT STRATHMORE UNIVERSITY.**

**SCHOOL OF MANAGEMENT AND COMMERCE
STRATHMORE UNIVERSITY
NAIROBI, KENYA.**

JUNE, 2012.

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KANG’OTOLE, JOHNSTONE KIMANZI

Signature:

Date:

Approval:

The thesis of KANG’OTOLE JOHNSTONE KIMANZI was reviewed and approved by the following:

DR. NELSON WAWERU

School of Management and Commerce

Strathmore University.

Head of School of Management and Commerce.

Dean, School of Graduate Studies.

Abstract

This study's main objectives are to establish the current internet reporting practices, ascertain the factors perceived to be influencing Corporate Internet Reporting (CIR) by the companies quoted on the Nairobi Stock Exchange (NSE) and explore the benefits and limitations of CIR as faced by the companies listed on the NSE. The sample of this study comprised the 30 listed companies that had accessible websites and responded to the study questionnaire. This study analysed the contents of all the 30 companies' websites to ascertain the nature and extent of current internet reporting practices by the companies listed on the NSE.

Data for this study was collected in two stages. First the information disclosed by companies on their websites was checked against a disclosure index. The second stage was via a self-administered questionnaire sent to the companies with accessible websites. The questionnaires were administered in June 2011. The resulting data was then analysed and the results presented in charts and figures. The results obtained led to the conclusion that profitability, industry competition; growth rate and corporate size were the important factors influencing CIR by the listed companies on the NSE.

The result of this study makes the following contribution to the knowledge of CIR on the NSE. Firstly, this study will be of help to the listed companies by aiding them in establishing better online reporting practices especially in this era of unprecedented internet revolution in Kenya. Secondly other companies in different industries will be able to tap the knowledge from this study to build into the reporting practices they are currently using. Further, the results of this study might be useful to the standardising or regulating bodies in Kenya in formulating policies to govern and guide online disclosure for all companies listed on the stock exchange market. Finally, the study results will act as a guide to stimulate further research on CIR or into other related subject matter.

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LIST OF ACRONYMS.

BRRP	Business Reporting Research Project
CIR	Corporate Internet Reporting
CMA	Capital Markets Authority
FASB	Financial Accounting Standards Board
HTML	Hyper Text Mark-up Language
MAIM's	Main Investment Market Segment
NSE	Nairobi Stock Exchange
PCT	Proprietary Cost Theory
PDF	Portable Document Format
SEC	Securities and Exchange Commission
UK	United Kingdom
USA	United States of America

CHAPTER ONE

1.0 Introduction

This chapter presents and explains the rationale of the study and is organized as follows. Section 1.1 explains the background of the study while section 1.2 defines the study problem. Section 1.3 describes the study general objective while section 1.4 addresses the specific objectives and the study questions followed by section 1.5 which outlines the importance of the study.

1.1 Background of the study.

Previous studies conducted on the NSE listed companies on corporate internet reporting focussed on various aspects. Barako, Hancock and Izan (2006) investigated the extent to which corporate governance factors, ownership diffusion as well as company characteristics influenced voluntary disclosure of information by the NSE listed companies. A recent study on disclosure that was conducted by Ponnu and Okoth (2009) investigated the relationship between annual corporate social responsibility disclosures and the size of NSE listed companies. These previous studies have focussed on corporate governance and corporate social responsibility disclosures by the NSE listed companies. As a departure from these studies, this study seeks to examine corporate internet reporting which encompasses annual financial reporting, corporate governance reporting, company's social responsibility reporting and investor relations reporting on the corporate websites by the companies quoted on the Nairobi Stock Exchange (NSE) with a view to establishing the current CIR practices of these companies.

It is notable that the growing use of the internet has provided companies with a new stage that they can use to communicate with a wide and the ever increasing group of information users (Ettredge, Richardson and Scholz, 2001). This has given companies incentives to establish websites to advertise their products and communicate financial information to a wider audience (Lymer, 1999).

Corporate web sites are used to show-case a range of finance and non-finance information for all the interested groups from government, analysts, investors and any other stakeholder who could have interest in such information as the yearly reports, current market price of the shares and management representations (Hassink, 2008).

In this study, corporate reporting on the internet (CIR) is used to refer to the internet reporting of financial, corporate governance and corporate social responsibility information. The definition is drawn from Ashbaugh, Johnstone and Warfield (1999) in their “Internet Financial Reporting (IFR)” definition. However, their IFR definition only focussed on financial reporting on the internet. This study examined other non-financial disclosures like corporate governance and corporate social responsibility reporting. Proprietary costs theoretical (PCT) framework has been relied upon in examining the factors that influence CIR by the listed companies on the NSE. PCT was chosen because it shows clearly that in order to understand a company’s disclosure practices, a researcher should keenly consider the related disclosure costs (Darrough and Stoughton, 1990).

The internet has overtaken printed reports as the preferred medium for external reporting by companies (Xiao, Yang and Chow, 2004). Healy and Palepu (2001) have argued that the increase in the internet usage by investors is likely to continue, reducing the costs of online disclosures and consequently increasing their supply. One advantage of internet reporting is the costs saving by companies in printing and mailing of annual financial statements to shareholders (Khadaroo, 2005). Other benefits that may arise from CIR were also identified and include real time updates of information, a more balanced information distribution among various stakeholders resulting from enhanced accessibility to information and an interactive platform with users over a wide region (Louwers, Pasewark and Typpo, 1996). Gray and Haslam (1990) pointed out that it is possible to ascertain the business reporting practices of a company by undertaking a content analysis of their website. A study done by Krippendorff (1980) defined content analysis as a research technique where researchers are able to draw valid inferences on data based on their content. Several studies have used content analysis to ascertain the reporting practices of companies such as Marston and Polei (2004); Hooks et al. (2002) and Hamid (2005).

For a research to use content analysis, it would have to rely on a disclosure index (Gray and Haslam, 1990). This suggests that a disclosure index is very useful as a research tool in this context (Hamid, 2005). Following prior research reviewed, this study uses content analysis with the help of a disclosure index (**see Appendix I**) to investigate CIR practices by the companies listed on the NSE.

1.2 Problem definition

A company wishing to project a global reputation or access to international market and capital will find it inevitable to host a corporate web site that showcases its products, management structure and even an investor's interaction platform (Ettredge et al., 2002). It is notable however that notwithstanding the importance of the internet as a platform to present company information to meet the needs of different stakeholders, there is great variance in the content and the composition of that information (El-Masry and Abdelsalam, 2008). In spite of the variability identified by other researchers and the multiplicity of challenges, internet reporting has a lot of benefits (Watts and Zimmermann, 1978).

Previous studies in CIR conducted by various researchers in other jurisdictions have used different theoretical frameworks to be able to identify the factors that influence companies to disclose information on their websites. These studies among others were Marston and Craven (1999), Gowthorpe et al. (1999) in Spain; Adolphson and Hedlin (2000) in Sweden; Wagenhofer and Pirchegger (1999) in Germany and Austria; Fisher, Oyelere, Laswad and Oyelere (2003), Polei and Marston (2004) in Japan; Khadaroo (2005) in Malaysia and Alvarez et al. (2008) in Spain. Theories used by these researchers were the Agency Theory, Political Costs Theory, Signalling theory and Proprietary costs theory. From the research results released from these studies, factors such as corporate debt, company size, profitability and share ownership plans were found to be in most cases influencing voluntary corporate internet reporting (Watts and Zimmermann, 1978).

From the literature reviewed, a great number of these studies were done in the developed economies of United States of America and Europe. Generalizing the findings of such research in a developing economy like Kenya may lead to erroneous conclusions as to the CIR practices or even factors perceived to affect CIR practices since the NSE market is at a different stage of development economically.

The sectors are also not well defined while the reporting environment is not controlled or regulated (Barako, Hancock and Izan (2006). Further, the communication with stakeholders is somewhat slow since most of the printed copies of financial statements rarely reach all the recipients they are sent to. Whenever these documents reach the target group, they are late and less useful as a tool to inform in decision making by the stakeholders. Additionally, they are highly summarised and as such, the information gap between the company insiders and outsiders has not been adequately addressed by these printed copies receipt. The motivation of this study therefore is to examine the CIR practices by the companies listed on the NSE, establish the perceived factors that influence the CIR practice on the NSE. Further, this study seeks to establish the perceived benefits and limitations of CIR by companies quoted on the NSE as they strive to bridge the information gap.

1.3 Research Objective

The general objective of this study is to examine the current CIR practices by the companies listed on the NSE and determine the perceived benefits and limitations of CIR among the companies listed on the NSE.

1.4 Specific Objectives of the study

1. To establish the current practices of CIR by the companies listed on the NSE.
2. To establish the perceived factors that influence CIR by companies listed on the NSE.
3. To determine the perceived benefits of CIR among the companies listed on the NSE.
4. To ascertain the perceived limitations of CIR among the companies listed on the NSE.

1.4.1 Study questions

1. What are the current CIR practices done by the companies listed on the NSE?
2. What are the factors that influencing CIR by the companies listed on the NSE?
3. What are the perceived benefits of CIR by the companies listed on the NSE?
4. What are the perceived limitations of CIR by the companies listed on the NSE?

1.5 Importance of this study

1. This study will help the listed companies by aiding them in establishing better online reporting practices especially in this era of unprecedented internet revolution in Kenya of fibre optic cable and the ICT villages across the country.
2. This study will offer new insights to stakeholders other than those listed on the NSE. Other companies in different industries will be able to tap the knowledge from this study to build into the reporting practices they are currently using.
3. Results of this study might be useful to the standardising and regulating bodies in Kenya generally in formulating policies on online disclosure for all companies listed on the stock exchange market.
4. Finally, other researchers may use this research work as a stimulus for further research on CIR or in other related fields.

CHAPTER TWO

2.0 Introduction

The section focused on previous studies carried out on online reporting by companies listed on various stock exchanges across the world. It also examined the extant literature done on this subject in order to guide the researcher in formulating testable propositions to the identified study problem. The rest of this chapter is structured as follows. Corporate internet reporting practices across various stock exchanges is evaluated in part 2.1. The discussion on the disclosure theories was tackled in section 2.2. Theoretical framework was addressed in section 2.3 while section 2.4 provides a discussion on the factors influencing CIR. The discussion disclosure index is tackled in section 2.5 while section 2.6 handles measurement of variables used in this study. Section 2.7 addresses various challenges of CIR and section 2.8 covers the conceptual framework. Conclusion and the research gap are addressed in section 2.9 and 2.10 respectively.

2.1 Corporate Internet Reporting Practices.

Internet reporting started to shape corporate reporting in the mid 1990's with the online filing of information offered by the Securities and Exchange Commission (SEC) in the United States of America in mid 1990s. This motivated more companies to voluntarily maintain websites for purposes of disclosing their information on these web sites (Lymer 1999). Gillet and Petravick (1996) in their research discovered that out of the 150 USA corporations studied 103 had web sites with some web content and that 81 corporations had annual reports with financial statements on their sites. Debreceeny et al. (2002) in their presentation at the Asian Pacific Conference, argued in their study of the top 50 of the Fortune 500 listed corporations, 49 companies had accessible web pages, 34 availed downloadable end of year reports on their web sites and that 18 corporations further included the auditor's report on their website. Further (Deller, Stubenrath and Weber, 1999) found that beginning year 1998, 91% of USA's Standard and Poor index 500 companies were using the internet to communicate with investors.

Different studies on this subject have evaluated and produced evidence of CIR practices in many different jurisdictions across the world, Oyelere et al. (2003). These studies among others were Marston and Craven (1999), Gowthorpe et al. (1999) in Spain; Adolphson and Hedlin (2000) in Sweden; Wagenhofer and Pirchegger (1999) in Germany and Austria; Fisher, Oyelere, Laswad and Oyelere (2003), Polei and Marston (2004) in Japan; Khadaroo (2005) in Malaysia; Alvarez et al. (2008) in Spain; Ponnu and Okoth (2009) in Kenya. These studies have found an increasing usage of the corporate websites for information releases and the provision of yearly financial reports, corporate governance as well as corporate social responsibilities, and they noted that the level and complexity of CIR practices were varying across countries, Marston and Polei (2004).

Marston and Craven (1999) researched on the level of CIR practices by UK companies and found that size was a major determinant CIR, but did not arrive at the same relationship for industry type. Deller et al. (1999) in the comparison of CIR activities of USA, UK and German companies found CIR to be more common in the USA than in both UK and Germany. They further found out that although internet technology presents a variety of possibilities for communicating with investors, these possibilities are rarely used in the three countries studied. Ettredge et al. (2002) investigated whether CIR could be explained by mandatory and voluntary disclosure theories, and found size and information asymmetry to be significantly associated with CIR, while voluntary information disclosure was found to be associated with variables such as information variance, size, requests for external capital as well as a companies' traditional disclosure orientations. Hedlin and Adolphson (2000) studied sixty corporations quoted on the Stockholm's exchange market and found that large corporations were more advanced on their use of CIR as a tool for communication with corporate investors. Another study commissioned by Financial Accounting Standards Board in 2000 and conducted by the Business Reporting Research Project was aimed at establishing ways of increasing voluntary disclosure of information on company websites.

The results of this study suggested that among the Fortune 100 companies, 99% had a web site. Marston (2003) in her study of business reporting practices of 99 companies in Tokyo stock exchange found that 79% maintained a web site in English language. Further, the study noted that 69% of these companies reported some financial information and 58% disclosing their accounting information in detail. The study results also suggested that variable company size had a significant positive association with a corporation's web site existence but the level of annual financial information disclosure did not correlate with variable size. Other research (Bonson et al. 2006) in the study, 'analyzing the impact and scope of annual financial information dissemination online in Europe', surveyed 50 corporations quoted on the Dow Jones Eurostoxx50 index in October 1999. They found out that all of those companies had a web site where they released the annual financial reports and other related information such as interim financial statements which were un-audited; shareholders addresses and telephone contact details and stock prices on a continuous basis.

Xiao and Jones (2004) in their study sought the opinions from a wide group of experts to be able to establish their perceived future developments in communication on the internet. The views from these experts concurred with the proposition that by as early as 2010, company's communications with their stakeholders will have advanced greatly to incorporate usage of audio and videos as well as e-mails besides the usual annual general meetings. Tallberg and Lymer (1997) conducted a study on the usage of the internet for corporate disclosures by corporations in Finland as well as in the UK. Their study found that although 90 per cent of these companies actually maintained web sites, the use of that web presence for financial information dissemination among the companies was still hugely under-used the two countries, but the internet usage of the internet in Finland was lower than that identified in the UK scenario. Pirchegger and Wagenhofer (1999) evaluated the credibility of financial information disclosed in the internet by companies. Their findings argue that the credibility of such information was highly doubtful given the information so disclosed either did not adequately focus on long-term critical factors that create value to stakeholders or the information is so historical thereby negating their futuristic outlook. There was also poor focus on users need.

Hussey and Sowinska (1999) argued that it was commonly evident that the leading companies disclosed on their web sites a lot of information on financial results. They observed that the information so disclosed could vary from the full statutory financial statements equivalent to printed copies or summarised data only useful to analysts. They concluded that what is available on the internet is typically extracted from the annual paper reports with no originality by the companies to incorporate new information. Regarding business reporting regulations, the authors argued that the accounting standards are not adequate to address the growth in internet reporting needs and that more legislation will need to be developed.

A lot of research on CIR has been conducted with several factors associated with the internet reporting practices being proposed as having significant implications for companies, Marston and Polei (2004). These factors already suggested range from the voluntary nature of corporate communication over the internet owing to lack of proper regulation, the conversion of information risks or transposition errors by corporate site monitoring teams, hacking risks by unauthorised or malicious users to delete, modify or censor the information there, the ever changing nature of information on the internet, unrestricted ease with which information can be added or deleted into or from corporate websites via connecting linkages or mini websites and the increasing requirements by stakeholders for improved timeliness of information, factual as well as sufficient in breadth to be of value, Pirchegger and Wagenhofer (1999). In deviation from the previous studies above, this study specifically focused on totality of corporate internet reporting practices on the NSE by the listed companies and examined the perceived factors affecting CIR of these companies. Further, it looked at the perceived benefits and limitations of CIR by the listed companies on the NSE.

2.2 Online disclosure theories

Scholars from different countries have researched internet reporting by companies using disclosure theories such as the signalling theory, political costs theory, agency theory, and proprietary costs theory. Their findings on each of these theories are discussed in the ensuing sub topics.

2.2.1 Legitimacy theory.

Under the umbrella of legitimacy theory on online disclosure, researchers have put forward a series of hypotheses relating to the information that companies disclose voluntarily. After empirically testing the hypotheses, they have found evidence of relationships between some of the following variables: size of the company - Cowen, Ferreri and Parker (1987); industry sector - Hackston and Milne (1996), Newson and Deegan (2002) and public exposure Castelo and Rodrigues (2006).

2.2.2 Agency theory.

Agency theory is regarded as an important construct to understanding disclosure incentives for companies due to the problems associated with separation of day to day management of companies and their shareholders who are effective. Petersen and Plenborg (2006) cite variance of incentives between managers and shareholders, as the reason several actions are taken like contracting managements based on their performance and profits distribution options for qualifying staff. These actions involve costs that have been referred to as agency costs. One way to reduce those costs is to disclose information about the management's actions and the company's economic standing and enable shareholders monitor the actions of management more appropriately (Verrecchia, 1983). Ball (2006) advances that increased disclosure will lead to better convergence of stakeholder's interests. Online information disclosure therefore serves twofold purposes; as a strategic control tool for the shareholders (Healy and Palepu, 2001) and a mechanism for legitimising the decisions and actions taken by the management (Prencipe, 2004).

2.2.3 Signalling theory.

Signalling theory advances that company with superior financial performance use disclosure as a sign to the markets of good or bad news. Akerlof (1970); Baiman and Verrecchia (1996) both argued that companies are interested in disclosure of relevant information to signal the market with good news or changing economic fortunes of the company.

By so doing, they are able to bridge the gap between the information held by the company and that which is available to shareholders. The asymmetry of information comes from the differences in the levels of corporate information at the disposal of the management, who have to constantly deal with day to day operations of the company and the other stakeholders, who normally would get the information either delayed or greatly watered down from the managers (Kelly, 1994). Companies wishing to get an elevated view in the market and away from their competition will most likely voluntarily disclose information online (Leuz, 1998). This results in a favourable outlook of a firm's future direction by the capital markets and an enhanced share price in the market (Xiao et al., 2004). From the above analysis, failure to offer this critical information could be misinterpreted by the players in the stock exchange markets adversely.

2.2.4 Political costs theory.

Proponents of this theory have argued that companies perceived to be sensitive to government regulation or even being nationalized are likely to disclose a lot of information in order to deflect such politically related costs (Gordon and Deegan, 1996), (Ahmed, 1990). Companies would in most cases try to keep their wealth from being shifted towards the public enterprise by the government. To that end, companies will voluntarily release the information which will decrease political costs like levies payable to the government and seek government favours which are advantageous such as subsidized investments on land and buildings which favours the company (Bonso'n and Escobar, 2004). Distinction between other disclosure theories and political costs theory is often difficult. The reason is that these theories converge in the conclusion that if a company discloses more information, it will look favourable in the eyes of the stakeholders who would otherwise rate it lowly (Deegan and Gordon, 1996).

2.2.5 Proprietary costs theory.

Proprietary Costs Theory has advanced that companies tend to limit disclosure of information to the financial market because of the associated disclosing costs (Verrecchia, 1983, 1990; Dye, 1986 and Wagenhofer, 1990).

The proprietary costs are not limited to preparation and dissemination of information but also derive from disclosing information which their competitors and other interested parties may use in a way which could harm the reporting company. This argument is based on the assumption that, in the absence of the proprietary costs, companies have incentives to disclose voluntarily all the information relevant to the market as they strive to reduce the information gap and consequently reduce the cost of capital (Verrecchia, 1983; Diamond and Verrecchia, 1991). However (Healy and Palepu, 2001) did not find a significant relationship arguing that firms doing business in countries with low entry barrier to investment are likely to convey more information. Accordingly (Verrecchia, 1983) argued that the greater the proprietary costs associated with a particular item of disclosure by a company, investors react less negatively to the particular items being omitted from the information released.

2.3 Theoretical Framework.

Previous studies in CIR conducted by various researchers in other jurisdictions have used different theoretical frameworks to be able to identify the factors that influence companies to disclose information on their websites. These studies among others were Marston and Craven (1999), Gowthorpe et al. (1999) in Spain; Adolphson and Hedlin (2000) in Sweden; Wagenhofer and Pirchegger (1999) in Germany and Austria; Fisher, Oyelere, Laswad and Oyelere (2003), Polei and Marston (2004) in Japan. Theories used by these researchers were the Agency Theory, Political Costs Theory, Signalling theory and Proprietary costs theory (Watts and Zimmerman, 1978). Proprietary costs theory impact on disclosure of information on the internet has been marginally considered in these studies (Prencipe, 2004). Factors like company size, profitability, leverage and the structure of ownership have been shown to have a significant effect on the voluntary disclosure of information on the internet by companies.

Proprietary costs theoretical framework however is different from other theories in that it clearly separates costs related to disclosure from any other disclosure effects (Verrecchia, 1983).

Sometimes these costs may be so relevant to a company that they outweigh benefits derived from disclosure (Prencipe, 2004). This theory shows clearly that in order to understand a company's disclosure policy, a researcher should keenly consider disclosure related costs (Darrough and Stoughton, 1990).

Proprietary costs theory contribution to literature has consistent results. Darrough and Stoughton (1990) proved that when there are costs arising from a given disclosure item, companies would automatically restrict the disclosure of that piece of information. Further Wagenhofer (1990) contend that companies would normally shift from fully disclosing their information to limited disclosure as proprietary costs rises. Elliot and Jacobson (1994) mention that information on technical innovativeness or strategic orientations and tactical plans if disclosed may lead to competitive disadvantage in the future. Giner et al (2003) has examined the dual costs that companies face by disclosing information. The first set of costs is collection, processing and disseminating information. These costs are not regarded as very relevant.

The second set of costs arises from dissenting investors, employees or even competitors who may use the disclosed information to harm the company. Verrecchia (1983) and Wagenhofer (1990) have argued that companies have the motivation to voluntarily release their information in the absence of proprietary costs. The agency theory and signalling theory both argue in favour of voluntary disclosure in order to reduce related costs (Jensen and Meckling, 1976) and (Hughes, 1986). The significant addition of knowledge of proprietary costs theory to other theoretical disclosure approaches is that it completely examines all the cost arising from releasing information to stakeholders, stating that these costs may be so critical such that they completely obscure disclosure benefits and consequently discouraging it (Prencipe, 2004). Further by focusing on Proprietary Cost theoretical framework, this study seeks to establish the perceived factors that influence companies listed NSE to undertake certain CIR practices.

Since it focuses on the benefits and costs of disclosure, the proprietary costs theory is ideal for this study in that it will explicitly isolate disclosure costs from benefits thereby helping companies in choosing an optimal corporate disclosure strategy.

2.4 Factors Influencing CIR.

2.4.1 Segment Reporting.

International Financial Reporting Standard (IFRS 8) defines an operating segment as a component of an entity that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same entity) or whose operating results are reviewed regularly by the entity's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance and for which discrete financial information is available . Backer and McFarland, (1968) in their study argued that there are substantial costs to be borne by a company disclosing segmental information. Segmental reports disclose company's details on their operations from its various diverse business lines. By so disclosing their segmental information, companies could reveal to competing firms the inherent risks or potential opportunities to be exploited to the detriment of the disclosing firm (Mautz, 1968; Deppe and Omer, 2000). This study therefore used a dummy to represent this variable, if the reported segments were identical to the management divisional structure, then =1; otherwise =0 and proposed a positive relevance of this variable to the CIR.

2.4.2 Industry Concentration.

Companies that operate in highly concentrated markets could be tempted to limit the level of information released to the public due to the perceived competitive damage it could inflict on their side (proprietary costs theory), (Isabel Gallego A'lvarez, Isabel Mari'a Garc'ia Sa'nchez and Luis Rodr'iguez Dom'nguez, 2008). These researchers further argue that companies operating in highly concentrated markets would be highly visible and therefore more likely to experience regulator or government interferences (political costs theory).

As a result and from the foregoing argument, companies would wish to release as much information as possible voluntarily and appear legitimate so as to avoid external interference, (A ´lvarez et al., 2008).

In deviating from the arguments above however, (Rodri ´guez, 2004); (Deegan and Carroll, 1993) in their research found positive correlation between a company's monopoly position (concentration in a given industry) and the level of information released voluntarily to the public. Their argument was based on the analysis that monopolistic companies are very visible to the government and hence high political costs would accrue to such a company. To minimize these costs, the companies would therefore release more information to the public on their websites.

Other related studies by (Christopher and Hassan, 1995) as well as (Berger and Hann 2002) did not establish any conclusive evidence of voluntary disclosure of information by a firm and the industry concentration. To measure this variable, the natural logarithm of the number of quoted companies in each sector will be used to gauge the level of concentration. A higher natural log figure for a company will mean that the industry sector has a high concentration. The absence of conclusive evidence from various studies involving online disclosure various kinds of information led our study to the proposition that industry concentration would be of a positive relevance to CIR.

2.4.3 Industry Competition.

In their studies, Darrough and Stoughton (1990) have argued that the reporting of information on the internet is likely to be less in industries that are competitive, since disclosing such information could in fact endanger the competitive position of a company. Additionally in their research, Harris (1998) argued that companies operating in industries that were less competitive did not disclose more information than their counterparts operating in high competition. Companies that operate in industries that are less competitive would always want to guard their turfs and maintain the above normal profits that are reaped in those markets.

Therefore releasing more information to the markets could harm their monopolistic tendencies thereby reducing the above normal benefits they enjoy. Other studies by Botosan and Stanford (2005) made similar inferences on the disclosure of information according to the Statement of Financial Accounting Standards No. 13.

Both (Hayes and Lundholm, 1996) and (Birt, Bilson, Smith and Whaley, 2006) argued that there was a positive correlation between an industry's competitiveness the internet disclosure of information. They further found that firms that operated in less competitive markets tend to have higher proprietary costs and would therefore limit the flow of information to the disadvantage of their competitors. This study used the four-firm concentration ratio, which summarizes the distribution of market shares within an industry, and an estimate of the speed of abnormal profit adjustment. According to (Harris, 1998) industry competition can be estimated with the Herfindahl index as follows:

$$Herfindahlindex = \sum_{i=1}^n (si/S)^2$$

Where:

si = firm i 's sales,

S = the sum of sales, s_i , for all firms in the industry,

si/S = firm i 's market share,

n = the number of firms in the industry.

The study further proposes a positive relevance to CIR

2.4.4 Growth Rate.

Costs associated with competitive industries are particularly higher for companies that are growing in those industries (Prencipe, 2004). The level of a business growth will in most cases relate to the existence of a market that is growing or to the entrance by a company into other profitable frontiers. In either case, online disclosure of information may signal the availability of new exciting business options to competition to the potential disadvantage of the company giving the information. But as companies grow, they tend to disclose more in a bid to show their quality and attract more investors (Baker and McFarland, 1968).

As a proxy for company growth, the total fixed assets changes from last financial year to current financial year divided by total fixed assets for the previous year for each company is used for this research. Consequently, the extent of internet reporting is expected to have a positive correlated relationship to a company's growth rate and therefore this study proposed a positive relevance of growth rate to CIR.

2.4.5 Listing Status Age.

According to (Prencipe, 2004), the proprietary costs of disclosing information are also expected to be influenced by the 'listing status age' of the company releasing the information. Listing status age was defined as the number of years that a company has been quoted on a stock exchange. Online reporting is geared towards providing information to satisfy market needs. When a company receives the listing from the market regulators, it starts facing requests for financial information from analysts'. It is assumed that if a company has been listed for a longer time, then it is more familiar to what the analyst's requests would be. Baker and McFarland (1968); Mautz (1968) and Sanders, Alexander and Clark (1999) argued that the costs of disclosing this information tend to be higher when companies have not been exposed preparing it. As a consequence, it is expected that the higher the longer the company has been listed on a stock exchange, the information dissemination costs tend to be lower. This study suggested a proposed positive relevance to CIR.

2.4.6 Leverage.

Leverage is one of the factors associated with greater information disclosure especially from the agency theory perspective. This results from the possible conflicts of interest arising from the indebted companies. Companies with higher debt to equity ratio will face higher agency costs since the possibilities of wealth being transferred from debt holders to shareholders are higher (Gallego, García and Rodríguez, 2009). By disclosing more information, companies are able to decrease the costs associated with agency relationship and thereby any possible conflicts of vested interest between shareholders and their debt holders.

Further, as a company's leverage rises, the information needs from creditors also increases because this is the only way in which they attempt to find out the likelihood of the company to meet its financial obligations. For stockholders, the voluntary information released to the public is used to monitor management and to rate a company's financial strength, given that the risk of financial distress rises with rising leverage.

In studying the possible implications of the agency theory to CIR, several studies have found the variable leverage to be positively correlated to the information levels disclosed, (Giner et al., 2003; Xiao et al., 2004; Prencipe, 2004; Alvarez, 2008). However studies done by Giner (1997), Oyelere et al. (2003) and Gul and Leung (2004) did not find a statistically significant relationship. This study then makes a proposition that leverage will have a positive relevance to CIR.

2.4.7 Industry Sector.

From the signalling and political costs theory perspectives, the market industry that a company does business in has often been used as a factor in establishing the information quantity disclosed by these companies. Boesso and Kumar (2007) argued that it was possible to find that companies that operated in similar industries adopted similar disclosure guidelines on the information they release to the public. Their argument was based on the fact that these companies encountered similar levels of business environment complexity, industry constraints and same government regulations. Accordingly if a firm were to lag behind in adopting their competitor's disclosure strategy as a counter strategy, then the analysts in the market as well as the public consumers of their information could read this as bad sign that the company was facing serious financial constraints (Watts and Zimmerman (1978). Further they argued that confinement to an industry could affect the vulnerability of a company making it more politically visible, this therefore meant that companies operating in industries that were perceived to be more politically visible were obliged to voluntarily disclose more information in order to reduce or eliminate political costs, such as enhanced government regulation, debt holder break-up agitation of the entity or even closure of the company (Oyelere et al., 2003).

However, the findings from various studies reviewed in the literature have not offered a concise conclusive correlation between the amount of information disclosure and industry sector as opposed to corporate size. While studies by (Gul and Leung, 2004; Oyelere et al., 2003; Bonso'n and Escobar, 2004) all found some evidence of significant relationship between industry membership to the amount of information disclosed voluntarily especially in the technological companies or in the high-growth industries. Giner (1997); Xiao et al. (2004); Larra'n and Giner, (2002); Craven and Martson (1999) and Giner et al. (2003) did not show a statistically significant relationship. However, due to the operational differences in geographical and jurisdictional scope, researchers may have limited the results of these studies and thus leading to the divergent conclusions. The study proposes a positive relevance of this variable to CIR.

2.4.8 Profitability.

Agency theory advances that the management of companies that return good operating results (profits) would normally use that information to achieve personal goals which ranges from maintaining their positions in the company or even raising the levels of the perks and remuneration they receive (Gul and Leung, 2004). According to (Alvarez et al, 2008) profitability has often been regarded as good measure of the investment quality of a company from the perspective of signalling theory. Accordingly, if a company is able to achieve a higher profit, it will be incentivised to disclose more information to the public to reduce the possibility of the market viewing it negatively. The theory further advances that companies that are more profitable would continuously release more and more information to the public in order to be distinguished from the others that are not as profitable as well as avoid share price decreases. Moreover, the disclosure of voluntary information is supported by political costs theory so as to justify the returns corporations obtain. In contrasting to their views above, (Principe, 2004; Wagenhofer, 1990 and Giner et al., 2003) studied the likely negative relationship of profitability and CIR using the proprietary costs theoretical framework. They found out that the highly profitable industries could be a disadvantage as it could signal rival companies to enter the market.

As a result therefore, companies would be forced to consider the influences of competitive costs, which are assumed to increase as profitability increases.

Despite the consistency of the assumptions of most disclosure theories, some previous studies (Larraín and Giner, 2002; Oyelere et al., 2003; Marston and Polei, 2004; Prencipe, 2004; and Magness, 2006) did not find a significant relationship between the information released voluntarily to the markets and profitability. In contrast however, (Khanna et al., 2004; Gul and Leung (2004) found that profitability was positively correlated to the amount of voluntary information disclosed by multinational companies quoted on the New York Stock Exchange as well as their counterparts quoted in Hong Kong, respectively. As a proxy for profitability, operating income for the current financial year divided by the total fixed assets was used. This study then proposed a positive relevance of this variable and CIR.

2.4.9 Company Size.

The larger companies show some corporate characteristics that are distinct and make them stand out from the smaller companies, for example, a complicated goods distribution channel, more diverse range of products or services and a comprehensive use of the stock exchange to raise financial resources. The last consideration would especially guide companies on the information quantities they will need to disclose (Alvarez et al., 2008). According to Giner (1997), the basic consideration for the corporations disclosure of information is the realisation that they will need to maintain solid contacts with financial resources suppliers so that they could acquire financing at the most favourable terms. The proposition by agency theory that as a corporate size increases its needs for more external funding also rises is particularly true leading to the possible of conflicts of interest between the shareholders, debenture holders and management of the company. Companies faced with this scenario would find it advisable to use the disclosure information to the various stakeholders as a way of decreasing the agency costs (Alvarez et al., 2008). Information asymmetries could be reduced by voluntary disclosure of information; this therefore allows the company to access the financial market in a competitive manner.

From a cost-benefit analysis the perspective (Larraín and Giner, 2002; Bonsoñ and Escobar, 2004) argue that the costs associated with preparation and distribution of information over the internet are unlikely to be related to a company size. Nevertheless, they argue that the potential benefits are higher for the large companies as there is a direct relationship between disclosure benefits and the agency costs. Further they state that large companies are very visible in markets with greater coverage by financial analysts and greater sensitivity to public image. These corporations are also faced with higher political costs and would constantly need to signal the market by releasing information on their management practices. Considering the arguments from the literature, most studies have found that corporate size had a positive relationship to the amount of voluntary information released on corporate web sites.

Oyelere et al. (2003); Lim et al. (2007); Craven and Martson (1999); Marston and Polei (2004); Bonsoñ and Escobar (2006) and Boesso and Kumar (2007) used agency theoretical framework and argued that there was the existence of a positive relationship between the size of a company and corporate internet reporting. However, another study by (Pirchegger and Wagenhofer, 1999) arrived at a contrasting conclusion to the above direct relationship by only showing its validity up to a certain level of company size. Several other works like (Ortiz and Clavel, 2006) or (Khanna, Palepu and Srinivasan, 2004) did not find any statistical significance for corporations listed on the NYSE. Their findings could be attributable to the differences in institutional set-up and the different sample sizes they used for their studies. As a proxy for this variable, the natural logarithm of revenues (sales) for each company was used. The proposition that size of a company was positively relevant to CIR was then made.

2.4.10 Audit Firm Size.

Research has shown that companies audited by big audit firms (KPMG, Deloitte & Touché, Pricewaterhouse Coopers and Ernst & Young) have a higher incentive to disclose more information than companies audited by other smaller audit firms, Debreceeny and Gray (1999).

Several studies conducted (Ahmed and Nicholls, 1994; Patton and Zelenka, 1997; Inchausti, 1997 and Raffournier, 1995) all found there was a likely positive relationship between the size of an audit firm and the disclosure of information on company's websites.

2.4.11 Ownership Diffusion.

Results from previous studies done on the effect of ownership diffusion to information disclosure have given mixed results. Eng and Mak (2003), Ghazali and Weetman (2006) both found a positive relationship in a study conducted in Hong Kong and Malaysia respectively on the effects of directors share ownership and voluntary information disclosure. In contrast however, Hossain *et al.* (1994) in their study argued that there was a likely negative correlation between ownership diffusion and level of information disclosed. Because most of the companies listed on the NSE have the top 10 shareholders (who control majority stake) represented on the board of directors of those companies therefore, the problems posed by agency conflict are very minimal. Further, the minority shareholders have insignificant stakes in these companies. The study proposed a positive relevance to CIR.

2.5 Creating a disclosure index.

Marston and Shrivies (1991) argued that there is no general theory that should guide selection of items to include in the disclosure index. Several descriptive research studies have since analysed information provided on companies corporate web sites in various countries such as in Germany- Marston and Polei (2004), Petersen and Plenborg (2006) from Denmark and Larran and Giner (2002) from Spain. These researchers used binary values to ascertain the information companies released on their web sites. The binary values used were (1; for the availability of information being sought or 0: for lack of the information they were seeking). Therefore if a company disclosed an item of information on the disclosure index, it was awarded a score of one but if it did not disclose that item, a score of zero was awarded. Then the values obtained were summed up to arrive at a CIR score for each company.

Davey and Homkajohn (2004) in their study used a weighted disclosure index with website content, technology, user support and timeliness of information. They argued that their objective was guided by the need to assign weights to the various categories of information disclosed. The shortcoming of their index was that it did not clearly separate financial from the non-financial data and further it did not analyse items of information on each sub category.

Hamid (2005) used un-weighted disclosure index to assess among other things investor relations, financial information, press releases and shareholder information. Their disclosure index was only detailed on investor relations attribute but limited in scope on the other facets. Oyelere et al. (2003) also used un-weighted checklist. Their focus was only on related annual financial reports. It was limited in that it focussed on auditor related information. Other studies by Celik et al (2006) and Khan (2007) used un-weighted disclosure indexes but with broad categories of attributes. Their importance in guiding the development of this study disclosure index was that they focussed on both financial and non-financial information disclosed on company websites.

Previous studies have shown consistent results for those using either weighted or un-weighted disclosure indexes (Cooke, 1991) and (Zarzeski, 1996). Since the objective of the disclosure index was to ascertain the various internet reporting practices by the NSE quoted companies from attributes such as financial information, corporate social responsibility, corporate governance and investor relations, this study researched on variables that reflected web site content and timeliness of information released (like latest press releases or financial accounts and share price statistics). This study contrasts to other studies done by (Gandia, 2001, Pirchegger and Wagenhoffer, 1999 and Ettredge et al., 2001) which focused on the ease of browsing corporate website, design and aesthetic of the web page and technology of these web sites. For an item to be included in the disclosure index, it must have featured in more than two previous published journals (Hossain et al., 1995) and (Buckland, Suwaidan and Thomson, 2000).

Hooks, J., D. Coy, and H. Davey, (2002) argued that there is no common theory used to determine items to include in a disclosure index. Similar sentiments have been echoed in research by Wallace (1988), Hossain et al. (1994) and Meek et al. (1995). Based on the above studies, and after reviewing disclosure indexes used by the researchers, this study adopted a 40 point disclosure index used by Cook (1998) in their study of voluntary annual reports disclosure by the listed Dutch Companies. The index was adopted because of the voluntary nature of reporting investigated in this study and the fact that it measured annual disclosure which encompasses both financial and non- financial information disclosed similar to this study.

2.6 Variables Measurement.

This study examined the association between variables that motivate companies that are quoted on the NSE to disclose financial, corporate social responsibility and corporate governance information on their websites.

2.6.1 Dependent Variable.

For this study, the dependent variable was corporate internet reporting (CIR). Jensen and Meckling (1976) argued that the dependent variable could be measured using either website content analysis or a disclosure index. Studies that have used either of these two approaches did not have any significant differences in their regression results (Hackstone and Milne, 1996). To control for issues like how to deal with pictures and charts in content analysis and consistent with prior research by (Giner, 2002; Petersen and Plenborg, 2006; Marston and Polei, 2004) this study used a questionnaire and explored companies websites to establish their content in order to explore internet practices and a disclosure index to measure CIR scores for each company.

Table 2.1 below gives a summary of various variables used in previous studies across different stock exchanges. The table also shows how the researchers measured the variables in order to draw inferences on their effects on corporate reporting.

Table 2.1: Variables and how they were measured.

2.6.2 Independent Variable.

Independent Variables	Proxy	Measurement	Data Source
Segment Reporting	Corr	Disclosure identical to divisional structure =1; otherwise=0	Prencipe 2004
Industry concentration	Conc	Number of quoted companies in a given industry sector.	NSE website
Industry competition	Comp	Market share distribution.	Company annual reports
Growth rate	Grate	$(TAt - TAt-1) / TAt-1$ Where TA = total assets.	Prencipe 2004, Alvarez 2007
Listing status age	List	Number of years since listing.	Prencipe 2004, Sanders et al 1999
Financial Leverage	Lev	Long term debt/total assets.	Prencipe 2004, Alvarez 2007
Industry Sector	Ind		
Profitability	Roa	Operating income/total assets.	Prencipe 2004, Giner et al 2003
Corporate size	Mc	Natural logarithm of revenues	Prencipe 2004, Wagenhofer 1990
Audit Firm	Aud	=1 for corporations audited by big 4 audit firm; zero otherwise.	Zhang, T., He, Y. and Gao, S.S. (2007)
Ownership Diffusion	Own	% of corporate versus individual ownership	Company financial statements.

2.7 Challenges of Internet Disclosure of Information.

Previous studies have listed many challenges of internet disclosure of information on corporate web sites (Gray, Radebaugh and Roberts, 1990). In another study, Verrecchia, (1983) found that too much disclosure could be a competitive disadvantage to a disclosing company. Companies doing so could release useful information to their competitors. Verrecchia (1983) classified the costs associated with disclosure into two types. The first costs are those arising from the processing, collating and distribution of that information. The study pointed that the importance to the company of such costs is usually minimal because for these companies to make internal management decisions, they have to prepare the information anyway. Some external users such as activists, stockholders, employees or competitors make different uses with the information disclosed on corporate websites. Some may in the future use such information to damage the competitive advantage of the disclosing company, which gives rise to the second set of costs which are relevant to the disclosing company (Giner et al., 2003). In their study, Elliot and Jacobson (1994) argued that disclosure of sensitive business information on different processes and procedures, technical innovations, strategic orientation, future outlook and policies may be used by other stakeholders to the competitive disadvantage by the disclosing firm. In this kind of a scenario, management could hesitate to disclose too much information (Elliot and Jacobson, 1994).

2.8 CIR conceptual framework.

This study has developed a conceptual framework encompassing aspects that relate to CIR. The framework consists of four dimensions of internet reporting practices, factors influencing CIR, the perceived benefits and limitations of CIR as faced by companies listed on the NSE. This framework on the following page has guided the research in addressing the four study objectives. The framework is presented on figure 2.1 in the following page.

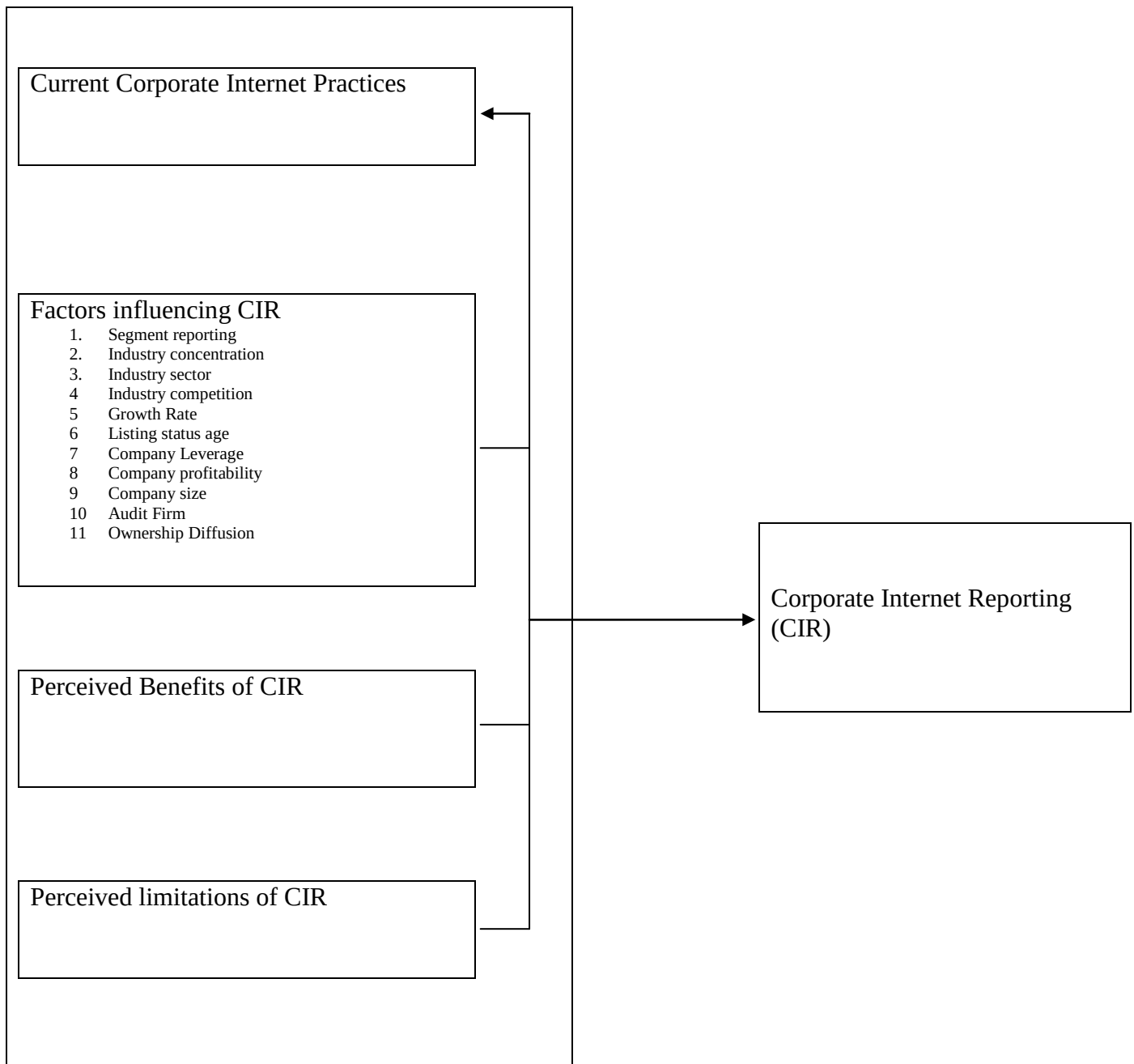


Figure 2.1: CIR conceptual framework

The conceptual framework from the previous page synthesizes the flow of interrelationships between a company's internet reporting practices, the variables that affect the consciousness of the disclosing entity and which are the factors perceived to be relevant by a company in order for it to disclose information as well as the benefits and limitations of disclosing information on their websites. A company would wish to disclose as much information as possible but there are factors that would ordinarily influence that decision. These are the factors tested in this research to gauge their relevance in influencing the CIR of companies. Further as companies strive to disclose information on their websites, there are perceived benefits and limitations to their CIR practices. This coupled with the role played by the various disclosure theories all mix to influence a company to either release or with-hold their information on the corporate websites. This research therefore tested the interplay of those variables in determining different CIR practices by the listed companies on the NSE as depicted in the CIR conceptual framework figure 2.1.

2.9 Conclusion.

The role of technology and electronic dissemination of corporate information has been noted as an important tool that provides companies with the platform for circulating information to a diverse group of stakeholders, connecting them in an interactive discourse and assists in the formation and sustenance of a positive corporate reput with the critical objective of a more prosperous future for companies (Jacobson, 1994). For companies to successfully manage this corporate image however, they will need to dialogue with their stakeholders in a reliable and steadfast manner for the purposes of informing rather than persuasion (Jensen and Meckling, 1976). The enhanced accessibility of the disclosed information from companies' websites that stakeholders have suggests that it would be reckless for a company to misinform stakeholders over their CIR disclosures particularly as there are internet websites that provide corporate surveillance assistance to expose corporate that engage in public relations propaganda (Kampf, 2007).

A major shortcoming of internet disclosure is that there is no standardised way in which companies are supposed to release that information. Westarp, Stubenrath, Ordelheide, Buxmann and Ko'nig (1999) examined concerns of the authenticity of content and integrity of the information disclosed on corporate web sites. They emphasized that these concerns would pose challenges to the consumers of online information and underscored the need for even greater standardization especially with the current technological advancements.

2.10 Research Gap.

Previous studies in CIR conducted by various researchers in other jurisdictions have used different theoretical frameworks to be able to identify the factors that influence companies to disclose information on their websites. Theories used by these researchers were the Agency Theory, Political Costs Theory, Signalling theory and Proprietary costs theory. From the research results released from these studies, factors such as corporate debt, company size, profitability and share ownership plans were found to be in most cases influencing voluntary corporate internet reporting (Watts and Zimmermann, 1978). From the literature reviewed, a great number of these studies were done in the developed economies of United States of America and Europe. Generalizing the findings of such research in a developing economy like Kenya may lead to erroneous conclusions as to the factors affecting CIR since the NSE market is at a different stage of development, the sectors are not well defined and the reporting environment is not controlled or regulated. Secondly, the practices of CIR by these companies vary due to the voluntary nature of internet reporting on the NSE. Finally, even when the printed copies of company's annual statements are distributed to shareholders, not all shareholders receive them and even when they are received, they are highly summarised and there is very little interactions for any stakeholder seeking some points of clarification from these printed copies. The motivation of this study therefore is to examine the current CIR practices by the quoted companies on the NSE, evaluate the perceived factors that influence CIR disclosures on the NSE and to establish the perceived benefits and limitations of CIR by the companies listed on the NSE.

CHAPTER THREE

3.0 Introduction.

This chapter presents and explains the research methods used in the study. The chapter is organized as follows. Section 3.1 explains the research design adopted and the reason for using it. Section 3.2 discusses the population of the study as all the listed firms on the MAIMS of the NSE maintaining a website and the criteria used for sampling in this study. Section 3.3 describes data collection procedure used and section 3.4 describes the disclosure index and how it was used in the study. Finally, section 3.5 describes how data in this study was analysed.

3.1 Research Design.

Smith and Peppard (2005) argued that a case study can be used to refer to research confined to a single unit of analysis like a company or even a country. This research could therefore be argued to be a case study in as far as it is examining CIR practices in a single stock exchange in Kenya. To be able to establish the CIR practices on the NSE, this study uses both qualitative and quantitative approaches in data collection. In ascertaining the current CIR practices by the listed companies on the NSE, an analysis of companies' websites was carried out. This involved viewing the websites of the 30 companies against the disclosure index to check the information they posted there. This approach was consistent with previous quantitative studies by Daskalakis and Psillaki (2008), Abor and Biekpe (2009), Cassar and Holmes (2003) who used disclosure indexes. This stage was necessary to respond to research objective one. The second stage was to decode the questionnaire responses from the 30 companies that responded to generate a coding list for purposes of making inferences from them. This stage used the results from the self-administered questionnaire to be able to respond to second, third and fourth research objective. The screening of websites to collect data was carried out in March 31, 2011. The date was chosen to fit companies that had any other month apart from December 31 as their financial year end.

This date was also relevant since the NSE listed companies update their websites on a daily basis and end of one month transiting to the next month would be ideal to disclose all the relevant information for the previous month such as press releases besides the quarterly report. The screening of websites was done at a time when all listed companies had finalised their financial year and therefore any information regarded relevant to stakeholders would have been posted to their websites. Further, companies quoted on the NSE update their share prices daily which meant that their websites could also be updated with relevant information daily.

3.2 Population.

Due to the relatively small number of companies listed on the main investment market of the NSE, all the 47 companies formed the population of this study. The main criterion used in selecting companies to be included in the study was presence of an accessible website and acceptance to participate in responding to a questionnaire. Initially, 11 companies that did not have accessible websites were removed from the population leaving a total of 36 companies from different sectors. Questionnaires were then sent to all 36 companies that had accessible websites. Out of the 36 companies which were sent questionnaires, 6 companies did not respond and were therefore eliminated from this study leaving a sample size of 30 companies from the population. These companies were selected for several reasons. First, the list comprised biggest companies on the NSE that realised sufficient investment returns and as a result had the financial strength to voluntarily disclose information on their web sites. This could be interpreted that if they did not disclose information on their websites, then it is likely that they simply did not wish to do so out of their own conscious choices. Secondly, the size adopted was well represented with different companies from all sectors selected. Finally, by using this sample, the researcher would be able make inferences on the set of the biggest companies that had incentives to carry out CIR voluntarily.

3.3 Data collection procedure

Data for this study was collected in two stages. The first stage was to verify the information disclosed by companies on their websites from the disclosure index (**Appendix I**). The importance of this stage was to aid the research in responding to the first objective on internet practices by analysing the website content of the sampled companies. Against the disclosure index, companies were to score a maximum of 40 points depending on the information they disclosed on their websites. This in essence formed the CIR score for each company. It is notable that this stage only focussed on the information released to all interested parties on the main company web sites. The checklist contained attributes ranging from financial information, corporate governance, corporate social responsibility and investor relations. The study excluded corporate intranets since they contained information that is only available solely for internal users.

The second stage was via a self-administered questionnaire (**Appendix 111**). Having confirmed a high incidence of CIR among the NSE listed companies, a senior officer knowledgeable on reporting issues in each of the targeted company was approached with a request to organize for the filling in and return of the questionnaire in June 2011. Preceding the dispatching of the questionnaires, either the public relations staff for each company was contacted via email to brief them on the nature and design of the questionnaire and to ascertain the correct recipient. Generally, officers with corporate reporting knowledge and information management responsibilities were targeted with the questionnaire.

The questionnaire comprised nine questions seeking to get responses on factors affecting CIR, benefits of CIR, limitations of CIR and any other information considered relevant by the reporting companies. The questionnaire had been pre-tested by asking the research supervisor and colleagues to critique it. Based on the insights obtained, the questionnaire was modified to increase clarity and relevancy of the questions before administration. The response choices were nominal while the closed questions were on an interval scale.

The nominal questions required the respondents to answer either yes (to agree) or no (to disagree). The interval scale was measured on a 5 point Likert scale ranging from very high, high, medium, low, to very low. Drop and pick methods were used to administer the questionnaires and respondents had a period of two weeks to respond. To increase the response rate, follow up calls were made to all the companies.

3.4 Disclosure index and content analysis

Marston and Shrives (1991) argued that there is no general theory that should guide selection of items to include in the disclosure index. Several descriptive research studies have since analysed information provided on companies corporate web sites in various countries such as in Germany- Marston and Polei (2004), Petersen and Plenborg (2006) from Denmark and Larran and Giner (2002) from Spain. These researchers used binary values to ascertain the information companies released on their web sites. The binary values used were (1; for the availability of information being sought or 0: for lack of the information they were seeking). Then the values obtained were summed up. Previous studies have shown consistent results for those using either weighted or un-weighted disclosure indexes (Cooke, 1991) and (Zarzeski, 1996). Since the objective of the disclosure index was to ascertain the various disclosure practices by the NSE quoted companies from financial information, CSR and corporate governance, this study researched on variables that reflected web site content and timeliness of information released (like latest press releases or financial accounts and share price statistics). This study contrasts to other studies done by (Gandia, 2001, Pirchegger and Wagenhoffer, 1999 and Ettredge et al., 2001) which focused on the ease of browsing corporate website, design and aesthetic of the web page and technology of these web sites.

For an item to be included in the disclosure index, it must have featured in more than two previous published journals (Hossain et al., 1995) and (Buckland, Suwaidan and Thomson, 2000). Hooks, J., D. Coy, and H. Davey, (2002) argued that there is no common theory used to determine items to include in a disclosure index. Similar sentiments have been echoed in research by Wallace (1988), Hossain et al. (1994) and Meek et al. (1995).

Based on the above studies, and after reviewing disclosure indexes used by the researchers, this study adopted a 40 point disclosure index used by Cook (1998) in their study of voluntary annual reports disclosure by the listed Dutch Companies. The index was adopted because of the voluntary nature of reporting investigated in this study and the fact that it measured annual disclosure which encompasses both financial and non- financial information disclosed similar to this study.

3.5 Data Analysis

The objective of this study was to investigate the current CIR practices by the companies listed on the NSE, establish the perceived factors that influence CIR, the perceived benefits and limitations of CIR. To achieve these aims, first, the researcher visited the websites of the targeted companies to view and record the reported information against the 40 point disclosure index. The reported items on company websites were compared against the disclosure index to obtain a CIR score for each company. The results obtained for one company in the same industry were then compared against other companies in the same industry and also in the different industry sectors. This enabled the researcher to draw conclusions on internet reporting practices by companies listed on the NSE in responding to research objective one.

Secondly, the data collected via the questionnaires was coded and numbers assigned to each answer of the question to generate a coding list for use in rating the main determinants of CIR and the perceived benefits and limitations faced by companies as they strive to practice CIR. The Data was then analysed using descriptive statistics such as the central tendency and the distribution. Bar charts were used to present results of responses from the sampled companies. This stage assisted the study to draw conclusions in responding to research objectives two, three and four of this study.

CHAPTER FOUR

4.0 Introduction

The chapter is structured as follows. Internet reporting practices on the NSE is presented in section 4.1. The discussion on the factors affecting CIR was tackled in section 4.2. The perceived benefits of CIR on the NSE are discussed section 4.3 while section 4.4 provides a discussion on the perceived limitations of CIR on the NSE.

4.1 Internet reporting practices.

Table 4.1 below gives a summary of companies listed on the Main Investment Market segment of the NSE both with websites and those without websites as at the access date. This formed a good basis in determining the companies that are included in this study.

Table 4.1: NSE companies with websites and without websites.

	Agricu ltural	Commercial & Services	Finance & Investment	Industrial & Allied	Total
Companies with a website *	2	8	14	12	36
Companies without a website	1	4	1	5	11
Total**	3	12	15	17	47

Source: NSE quoted companies websites as at 31 march 2011*
NSE Website**

The quoted companies on the NSE's main investments market segment are distributed into four sectors: Agricultural sector, Commercial and Services sector, Finance and Investments sector and Industrial and Allied sector. Finance and investment sector had the highest number of companies having websites at 93.33% while Industrial and Allied follows closely at 70.58%. Agricultural, Commercial and Services tail with website presence of 66.67%. The above results informs the inference that NSE listed firms maintain websites as it is evidenced across the four sectors.

Table 4.2 below gives a summary of percentage of companies that report financial information, corporate governance and corporate social responsibility across the four sectors respectively. The disclosure index has been divided into four sections each focusing on various attribute of disclosure. Against the disclosure index, companies were able to attain a maximum of 40 points. If companies in one sector disclosed all the information on a given section, then they would earn 100% disclosure regarding that section. Non-disclosure of an item in the index by one company or several companies in the same industry would mean their percentage score would be reduced by that margin of non-disclosure. The percentage disclosure per section across all the industry sectors is captured below.

Table 4.2: Industry disclosure practices-checked against the disclosure index.

	Agricultural (By %)	Commercial & Services (By %)	Finance & Investment (By %)	Industrial & Allied (By %)
Financial Information	37.50	36.79	43.75	54.51
Corporate Governance	60.71	45.53	64.28	62.50
Corporate Social Responsibility	50.00	54.68	37.50	78.12
Investor relations	64.28	55.35	64.28	67.85

The results presented in table 4.2 above were analyzed from the scores obtained for each company against the disclosure index. The results suggest that internet financial reporting in the Industrial and allied sector is slightly higher at 54.51% relative to other sectors. Finance and Investment had the second highest score at 43.75%. Agricultural sector came a distant third with a disclosure of 37.5% while Commercial and services sector was last with a score of 36.79%. The results show that financial reporting on the internet is not well reported with only one sector returning a percentage of marginal 4.51 % above the average mark. All the other sectors returned a score of below 50%. Therefore visitors to these corporate websites may not be able to gather enough financial information as they may require.

Corporate governance is modestly disclosed on the internet across all sectors with the Finance and Investment sector scoring a high of 64.28%. Industrial and Allied sector follows closely with 62.5%. Agricultural sector scored 60.71% while Commercial and Services sector tailed with 45.53%. The results from industry disclosure practices have led to an inference that Commercial and Services sector is not keen on disclosing corporate governance issues on their websites while this should be a key disclosure for any company. That is could be the reason why all the other three sectors have returned a score of over 60% on this aspect.

Corporate Social Responsibility returned a lowly score of 37.5% from Finance and Investment sector. The Agricultural sector followed with a score of 50.0%. Commercial and services scored 54.68% while Industrial and Allied sector scored the highest at 78.12%. This could be attributed to the nature of the sector since it is involved with industrial development while at the same time takes cognizance of the drivers of the societies in which the industries are operating and thus the emphasis on this disclosure. Investor relations page was the fairest item scored against company websites. All the sectors returned a good score of over 55%. This could be attributed to companies wanting to keep in continuous contact with various stakeholders as well as having to deal with any issues that they may raise. Interestingly though only two companies had indicated the names of their investor relations officer on their website. The overall results suggest that internet reporting in the Industrial and Allied sector is slightly higher compared to other sectors scoring an average of 52.59% across the four categories. Agricultural sector scored an average of 42.49% and it was closely followed by Finance and Investment sector with 41.96%. Commercial and Services sector had the least internet disclosure with an industry average of 38.47%.

Table 4.3 below shows a reflection of what financial information companies included in this study disclose on their websites. The percentage for each score was obtained by adding the total score for each attribute in the disclosure index across all the companies and dividing the sum by the maximum attainable score across that category. For each category in the disclosure index, a company had a chance of scoring a maximum score of +1 or a minimum score of 0. Therefore for the 30 companies in the study sample, a maximum score for any single attribute would be +30. This is the value used in the denominator to convert individual scores for each attribute to percentage scores for ease of analysis.

Table 4.3: Financial information reporting-checked against the disclosure index.

Financial information	Percentage of companies disclosing respective items.
A1. Annual report of current year (Complete <i>audited annual report</i> = 1 Partial report (any disclosure of only summarized version or part of financial information on the website) =0.5)	93,06%
A2. Annual report of past years (Complete <i>audited annual report</i> = 1, Partial =0.5)	72,22%
A3. Interim statements of current year (bi-annual or quarterly)	52,78%
A4. Financial ratios for the past five years	16,67%
A5. Segment reporting (<i>lines of business</i> =1, <i>legal companies i.e. subsidiaries or geographical</i> =0)	30,56%
A6. Current share price (Current trading day; internal or external link)	36,11%
A7. Share price history (Internal or external link)	25,00%
A8. Current dividend	83,33%
A9. Dividend of past year (Internal or external link)	33,33%
A10. Press releases, news or investor briefings	94,44%
A11. Reports of analysts	2,78%
A12. Analysts' list , name and contact details	5,56%

The results of table 4.3 above were obtained after checking the disclosed items reported against the disclosure index with regards to financial information disclosed by companies. The results show the disclosure of respective items of financial information against the disclosure index. The researcher calculated how many companies satisfied each of the selected criteria in the financial information disclosure index. The results show that current year annual reports are well reported with a score of 93.06% across the four sectors.

Prior year annual reports are also well reported with a score of 72.22%. Press releases returned the highest disclosure at 94.44% drawing an inference that companies are keen on updating their stakeholders on the happenings in their operations. A notable issue here is that only one company gave a report of analysts and their contact details hence the lowest score of 2.78%. Disclosure of current dividend returned a score of 83.33% showing that companies would like to broadcast their good news on their websites. However, only 33.33 % of companies had indicated their previous dividends history. Further, results of the study show that current share price and share price history did not receive adequate attention by the companies hence the lowly score of below 40%. Other specific information disclosed include but not limited to financial ratios for companies returning a score of 16.67%.

Table 4.4 below gives a summary of the corporate governance percentage scores. For each attribute of corporate governance in the disclosure index, a company had a chance of obtaining a maximum score of +1 or a minimum score of 0. Therefore for the 30 companies in the study sample, a maximum score for any single attribute would be +30. This is the value used in the denominator to convert total attribute scores for all the 30 companies to percentage scores for ease of analysis. The results are presented below.

Table 4.4: Corporate governance reporting-checked against the disclosure index.

Corporate governance	Percentage of companies disclosing respective items
B13. Shareholding structure Individualized	80,56%
B14. Number of shares	88,89%
B15. Classes of shares	77,78%
B16. Directors' information	77,78%
B17. Schedule of directors meetings	41,67%
B18. Executive Officers' information	75,00%
B19. Members of the audit committee	72,22%
B20. Members of the remuneration committee	58,33%
B21. Members of the nominating committee	58,33%
B22. Remuneration of the members of the management board and directors Individualized	16,67%
B23. Organizational Chart	8,33%
B24. Resolutions of shareholders' meetings	13,89%
B25. Disclosure of risks	94,44%
B26. Proxy form	66,67%

Table 4.4 from the previous page presents a summary of respective corporate governance disclosure items and shows that all the companies studied had varying degree of corporate governance disclosure when checked against the disclosure index. The results show that organizational charts were the least disclosed with a score of 8.33%. In contrast, a bigger percentage of companies disclosed their risks at 94.44% complete with the analysis of the operating environment. Disclosure of the number of shares was second most disclosed item returning an 88.89% score. Generally companies have disclosed a lot of information in this segment with 10 items out of 14 returning a score of over 58% showing the emphasis on transparency of company operations.

Table 4.5 below gives a summary of disclosed items and their respective scores under the corporate social responsibility. For each attribute of corporate social responsibility in the disclosure index, a company had a chance of obtaining a maximum score of +1 or a minimum score of 0. Therefore for the 30 companies in the study sample, a maximum score for any single attribute would be +30. This is the value used in the denominator to convert total attribute scores for all the 30 companies to percentage scores for ease of analysis. 8 items of disclosure were checked for each company and the results presented below.

Table 4.5: Corporate social responsibility (CSR) & environmental reporting.

Corporate social responsibility & environmental reporting	Percentage of companies disclosing respective items.
C27. Special CSR page	100,00%
C28. Stand-alone CSR report	58,33%
C29. Environmental policy statement	55,56%
C30. Information on energy savings	47,22%
C31. Employee profile	2,78%
C32. Employee training	36,11%
C33. Donations/sponsoring to community groups and charitable bodies information	80,56%
C34. Product quality and safety	63,89%

The analysis of this category against the disclosure index showed that all the companies had a special CSR page either on the web page or in their annual reports document. It was however notable that only one company had disclose details of their staff profiles hence the lowly score of 2.78%. This could be attributed to fear of losing key staff through poaching by their competitors. Apart from a special CSR page, companies were keen to disclose areas where they are involved in donations or sponsorships with a score of 80.56%. This could be attributed to companies wanting to front an image of good corporate citizens and showing how they are involved in different charitable activities mainly to boost the corporate image of company. It is also noted that only 36.11% of the companies disclosed the kind of training staff undergo sending a mixed signal of how staff development is handled.

Table 4.6 below had a total of 6 items under the category of investor relations. For each attribute of investor relations the disclosure index, a company had a chance of obtaining a maximum score of +1 or a minimum score of 0. Therefore for the 30 companies in the study sample, a maximum score for any single attribute would be +30. This is the value used in the denominator to convert total attribute scores for all the 30 companies to percentage scores for ease of analysis. The results obtained are presented below.

Table 4.6: Investor relations.

Investor relations	Percentage of companies disclosing respective items.
D35. Investor relations link on home page	97,22%
D36. Name of investor relations officer	5,56%
D37. E-mail to investor relations	100,00%
D38. Phone number to investor relations	100,00%
D39. Postal address to investor relations	100,00%
D40. Frequently asked questions	41,67%

On this final category of disclosure index, companies scored very highly. From the scores returned, all the companies had a postal address to investor relations, email and phone numbers for contacts. Investor relations link on home page of companies had been adopted by 97.22% of these companies. However, only two companies gave a name of their investor relations officer on their websites. This could make any person interacting with the website feel it to be user unfriendly. Frequently asked questions about the companies is not also keenly done by companies as it is only 41.67% of companies have addressed these on their websites. This could be attributed to the impersonal nature of their websites where the stakeholders are not sure who may respond to their enquiries.

4.2 Factors perceived as affecting CIR

Table 4.7 below summarizes the questionnaire response rates per sector. Thirty six companies were sent questionnaires with a request to return responses. Out of these companies, six did not respond to the questionnaire request even after follow up calls and they were eliminated from the study. The non-responding companies to the questionnaire represented a 16.7%. However, the response rate was 83.3%, which represented a good return for the questionnaire results to be used to draw inferences in responding to study objectives two, three and four. The response rates are summarized below.

Table 4.7: Questionnaire response rate per sectors in the MAIMS.

Sector.	No.
Agricultural	1
Commercial & Services	8
Finance & Investment	12
Industrial & Allied	9
No response to questionnaire request	6
Total sample	36

The data collected via the questionnaires was coded and numbers assigned to each answer of the question.

This aided the study in generating a coding list for the purposes of rating the main perceived factors influencing CIR and the frequency ratings of these factors by the companies listed on the NSE. The Data was then analysed using bar charts. From the responses obtained from chief finance officers of the targeted companies, the researcher was able to ascertain the factors perceived as influencing CIR by the listed companies on the NSE as presented in chart 4.1. The respondents had an option of rating the given factors from five choices ranging from not important, less important, neutral, important and very important. The results obtained were then coded to generate a coding list for ease of assigning values. If a responded assigned a factor the lowest response of ‘not important’, then the coding would translate to -2 and if a factor was assigned ‘very important’ then it would be coded +2. Since 30 companies responded to the questionnaire, the maximum points obtainable for each single variable across all the respondents was therefore 60 (assuming that all the respondents gave a maximum point of ‘very important’ which is then coded as +2 for a given variable). The total scores obtained for each factor across all the respondents was used to calculate the frequency percentage the respondents felt a variable represented. The results are presented in chart 4.1 below.

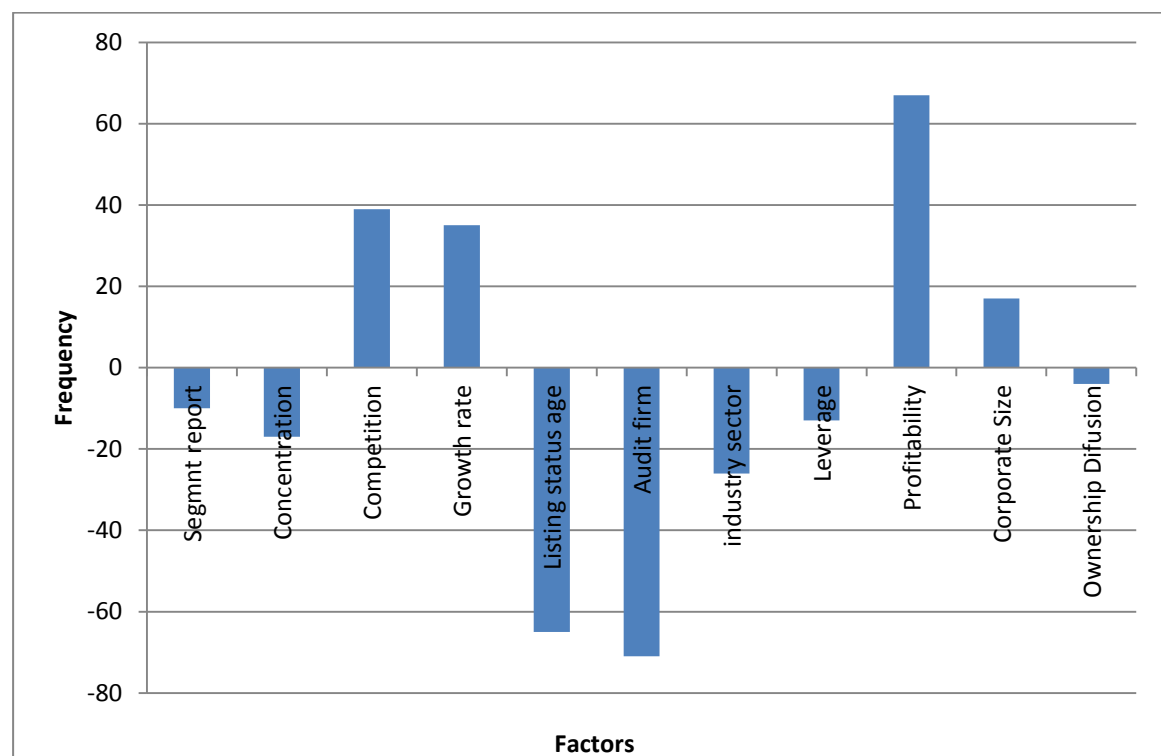


Chart 4.1 factors perceived as influencing CIR

From the results of chart 4.1, the inferences drawn is that profitability, industry competition, growth rate and corporate size are the factors affecting CIR by the listed companies on the NSE in that order of importance. The discussion of the results follows:

4.2.1 Ownership diffusion and corporate internet reporting.

From both the questionnaire responses, this variable was found to have a frequency rating level -4%. Although CIR allows companies to disclose more information to different stakeholders at minimal costs, a majority of respondents did not rate this variable as a relevant consideration when making their reporting. This finding was not consistent with that of (Ashbaugh et al., 1999) who argued that internet reporting reduces disclosure costs.

4.2.2 Segment reporting and corporate internet reporting.

Segment reporting was found to have a frequency rating level of -10%. These results confirm that the costs of producing and distributing corporate information and the competitive costs related to the risk that the information so released could be used by competition or other interested parties to the detriment of the company are very relevant for segmental reporting, thus limiting the incentives for the companies to voluntarily provide this information to the market, Kelly (1994). This could explain the below average mark for this variable.

4.2.3 Leverage and corporate internet reporting.

The results of the respondents returned a frequency rating level of -13%. This is inconsistent with prior studies by (Xiao et al., 2004; Giner et al., 2003 and A´lvarez, 2008) who found leverage to have a significant positive relationship with internet reporting. The results point to the fact that as leverage rises, companies would be enthused to release more information to minimize asymmetry and avoid the risk of adverse market selection. Even though there are other costs related to reporting more information, this disclosure provides more reliable information to creditors thereby reducing agency costs.

4.2.4 Industry concentration and corporate internet reporting.

The variable returned a frequency rating level of -17%. The study results support earlier studies by Berger and Hann (2002) and Christopher and Hassan (1995) who found no relationship between industry concentration and internet reporting.

In contrast however, other research findings by Deegan and Carroll (1993) and Rodri'guez (2004) found industry concentration to have a positive relationship with internet reporting. The result here are further reinforced by the findings of Wagenhofer (1990) who argued that companies would shift from disclosing full information to only partial disclosures as proprietary costs rises with the entry of competing companies.

4.2.5 Industry sector and corporate internet reporting.

The results of the respondents returned a relevance level of -26%. In the analysis, the study results could be attributed to the fact that industry sectors in the NSE are less crowded and the companies in each sector do not entirely follow same business line. The results are consistent with those arrived at by (Cooke, 1991) and Meek, Roberts and Gray, 1995). Verrecchia (1983) noted that proprietary costs could vary across industries due to differences in products, research and development and that some sectors could be more sensitive to disclosures than others. The results obtained for this factor could be explained by the differences in products and services, research and development and differences in sector sensitivity.

4.2.6 Listing status age and internet reporting.

The results of this variable were not relevant at -65% of respondents disapproving of its relevance. Despite the fact that the findings of (Baker and McFarland, 1968; Mautz, 1968; Prencipe, 2004 and Sanders et al., 1999) all predicted a positive relationship, this study did not find any meaningful association. This could be explained by the fact that the NSE market has very few companies listed where analyst's enquiries are very few or non-existent.

Further, companies listing on the NSE in the recent years have been known to do a lot of internet reporting in a bid to woo investors besides announcing their presence. Through the initial public offering process, companies are known to disclose a lot of information on their websites. This could possibly explain the low rating by respondents for this variable.

4.2.7 Auditor size and corporate internet reporting.

From both the questionnaire responses, the Auditor size was found to have the lowest relevance at -71% from all the respondents. The study results are consistent with those of (Abd El Salam, 1999; Wallace et al., 1994 and Hossain et al., 1995) who found insignificant relationship between this variable and CIR. However, another study by Hail (2002) predicted that the quality of an audit was a critical factor in improving a company's general reporting practices. Additionally, Xiao et al. (2004) suggested that international auditing firms were more likely to facilitate the embracing of novel practices, such as the internet reporting. The fact that all companies listed on the NSE are audited by KPMG, Ernest & Young, Deloitte & Touché or Pricewaterhouse Coopers commonly referred to as the big four audit firms could have led the respondents to rate this variable lowly.

4.2.8 Company Size and corporate internet reporting.

Company size returned a relevance level of only 17% which although positive contradicts the findings of earlier studies by (Ashbaugh et al., 1999; Craven and Marston, 1999; and Oyelere et al., 2003). They argued that the higher the company's revenues, the higher the levels of disclosure. They further suggested that large sized companies have the incentives to voluntarily report their information on the internet and are less likely to be competitively disadvantaged by such reporting. They further said that large firms have stronger commitment relationships with customers and suppliers such that the probability of such disclosed information being used to their disadvantage is very low.

This analysis suggests that for big corporations, there are minimal proprietary costs since they have the financial capacity to defray the resulting disclosure costs and as such they report information on their corporate websites than smaller companies who would otherwise be wary of any resultant proprietary costs.

4.2.9 Growth rate and corporate internet reporting.

The results for this variable show a relevance level of 35% from the questionnaire results, which were low, compared to other variables. This finding is attributable to the reason that growth rate may be regarded as a measure of the quality of investment. Although proprietary costs may be higher for growing companies, the benefits of internet reporting may be outweighing these costs since companies are able to reach a wider audience, raise awareness on their products easily and even engage in e-business. This in itself may check the adverse effects of disclosure related costs.

4.2.10 Industry competition and corporate internet reporting.

From the questionnaire results, this variable received a relevance level of 39%. Proprietary costs theory suggests less disclosure with increase in business rivals activity. The results are consistent with the findings of (Birt et al., 2006) who argued that there was a positive relationship between industry competition and the information disclosed by companies. They further suggested that companies which faced less competition will be faced with high proprietary costs and are therefore unlikely to release information to their competitors supporting the argument of Birt et al. (2006). This could explain the low relevance rating this variable was given by the respondents.

4.2.11 Profitability and corporate internet reporting.

From both the questionnaire responses, profitability was found to have a significant relevance at 67% and the highest consideration by all respondents. The results are consistent with (Gul and Leung, 2004) who found the same relationship in their studies.

The results support the inference that highly profitable firms have incentives to report more information to the public and signal their quality. Although proprietary costs may be present from rivals counter actions, these costs may be balanced out by the visibility achieved and the reduction in adverse selection risk.

4.3 Perceived benefits of CIR

Internet creates a new reporting environment for listed companies willing to continuously communicate with their shareholders and to attract potential ones.

The results from this study where the respondents ranked these benefits in order of perceived value are presented in chart 4.2 on the following page. The main benefit is the wider audience reach achieved by disclosing information on corporate websites. This could be attributed to the fact that companies listed in the NSE are keen to attract more investors and remain relevant in the eyes of stakeholders. Other benefits are improved timeliness of information dissemination, cost savings associated with printing and sending paper-based reports, competitive advantage gained from enhanced visibility and the improved access to corporate information by shareholders or any interested party in terms of interactivity, presentational method, speed and space.

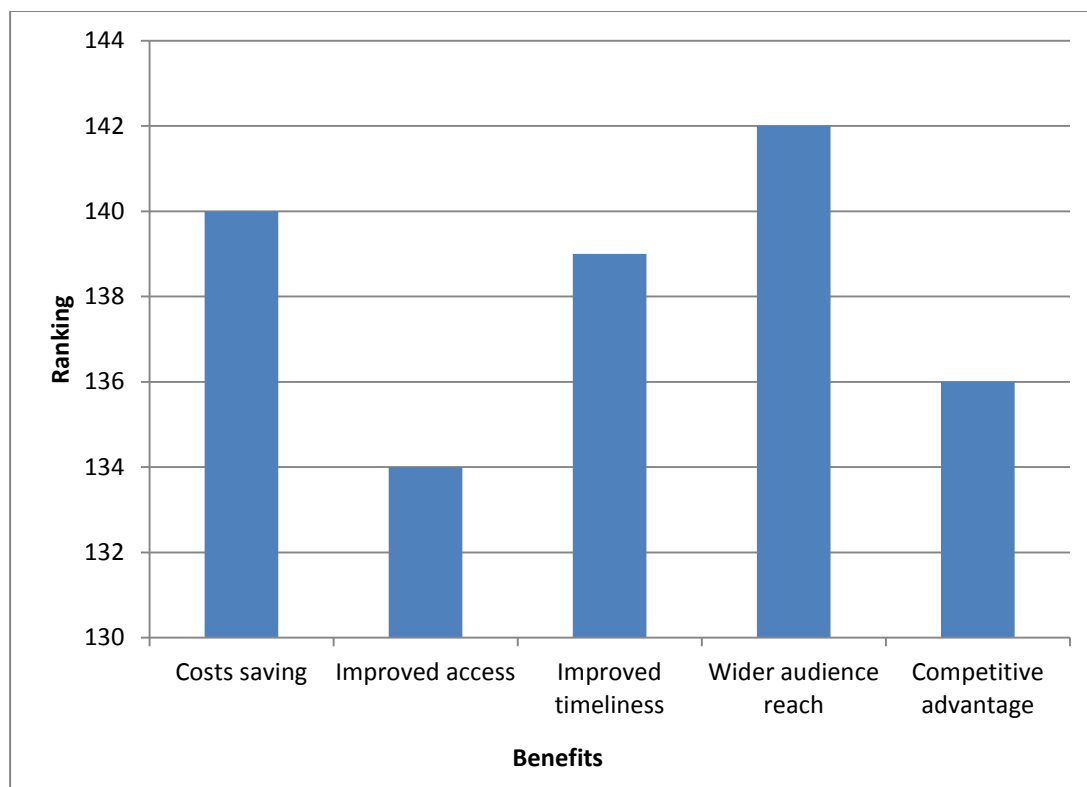


Chart 4.2 Perceived benefits of CIR

4.4 Perceived limitations of CIR

Despite the advantages associated with CIR, companies still find the production and dissemination of information being hindered by certain considerations that in some cases over-shadow the benefits of CIR (Gray et al., 1990). According to (Verrecchia, 1983 and Prencipe, 2004) the release of information could become a competitive disadvantage. Companies could release important information to the competition to their disadvantage. From these results, the researcher found that literacy levels among the general information consumers to be the greatest hindrance to full exploitation of CIR by the NSE listed companies. The consideration here could be the fact that not many people will access the information anyway despite its availability. Technological development was cited as the second most hindrance from the fact that technology changes fast and the recipients of information may not be able to cope with it making the access of information disclosed difficult. Other consideration like limited number of people with internet access was also cited as a limiting factor. Fears of company websites being hacked, user ignorance as well as internet bandwidth limits were other hindrances.

The Chart 4.3 below presents these limitation findings.

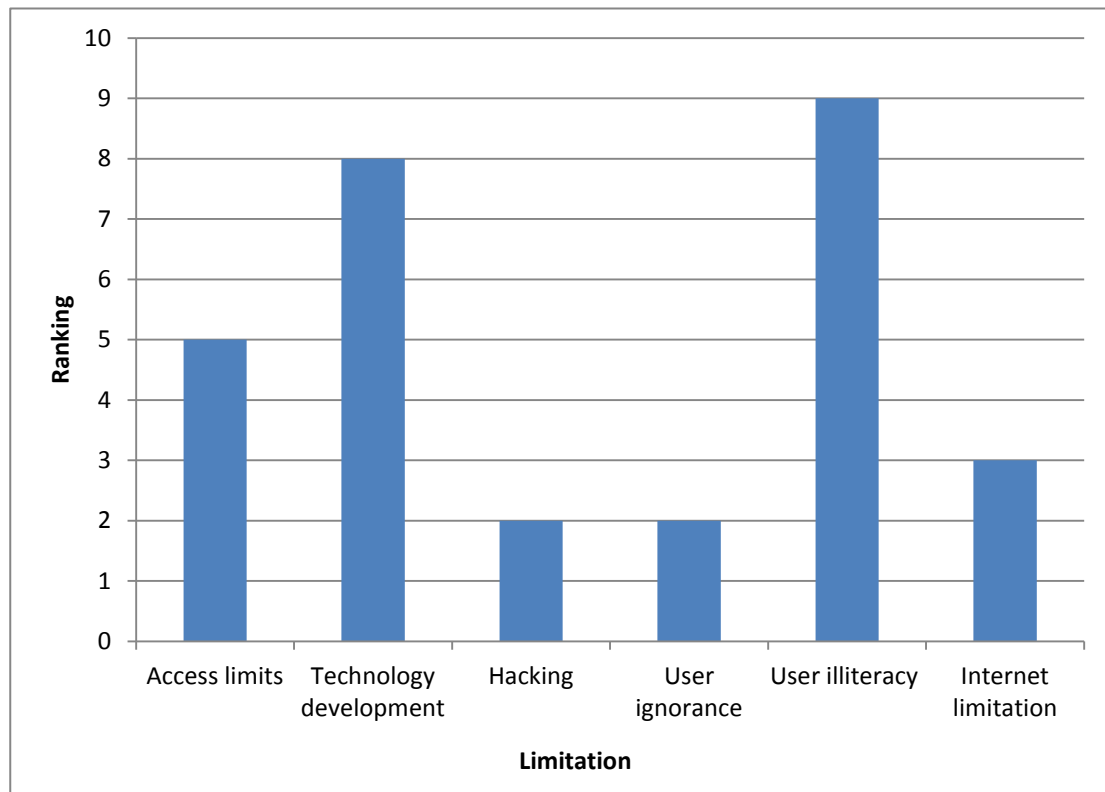


Chart 4.3 Perceived limitations of CIR

CHAPTER FIVE

5.0 Introduction.

The purpose of this chapter is to present a summary of the major findings of this study. The chapter is organized as follows. Section 5.1 gives a summary of this study while section 5.2 explains the findings on current CIR practices on the NSE. Section 5.3 discusses the factors perceived as influencing CIR on the NSE while section 5.4 and 5.5 cover perceived benefits and limitations of CIR respectively. Section 5.6 discusses conclusions and recommendations of this study while section 5.7 tackles CIR practices in a summary format while section 5.8 and 5.9 covers factors that influence CIR and limitations faced by the researcher in this study. Section 5.10 provides a suggestion for future research while section 5.11 covers the references used in this study and finally section 5.12 covers appendixes used in the study.

5.1 Summary of the study.

This study analysed the contents of all websites of the 30 companies on the main investment market of the NSE to assess the nature and extent of current internet disclosure practices and to evaluate the key variables influencing CIR using the Proprietary Costs Theoretical framework. To collect data for the study, the researcher mainly visited the studied companies' websites and sent out questionnaires to be able to establish the current CIR practices, ascertain the factors perceived as affecting CIR on the NSE and the benefits and limitations of CIR. From the study results, it is established that companies on the NSE practice internet disclosure on varying degrees. Financial information and corporate governance have a higher disclosure than corporate social responsibility. Further, it was established that company profitability, industry competition, growth rate and company size are the factors respondents perceived as influencing CIR on the NSE.

5.2 Current CIR disclosure practices.

The aim of this section is to present the CIR practices on the NSE. Industry comparative analysis yields several inferences.

All companies from the four industry sectors (Agricultural, Commercial and Services, Finance and Investment and Industrial and Allied) made some kind of CIR disclosure in their websites.

The results show that companies present their financial information in PDF downloadable format as opposed to HTML format. 70.68% of the websites of companies studied had navigation tools to guide visitors to access different information on their websites. Some companies (29.32%) had annual financial accounts report on their webpage faces while a relatively small percentage of companies (26.63%) disclosed their latest full annual accounts with a majority of companies (19.51%) disclosing latest quarterly unaudited accounts. The results support the evidence arrived by Bonso'n, Escobar and Sanchez (2000) in their study "digital reports of companies listed in the Dow Jones Eurostoxx50 index" and found that not all companies disclosed their full annual accounts digitally. The findings are reinforced by those of Abbody and Kasznik (2000) who argued that voluntary internet disclosure takes place when it is more convenient for the company to do so. This could explain the disparities noted in CIR practices. In contrast to the use of PDF format by NSE companies, Bonsón *et al.* (2000) found that more companies were using excel format in disclosing financial information as opposed to use of both PDF and HTML formats.

Other specific information fairly disclosed include audit report and audit opinion by 26.63% of the companies, investor briefing by 32.41%, shareholders meetings by 43.93% and forward looking statement by 60.52% of the companies studied respectively. The number of companies having CIR disclosures and the distribution between different industrial sectors of the NSE are summarized in Table 4.1.2. It is evident from the summary that all industry groups have made efforts though somewhat different to embrace internet reporting. Further, Table 4.1.2 reveals that corporate social responsibility is the least disclosed with an average score of 33.86% across the four sectors.

Financial information has the highest disclosure practice at an average score of 65.27% revealing that companies are more willing to disseminate their financial information as opposed to disclosure of corporate governance and corporate social responsibility. That result is further strengthened by the fact that all companies sampled have their websites updated with the latest share price movements every on a daily basis. Debreceeny et al. (1999) argue that companies disclose financial information more to enhance their financial profiles. This could be attributed to the fact that stakeholders are more interested in financial information in arriving at their different user needs than information on corporate governance or corporate social responsibility categories.

5.3 Factors perceived to influence CIR.

The aim of this section is to present the significant factors that are perceived to influence CIR by the companies listed on the NSE. The discussion below outlines the inferences made from the information collected via questionnaire returned by the 30 companies.

From the questionnaire responses, ownership diffusion was found to have a negative relationship with CIR. Although online disclosure of information allows companies to disclose a variety of information to different stakeholders at minimal costs, a majority of respondents did not rate this variable as a relevant consideration when making their reporting. This finding is inconsistent with (Ashbaugh et al., 1999) who found that internet reporting reduces disclosure costs.

Segment reporting was found to have a negative relationship with CIR. These results confirm that proprietary costs - costs to produce and disseminate information and competitive costs related to the risk that disclosed information may be used by competitors or other parties to the disadvantage of the company - are particularly relevant for this variable, thus limiting the incentive for the companies to provide this information, Kelly (1994). This could explain the low relevance consideration the variable was given by the respondents. The results of the study are not strong enough to point to any meaningful relationship between CIR and companys' leverage.

The study results returned a negative relationship between leverage and CIR. The results therefore contradict the findings of (Giner et al., 2003; Xiao et al., 2004; Prencipe, 2004; and A´lvarez, 2008) who found leverage to have a significant positive relationship with internet reporting. As the level of leverage rises, companies would tend to disclose more information to counter information asymmetry and balance out negative selection by stakeholders.

Industry concentration was not found to be relevant when companies are deciding to disclose their information on the corporate websites. The results are consistent with the findings of (Darrough and Stoughton, 1990) and (Wagenhofer, 1990) who concluded that companies would move from full disclosure to partial disclosure as proprietary costs increases with the increase of rival companies in their industry. In contrast however, Deegan and Carroll (1993) and Rodr´ıguez (2004) in their studies found a positive relationship between a firm’s monopolistic position (industry concentration) and the level of internet reporting. The inconclusiveness of the study results point to an extraneous theory in explaining this variable’s relationship with the level of CIR by the listed companies on the NSE.

Industry sector was negatively evaluated by respondents. The results are consistent with those arrived at by (Cooke, 1991) and (Meek et al., 1995) who argued that due to differences in product and services offering by companies and the levels of sensitivity to disclosure costs in different industry sectors, companies may be constrained to disclose as much information on costs consideration. The results could be a mirror effect of that.

Listing status age is not relevant for internet reporting. The findings contrast to the studies by (Prencipe, 2004; Baker and McFarland, 1968); Mautz, 1968; and Sanders et al., 1999) who predicted a significant positive relationship with the level of CIR. This could be explained by the limited number of quoted companies in the NSE where analyst’s enquiries are very few or absent at best. Further, companies intending to list on the NSE in the recent years have been known to do a lot of internet reporting in a bid to woo investors besides announcing their presence.

This analysis could be used to explain lack of a meaningful relationship between this variable and internet reporting on the NSE.

The choice of auditor was found to have the lowest relevance as a factor for consideration when companies choose to report on their corporate websites. The results are in tandem with the findings of (Hossain et al., 1995, Abd El Salam, 1999 and Wallace et al., 1994) who did not find any association between auditor size and CIR. However in contrast, studies by Hail (2002) suggested that audit quality is important factor in improving firms' overall reporting practices. In addition, Xiao et al. (2004) argued that international audit firms are more likely to facilitate the diffusion of innovative practices, such as the internet reporting. The fact that the big four audit firms (KPMG, Ernst & Young, Deloitte & Touché and Pricewaterhouse Coopers) audit the NSE listed companies could have led to this low relevance rating.

Company size was found to have a positive relationship with corporate internet reporting. This means that the large companies disclose more information on their internet sites. These results are also consistent with those arrived at by (Marston, 2004; Ashbaugh et al., 1999; Debreceeny et al., 2002; Oyelere et al., 2003; Pirchegger and Wagenhofer, 1999) who found that internet disclosure was positively related to a company's size. Large companies will obviously have deep contractual commitments with both suppliers and customers and as such, their proprietary costs are very low. Their internet disclosures are unhindered by such costs.

Growth rate was highly rated by respondents to influence them when undertaking internet reporting. This finding could be attributable to the fact that growth rate may be considered as a measure of investment quality. Although proprietary costs may be higher for growing companies, the benefits of internet reporting may be outweighing these disclosure costs. This in itself may check the negative impact of proprietary costs thus the positive relevance level.

Industry competition was rated as a positive influence by respondents on internet reporting.

The results are consistent with the findings of both (Hayes and Lundholm, 1996) and (Birt et al., 2006) who found a positive relationship between industry competition and the disclosure of information.

The study results reveal that profitability was rated highly as the single most relevant item that influences companies which undertake corporate internet reporting. The results are consistent with (Khanna et al., 2004) and (Gul and Leung, 2004) who found the same relationship in their studies. The results support the inference that more profitable firms have incentives to report more information to the market and signal their quality. Proprietary costs arising from increased disclosure are balanced out by the gained visibility and reduction in costs of adverse selection by the market.

5.4 The perceived benefits of CIR.

The greatest benefit cited by all the respondents was the wider audience reach. This could be attributed to the fact that companies listed in the NSE are keen to attract more investors and remain relevant in the eyes of stakeholders. Other benefits ranked in order of importance were improved timeliness of information dissemination, cost savings associated with printing and sending paper-based reports, competitive advantage gained from enhanced visibility and the improved access to corporate information by shareholders or any interested party in terms of interactivity, presentational method, speed and space.

5.5 The perceived limitations of CIR.

The advantages associated with CIR notwithstanding, the respondents still expressed concerns on certain considerations that they felt hindered the full exploitation of CIR. This could be attributed to fact that sometimes the costs of disclosure are higher than the benefits (Gray et al., 1990). Proprietary costs theory (Verrecchia, 1983; Prencipe, 2004) states that the disclosure of information may be a competitive disadvantage. Companies may provide useful information to competitors to their disadvantage.

Results of this study therefore found that literacy levels among the general information consumers was cited as the greatest hindrance to full exploitation of CIR by the NSE listed companies. The consideration here could have been the fact that not many people will access the information anyway despite its availability. Technological development was cited as the second ranked hindrance from the fact that technology changes fast and the recipients of information may not be able to cope with it making the access of information disclosed difficult. Other consideration like limited number of people with internet access was also noted as a limiting factor. Fears of company websites being hacked by fraudsters, user ignorance as well as internet bandwidth limits were other hindrances noted.

5.6 Conclusion and Recommendations.

This study is aimed at examining the current practices of CIR by the NSE listed companies and to identify significant factors affecting CIR using the proprietary costs theoretical framework. It is noted that disclosure of corporate information on the internet in Kenya is purely voluntary and as such, disclosures has been a reflection of trade-off between relevant perceived proprietary costs and the benefits of supplementing traditional disclosure avenues . Possibly as a result of the perceived greater openness, and to balance the information held by companies, the managers are inclined voluntarily to put emphasis on internet disclosure and this is probably the reason for marginal internet disclosures on the NSE. The contribution of knowledge from this study has been the insight gained on voluntary information revealed on corporate websites and the significant factors influencing companies to disclose particular information items on their websites. The study results can also be used by other researchers in future studies on NSE listed companies in forming their hypotheses particularly those interested in CIR research.

5.7 CIR Practices.

From this study results, it is evident that companies have emphasized financial information disclosures while CSR is the least disclosed item by the NSE companies.

Across all the sectors, companies have made effort to voluntarily report differently over the internet. From the analysis of this study, it is notable that without any regulatory intervention, reliance on voluntary internet reporting alone is unlikely to result in a sufficient level of disclosure. Consequently, perhaps, the NSE and the Capital Market Authority should consider making CIR disclosure mandatory and issue guidelines to be followed by all the listed companies. While companies may perceive that stakeholders demand such disclosures, they may be reluctant to make the disclosure because of the lack of compelling legislation. This may mean that companies which have made significant voluntary CIR disclosures may be at a disadvantage compared to companies which made no or minimal disclosures. This would also benefit stakeholders by making annual reports and websites more consistent and comparable. Due to the extreme diversity and lack of comparability among existing annual report content and presentation, investor may have difficulty in determining which companies are giving more reliable internet disclosures.

5.8 Factors influencing CIR.

The aim of this section is to present the key firm variables from this study that affect the level of internet reporting on the NSE. The study used a disclosure index to explore the content and the presentation format for individual company's web sites. Further questionnaires were sent to all companies reporting information online. Of the 47 listed companies, only 30 that had accessible web sites and responded to the questionnaire were surveyed. The results from these companies show that profitability, industry competition, growth rate and corporate size are the most significant factors that affect the reporting of corporate information on their websites. The study results also suggest that ownership diffusion, segment report, leverage, industry concentration, industry sector, listing status age and auditor size all had a negative relationship with CIR. On the other hand, company's size, growth rate, industry competition and profitability all had a positive relationship to CIR.

5.9 Limitations of the study

Below are some of the limitations of this study.

1. CIR reporting on the NSE is still voluntary and as such the checklist that was used had been developed based on adaptations against one developed by (Bonso'n et al., 2006) in their study of online transparency in the banking sector in the European Union. This could be expected to vary were the researcher to use a standardised checklist drawn by the regulators on the NSE.
2. Relevance of an item of disclosure given the business of the company could only be known with certainty by persons who are knowledgeable of the company; hence there was some level of subjectivity in scoring disclosure items using the checklist as developed for this study.
3. The use of un-weighted disclosure index in this study meant that all information items were assumed to have the same degree of importance for investors. However, this may not be the case depending on what a particular investor or interested party is looking for.
4. This research study did not explore the economic consequences of corporate internet reporting like the extent to which internet reporting provides value-relevant information for investors and other stakeholders.

5.10 Suggestions for future research.

Below are some suggestions for future research.

1. Further research could rely on a disclosure framework developed by the regulators such as CMA or the NSE for a standardised CIR disclosure items that are mandatory for all companies adopting CIR to avoid researcher biases.
2. Further research targeting the companies quoted on the NSE without CIR could be carried out to establish the factors affecting their choice for non adoption of CIR.
3. A longitudinal study would give a comprehensive CIR practice on the NSE for an extended period of time.

4. Future studies could use both a weighted and un-weighted disclosure index to capture the relative importance of different types of disclosure items, and ways of disclosing information for various user groups and interested parties.
5. Future research might test empirically how internet disclosure impacts upon companies' stock prices in a bid to establish the economic significance of CIR.

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5.12 Appendixes

5.12.1 Appendix I: Used Disclosure Index

A. Financial Items Explanations
A1. Annual report of current year (<i>Complete audited annual report= 1 Partial report</i> (any disclosure of only summarized version or part of financial information on the website) =0.5)
A2. Annual report of past years (<i>Complete audited annual report = 1, Partial report=0.5</i>)
A3. Interim statements of current year (bi-annual or quarterly)
A4. Financial ratios for the past five years
A5. Segment reporting (<i>lines of business=1, legal companies i.e. subsidiaries or geographical =0</i>)
A6. Current share price (<i>Current trading day; internal or external link</i>)
A7. Share price history (<i>Internal or external link</i>)
A8. Current dividend
A9. Dividend of past year (<i>Internal or external link</i>)
A10. Press releases, news or investor briefings
A11. Reports of analysts
A12. Analysts' list Analyst's name and contact details
B. Corporate Governance Items
B13. Shareholding structure Individualized
B14. Number of shares
B15. Classes of shares
B16. Directors' information
B17. Schedule of directors meetings
B18. Executive Officers' information
B19. Members of the audit committee
B20. Members of the remuneration committee
B21. Members of the nominating committee
B22. Remuneration of the members of the management board and directors Individualized
B23. Organizational Chart
B24. Resolutions of shareholders' meetings
B25. Disclosure of risks
B26. Proxy form
C. Corporate Social and Environmental Items
C27. Special CSR page
C28. Stand-alone CSR report
C29. Environmental policy statement
C30. Information on energy savings
C31. Employee profile
C32. Employee training
C33. Donations/sponsoring to community groups and charitable bodies information
C34. Product quality and safety
D. Investor Relations Items
D35. Investor relations link on home page
D36. Name of investor relations officer
D37. E-mail to investor relations
D38. Phone number to investor relations
D39. Postal address to investor relations
D40. Frequently asked questions

5.12.2 Appendix II: Main Investment Market Segment listed companies*.

Sector	Website
Agriculture	
1. Rea Vipingo Ltd.	http://www.reavipingo.com
2. Sasini Tea & Coffee Ltd.	http://www.sasini.co.ke
3. Kakuzi Ltd.	No website
Commercial and Services	
1. Access Kenya Group	http://www.accesskenya.com
2. Marshalls E.A. Ltd.	No website
3. Car & General Ltd.	No website
4. Hutchings Biemer Ltd.	No website
5. Kenya Airways Ltd.	http://www.kenya-airways.com
6. CMC Holdings Ltd.	No website
7. Uchumi Supermarkets Ltd.	http://www.uchumi.com
8. Nation Media Group Ltd.	http://www.nationmedia.com
9. TPS (Serena) Ltd.	http://www.serenahotels.com
10. ScanGroup Ltd.	http://www.scangroup.biz
11. Standard Group Ltd.	http://www.standardmedia.co.ke
12. Safaricom Ltd.	http://www.safaricom.co.ke
Finance and Investment	
1. Barclays Bank of Kenya Ltd.	http://www.barclays.com/africa/kenya
2. CFC Stanbic Bank Ltd.	No website
3. Housing Finance Ltd.	http://www.housing.co.ke
4. Centum Investment Ltd.	http://www.centum.co.ke
5. Kenya Commercial Bank Ltd.	http://www.kcbbankgroup.com/ke
6. National Bank of Kenya Ltd.	http://www.nationalbank.co.ke
7. Pan Africa Insurance Holdings Co. Ltd	http://www.pan-africa.com
8. Diamond Trust Bank of Kenya Ltd.	http://www.dtbafrica.com
9. Jubilee Insurance Co. Ltd	http://www.jubileeholdings.com
10. Standard Chartered Bank Ltd.	http://www.standardchartered.com/kenya
11. NIC Bank Ltd.	http://www.nic-bank.com
12. Equity Bank Ltd.	http://www.equitybank.co.ke
13. Olympia Capital Holdings Ltd	http://www.olympiacapital.co.ke
14. The Co-operative Bank of Kenya Ltd.	http://www.co-opbank.co.ke
15. Kenya Re-Insurance Ltd.	http://www.kenyare.co.ke
Industrial and Allied	
1. Athi River Mining Ltd.	http://www.armkenya.com
2. BOC Kenya Ltd.	No website
3. British American Tobacco Kenya Ltd.	http://www.bat.com
4. Carbacid Investments Ltd.	No website
5. E.A. Cables Ltd.	No website
6. E.A. Breweries Ltd.	http://www.eabl.com
7. Sameer Africa Ltd.	http://www.sameerafrica.co.ke
8. Kenya Oil Ltd.	http://www.kenolkobil.com
9. Mumias Sugar Company Ltd.	http://www.mumias-sugar.com
10. Unga Group Ltd.	No website
11. Bamburi Cement Ltd.	http://www.bamburicement.com
12. Crown berger (K) Ltd.	http://www.crownberger.co.ke
13. E.A Portland Cement Co. Ltd.	http://www.eastafricanportland.com
14. Kenya Power & Lighting Co. Ltd.	http://www.kplc.co.ke
15. Total Kenya Ltd.	No website
16. Eveready East Africa Ltd.	http://www.eveready.co.ke
17. Kengen Ltd.	http://www.kengen.co.ke

* Accessed on 31 March 2011

5.12.3 Appendix III: Questionnaire.

SECTION A: Background Information

1. Name of respondent (optional)
2. Name of your company
3. How many years has your company been listed on the Nairobi Stock Exchange?
Years Tick 0-5 6-10 11-15 16 and above ☐

SECTION B: Corporate Internet Reporting.

4. Is the corporate website of your company management outsourced or internally managed? Internally Externally
 Yes ☐ No ☐
5. Does your company have internet reporting guideline? Yes ☐ No ☐
6. Which of the following factors influences Corporate Internet Reporting in your company? Please rank in order of importance by ticking the appropriate box.

Factors	Not important	Less important	Neutral	Important	Very important
Segmental reporting -Disclosure of different business segments of operations.					
Industry Concentration -The number of listed companies in your industry sector					
Industry competition -Intensity of Competition in your industry					
Growth rate -Total assets growth from previous year to current year					
Listing status age -Number of years in the NSE					
Audit Firm -Big 4 or other					
Industry Sector -The sector your company operates in.					
Company Leverage -Level of debt financing					
Company profitability -Level of operating profits					
Company size -Market capitalization					
Ownership Diffusion -Share holder distribution					

7. Any other factors your company considers when reporting on the internet? Yes ☐ No ☐
- (ii). If Yes in 7, list the factors
 - a) _____
 - b) _____
 - c) _____
8. In your opinion kindly explain the reasons why you think these factors influence the decision by the company when reporting on the internet: _____
9. In your opinion, how do these benefits of corporate internet reporting rank in levels of importance in your company?

Benefits of CIR	Not important	Less important	Neutral	Important	Very important
Costs saving on production and distribution of hard copy documents					
Improved access to corporate information					
Improved timeliness of information					
Reach to a wider audience					
Raised competitive advantage					

- ii). If there are other benefits of Corporate Internet Reporting in your opinion, kindly list these factors below.
 - a) _____
 - b) _____
 - c) _____
10. What limitations in your opinion are a deterrent to Corporate Internet Reporting in your company? Kindly list in order of importance.

