

**FACTORS INFLUENCING SOCIAL-ENVIRONMENTAL RESPONSIBILITIES
DISCLOSURES IN FINANCIAL REPORTS OF KENYAN LISTED FIRMS**

BY

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MASTERS OF SCIENCE IN COMMERCE (FINANCE AND ACCOUNTING)

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DECLARATION

Declaration by the Student

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

Cesar Chemai Kemei

Reg. No 16/00316

Sign

Date

I do hereby confirm that I have examined the master's dissertation of

Cesar Chemai Kemei

And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

Sign

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ABSTRACT

The objective of this study is to determine the factors influencing the social-environmental responsibilities disclosures in Annual financial reports of Kenyan listed firms. Social environmental responsibilities disclosures are voluntary therefore disclosed at the discretion of management and has been identified by various studies to improve image, reputation, enhance accountability, legitimacy and help manage stakeholders. Some studies have also shown that financial factors, governance characteristics, ownership characteristics and stakeholders, influence the extent of these disclosures, hence this study examined how the level of social environmental responsibilities disclosures in financial reports of Kenya listed firms is influenced by their size, profitability and leverage. Descriptive research design was used and secondary data was collected from 2009 to 2018 annual reports of 45 out of 48 targeted companies listed prior to 2009. The dependent variable is extent of disclosure is measured on total score from 39 disclosure items each with a rating between '0' to '3' based on absence and the degree of specificity or detail. The disclosure items was developed guided by Global Reporting Initiative index. STATA version 12 software was used to analyze the significance of the factors on level of Social environmental responsibilities disclosures. Exploratory, descriptive, diagnostic analysis were performed and the results showed that factors of firm's size, leverage were positively significant and profitability is negatively significant in influencing the disclosure of social environmental responsibilities information on financial reports of Kenyan listed firms.

Keywords: Financial reports, Social–environmental responsibilities, disclosures, legitimacy, stakeholders, firm size, leverage, profitability.

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OPERATIONAL DEFINITION OF TERMS

Disclosures is a means of presenting financial and non-financial, economic information associated with the financial status and performance of the firm which can be mandatory or voluntary (Ghasempour & Yusof, 2014)

Environmental accounting is reporting financial or physical effects of business activities on the environment or effects of the environment on the business (Van, 2012).

Social and environmental accounting is a process of reporting financial or physical effects of business activities on the society and environment or effects of society and environmental on the business (Van, 2012).

Social environmental responsibility is commitment by organizations to contribute to social and environmental objectives and goals (Lynes & Andrachuk, 2008).

Social - environmental disclosure Information on company's activities and aspirations towards the environment, community, employee and consumers. (Gray, Javad, Power,& Sinclair, 2001).

Sustainability report is a report published by a company about the economic, environmental and social impacts caused by its everyday activities and presents the organization's values and governance model, and demonstrates the link between its strategy and its commitment to a sustainable global economy (Global Reporting Initiative).

Voluntary disclosures is information provided in excess of regulatory requirements (Meek, Roberts & Gray, 1995).

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Increase in public awareness and media coverage of social environmental issues have compelled firms to enhance the scope and intensity of corporate social environmental disclosures (Chiu & Wang, 2014) in order to be accountable to a wider audience other than shareholder. Firms have increasingly acknowledged that their actions have consequences that affect stakeholders, which have led to increased attention in analyzing what and how firms report as well as the quality of these reports (Odera, Scott & Gow, 2016). Baba (2017) emphasizes the need for firms to be aware of their responsibility in social environmental matters and to take action that ensure fulfilment of their obligations, role and status to the public.

Firms are increasingly being held answerable for their actions that affect the society, the community and environment (Majeed, Aziz & Saleem, 2015), hence the need to commit to address issues such as damage of the environment, care for the surrounding community, fair treatment of work force, and safety of products. Social-environmental responsibilities should be viewed not just as a social activity, but a commitment made through the vision and mission, organization structure, value statement, processes and procedures which go beyond profit maximization (Lone, Ali & Khan, 2016). A focus on Social environment responsibilities ensure proper management and monitoring of social and environmental issues consequently leading to a healthy relationship with stakeholders that guarantee sustainability and to be accountable and transparent, firms report these responsibilities in their annual financial reports and through other media. The concept of social responsibility and reporting has been accepted, adopted and promoted by many governments, corporations, consumers and non-governmental organizations who have embraced social and

environmental activities as an important component in annual financial reports (Leite & Padgett, 2011).

SER disclosure practices has attracted numerous studies across the world especially in developed countries. According to Mahmoud (2009) corporate social reporting and disclosures became main areas of debate in the academic literature in the 1970s, 1990s and 2000s. It became less prominent in the 1980s and early 1990s (Deegan, 2002), (Gray, 2000) but from mid 1990s experienced major growth in research (Deegan, 2002), which has continued to the present with growing number of studies in developing countries including Kenya being seen. The interest by researchers in this area stems from the fact that SER reporting is voluntary, therefore does not follow any prescribed format or standard. Different dimensions such as what companies report on SER disclosures, whether it can be linked to performance, what determines the level of SER disclosures and how firms account for social and environmental performance, amongst others have been focus of discussion by researchers and terms such as corporate social responsibilities (CSR), Social reporting, Corporate social Reporting, social and environmental reporting being used by researchers.

There is wide believe in Social environmental literature, that SER disclosure in annual reports shows a commitment by business towards the development of a social-environmentally responsible corporate sector (Lone et al., 2016) and the incentives to disclose stems from the fact that firms need to be ethical, to be accountable, transparent, be seen as legitimate, for marketing, public image, to influence perception, respond to pressure from consumers local and international, to keep up with competition, industry norm, comply with requirements by lenders both local and international, and distract attention (Bhattacharyya,2014). Kenyan companies have been disclosing SER reports for a number of years. According to Kalunda (2012), SER disclosure has

become part of annual financial reports for companies in Kenya. The number of companies reporting social-environmental reporting has been growing over the years, as suggested by study by Odhiambo (2015) which observed that 60% of the companies trading in NSE in 2011 were practicing social and environmental accounting and reporting, 63% in 2012 and 68% in 2013.

1.1.1 Annual Financial reports and social-environmental responsibilities disclosures

Annual financial reports is a very useful source of information and means of communication to users (Kanakriyah, 2016) who do not have access to internal information. Financial reporting is developed with the objective of communicating information to users to enable them make prudent and informed economic decisions. Users that include shareholders, employees, suppliers, creditors, financial analysts, stockbrokers, management, and government agencies (Oyerogba, 2014), may prefer to use financial reports to make important economic decisions, since it is produced annually which makes comparability with similar periods and similar companies possible.

Financial reports are characterized by high degree of credibility and is accessible to a wider audience other than shareholders, hence firms prefer it as media for disclosure due to its consistency and formality which may be lacking in other communication media. According to Kanakriyah (2016) the main objective of disclosure is to inform all current and potential users, about the firm's position and performance hence any operation and information that might have an influence on the financial statements should be disclosed. Disclosures in financial reports attempt to fill the gap arising from inherent limitation of accounting data by providing supporting information and in addition reveal information about the company not known before, thus enhancing its reliability and understandability. These disclosures in financial reports are partly

guided by legislation and regulation and partly produce with discretion by management, meaning it is both mandatory and voluntary.

Mandatory disclosures are guided by regulation and legislation through Kenya Company's Act which sets the general framework and minimum requirement of financial reporting by listed firms (Barako, Hancock & Izan, 2006) and IFRS developed by IASB with an aim of developing high quality financial statements that reflect a firm's economic position and performance and remove allowable accounting alternatives (Barth, Landsman & Lang, 2007). Voluntary disclosures on the other hand, support mandatory disclosure by providing additional information on performance of the enterprise and its operating environment, however it is made at the discretion of management and can also be influenced by firm characteristics, industry practice and stakeholders expectations.

Voluntary disclosure have economic influence, which can affect investors' perceptions toward companies and consequently it can influence corporate market value (Kanakriyah, 2016) and the aim is to improve the quality of financial reports providing a wider view of firm's operating environment. It covers issues, but not limited to strategic information, forward-looking information, CSR information (Njoroge, 2018). Other discretionally information include firm's operating environment, capital market information, information on directors and senior management. Social-environmental responsibilities (SER) disclosures is presented as part of sustainability reports or independently in annual financial reports by listed firms in Kenya and broadens the scope of accounting by disclosing beyond economic performance and activities and points to the fact that companies account to stakeholders, for their influence on external environment through their actions (Odhiambo, 2015).

Social environmental responsibilities disclosures covers information on community, environment, employees, and consumer or product information. According to Rover, Murcia and Murcia (2015) community information mainly involve firm's philanthropy, sponsoring community sports, recreational facilities. Environmental information covers effects of companies operations to the environment, prevention and repair of environmental damage, costs and compliance. Employee's information covers issues on work safety, benefits and other employment information, while consumer and product information include product innovation, consumer safety and market information.

Numerous studies have identified factors that influence the extent of SER disclosure to include size, profitability, leverage, governance structure, ownership structure, stakeholders influence as well as industry affiliation. Large companies tend to provide greater extent of SER disclosures since cost of developing SE report is lower and may have greater incentive to report to minimize possible litigation costs (Ortas, Alvarez & Etxeberria, 2015) or political (Ebiringa, Yadirichukwu, Chigbu & Ogochukwu, 2013), face more scrutiny from stakeholders due to highly visibility (Branco & Rodrigues, 2008), are more diversified geographically, product market wise and more stakeholder groups (Dyduch & Krasodomska, 2017), access new capital financing at lower costs and possess enough resources to collect, analyze, and present a lot of data at minimal cost due to economies of scale (Ismail & Ibrahim, 2009) and can afford large investments on SER activities (Lone et al., 2016) .

Highly profitable firms have the freedom and the flexibility to expose their SER practices more extensively to stakeholders to legitimize their existence (Dyduch & Krasodomska, 2017) (Giannarakis, 2014), to secure their position, generate praise, enhance reputation and avoid litigation (Kribat, Burton, & Crawford, 2013), have better economic ability hence motivate

managers to disclose more and better reports (Nawaiseh, 2015), can absorb costs of SER (Luethge & Han, 2012). Companies with high leverage have a possibility of wealth transfer from debt holders to stock holders which increases agency costs and by increasing disclosure, information asymmetry reduces consequently reducing this agency costs, conflict between managers and owners and prevent wealth transfer (Ortas et al., 2015). Firms disclose more to satisfy creditors (Reverte, 2009) to understand firm's risks related to SE concerns. On the contrary, Syed and Butt (2017) suggest that high levered may have cash flow constraints to commit to SER activities.

Firms sector or industry has been identified by numerous studies as a factor which contributes to firm's level of SER disclosures. Dyduch and Krasodomska (2017) posits that there is a widespread belief that industries with adverse effect on the environment provide higher SER disclosures than other industries with those dealing in petroleum products, chemicals, forest products, have higher incentive to embrace social environmental concerns into their operations to project a more positive profile. Firms with high customer visibility will engage in social activities to improve their reputation and image. The financial sector play a vital role in supporting other industries by providing them with financial needs. Banks and financial institutions provide SER information to convince that maximizing profit objective is not their unique purpose (Giannarakis, 2014) but also take care of their employees and community around them.

1.1.2 Listed companies in Kenya

There are 66 listed companies in Nairobi Securities Exchange from 13 different sectors distributed as; eight from Agricultural sector, one from automobiles and accessories sector, eleven from banking, twelve from commercial and services, five from construction and allied sector, five from energy and petroleum, six from insurance sector, five from investment, one from investment services, nine from manufacturing and allied sector, one from telecommunication and technology, one from real investment trust and one from exchange traded fund (Nairobi Securities exchange).

Before July 6, 2011 the Nairobi Securities Exchange was known as the Nairobi Stock Exchange and operates under the mandate Capital Markets Authority. NSE was voluntarily formed in 1954 as an association of stockbrokers under the Society's Act and charged with the mandate of regulating trading activities and developing the securities market, collecting and providing necessary information for market to thrive and facilitates the trading amongst stockbrokers. With NSE reforms which include automation of the exchange, stockbrokers can trade remotely from wherever they are and which will attract more local investors as well as international ones looking to invest in Kenya and in Africa (NSE). The NSE enables exchange of financial securities issues by publicly quoted companies and the Government, and plays a key role- in mobilizing savings and in attracting local and foreign capital inflows (Muthuri & Gilbert, 2018).It is a member of the World Federation of Exchange, which is a founder member of the African Securities Exchanges Association (ASEA) and the East African Securities Exchanges Association (EASEA). It is also a member of the Association of Futures Market (NSE).

Listed companies has been chosen for this study because they are highly regulated, are under a lot of public scrutiny and are required to publish and avail their annual financial statements and reports to the public. These reports are available in websites of NSE, stock brokerage firms and CMA websites and on the individual company websites for public scrutiny and this makes it easier for analysis.

1.2 Problem statement

Stakeholders as well as shareholders may exert pressure to companies to provide information on their activities that address social-environmental responsibilities concerns to measure social and environmental risks as they assign a value the firm. On the other hand the corporation will voluntary disclose SER information in their annual reports to account for SER activities to show

transparency, responsibility and accountability towards the society and environment, gain legitimacy and forestall attempts to introduce regulation. The need for additional information in annual reports arises because of inherent limitations of accounting data and disclosures provide additional information that will help users better understand a firm.

A problem arises since managers have access to superior information, are always at discretion in determining what and information and to what extent these voluntary information to avail to the public in pursuit of their interests (Nyabuti, 2016), thus without adequate information users may not be in a position to accurately determine and evaluate value of their decisions. When companies' financial performance is not good, managers may choose to withhold some information (Ortas et al., 2015) but when a firm withholds information, investors may avoid investing in the firm because they will view non- disclosure as bad information hence risky. The extent of these information is influenced by factors related to firms' financial performance and position, firm's industry, governance characteristics as well as ownership structure and the pressure from stakeholders. There has been consistent attempts to explain social and environmental disclosures by corporate characteristics (Bouten, Everaert & Roberts, 2012) and will remain an important line of research in the future since social and environmental responsibilities information in large extent is voluntary.

This study draws an inspiration from the fact that most of the studies relating to factors influencing SER or CSR disclosures as other authors put it, have come from developed world and growing in developing countries in Asia. For example, Baba (2017) studied factors in Malaysian companies, Bhattacharyya (2014) investigated these factors in Australian Companies, Branco and Rodriques (2008) also investigated factors for Portuguese Companies, Dyduch and Krasodomska (2017) in Polish Listed Companies and Huang and Kung (2010) researched in Taiwan. Very little

work seems to have been done in Kenya especially on the factors that influence SER disclosure. Thus Kalunda (2012) suggest that various dimensions of social reporting among Kenyan firms, especially on the factors determining ways in which corporations disclose their corporate social information should be studied, a gap which this study intends to fill.

Studies in Kenya on social and environmental disclosure include, a study by Mbuthia (2016) who investigated the link between corporate environmental reporting and corporate financial performance, Kalunda (2012) investigated the corporate social reports of Kenyan listed firms to establish if there are any form of corporate social reports in Kenya, extent, guidelines and quality of such reports, Muthuri and Gilbert (2011) studied institutional analysis of CSR in Kenya, Odhiambo (2015) studied the effect of Social and environmental Accounting and Reporting on Financial performance of Companies Listed on the Nairobi Securities Exchange, Kihamba (2017) investigated the relationship between environmental accounting and reporting practices and profitability of manufacturing firms listed in NSE, Ponnu and Okoth (2009) studied the Corporate social responsibility practices in Kenya and linked between firm size, industry, CSR themes with CSR disclosure.

A closer study was done by Wachira (2017) who investigated determinants of corporate social disclosures in Kenyan listed firms. The scoring of level of disclosure was done using '0' for non-disclosure and '1' for disclosure for data from annual reports of 6 years. The studies in Kenya related to determinants of voluntary disclosure and corporate social disclosure does not consider the specificity of disclosure in their content analysis, hence treat all disclosures in equal measure by assigning a score of 1 for disclosure and 0 for non-disclosure despite the depth of information disclosed. This study attempts to consider quality of the content disclosed by assigning scores of 0, 1, 2 and 3 based on specificity and degree of disclosure for a period of 10 years. This study

therefore attempted to find out whether factors identified of size, profitability, and leverage influence the level and extent of Social-environmental responsibilities disclosure in financial reports of Kenyan listed firms.

1.3 Objectives of the study

1.3.1 General Objective

The general objective of the study was to determine the factors that influence the extent of Social-environmental responsibilities disclosures in financial reports of Kenyan listed firms.

1.3.2 Specific Objectives

The specific objectives of carrying out this research are as follows;

- i. To establish how size of the firm influence the extent of Social-environmental responsibilities disclosures in financial reports of Kenyan listed firms.
- ii. To establish how profitability of the firm influence the extent of Social-environmental responsibilities disclosures in financial report of Kenyan listed firms.
- iii. To determine how leverage of the firm influence the extent of Social-environmental responsibilities disclosures in financial report of Kenyan listed firms.

1.4 Hypothesis of the study

The study is guided by the following hypothesis:

H₀1: Size of the firm has no significant influence on the extent of Social- environmental responsibilities disclosures in financial reports in Kenyan listed firms.

H₀2: Firm's profitability has no significant influence on the extent of Social- environmental responsibilities disclosures in financial reports in Kenyan listed firms.

H₀3: Firm's Leverage has no significant influence on the extent of Social- environmental responsibilities disclosures in financial reports in Kenyan listed firms.

1.5 Significance of the study

SER disclosure improve quality of financial reports hence the higher the level disclosure of relevant information the better the quality of financial reports. The concentration of both financial and non-financial information from one source reduces cost of obtaining information which makes it more efficient and effective for users to make economic decisions by valuing the firm more accurately. This study can help companies appreciate the importance of social environmental responsibilities disclosure and identify and address disclosure gaps in their reports which is significant in improve its quality, consequently improving the quality of decision making by the users. The study is also a vital source of information for universities for accounting theory studies, which is useful to accounting and finance lecturers, researchers and students. NGOs, government officials, environmental regulators and stakeholders can assess what impact firms' activities have on social wellbeing as well as the environment and can help develop regulations that govern environmental matters as well financing activities that may not be covered by the firms.

1.6 Scope of the study

The study concentrates on annual reports of listed firms in Kenya from 2009 to 2018. Listed companies were selected because of regulatory requirement to make public their annual financial reports which are easily available in their company's websites and in Capital market authority. Annual reports is major forum of disclosure due to the fact that it is produced in annually which enables comparability and is also assessable and useful to stakeholders who may not have privileged access to the internal information. The ten year period from 2009 to 2018 was selected since it will give adequate information for comparability and will ensure the trend in disclosure is adequately determined.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature of related to the factors influencing Social environmental responsibilities disclosures in annual reports of Kenyan listed firms.

2.2 Theoretical review

Social-environmental responsibilities disclosures attempt to improve and manage relationship between a firm and stakeholders. This section reviews the theories that apply to Social-environmental Responsibilities Disclosures namely legitimacy theory, stakeholders' theory, institutional theory and agency theory.

2.2.1 *Legitimacy Theory*

Legitimacy theory as a concept based on organization legitimacy (Guthrie, Cuganesan & Ward, 2006) which according to Parsons (1960) cited by Dowling and Pfeiffer (1975), legitimacy is an appraisal of action towards shared or common values in the social system. Suchman (1995) also views legitimacy is a generalized perception that a company is expected to act in proper, desirable, acceptable, and appropriate way within social system of norms and values. Dowling and Pfeiffer (1975) states that organization legitimacy exist if organizations establish a congruence between social values as result of their action or implied and the norms of acceptable behavior in the larger social system which it is part. The society gives powers and legitimacy to a business and will lose it if they are irresponsible A threat to organization legitimacy may exist when actual or potential disparity exist between an organization's and society's value systems (Dowling &Pfeiffer, 1975).

Legitimacy theory assumes that an organization and the society are bound by a social contract, hence organizations continually attempt to operate within the beliefs, norms, values of the surrounding societies (Deegan, 2000). Social contract according to Deegan (2000) are various expectations both implicit and explicit, that a society has on how a firm should conduct itself, hence an organization will be allowed to operate to the extent to which it meets society's expectation. In order for companies to fulfil their social contracts, development, implementation and reporting SER disclosures is crucial in recognizing their objectives and survival of the business (Burlea & Popa, 2013). An organization will meet these expectations by reacting or attending to environmental, human and social consequences of their operations and by considering the rights of the public at large besides those of the shareholders. In order for organization's operations be recognized as transparent and legitimate, SER disclosure are believed to change society's perceptions (Dyduch & Krasodomska, 2017).

Firms in their operations depend on society for human and natural resources to obtain raw materials, power and labor, on the other hand society expects to benefit from a company (Deegan, 2000). These successful companies are expected to account for their ethical actions that affect the society and environment, by taking steps to repair damages made to the environment or actions that prevent further degradation to the environment, guarantee of health and safety of their workers, consumers, and the adjacent community (Dyduch & Krasodomska, 2017). According to Deegan (2002), if a company considers that supply of certain resource is vital for survival, then it will put in place strategies such as targeted disclosure that ensure continued supply of this resource.

The extent of Social-environmental responsibilities disclosure is motivated by the desire by managers to legitimize their activities. If people become interested in the effect of companies on society and environment, then the management may be compelled to explain their concerns, by

legitimizing their activities through disclosing information about the physical environment in company's annual financial reports (Wilmshurst & Frost, 2000). It is assumed then that managers can adopt strategies to demonstrate to society that the organization is attempting to comply with society's expectations (Bruns, 2017). Disclosure means being accountable and transparent to the larger population, therefore the more the disclosure the more the firm is seen as legitimate and its extent is affected by firm's characteristics, industry and stakeholders power.

Disclosure is key to management in influencing public perception towards a firm, through provision of information to counter and offset negative publicly available information and informing the public about certain facets of the organization that were previously unknown (Deegan, 2002). Bhattacharyya and Agbola (2018) in applying the concept of legitimacy theory, argue that company characteristics such as firm's size, profitability, industry affiliation, consumer proximity, age of reporting entity is associated with the level of social and environmental disclosure. According to Dyduch and Krasodomska (2017) legitimacy theory does not prescribe how organizations should behave towards the society (normative), but rather it takes a positive approach by describing how organizations behave through corporate social communication.

According to Deegan (2000), changes in the extent of disclosure and increase in SER disclosure over the years, may point to changes in expectation by society and if there is a threat to legitimacy in a certain industry, companies within that industry would respond by increasing amount of disclosure in annual reports. Patten (1992) in studying the change in disclosure levels of North American Oil companies before and after Alaskan oil spill, stated that concerns by the community on environmental performance of a particular firm in an industry or sector, have an effect on disclosure strategies of other firms in the same industry. Similarly Summerhays and Villiers (2012) concluded that increase in negative, positive and neutral environmental disclosure

was meant to enhance their image in responding to 2010 gulf of Mexico Oil spill. SER disclosure in annual reports are also useful in reducing the negative effects upon a firm on the events that are perceived to be unfavorable to the firm.

Deegan (2002) argue that legitimacy theory still has gaps for example in trying to explain what form of media are more successful in changing community views on the organization. Deegan (2002) further argues that there is lack of knowledge establishing which group is relatively more influenced by legitimizing disclosures than others.

2.2.2 Stakeholders Theory

The stakeholder's theory was proposed by Freeman (1984) in the context of organization's strategic management. Prior to developing the theory the term stakeholder had been used for a number of years. According to Freeman and Reed (1983) the term first appeared in an internal memorandum at the Stanford Research Institute in 1963 which was meant to challenge the idea that stockholders are the only group whom organization management need to be responsive to. The memo referred to stakeholder as groups without whose support the organization would cease to exist. Freeman and Reed (1983) provided a wider sense of stakeholder as identifiable individuals or group that affect or are affected by organization's achievement of its objective that include the public, protect groups, government agencies, competitors and trade association and in narrow sense views stakeholders as identifiable groups or individuals which the organization depends on, for continued survival which include suppliers, employees, customers and key government agencies.

Organization cannot be self-reliant within the larger social system, and it is expected that the organization should consider the interest of stakeholders, through interaction that create value. Being socially responsible by a company is vital in enhancing reputation and maintaining sustainable relationship with creditors, stockholders, suppliers and government by engaging in and

disclosing social responsibility activities, as a way of managing stakeholders' relationship (Roberts, 1992). Stakeholders need to be informed about some aspects of an organization and as Gray, Owen and Adams (1996) states, information disclosure can be employed to manage stakeholders in order have their approval and support or to reduce their disapproval and opposition. Stakeholders have intrinsic rights over a company which should not be violated and have a right to be treated fairly by a firm, to be informed on how the firm is impacting on them (Deegan, 2002).

Accountability to the stakeholders involve being responsible to take certain actions positive to stakeholders and refrain from others the negatively impact stakeholders and providing an account of those actions. According to Huang and Kung (2010), stakeholders provide important resources, and contribute to the firm in different ways, hence managers must strike a balance between conflicting stakeholder demands by modifying its activities to minimize conflicting interests by partly communicating results of the relationship between the firm and stakeholders through social-environmental responsibilities disclosures. Stakeholder theory therefore links SER activities and SER disclosure as way of communicating to the public.

Social and public pressure may mount against the company to act in certain way and when this pressure is realized or sensed, a company will take part in a variety of activities including publicizing annual reports which suppresses such pressure and in the process the firm gains publicity and reputation. Huang and Kung (2010) concluded that social and environmental disclosures is positively associated with stakeholders' expectations and claims. Therefore the role of corporate disclosure in SER is to inform society about the fulfillment of company's mandate to the society.

The limitation of the theory is that it may not apply equally to all the stakeholders since stakeholders have diverse needs hence an organization may meet the needs of some stakeholders

more than others. Some stakeholders are more effective in demanding SER disclosures than others as Deegan (2000) notes that if there is a firm face a situation where stakeholders have conflicting interest and expectations, the firm will choose to provide information of a legitimizing nature to those stakeholders that are crucial to survival of the firm and down playing the needs of less important stakeholders.

2.2.3 Institutional Theory

Mohamed (2017) recognizes DiMaggio and Powell (1983) as major contributors of institutional theory who argued that institutional environment highly influence the formal structure of an organization by conforming to the dominant societal rules, norms and routines. Institutional theory analyzes social organizational behavior, and which looks at social world to be made up of institutions, rules, procedures, and structures that control action (Lawrence & Shadman, 2008) and because institutions is part of the social world it directs the flow of social life. Scott (2004) posits that institutional theory are processes where rules, company structures, organization culture and routines, are adopted daily guidelines for social behavior.

Bjorkman, Fey and Park (2007) argue that organizations are constantly under pressure to embrace and be consistent with their institutional environment; hence will attempt adopt structures and practices perceived as appropriate to the social environment. According to DiMaggio and Powell (1983) institutional pressure will make firms adopt similar structures or isomorphism through coercive process through formal and informal pressure from other organizations, Mimetic process by imitating other successful organizations' practices and normative pressure through professional influence from workers and other professionals like auditors. Bruton, Ahlstrom and Li (2010) views institution as formal rule sets, agreements, established practices guided by enduring, formalized, rational beliefs that organizations and individuals are expected to follow.

These rules are derived and interpreted from government regulatory framework, court rulings and interpretation, professional ethical rules, expectations and guidelines, scripts and other societal and cultural practices (Lammers & Garcia, 2017) (Bruton et al., 2010).

Organizations can adopt similar behaviors over time due to being driven by a variety of pressures from a variety of environment (Ferri, 2017) by conforming to dominant societal rules and norms. According to Khan, Lockhart and Barthurst (2018), external powerful influence such as government regulations and stakeholders' pressure can change organization institutional practices. These practices can also change when organizations copy or emulate practices of other behaviors for competitive advantage or be at par with industry players. Ferri (2017) further argues, that firms can adopt practices due to expected professional expectations such as following accounting standards in preparation of financial reports. Industry practices will play a crucial in social-environmental disclosure behaviors and when a dominant player adopts certain disclosure practices then other players in similar industry or related sectors follow suit. Government bodies like NEMA may influence disclosure practice, where a firm will disclose information to manage them and avert any litigation. Audit professional firms may have an influence on the way a company will disclose information. Companies who are audited by similar firms tend to have adopted similar disclosure practices since the audit firm would like a company to maintain certain standards of financial presentation in order to maintain their brand name and established reputation (Huang & Kung, 2010).

Institutional theory has some limits. According to Kraatz and Zajac (1996) in a highly institutionalized organization field, well established firms are not likely to change to ways demanded by institutional environment.

2.2.4 Agency Theory

Agency theory of a firm was proposed by Jensen and Meckling (1976) which analyses the relationship or contract between the principal who are owners of an organization and the agent who perform service delegated by the principal. It is assumed that agent will be driven by self-interest and may undertake activities that may adversely affect the economic objective of the principal (Deegan, 2000) which means the principal will incur bonding costs and monitoring costs to ensure that the agent will not take actions that would harm the principal. Managers by virtue of their position have an information advantage over the principal therefore according to Barako et al. (2006), voluntary disclosure which Social environmental information is a part, presents a great opportunity for the agent to provide relevant and reliable information to the market to optimize the firm's value. Agents therefore are assumed to have enough incentives to disclose information that best reflect performance of a firm (Deegan, 2000) even though the principal may not have complete information to set adequate compensation for the managers.

Agency relationship give rise to information asymmetry and since SER disclosure is voluntary, there is a higher chance that managers (agents) will withhold information which increase information asymmetry. According to Klerk, Villiers and Staden (2015) agency problem influence the decision by managers to provide higher level of voluntary information which SER disclosures are a part, than those disclosures mandated by law. Jensen and Meckling (1976) argue that there are incentives by an organization to disclose credible information about how it operates to some outside parties even with absence of regulation to prevent increase in costs associated with non- disclosure. Deegan (2000) also argue absence of information will make other parties that include the owners to assume that managers are acting and operating for their own benefit, instead of maximizing firms' value. Financial reporting and disclosure help avert conflict and reduce costs associated with this conflict between managers and other parties. Managers are better placed to

determine the information to provide to increase stakeholders' confidence and those firms that do not produce enough information will be charged high cost or penalty by potential capital providers including providers of debt capital (Deegan, 2000)

Shareholders will require SER information to measure social and environmental risks and evaluate what measures and policies are in place to manage and mitigate these risks because it could potentially be very costly (Klerk et al., 2015). Therefore the high level of voluntary disclosure and in this context SER information reduces information asymmetry between managers and owners which assist them in accurately valuing the company. Gray et al. (2001) suggest that voluntary disclosure in financial reports by entities, which SER disclosure forms a substantial part is a means of reduction and prevention of future agency costs that may arise in the form of legislation and regulation. SER Disclosure is useful to investors since it not only provide relevant information to make economic decision but also helps reduce costs of monitoring and obtaining information.

On political cost perspective, firms especially large ones, are mostly under scrutiny by the groups such as government bodies, consumer and environmental lobby groups, which may enhance a view that these large firms which have a high profits, do not give fair share of these profits by paying low wages, pricing commodities highly, not committing to environment matters, low taxes and low community initiatives (Deegan, 2000). Social environmental information disclosure in financial reports will help manage these groups and reduce any claims to the firms that may be advanced to the firms through litigations hence reduction of political costs.

2.3 Empirical Literature Review

This section reviews the literature related to Social environmental responsibilities disclosure and factors that determine the level of these disclosures.

2.3.1 Influence of firm's size on Social-Environmental Responsibilities Disclosures in Financial reports of Kenyan listed firms.

Bhattacharyya (2014) investigated the factors associated with the social and environmental reporting of Australian companies. The study sought to determine whether there was an association between size of the reporting entity measured by log of net assets, profitability measured by return on total assets, industrial membership and age of reporting entity from year of incorporation, and the extent of social environmental reporting. GRI social and environmental performance indicators was used to measure the level and quality of SER as dependent variable. The study hypothesized that size had no relationship between size and extend of SER. 47 Australian companies from different sectors with financial reports of 2006 to 2007 were examined with descriptive research design being adopted. Using multivariate ordinary least squares, the results indicated that size had a positive and significant influence on SER, which suggested that SER disclosure is greater with larger firms.

Dyduch and Krasodomska (2017) examined the determinants of CSR disclosures with a sample of 60 polish companies by examining CSR disclosure in management commentary in annual reports and integrated reports. The dependent variables was measured using disclosure index studies based on a scoring of '0' for no presentation and 1, 2 and 3 depending on detail of disclosure. The study aimed at determining the relationship between company Size, profitability, financial leverage, board size, women on board, industry affiliation and internalization with CSR disclosure. Employment size and net sales, was used as proxy of company size, return on investment as proxy of profitability and debt to total asset ratio measured leverage formed part of the independent variable to determine the level of CSR disclosure. The study hypothesized that there was a positive relationship between size and the CSR disclosure. Using Tobit regression

models, the result showed that size measured by net sales, had a positive effect on CSR disclosure and while size measured by employment size was not significant. They concluded that companies with high turnover were more prone to scrutiny because it is perceived as more visible to stakeholders and care about maintaining good corporate image to acquire and retain business partners and customers loyalty. Large firms have enough resources to absorb extra costs of CSR disclosure.

Giannarakis (2014) investigated the determinants influencing the extent of CSR disclosure incorporating 366 out of fortune 500 companies in the USA. The study sought to determine the effect of company size measured by total assets, profitability measured by return on sales, financial leverage, CEO duality, women on board, board age, industry profile, board size and number of board meetings on extent of CSR disclosure. The development of CSR disclosure was based on Bloomberg's ESG disclosure score. Using multiple linear regression model, the result showed that company's size had a strong positive significance influence on extent of CSR in US companies suggesting that large US companies disclose more CSR disclosures. Giannarakis (2014) concluded that larger firms incur less costs due to economies of scale.

Barako (2007) examined the determinants of voluntary disclosure in annual reports of Kenyan companies from 1992 to 2001 targeting 54 companies listed in Nairobi stock exchange. The aim of the study was to determine the extent to which financial company characteristics, corporate governance attributes and ownership structure influence voluntary disclosure in financial reports of Kenyan listed companies. The financial characteristic included firm size indicated by total assets, leverage measured by debt ratio of total debt to total assets, profitability measured by return on equity and liquidity. Larger firms was hypothesized to be related to higher level of voluntary disclosure. The study used disclosure indices with a score of 1 for disclosure and 0 for

non-disclosure. Using pooled Ordinary Least Square (OLS) with Panel-Corrected Standard Errors (PCSEs) regression model, the results showed that company's size is significant in determining the level of voluntary disclosure.

Nurhayati, Taylor, Rusmin, Tower and Chatterjee (2016) documented the factors determining social and environmental reporting by Indian textile and apparel firms. The purpose of the study research was to investigate the factors determining the social and environmental reporting (SER) of Indian textile and apparel firms. Firm size, branded textile and apparel products, Board independence was examined to determines its relationship extent of SER by Indian textile and apparel companies. The hypothesis was set based on prior studies to predict the positive association between firm size and extent of SER by Indian textile and apparel companies. SER disclosure was examined based on GRI index applicable to textile and apparel firms. The study utilized secondary data from annual report of 100 top Indian listed textile and apparel companies due to their high visibility to the public and media. Using ordinary least squares (OLS) regression model, the result showed that size measured by natural log of assets was significant in explaining variation in SER for Indian textile and apparel firms.

Khan (2010) studied the effect of corporate governance elements on corporate social responsibility reporting. The purpose of the study was to investigate CSR reporting information of Bangladeshi listed commercial banks and the effect of corporate governance elements on CSR disclosures. The factors of size, profitability and leverage were considered as control variables and CSR disclosure was coded 0 for non-disclosure and 1 for disclosure which was used to determine percentage score. The extent of CSR reporting was hypothesized to be greater for larger firms. The study utilized a sample of 30 Bangladeshi commercial banks and using the multivariate regression analysis the results revealed that size measured by total assets, was significantly related to with the

level of CSR reporting. The author concluded that large companies make more CSR reporting for accountability and visibility.

Majeed et al. (2015) studied the effect of corporate governance elements on corporate social responsibility (CSR) disclosure for listed companies in Pakistan. In this study firm size measured by sales and profitability measured by return on equity were control variables and larger companies was predicted to have larger degree of CSR reporting. A sample of 100 Pakistani listed companies was selected and data was collected by analyzing annual reports of these companies for five years from 2007 to 2011. Content analysis was applied to examine the CSR reporting of the selected firms from the annual reports to determine disclosure level as a dependent variable and binary codes of 0 and 1 was used to score 'non-disclosure' and 'disclosure' respectively. Regression analysis used for the study showed that firm size was positively related to CSR disclosure.

Bouten et al. (2012) analyzed how a two-step approach discloses different determinants of voluntary social and environmental reporting with the objective of verifying whether company characteristics explain a decision to disclose and the disclosure level. Company characteristics studied include company size measured by log of total assets, leverage measured by debt to equity ratio, financial performance measured by return on equity, industry profile, dispersion, risk, strategic posture and media exposure. Content analysis framework was used to measure the dependent variables and the disclosure content was developed with reference to GRI reporting guidelines with six broad areas namely environment, human rights, labor practices & decent work, product responsibility, society, and economic. A sample of 128 companies was selected and data from 2015 annual reports from each of these companies was collected. The disclosure index which is the dependent variable was measured using three level of score that is, a score of 3 for

performance indicators, a score of 2 for management approach and a score of 1 for vision and goals. A score of 0 represents non-disclosure of items. According to the study, size showed significant positive effect on the level of social and environmental disclosure and the decision to disclose.

Monteiro and Guzman (2010) analyzed the determinants of environmental disclosure in the annual reports of large companies operating in Portugal. The study sought identify the factors that explain the extent to which companies disclose information and environmental disclosure practices among Portuguese firms. 109 large Portuguese firms were selected for the study from all sectors, while environmental disclosure index consisted of 16 items with a scores allocated as '1' for disclosed item and '0' for non-disclosure. Factors of firm size measured by log of total asset of 2004, profitability measured by return on equity, industry membership, foreign ownership and quotation on the stock market were identified and data was obtained from annual reports from each company from year 2002 to 2004. The regression analysis showed that showed that firm size is positively and significantly related to extent of environmental disclosure.

2.3.2 Influence of firm's Profitability on Social-Environmental Responsibilities Disclosures in Financial reports of Kenyan listed firms.

Ortas et al. (2015) examined financial factors influencing the quality of corporate Social responsibility and environmental management disclosure. The study involved examining 3931 companies from different economies divided into 51 sectors and sought to determine whether corporate size measured by natural logarithm of net assets, leverage measured by ratio total debt to stockholders equity, corporate performance measured by return on assets and research and development expenditures, influence the volume of environmental information. The study

predicted that companies with higher levels of profitability disclose a higher volume of environmental information. The study used GRI to develop a composite disclosure index. Using quantile regression approach the study showed profitability measured by return on Assets (ROA) indicate a positive influence on the levels of corporate social and environmental disclosure only for those companies that are relatively active in disclosing environmental information.

Ebiringa et al. (2013) studied the effect of firm size and profitability on corporate social disclosures for Nigerian oil and gas sector and data from annual reports of 2011 for 20 companies. The aim of the study was to determine whether size measured by log of total assets and profitability measured by profit after tax had a significant relationship with extent of CSR disclosure in quoted firms in Nigeria. Profitability was hypothesized to have a significant relationship with the extent of CSR disclosure by Nigerian quoted firms. Content analysis was used to measure extent of disclosure that formed the dependent variable. Using ordinary least squares for analysis, the result showed that profitability had a significant influence on CSR disclosure.

Nawaiseh (2015) examined the how firm size and financial performance affect corporate social responsibility disclosure with emphasis on employee and environmental dimensions. The study empirically tested the impact of firm size and financial performance on corporate social responsibility disclosure levels. Annual reports of 59 out of 73 industrial listed companies were utilized for the study. The CSR disclosure was scored using 0 for non-disclosure and 1 for disclosed item. Using ordinary least squared for analyzing data, the result indicated positive significant impact on financial performance using Return on Assets (ROA) proxy measure and showed negative insignificant using return on equity (ROE) proxy measure towards employee dimension and positive and insignificant towards environmental dimension using both ROA and ROE.

Syed and Butt (2017) investigated financial and non-financial determinants of corporate social responsibility of listed companies at Karachi stock exchange, Pakistan. Data was obtained by examining annual reports of 56 listed companies for 5 years from 2009 to 2013. The study explored the relationship between size measured by logarithm of total assets, profitability measured by return on equity, leverage by ratio of book value of total debt to total equity, family ownership and industry. Content analysis was used to measure corporate and environmental disclosure by assigning a score of '0' for non-disclosure and '1' for disclosed items and a percentage score obtained by aggregate of disclosed items over the total achievable score of 35 items. Using pooled dummy analysis the results showed positive association of profitability and CSR disclosure.

Wachira (2017) investigated the determinants of corporate social disclosure in Kenya for firms listed in Nairobi securities exchange between 2006 and 2011 targeting 50 companies. The objectives was to determine the relationship between corporate social disclosure (CSD) and company characteristics as well as corporate governance variables. The corporate social disclosure using a score of one for disclosed item and a score of zero for undisclosed item. Using fixed effect regression model the result showed that that profitability of the entity has a positive influence on corporate social disclosure.

Huang and Kung (2010) study on the drivers of environmental disclosure and stakeholder expectation for Taiwan listed companies from 2003 to 2005 with a sample of 759 companies. The study investigated the stakeholders expectation associated with corporate social disclosure. A number of stakeholder groups which include government, creditors, competitors, shareholders employees, accounting firms and environmental protection organizations were identified and how it influences the level of disclosure. Profitability measured by return on assets was the control

variable and the regression model showed negative significant relationship between firms profitability and level of environmental disclosure which according to them suggest that less profitable tend to disclose more information on social responsibilities to improve the firm's corporate image.

Baba (2017) examined the determinants of corporate social responsibility disclosure for Malaysian government-linked companies (GLC). Profitability was hypothesized to have a significant relationship with CSR disclosure among GLC companies. The panel data from 16 government linked companies was collected from annual reports for five years from 2011 to 2016 to investigate the relationship between CSR disclosures with profitability measured by profit before tax over sales, board size, board independence and firm size as control variable. Level of CSR disclosure was determined by the number of words from CSR disclosure index divided into human resources, community, market place and environment. Using multiple regression analysis, the result showed that there was no significant relationship between profitability and CSR disclosure amongst Malaysian government linked companies.

Monteiro and Guzman (2010) analyzed the determinants of environmental disclosure in the annual reports of large companies operating in Portugal. The study sought identify the factors that explain the extent to which companies disclose information and environmental disclosure practices among Portuguese firms. 109 large Portuguese firms were selected for the study from all sectors, while environmental disclosure index consisted of 16 items with a scores allocated as '1' for disclosed item and '0' for non-disclosure. Factors of firm size measured by log of total asset of 2004, profitability measured by return on equity, industry membership, foreign ownership and quotation on the stock market were identified and data was obtained from annual reports from each

company from year 2002 to 2004. The regression analysis showed that profitability had an insignificant influence on extent of environmental disclosure.

A study by Rover et al. (2015), focused on the determinants of social and environmental disclosure Practices using Brazilian companies as a case study. The objective of the study was to identify the factors that explain voluntary corporate social and environmental performance disclosures in Brazilian market. The factors identified which formed the independent variable include size, profitability, leverage, growth, financial market performance, ownership concentration, corporate governance, audit firm, internationalization, industrial sector and original of control. The hypothesis was that higher level of profitability tend to disclose more social and environmental information than companies with lower profits. The study involved a sample of 91 largest listed companies in Brazil. Content analysis was used to gather social and environmental information and used non weighted way in which a score of '0' is assigned to non-disclosure and '1' for disclosure of SE information. The panel data was obtained from analyzing social and environmental disclosures by these companies from 2008, 2009 and 2010. And using random effect model the results showed that profitability was positive but insignificant.

Rahman, Zain and Al-Haj (2011) examined CSR disclosures and its determinants in Malaysian government link companies (GLC). The objective of the study was to assess the level of corporate social responsibility (CSR) disclosure of 44 GLCs listed on Bursa Malaysia and to determine the relationship of certain company characteristics of size, age, profitability and leverage on the total CSR disclosure from the year 2005 to 2006. Profitability was hypothesized to have positive relationship with total CSR disclosure. Total disclosure measure was obtained by aggregating number of sentences of human resource, community, marketplace and environment themes in annual financial reports of sample of 44 out of 57 GLCs. Annual report for 2005 and

2006 for these companies were examined. Multiple regression statistical technique was employed in this study, and the result showed that the relationship between CSR disclosure and profitability measured by net profit after tax over net sales was not significant.

2.3.3 Influence of firm's leverage on Social-Environmental Responsibilities Disclosures in Financial reports of Kenyan listed firms.

Nawaiseh (2015) examined the how firm size and financial performance affect corporate social responsibility disclosure with emphasis on employee and environmental dimensions. The study empirically tested the impact of firm size and financial performance on corporate social responsibility disclosure levels. Annual reports of 59 out of 73 industrial listed companies were utilized for the study. The CSR disclosure was scored using 0 for non-disclosure and 1 for disclosed item. Using ordinary least squared for analyzing data, the result indicated that leverage had a negative significant impact on corporate social responsibility disclosure.

Ortas et al. (2015) examined financial factors influencing the quality of corporate Social responsibility and environmental management disclosure. The study involved examining 3931 companies from different economies divided into 51 sectors and sought to determine whether corporate size measured by natural logarithm of net assets, leverage measured by ratio total debt to stockholders equity, corporate performance measured by return on assets and research and development expenditures, influence the volume of environmental information. The study used GRI to develop a composite disclosure index. Using quantile regression approach the study showed higher the leverage the greater the disclosure of environmental information and is significant in 95% of companies studied.

Huang and Kung (2010) study on the drivers of environmental disclosure and stakeholder expectation for Taiwan listed companies from 2003 to 2005 with a sample of 759 companies. The

study investigated the stakeholders expectation associated with corporate social disclosure. A number of stakeholder groups which include government, creditors, competitors, shareholders employees, accounting firms and environmental protection organizations and how it influences the level of disclosure. Creditors was indicated by financial leverage measured as the ratio of the earnings before interest and taxes (EBIT) divided by EBIT minus interest expense. The regression model showed a positive and significant relationship between leverage and environmental disclosure which according to them s creditors would demand more information to make their own economic decisions.

Syed and Butt (2017) investigated financial and non-financial determinants of corporate social responsibility of listed companies at Karachi stock exchange, Pakistan. Data was obtained by examining annual reports of 56 listed companies for 5 years from 2009 to 2013. The study explored the relationship between size measured by logarithm of total assets, profitability measured by return on equity, leverage by ratio of book value of total debt to total equity, family ownership and industry. Content analysis was used to measure corporate and environmental disclosure by assigning a score of '0' for non-disclosure and '1' for disclosed items and a percentage score obtained by aggregate of disclosed items over the total achievable score of 35 items. Using pooled dummy analysis the results showed negative association of leverage with CSR disclosure.

Rahman et al. (2011) examined CSR disclosures and its determinants in Malaysian government link companies (GLC). The objective of the study was to assess the level of corporate social responsibility (CSR) disclosure of 44 GLCs listed on Bursa Malaysia and to determine the relationship of certain company characteristics of size, age, profitability and leverage on the total CSR disclosure from the year 2005 to 2006. Leverage was hypothesized to have positive

relationship with total CSR disclosure. Total disclosure measure was obtained by aggregating number of sentences of human resource, community, marketplace and environment themes in annual financial reports of sample of 44 out of 57 GLCs. Annual report for 2005 and 2006 for these companies were examined. Multiple regression statistical technique was employed in this study, and the result showed that the relationship between CSR disclosure and leverage measured by the ratio of total liabilities to total asset was not significant.

Barako (2007) examined the determinants of voluntary disclosure in annual reports of Kenyan companies from 1992 to 2001 targeting 54 companies listed in Nairobi stock exchange. The aim of the study was to determine the extent to which financial company characteristics, corporate governance attributes and ownership structure influence voluntary disclosure in financial reports of Kenyan listed companies. The financial characteristic included firm size indicated by total assets, leverage measured by debt ratio of total debt to total assets, profitability measured by return on equity and liquidity. Higher firm's leverage was hypothesized to be related to higher level of voluntary disclosure. The study used a disclosure indices with a score of 1 for disclosure and 0 for non-disclosure. Using pooled Ordinary Least Square (OLS) with Panel-Corrected Standard Errors (PCSEs) regression model, the results showed that company's leverage level was significantly and positively associated with the extent of voluntary disclosure.

2.4 Conceptual framework

According to Mugenda and Mugenda (2003), conceptual framework is a diagrammatic presentation of the relationship between dependent and independent variable. The independent variable are size of the firm, profitability and leverage, Social-environmental responsibilities disclosures form the dependent variable.

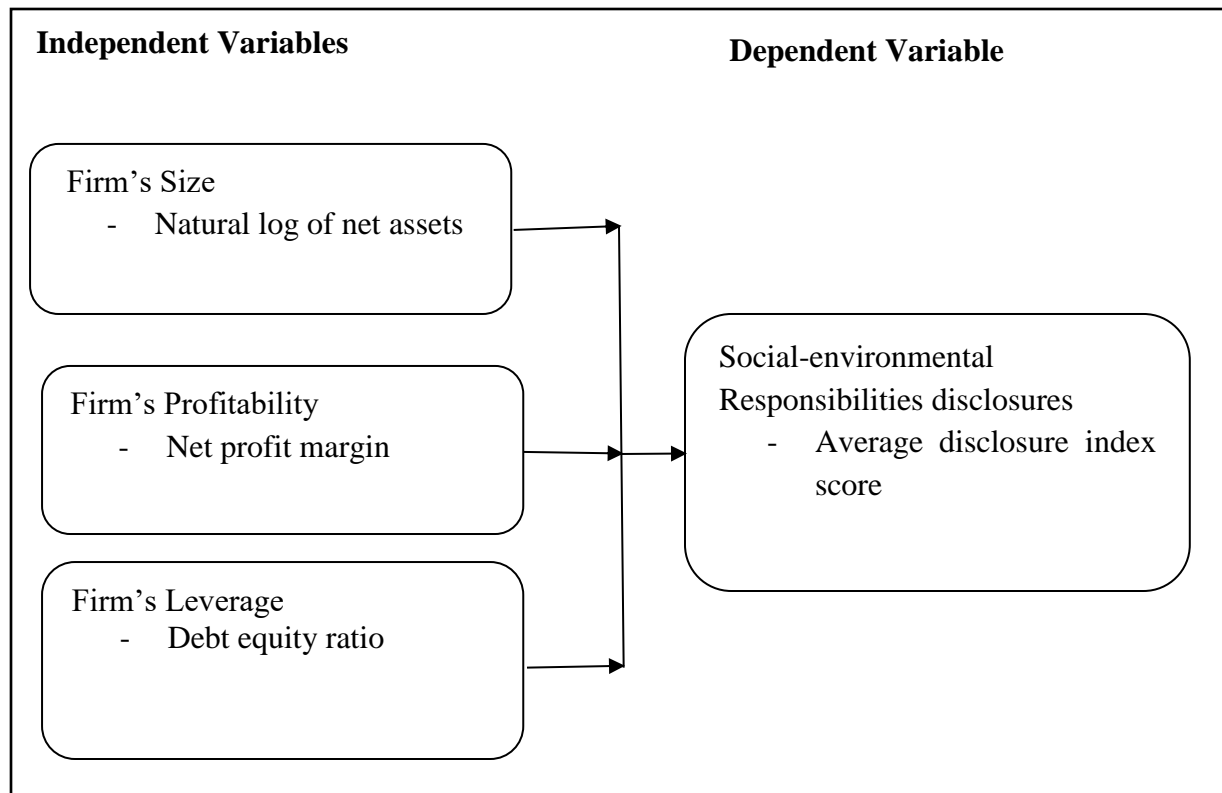


Figure 2.1: Conceptual framework

2.5 Operation of variable

Dependent variable was obtained from aggregate of scores obtained of each of the 39 disclosure items divided into themes namely environment, employee welfare, society concerns and consumer welfare. Each disclosure item carried a score of either 0, 1, 2 and 3 depending on the degree and depth of information provided. The measures of the factors affecting SER disclosures which is the independent variables was determined as follows;

TABLE 2.1
Operations of variable

VARIABLE	PROXY	REFERENCE
Dependent variable		
Social environmental responsibilities disclosures (SERD)	$\text{SERD} = \frac{\text{Disclosure score}}{\text{Maximum disclosure score}}$	Bhattachryya (2014)
Independent variables		
Firm size (SIZE)	Natural logarithm of Net Assets	Bhattachryya (2014)
Firm's profitability (PROF)	Net Profit over Revenue	Dyduch and Krasodomska (2017)
Firm's Leverage (LEV)	Debt equity ratio	Ortas et al. (2015)

Sources: Author

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlights the research design, the population, sampling and sampling procedure, types of data, data collection and research instruments and techniques of data analysis of the study.

3.2 Research Design

According to Cooper and Schindler (2014) a research design is a blue print for collection, measurement and analysis of data to fulfil research objectives. It is the overall scheme or structure or program within which research is conducted from collection of data to analysis of data. It helps the investigator to allocate scarce resources for research (Cooper & Schindler, 2014). This research problem was studied through the use of a descriptive research. According to Cooper and Schindler (2014) descriptive study involve describing a phenomena or characteristics of the subject population, estimating the proportions of this population with these characteristics and discovering of associations among different variables. It involves use of descriptive statistics to describe the data gathered using such measures as frequencies, ranges, means, modes, median and standard deviation (Quinlan, Babin, Carr, Griffin & Zikmund, 2015). Descriptive design was preferred since it was suitable for this study which involved studying the association between firms' size, profitability and leverage and level of SER disclosure in financial reports of listed firms.

3.3 Target Population

Population is the total collection of individuals, objects and events about which a study wishes to make some inferences (Coopers & Schindler, 2014). A population in a study share some common set of observable characteristics (Quinlan et al., 2015) and which can aid in collection of samples.

There are 66 listed companies in Kenya, 48 of these companies were listed prior to 2009. For uniformity and comparability these 48 companies were targeted for the study since annual reports for years 2009 to 2018 were available. 45 companies were successfully analyzed and the remaining 3 did not have all or most of the 10 annual reports on their website which could be due to financial distress faced by these firms.

3.4 Sampling and sampling procedure

A sample is representative of a larger population. Quinlan et al. (2015) defines sample as a subset of a larger population. Sampling involves selection of a portion of the population that enables conclusions to be made about the whole population. Sampling is necessary due to constraints in time and budget, greater speed of data collection and accuracy of results. A researcher will decide on a sample size after which, the researcher will formulate a procedure of selecting the subjects or cases to be included in the sample therefore must have a sampling frame. A sample frame is a listing of all population elements from which a sample will be drawn (Coopers and Schindler, 2014) which include lists, directories or indexes of cases. Financial reports of 45 firms were analyzed from the initial target of 48 making it 94%.

The distribution of these companies is shown on table 3.1 as follows;

TABLE 3.1
Distribution of firms per sector

Sector	No. of Companies listed prior to 2009	No. of companies	% Studied
Agricultural	6	5	83%
Automobile & Accessories	1	1	100%
Banking	10	10	100%
Commercial	9	8	89%
Construction	5	5	100%
Energy and Petroleum	4	4	100%
Insurance	3	3	100%
Investment	2	2	100%
Manufacturing	7	6	86%
Telecommunication	1	1	100%
Total	48	45	94%

Source: NSE handbook

3.5 Research Instrument

Instruments are tools that aid in collection of data. To determine the disclosure level and quality of disclosed items of these companies between 2009 and 2018, disclosure index listed in appendix 1 was used to determine the score of disclosed information from the annual financial statements and reports of each of the 45 companies for the period under review. 39 items in disclosure index was developed using global reporting initiative (GRI) guidelines and based on review of items used by Bhattacharyya (2014), Ho and Taylor (2007) and Rover et al. (2015). GRI aims to set a standard for a common global Sustainability Reporting Framework which arose as a result of multi-stakeholder collaboration. According to Li (2008) the guideline is suitable for sustainability reporting which has been adopted by many companies in annual financial reports. For the purpose

of this study the items listed related to with social and environmental matters was adopted as listed in appendix 1 under environment, employee, society and consumer themes.

To score level of disclosure of each of the items listed, has been measured in different ways by different authors. Rahman et al. (2011) used the number of sentences disclosed to score level of disclosure. Majeed et al. (2015) and Rover et al. (2015) used a simple binary codes could be used, whereby the presence (1) or absence (0) of an item is recorded. Bhattachryya (2014) used 3 level coding where a value of '0' for non-disclosure, '1' by short mention of topic, '2' if it incorporates tables of data and in figures. Dyduch and Krasodomska (2017) and Bouten et al. (2012) used other coding methods incorporating four levels (0, 1, 2 and 3) to allow for the quality of the specific disclosure to be quantified, based on presence or absence and the degree of specificity of the items. Dyduch and Krasodomska (2017) used a score of '0' for no presentation, '1' for narrative presentation, '2' for presentation using KPIs or other numerical data and '3' a combination of (1 + 2) for narrative and numerical presentation, at the same time. Bouten et al. (2012) used a score of '0' for non-disclosure of items, '1' for vision and goals, '2' for management approach and '3' for performance indicators. Similarly Ying (2008) used for '0' for non-disclosure, '1' where the item in mentioned in general terms, '2' the item is presented in company specific terms and a score of '3' the item are presented in monetary or quantitative terms. This study used the four ratings guided by study by Ying (2008), Dyduch and Krasodomska (2017) and Bhattachryya (2014) since the guideline is specific as follows;

TABLE 3.2
SER Disclosure scoring guide

Score	Scoring guide
0	Items in the index not disclosed
1	Items mentioned in general terms or short mention or items not related to the firm
2	Items mentioned either; Detailed narratives relating to company policies and actions or Numeric data or measurement without explanation related to the company
3	Detailed narratives specific to the firm with numeric measurements. Which detail action and quantified impact.

Source: Ying (2008), Dyduch and Krasodomska (2017), Bhattacharyya (2014)

The disclosure items are distributed between environment, employee, society and consumer and the 39 disclosure items are distributed as shown in table 3.3 as follows:

TABLE 3.3
Distribution of items per theme

Theme	No of disclosure items	Distribution	Maximum achievable score per year per company	Minimum achievable score per year per company
Environment	16	41%	48	0
Employee	12	31%	36	0
Society	6	15%	18	0
Consumer	5	13%	15	0
Total	39	100%	117	0
Observation	450		450	
Maximum	17,550		52650	0

Source: GRI, Bhattacharyya (2014)

3.6 Data Collection procedure

Data, is information researcher gathers for a study and for this study. This study utilized secondary data from financial report for Kenyan listed firm which according to Coopers and Schindler (2014), secondary data are sourced from studies or information made by others through periodicals, books and journals. Secondary data was collected from Annual financial reports for each year for each of the 45 companies from 2009 to 2018 which gave rise to the panel data since it involved cross sectional data observed or collected over a multiple periods. Each disclosed item related to SER disclosures on the annual financial reports for each of the 45 listed firms from 2009 to 2018 was examined and compared to predetermine disclosure index and scored according to detail of disclosure. The disclosure scores for over ten year period gave rise to the trend and level of SER disclosure of each company. The percentage disclosure was determined by dividing the number of items disclosed to the total items on the index.

3.7 Data processing and analysis

Microsoft Excel was used to process the raw data from analyzing the financial reports. STATA version 12, software was used for analyse panel data collected to obtain the significance of relationship between factors of firm size, profitability and leverage as independent and level of social environmental responsibilities disclosure (dependent). The relationship between dependent variable (SERD) and independent variables will expressed in panel data model as follows;

$$SERD_{it} = \beta_0 + \beta_1 SIZE_{1it} + \beta_2 PROF_{2it} + \beta_3 LEV_{3it} + \varepsilon_{it}$$

Where;

$SERD_{it}$ = (dependent variable) Social- environmental responsibilities disclosure (SERD) for 45 listed firms from 2009 to 2018.

$SIZE_{it}$ = (Independent variable) firm size for 45 Kenyan listed firms from 2009 to 2018)

$PROF_{2it}$ = (Independent variable) profitability for 45 Kenyan listed firms from 2009 to 2018

LEV_{3it} = (Independent variable) Leverage for 45 Kenyan listed firms from 2009 to 2018

3.8 Diagnostics Test

Diagnostic test on the model was conducted to ensure that basic regression model assumptions are not violated so that the estimates resulting from the model is were best linear unbiased estimates of the population parameters. The diagnostic tests was performed to establish whether the panel data model met the key underlying assumption of which include linear relationship between independent and dependent variable, normality of residuals, absence of heteroscedasticity, absence of autocorrelation and absence of multicollinearity.

3.8.1 *Multicollinearity Tests*

Multicollinearity arises because one or more explanatory or independent variable are exact almost exact linear combination of other independent variables (Gujarati & Porter, 2010) which if it exist causes bias in the model. The pairwise correlation between the independent variables was done through STATA version 12, with expected correlation coefficient limit of 0.8 or less. Variance inflation factor (VIF) was also done with expected limit of 5 or less for absence of multicollinearity.

3.8.2 *Stationarity Tests*

Since the panel model has effect of time on the model, stationarity test was conducted to ensure that shift in time does not cause a change in shape of the distribution. Levin-Lin Chu unit-root test was conducted to test whether the variables is stationary.

3.8.3 *Autocorrelation Tests*

Autocorrelation occurs if the error term on the observations are correlated. To ensure that the model was not serially correlated a Wooldridge test for autocorrelation was conducted to establish the presence of autocorrelation in the model.

3.8.4 *Hausman test*

This test was conducted to determine the most suitable model for the study between fixed effect and random effect.

3.8.5 *Heteroscedasticity*

Since the panel data consist of an element of cross sectional data, heteroscedasticity is likely to exist, where there the distribution of error term or residual is not constant because the assumption of homoscedasticity of error term may not always be realistic (Studenmund, 2011). A modified Wald test was conducted to establish the presence of heteroscedasticity.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter discusses the research outcome of the effect of factors of size, profitability and leverage on social environmental responsibilities disclosures on financial reports of 45 Kenyan listed firms covering years 2009 to 2018. STATA version 12 software was used to analyse data obtained. The chapter covers exploratory analysis, descriptive analysis and diagnostic analysis and the model specification of the study.

4.2 Panel data exploratory analysis

The analysis involved within the firm analysis and between the firms analysis. Within the firm plots as shown in figure 4.1, indicated that 22 firms had moderate to high positive trend in SER disclosure over the 10 years out of which 8 firms are from banking sector. Firm 3 and firm 45 showed a more positive trend which could be attributed to these firms having an elaborate system of addressing society concerns through dedicated departments or registered foundations hence able to identify new social environmental needs and prepare better and elaborate information. 18 firms showed even or steady trend throughout the 10 years, perhaps due the fact that these firms supported and adopted specific social environmental projects that they concentrate on over a period of time, which makes it easier for budgeting and management. Four firms that is firms 19, 25, 36 and 43 showed declining trend of SER disclosure for the 10 years, while firm 21 showed deep decline towards the end of the 10 years with their financial performance also reducing over the same period. The four firms with declining SER disclosure trend also have poor financial performance an indication of financial distress hence have reduced financial support to social environmental concerns.

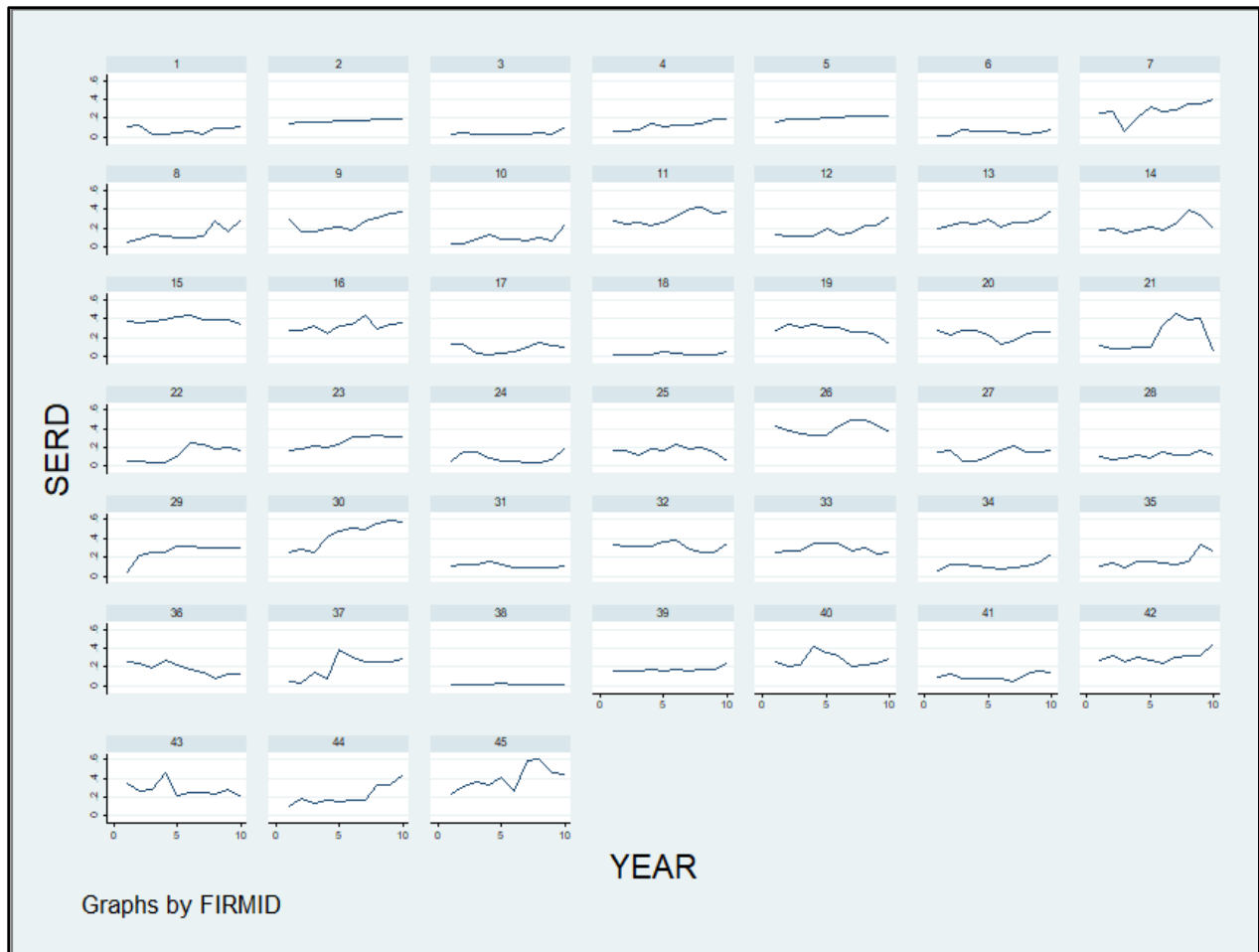


Figure 4.1: Trend plots for SER disclosure
Source: STATA

Between the firm plots of social environmental responsibilities disclosure trend among Kenyan listed firms as shown in figure 4.2 shows different intercepts over the 10 years.

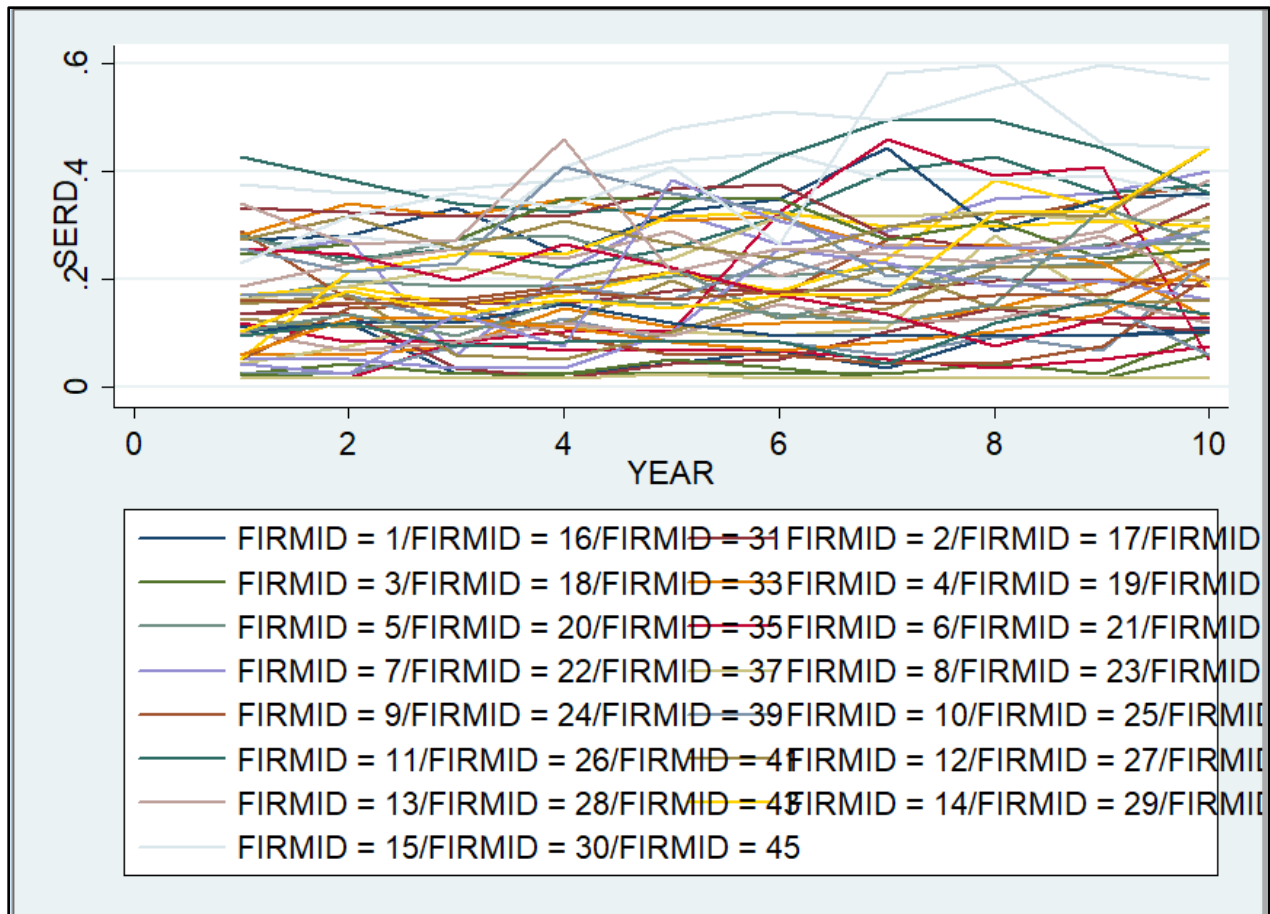


Figure 4.2: Trend overlay graph for SERD
Source: STATA

4.3 Descriptive analysis

4.3.1 Dependent variable

As shown in table 4.1, the average level of social-environmental responsibilities disclosures among Kenyan listed firms is 20.22% which translate score of 23.66 out of the total 117. The standard deviation was 12.36%an indication of high dispersion of SER disclosure among Kenyan listed firms. In general SER disclosure level among Kenyan listed firms is relatively low which could be due to firms participating in few social environmental activities which in their view have more impact to the community and environment, rather than selecting many activities that may be of

less impact and costly. 59.83% was the highest score achieved which is equivalent to a score of 70 out of total of 117 and the lowest score was 1.71% equivalent to score of 2 out of 117 which explains the high standard deviation or large dispersion from the mean. Despite the average being relatively low, some firms disclose substantial amount of information while other disclose very minimal information.

TABLE 4.1
Descriptive summary of SER Disclosure

Variable		Mean	Std. Dev.	Min	Max	Observations	
SERD	overall	.2022412	.1236664	.017094	.5982906	N =	450
	between		.1058999	.0179487	.4410256	n =	45
	within		.0656002	-.0165622	.4501045	T =	10

Source: STATA

As shown in table 4.2 firms in telecommunication and technology had average of 39.9% level of social environmental responsibilities disclosure , energy and petroleum had 28.97%, Banking had 24.36%, Construction and allied 21.68%, Manufacturing and allied hd22.46% which was above the mean level of 20.22% while firms in Agricultural, Automobile, Commercial and services, Insurance and Investment scored below the mean.

TABLE 4.2
SER disclosure scores per sector

Sector	Score achieved	Disclosed Items quality rating
Agricultural	0.1218	2.249
Automobile & Accessories	0.0538	2.032
Banking	0.2436	2.220
Commercial & Services	0.1661	2.362
Construction	0.2168	2.297
Energy & Petroleum	0.2897	2.421
Insurance	0.1541	2.217
Investment	0.1107	2.313
Manufacturing	0.2246	2.350
Telecommunication	0.3991	2.445
Average	0.2022	2.305

Source: Financial reports

The scoring of disclosed items was done by allocating a score of ‘0’ for non-disclosure and 1, 2 and 3 depending on the detail of the SER information disclosed in financial reports of Kenyan listed firms. As shown on table 4.3 most items disclosed had a rating of 2 and 3 with an average quality rating of 2.305 against a maximum of 3, suggesting good quality of disclosed SER information. Disclosed items for firms in telecommunication and technology, energy and petroleum, manufacturing, investment and commercial and services scored a rating above 2.305 as shown on table 4.2 above, an indication that majority of disclosed items among Kenyan listed firms are provided with a substantial amount of detail.

TABLE 4.3
Frequency of scoring ratings

Scores	Frequency	Total scores
3	1700	5100
2	2628	5256
1	292	292
Total disclosed	4620	10648
Maximum	17550	52650
Observations		450
% score		0.2022
Average score for items disclosed		2.305

Source: Financial reports

The maximum score for each company based on 39 disclosure items was 117 per year and 450 observations from financial reports of 45 listed firms for 10 years from 2009 to 2018. As shown on table 4.4, 241 observations which makes 53.55% of total observations, scored 20% and below, 180 observations which is 40% of total observations, scored between 21 to 40 percent and 29 observations which makes 6.44% of the total observations scored between 41 and 60 percent. No score above 60% was observed. More than half of the Kenyan listed had a SER disclosure below 20% and 93.55% of the observations had a level below 40% which explains the relative low average SER disclosure level.

TABLE 4.4
Distribution of SERD scoring

SERD score range	Observations	% observations	Average per firm per year
0 –0.20	241	53.55%	0.1064
0.21- 0.40	180	40%	0.2877
0.41 -0.60	29	6.44%	0.4677
0.61 - 1	-	-	-
Total	450	100%	0.2022

Source: Financial reports

As shown in Appendix III, general market trend and product information featured more prominently in the customer theme which important for survival of the firms as it ensures that customer is well informed to enhance customer retention. Community activities involving support for children education and youth development, community investments, food, health and home programs were well covered in financial reports of the listed companies while in environmental theme, conservation of flora and fauna featured prominently. This suggest that firms undertake activities that have more impact on the community to alleviate suffering and poverty among the population in Kenya and contributing towards government objective of achieving 10% forest cover to maintain water towers that consequently impact on the general livelihood of the public. Staff training relatively featured in financial reports showing commitment by firms to develop a well informed and trained work force. In general, society issues was mostly disclosed with an average score of 36.6% shown on table 4.5 followed by consumer issues 35.21% and employee 17.41%. Despite fauna and flora activities featuring frequently, other environmental issues were poorly disclosed with level 11.51% being achieved.

TABLE 4.5
Performance of SERD themes

Theme	SERD score	No. of items
Environmental	0.1151	16
Employee	0.1741	12
Society	0.3660	6
Consumer	0.3521	5
Average	0.2022	39

Source: Financial reports

4.3.2 Independent variable

Firm size, profitability and leverage are independent variable for this study which influence social environmental responsibilities disclosures in financial reports of Kenyan listed firms. Natural logarithm of net assets (nlogNA) which measure size of the firms had a mean of 8.8839 with a standard deviation of 1.565 as shown in table 4.6. The maximum measure was of size was 12.1553 recorded by firm 30 in energy and petroleum recorded by firm 8 in commercial and services sector 3.1433.

TABLE 4.6
Summary of firm size

Variable		Mean	Std. Dev.	Min	Max	Observations	
SIZE	overall	8.883866	1.569392	3.143303	12.15532	N =	450
	between		1.522479	5.061719	11.50735	n =	45
	within		.4376183	6.770251	10.10725	T =	10

Source: STATA

In general, the largest firms are from telecommunication and technology sector with one firm, Energy and petroleum sector, Banking sectors and insurance sector with nlog net assets above

the mean as shown on table 4.7. Out of the top 10 largest firms, the 6 are from banking, 2 from the energy sector, one from construction and allied sector and one from telecommunication and technology sector. Except for the firm from telecommunication and technology, all large firms have been in existence for a very long time and have enjoyed steady growths in assets as a result of constant profitable performance. Insurance firms also have asset base with an average nlog of net assets of 9.015 above the mean of 8.8839, energy and petroleum with measure of 10.2569, banking sector have an average nlog of net assets of 10.1546 and telecommunication and technology made of only one firm with a measure nlog of net assets of 11.3436. Firms in manufacturing, agricultural, investment, automobile, commercial, and constructions have nlog net assets size below the mean of 8.8839 with firms in agricultural sector being the smallest with average nlog of total assets of 7.5764.

TABLE 4.7
Firm size Sector wise analysis

Sector	Size (nLog NA)	Observations
Agricultural	7.5764	50
Automobile & Accessories	7.7936	10
Banking	10.1546	100
Commercial & Services	7.8340	80
Construction & Allied	8.6502	50
Energy & Petroleum	10.2569	40
Insurance	9.0149	30
Investment	8.3529	20
Manufacturing	8.4179	60
Telecom & Technology	11.3436	10
Average/Total	8.8839	450

Source: Financial reports

As shown in table 4.8, the average profit margin of 45 listed firms 8.49% with a standard deviation of 60.30% indicating high dispersion in profit among the firms. The highest profit margin was 83.40% recorded by a firm in investment sector while the lowest was -10.979% which was recorded by a firm facing financial distress.

TABLE 4.8
Summary of Profitability

Variable	Mean	Std. Dev.	Min	Max	Observations
PROF overall	.0849221	.6030246	-10.97842	.8340897	N = 450
between		.2902362	-1.455147	.5321406	n = 45
within		.5301793	-9.438346	1.79889	T = 10

Source: STATA

Firms from investment sector had the highest net profit margins with an average of 29.27% as shown on table 4.9 probably due to high returns in investment. The banking sectors with net profit margin of 20.85%, while manufacturing and Allied and commercial and services sector has a negative net profit margin. Three out of eight firms in Commercial and services sector were loss making and their aggregate negative margin outweigh the net profit margin for profitable five companies. One company in manufacturing and Allied with poor financial performance had very high negative profit margin outweighing the net profit margins of the profitable firms.

TABLE 4.9
Sector wise profitability

Sector	Profitability	Observations
Agricultural	0.1273	50
Automobile & Accessories	0.0384	10
Banking	0.2085	100
Commercial & Services	-0.0545	80
Construction & Allied	0.0645	50
Energy & Petroleum	0.1562	40
Insurance	0.1137	30
Investment	0.2927	20
Manufacturing	-0.0816	60
Telecom & Technology	0.1742	10
Average/Total	0.08492	450

Source: Financial reports

Average leverage measured by debt equity ratio was 2.24 as shown on table 4.10 with a standard deviation of 2.46. Maximum debt equity ratio was 15.47 times over equity from firm 12 in the banking sector while the lowest was -6.36 times from firm 18 in commercial and services sector. This indicates that on average many listed firms depend on debt than equity for financing. The negative ratio indicates that some firms have negative equity due to cumulative losses incurred over the years exceeding the share capital and other reserves.

TABLE 4.10
Summary of leverage

Variable		Mean	Std. Dev.	Min	Max	Observations	
LEV	overall	2.240202	2.459629	-6.35862	15.47089	N =	450
	between		2.241362	.1660487	8.674123	n =	45
	within		1.061492	-4.800433	9.036969	T =	10

Source: STATA

As shown in table 4.11 the banking sector recorded the highest ratio of 5.7882 times of debt over equity. Banks depend on customer deposits to finance their loan portfolio to customers and use equity to finance capital expenditure such as system upgrades, branch expansions and modernization. High leverage was also recorded by firms in insurance sector with a debt equity ratio of 3.3221. Other sectors that depend more of debt than equity include automobile and accessories, construction and allied, energy and petroleum and manufacturing with debt equity ratio more than one while commercial and services, investment, telecommunication and technology sectors depend more of equity than debt with debt equity ratio less than one.

TABLE 4.11
Leverage Sector wise Analysis

Sector	Leverage	Observations
Agricultural	0.3887	50
Automobile & Accessories	1.7730	10
Banking	5.7882	100
Commercial & Services	0.7657	80
Construction & Allied	1.3832	50
Energy & Petroleum	1.9303	40
Insurance	3.3221	30
Investment	0.4638	20
Manufacturing	1.1649	60
Telecom & Technology	0.5648	10
Average/Total	2.2402	450

Source: Financial reports

4.4 Panel data diagnostic tests

Diagnostic test on the model was conducted to ensure that panel regression model assumptions are not violated so that the estimates resulting from the model is were best linear unbiased estimates of the population parameters. The diagnostic tests was performed to establish whether the panel data model met the key underlying assumption which include absence of multicollinearity, absence of autocorrelation, stationarity, absence of heteroscedasticity and normality of residuals.

4.4.1 Multicollinearity

Multicollinearity arises because one or more explanatory or independent variable are exact almost exact linear combination of other independent variables (Gujarati and Porter. 2010) which if it exist causes bias in the model. Using variance inflation factor (vif) test presence of multicollinearity can be detected with a score of less than 5 indicating absence of multicollinearity. The model for this study returned a score of 1.13 indicating absence of multicollinearity s shown in table 4.12.

TABLE 4.12
Variance Inflation Factor

Variable	VIF	1/VIF
SIZE	1.18	0.849795
LEV	1.14	0.875675
PROF	1.06	0.942843
Mean VIF	1.13	

Source: STATA

4.4.2 Correlation analysis

Correlation analysis examines the strength of relationship of variables under investigation. As shown correlation matrix on table 4.13 there was a positive but significance relationship between size variable and social environmental responsibilities disclosures variables ($\rho = 0.6739$, $p = 0.000$), positive but insignificant relationship between profitability variable and social environmental disclosures disclosure variable ($\rho = 0.0617$, $p = 0.1948$), positive but significant relationship between leverage and social environmental disclosure variable. There was also positive but significant relationship between profitability and size ($\rho = 0.2266$, $p = 0.000$)

indicating that in general larger firms are more profitable than smaller firms. There was positive significant relationship between leverage and size ($\rho=0.3448$, $p= 0.000$) indicating that larger firms depend mostly on debt than equity for financing which is evident with high debt equity ratio of banks and insurance companies which are large. There was a positive but significant relationship between leverage and profitability ($\rho = 0.1498$, $p=0.0014$ indicating that profitable firms borrow more due to the fact that, profitable firms are more attractive to lenders than less profitable firms. All independent variables had correlation coefficient less than 0.8 between one another indicating absence of multicollinearity.

TABLE 4.13
Correlation analysis

	SERD	SIZE	PROF	LEV
SERD	1.0000			
SIZE	0.6739* 0.0000	1.0000		
PROF	0.0612 0.1948	0.2266* 0.0000	1.0000	
LEV	0.1507* 0.0013	0.3448* 0.0000	0.1498* 0.0014	1.0000

Source: STATA

4.4.3 Stationarity

Panel models have time series characteristics, and is stationary if its mean and variance do not vary systematically over time (Gujrati & Porter, 2009). The Levin –Lin-chu unit root test was conducted to test for stationary and the results summarized in table 4.14.

TABLE 4.14
Stationarity Test

Variable	P value	Conclusion
SERD	0.0003	Significant
SIZE	0.0000	Significant
PROF	0.0015	Significant
LEV	0.0338	Significant

Source: STATA

The variables were found to be stationary hence no effect on the shape of distribution.

4.4.4 Autocorrelation

Autocorrelation occurs if the error term on the observations are correlated. To check on presence of autocorrelation, a wooldridge test was conducted and the result returned an F statistic of 0.000 which is significant which indicates presence of autocorrelation. According to Reyna (2007) serial correlation is not a problem of panels with very few year below 20 to 30 year. The results from STATA version below indicated as follows;

```
Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
      F( 1,      44) =      24.125
      Prob > F =      0.0000
```

4.4.5 Hausman test

To determine which panel data model between fixed effect and random effect model is appropriate for the study, hausman test was conducted. A prob> chi2 less than 0.05 indicates that fixed effect model is appropriate. The result as shown on table 4.15 returned a prob>chi2 of 0.0019 indicating that fixed effect model is appropriate for this study.

TABLE 4.15
Hausman test

	—— Coefficients ——		(b-B) Difference	sqrt (diag (V_b-V_B)) S.E.
	(b) fixed	(B) random		
SIZE	.0578646	.0538007	.004064	.0054206
PROF	-.0133673	-.0118633	-.001504	.0016615
LEV	.0090217	.0042759	.0047458	.0015888

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(3) = (b-B)' [(V_b-V_B)^(-1)] (b-B)
 = 15.15
 Prob>chi2 = 0.0017

Source: STATA

4.4.6 Heteroscedasticity

Heteroscedasticity occurs when the variance of the error term is not constant which will cause bias in the model. To have a good or unbiased model the variance of disturbance terms or error terms should be homoscedastic or constant. Fixed effect model used a modified wald test to test the presence of heteroscedasticity with a prob>chi2 of 0.005 indicating presence of heteroscedasticity. The modified wald test for the fixed effect model in this study returned a prob>chi2 of 0.0000 indicating presence of heteroscedasticity.

**Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model**

H0: $\sigma(i)^2 = \sigma^2$ for all i

**chi2 (45) = 34328.28
 Prob>chi2 = 0.0000**

4.4.7 Normality of residuals

The histogram was used to determine whether the residuals were normally distributed. The graph indicated that the residuals were normally distributed hence unbiased.

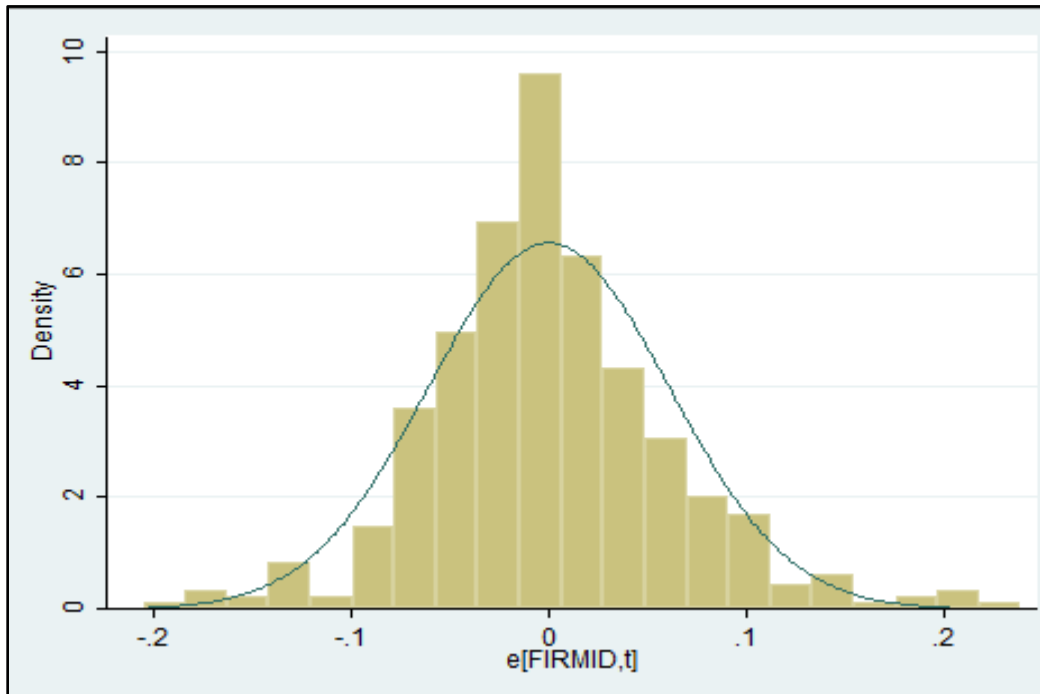


Figure 4.3: Histogram of residuals
Source: STATA

4.5 Panel data Analysis of empirical results

The objective of this study was to determine how factors of size, profitability and leverage influence social environmental responsibilities disclosure in financial reports of Kenyan listed companies. With fixed effect model being appropriate, with standard errors that are heteroscedasticity and autocorrelation consistent, Hoechle (2007) suggest use of cluster (xtreg, fe cluster (panelid)) option in STATA software to estimate the model which has been adopted for this study as shown on table 4.16. R squared was 0.4182 indicating that 41.82% of variation of in social environmental responsibilities disclosures is explained by size of the firm, profitability and

leverage while remaining 58.18% is explained by other factors. The constant is -0.33 is significant with $p= 0.004$ and it is below zero indicating that with zero measure of size, profitability and leverage then there is a negative 0.33 disclosure which can be equated to no disclosure. Without these firm characteristics especially firm size then a firm may be non-existent hence no disclosure expected.

Size returned a result of p-value of 0.00 with a positive coefficient of 0.05787. Size therefore was positively significant at 0.05 level in influencing SER disclosure indicating the larger the firms the more likelihood it will disclose more information on Social environmental issues in their financial reports. The results is consistent with studies conducted by Ortas et al. (2015), Rover et al. (2015), Rahman et al. (2011), Giannarkis (2014), Huang and Kung (2010) and Barako (2017), hence this study rejects H_01 null hypothesis and accept alternative hypothesis H_11 that size of the firm has significant influence on the extent of Social- environmental responsibilities disclosures in financial reports in Kenyan listed firms.

Profitability measured by net profit margin has a p-value of 0.028 with coefficient of negative 0.01337 which shows that profitability is negatively significant in influencing SER disclosures. This indicates that more less profitable firms are likely to disclose more SER information in their annual financial reports. Less profitable firms may give more information to the users that may not be revealed by the financial data and to improve its reputation and image. Despite numerous studies giving mixed results on the relationship between SERD and profitability, this study was consistent with studies conducted by Huang and Kung (2010) hence H_02 null hypothesis is rejected and accept H_12 alternative hypothesis that firm's profitability has significant influence on the extent of Social- environmental responsibilities disclosures in financial reports in Kenyan listed firms.

Leverage has positive coefficient of 0.009 and p-value of 0.010 meaning that leverage is positively significant in determining the level of SER disclosures. This indicates that firms that disclose more are likely to attract more lenders and negotiate longer credit terms with suppliers due to its reputation. This supported the results of the studies conducted by Barako (2007), Huang and Kung (2010) and Ortaz et al (2015) hence this study rejects H_0 and accepts H_1 alternative hypothesis that firm's Leverage has significant influence on the extent of Social-environmental responsibilities disclosures in financial reports in Kenyan listed firms.

TABLE 4.16
Fixed effect panel estimator

. xtreg SERD SIZE PROF LEV, fe cluster(FIRMID)						
Fixed-effects (within) regression			Number of obs	=	450	
Group variable: FIRMID			Number of groups	=	45	
R-sq: within	=	0.1415	Obs per group: min	=	10	
between	=	0.5287	avg	=	10.0	
overall	=	0.4182	max	=	10	
corr(u_i, Xb) = -0.2555			F(3, 44)	=	9.17	
			Prob > F	=	0.0001	
(Std. Err. adjusted for 45 clusters in FIRMID)						
SERD	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
SIZE	.0578646	.0118499	4.88	0.000	.0339828	.0817465
PROF	-.0133673	.0058665	-2.28	0.028	-.0251905	-.0015442
LEV	.0090217	.0033513	2.69	0.010	.0022675	.0157759
_cons	-.3308958	.1084101	-3.05	0.004	-.549382	-.1124095
sigma_u	.07536945					
sigma_e	.06423548					
rho	.57924934	(fraction of variance due to u_i)				

Source: STATA

Using the result of the fixed effect estimator above the relationship between Social environmental responsibilities disclosures and factors of firm size, profitability and leverage can be summarized in the following model;

$$SERD_{it} = -0.3309 + 0.05787SIZE_{1it} - 0.01336PROF_{2it} + 0.0090LEV_{3it} + \epsilon_{it}$$

Where,

$SERD_{it}$ = (dependent) Social- environmental responsibilities disclosure for 45 firms from 2009 to 2018

$SIZE_{1it}$ = (Independent) firm size for 45 Kenyan listed firms from 2009 to 2018)

$PROF_{2it}$ = (Independent) profitability for 45 Kenyan listed firms from 2009 to 2018

LEV_{3it} = (Independent) Leverage for 45 Kenyan listed firms from 2009 to 2018.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses a summary, conclusions and recommendations from the findings of the study.

5.2 Summary of the findings

The aim of this study was to determine the factors that influence social environmental responsibilities disclosures in financial reports of Kenyan listed firms. The study identified firm's size, profitability and leverage as specific factors that influence social environmental responsibilities disclosures in financial reports of these listed companies. Social environmental responsibilities disclosure level averaged 20.22% of total achievable score of 117 for 39 items in disclosure index, with 53.55% of observations scoring below 20% and 40% of observations scoring between 20% and 40% suggesting that in general there is low disclosure level among Kenyan listed firms. However the highest score was 59.82% and lowest being 1.71% with larger firms scoring above 40% in some years. Society and consumer issues were mostly disclosed probably due to its positive effect on the business performance as it has a direct impact on livelihood and well-being of existing and potential customers who are part of the larger community. Except for information on activities on conservation of flora and fauna, environmental information was least disclosed indicating that many firms have not embraced other environmental issues which may be costly to the firms since may require a lot of changes in their operations and building designs to more environmentally friendly .

Fixed effect estimator was used to fit the regression model for the panel data obtained, and 41.82% of variation on social environmental responsibilities disclosure is explained by firm's size,

profitability and leverage and 58.18% is explained by other factors which may be reduced by considering additional measurable factors that may be significant. Other factors may not be measurable. Firm's size is positively related to profitability and leverage meaning larger well established firms are more profitable than smaller firms. Larger firms also tend to borrow more than smaller firms as evidenced by those banking sector which forms the bulk of the largest firms depending more of debt than equity to finance their businesses.

Size of the firm was found to have a positive and significant influence on social environmental responsibilities disclosures in financial reports of Kenyan listed firms. Larger Kenyan listed firms are likely to disclose more reports SER information in financial reports than smaller firms. Profitability measured by net profit margin was found to be positively related to firm size and leverage. Since larger firms have more products, have more customer base and cover wider geographical network they are likely to make more profit margins than smaller firms. Larger firms are also able to enjoy economies of scale in their operations hence reduce operating costs. More profitable firms tend to borrow more since they are more attractive to lenders as indicated by positive relationship between net profit and leverage. This shows that profitable firms depend more on debt for financing and when equity is not adequate it would be costly to raise capital by share issue than using debt and firms are likely to enjoy interest tax shield using debt. The result of the study showed that profitability has negative and significant influence on social environmental disclosure in financial reports of Kenyan listed firms. Less profitable firms are likely to disclose more information to improve their reputation and image by giving additional information that may not be revealed by the financial data.

Leverage measured by debt equity ratio was found to be positively related to size and positively related to profitability. Debt is likely to increase with increase in firm size, hence the

larger and more profitable firms may require more debt to finance large projects since it is easier to obtain than equity. Raising more capital through equity has more stringent conditions than obtaining debt and can negotiate higher loans with favorable terms due to their larger asset base that act as collateral. The result showed that leverage has positive and significant effect on social environmental responsibilities disclosure. More levered firms give more information to creditors who are more comfortable with firms that give more information because they view these companies as more transparent and accountable.

5.3 Conclusions

Society and consumer issues were disclosed more by Kenyan listed firms than employee issues and environmental issues featuring less prominently. Firms that are more customers oriented in banking, commercial, insurance, investment and telecommunication sectors are more and larger than those that their operations are more likely to impact negatively on the environment in agricultural, automobile, construction, energy and manufacturing sectors. Customer oriented firms will concentrate on disclosing more on social wellbeing and less on environment. In Kenya, environmental disclosure is low even with firms which have activities that have more impact on the environment with most disclosing more of social and customer issues as opposed to disclosing more environmental related information. Investing more on social and consumer activities will improve their reputation and image that lead to better business performance as a result of increased customer base.

Larger Kenyan listed firms size disclose more and better reports than smaller Kenyan listed firms because, larger companies tend to be more visible to the public and stakeholders hence face more scrutiny from wider public than smaller companies. Larger firms have more stakeholders and part of managing them is by communicating through financial reports. These stakeholders

have varied interest on the company and the larger the firm the more it is likely to interact with government bodies through tax authorities and regulators, suppliers of material, creditors and financiers, current and potential employees, community based and environmental lobby groups hence need to provide information to enable them assess the impact of firms operations to their survival. Larger firms are more diversified geographically because they more branches as evidenced in large banks, and also have more diversity in product portfolio thus covering large number of customers. Due to their size, large companies enjoy economies of scale, therefore can develop SER report at lower cost and have greater incentive to report to minimize possible litigation costs that may spoil its reputation. It is also believed that larger firms have more resources to afford undertaking SER activities and collect, analyze, and present lots of data at minimal cost.

Firms with less profit margins are likely to be likely disclose more as indicated by results of the study, because their aim is to improve image and reputation by giving more information that is not revealed by the financial reports. Large profitable firms may have reached their optimum level of disclosure hence less profitable firms have more to report to be recognized by general public. Kenyan listed firms with higher leverage are likely to disclose more information than less levered firms because creditors may require more information to be able to measure risk related to social and environmental issues. Firms therefore may be compelled to disclose more to attract lenders for financing who will also view firms that disclose information as less risky since they are seen to be more accountable and responsible.

5.4 Recommendations

SER disclosure is a reflection or a report of the commitment of companies towards the environment and the society. Engaging in social environmental responsibility activities and reporting it, improve reputation which will attract more investors, customers, highly qualified work force and

lenders. It also reduces cost of obtaining information by potential investors and lenders. Some listed firms have formed foundation that address social environmental activities and have tried to implement sustainable reporting policy based on GRI guidelines hence these firms have more elaborate SER reports than those without the foundations. Kenyan listed firms should therefore be encouraged to develop dedicated units or departments that deal with social an environmental issues.

SER disclosures is becoming an integral part of reporting for many firms not only in Kenya but in the world at large. Since it is voluntary, different companies report different things and the formats are so varied. Some companies report through the chairman's speech, others through CEO's speech and others have dedicated pages on sustainability reports that include SER issues. A standardized way of reporting of voluntary disclosure should be adopted through a guideline that will make easier for users to read. Some reports may not be available on their websites hence forcing researchers to search for it in websites of investment companies, capital markets authority and visit the companies for physical copies. Since these are public companies, it would be advisable for the regulator to ensure that listed firms post their integrated financial reports in their website for public view covering a substantial number of financial years.

5.5 Recommendations for Future Research

Future studies can focus on studying firms in one since their SER activities may be unique to a particular sector. Other factors such as, years of listing, presence of audit committee, presence of independent directors, ownership concentration, frequency of board meetings, presence of foreign and institutional investors, presence of CSR foundations, in companies may be of interest to other Kenyan researchers in future. Research can also focus on adoption of integrated reporting by companies in Kenya which has been made mandatory in South Africa. Companies that are not

listed may have substantial amount of SER information that can be compared to those listed to find out whether listing status can influence the level of voluntary disclosures among companies in Kenya.

5.6 Limitation of the study

The study utilizes disclosure index developed by researchers outside Kenya and specific index that suit the Kenyan environment have not been developed that can be used by local researchers. The disclosure index applies to all firms and different companies may undertake only those activities that suit the sector or industry that they belong. Additionally scoring of disclosure index may give different results when scored by different people. In this study, data collection was took a considerable amount of time because it was done by the researcher to ensure that the interpretation of the information is uniform, causing fatigue by putting a lot of hours on data collection to meet required deadlines. Some firms, especially large ones have comprehensive reports which sometimes have information that is repeated in a number of sections and pages hence time consuming. Some listed firms also have financial reports missing in their websites hence forcing researchers to look alternative source of information that took time with high costs. Disclosed information may carry the same score despite some having more details than others hence researchers may need to come up with a better way of scoring based on detailed reports that can be scored the same with those with quantitative statistics.

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APPENDIX I

DISCLOSURE INDEX

Disclosure index adopted from GRI guidelines.

ITEM		Details on the score sheet
GRI guidelines		To be scored 0, 1, 2 and 3 based on scoring guidelines.
ENVIRONMENTAL		
Energy	1	Contribution to new sources of energy, Renewable energy, use of waste material for energy production.
	2	Participate and support reduction of energy consumption, energy conservation and efficient use in business operation.
Water	3	Participate and support water usage efficient water usage, water saving strategies, water harvesting.
Biodiversity	4	Activities on conservation of flora and fauna as well as wild life.
Emissions	5	Information about the sources, types and remedy procedures of emissions, emission of greenhouse gases.
Effluents and waste	6	Discussion on the amount, types of wastes and methods of waste management, cleaning
Products and services	7	Environmental impact of product and services.
	8	Development and use of ecological products: recycling and packaging.
Compliance	9	Compliance to legal requirements, fines/lawsuits/noncompliance incidences
	10	Environmental audits
	11	Carbon credits and certifications.
Overall Environmental statements	12	Company's statement of a corporate commitment of environmental protection, incorporating of environmental concerns into business decisions
	13	Environmental partnerships
	14	Environmental awards
	15	Environmental risk management
	16	Environmental education and research.

EMPLOYEE		
Employment	17	Number of employees and geographical or regional distribution
	18	Turnover of workforce, disciplinary and dismissals
Labour management relations	19	Employee wellbeing and benefits concerning education for children , health care of self and family, wellness campaigns, disability or retirement.
	20	Staff share of company profits, share ownership schemes
	21	Staff recreational facilities, sports and cultural programs
	22	Code of conduct , core values and Ethics
	23	Relationship with labor unions
Occupational health and safety	24	Employee occupational health and safety information
Training and education	25	Employees training and education
Diversity and equal opportunities	26	Employee diversity - gender balance and minority in the organization
Labour practices grievances practices	27	Policies and procedures dealing with human right issues
	28	Policies and programs addressing workplace harassment and discrimination and staff grievances, views and feedbacks
SOCIETY		
Community	29	Activities relating to education of children and youth development
	30	Community based investments and including community trainings and mentorship
	31	Safety. Food, health and home programs
	32	Sports and culture participation and sponsorships
	33	Development of recreational facilities.
Grievance mechanisms for impacts on society	34	Statements on ways of addressing society concerns
CONSUMER		
Consumer health and safety	35	Customer satisfaction, quality, safety, health
Market communication	36	Product innovations and research
	37	General market trends and product information
Customer privacy	38	Statements of consumer privacy.
Compliance	39	Statements on regulations, penalties, fines, corruption and frauds.

APPENDIX II

LISTED COMPANIES PRIOR TO 2009

SECTOR	YEAR OF LISTING
AGRICULTURAL	
1 Kakuzi Plc Ord.5.00	1951
2 Kapchorua Tea Co. Ltd Ord Ord 5.00 AIM	1972
3 The Limuru Tea Co. Plc Ord 20.00AIMS	1967
4 Sasini Plc Ord 1.00	1965
5 Williamson Tea Kenya Ltd Ord 5.00 AIM	1972
AUTOMOBILES & ACCESSORIES	
6 Car & General (K) Ltd Ord 5.00	1950
BANKING	
7 Barclays Bank of Kenya Ltd Ord 0.50	1986
8 Diamond Trust Bank Kenya Ltd Ord 4.00	1972
9 Equity Group Holdings Plc Ord 0.50	2006
10 HF Group Plc Ord 5.00	1992
11 KCB Group Plc Ord 1.00	1989
12 National Bank of Kenya Ltd Ord 5.00	1994
13 NIC Group Plc Ord 5.00	1971
14 Stanbic Holdings Plc ord.5.00	1970
15 Standard Chartered Bank Kenya Ltd Ord 5.00	1988
16 The Co-operative Bank of Kenya Ltd Ord 1.00	2008
COMMERCIAL AND SERVICES	
17 Eveready East Africa Ltd Ord.1.00	2006
18 Express Kenya Ltd Ord 5.00 AIMS	1978
19 Kenya Airways Ltd Ord 5.00	1996
20 Nation Media Group Ltd Ord. 2.50	1973
21 Sameer Africa Plc Ord 5.00	1994
22 Standard Group Plc Ord 5.00	1954
23 TPS Eastern Africa Ltd Ord 1.00	1997
24 WPP Scangroup Plc Ord 1.00	2006

LISTED COMPANIES PRIOR TO 2009 CONT'D

CONSTRUCTION & ALLIED

25	ARM Cement Plc Ord 1.00	1997
26	Bamburi Cement Ltd Ord 5.00	1970
27	Crown Paints Kenya Plc Ord 5.00	1992
28	E.A.Cables Ltd Ord 0.50	1973
29	E.A.Portland Cement Co. Ltd Ord 5.00	1972

ENERGY & PETROLEUM

30	KenGen Co. Plc Ord. 2.50	2006
31	KenolKobil Ltd Ord 0.05	1959
32	Kenya Power & Lighting Co Ltd Ord 2.50	1972
33	Total Kenya Ltd Ord 5.00	1988

INSURANCE

34	Jubilee Holdings Ltd Ord 5.00	1984
35	Kenya Re Insurance Corporation Ltd Ord 2.50	2006
36	Sanlam Kenya Plc Ord 5.00	1963

INVESTMENT

37	Centum Investment Co Plc Ord 0.50	1977
38	Olympia Capital Holdings ltd Ord 5.00	1974

MANUFACTURING & ALLIED

39	B.O.C Kenya Plc Ord 5.00	1969
40	British American Tobacco Kenya Plc Ord 10.00	1969
41	Carbacid Investments Ltd Ord 1.00	1972
42	East African Breweries Ltd Ord 2.00	1972
43	Mumias Sugar Co. Ltd Ord 2.00	2001
44	Unga Group Ltd Ord 5.00	1971

TELECOMMUNICATION

45	Safaricom Plc Ord 0.05	2008
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APPENDIX III

PERFORMANCE OF SER DISCLOSURE ITEMS

						No. of Disclosed items	Total score	% score
	Allocated scores	3	2	1	0			
	Maximum no/ score per item	450					1350	
	Environment	Frequency						
1	Contribution to new sources of energy, Renewable energy, use of waste material for energy production.	29	48	8	365	85	191	0.1415
2	Participate and support reduction of energy consumption, energy conservation and efficient use in business operation.	36	59	6	349	101	232	0.1719
3	Participate and support water usage efficient water usage, water saving strategies, water harvesting.	64	56	18	312	138	322	0.2385
4	Activities on conservation of flora and fauna as well as wild life.	149	72	22	207	243	613	0.4541
5	Information about the sources, types and remedy procedures of emissions, emission of greenhouse gases.	19	28	3	400	50	116	0.0859
6	Discussion on the amount, types of wastes and methods of waste management, cleaning	17	51	11	371	79	164	0.1215
7	Environmental impact of product and services.	4	14	7	425	25	47	0.0348
8	Development and use of ecological products: recycling and packaging.	22	25	17	386	64	133	0.0985
9	Compliance to legal requirements, fines/ lawsuits/noncompliance incidences		5		445	5	10	0.0074
10	Environmental audits	1	17	2	430	20	39	0.0289
11	Carbon credits and certifications.	7	49	7	387	63	126	0.0933
12	Company's statement of a corporate commitment of environmental protection, incorporating of environmental concerns into business decisions		164	1	285	165	329	0.2437
13	Environmental partnerships	15	13	6	416	34	77	0.0570
14	Environmental awards		15		435	15	30	0.0222
15	Environmental risk management		2		448	2	4	0.0030
16	Environmental education and research.	4	18	5	423	27	53	0.0393
	Total Environment						2486	0.1151

	Employee							
1	Number of employees and geographical or regional distribution	27	129	2	292	158	341	0.2526
2	Turnover of workforce, disciplinary and dismissals	20	13	5	412	38	91	0.0674
3	Employee wellbeing and benefits concerning education for children , health care of self and family, wellness campaigns, disability or retirement.	65	126	51	208	242	498	0.3689
4	Staff share of company profits, share ownership schemes	5	5	2	438	12	27	0.0200
5	Staff recreational facilities, sports and cultural programs	24	42	3	381	69	159	0.1178
6	Code of conduct , core values and Ethics	1	98	4	347	103	203	0.1504
7	Relationship with labour unions	5	33	1	411	39	82	0.0607
8	Employee occupational health and safety information	41	100	5	304	146	328	0.2430
9	Employees training and education	112	128	8	202	248	600	0.4444
10	Employee diversity - gender balance and minority in the organization	61	42	10	337	113	277	0.2052
11	Policies and procedures dealing with human right issues	0	10	9	431	19	29	0.0215
12	Policies and programs addressing workplace harassment and discrimination and staff grievances, views and feedbacks	11	70	12	357	93	185	0.1370
	Total Employee						2820	0.1741
	Society							
1	Activities relating to education of children and youth development	188	101	11	150	300	777	0.5756
2	Community based investments and including community trainings and mentorship	132	108	8	202	248	620	0.4593
3	Safety, Food, health and home programs	138	134	8	170	280	690	0.5111
4	Sports and culture participation and sponsorships	56	81	9	304	146	339	0.2511
5	Development of recreational facilities.	6	9		435	15	36	0.0267
6	Statements on ways of addressing society concerns	4	245	1	200	250	503	0.3726
	Total Society						2965	0.3660

	Consumer							
1	Customer satisfaction, quality, safety, health	76	157	5	212	238	547	0.4052
2	Product innovations and research	84	137		229	221	526	0.3896
3	General market trends and product information	265	118	13	54	396	1044	0.7733
4	Statements of consumer privacy.	0	4	1	445	5	9	0.0067
5	Statements on regulations, penalties, fines, corruption and frauds.	12	102	11	325	125	251	0.1859
	Total Society						2377	0.3521
		1700	2628	292	12930	4620	10648	0.2022
	Maximum no/score for 39 items	17550					52650	

APPENDIX IV
AVERAGES PER FIRM

			SIZE	PROFITABILITY	LEVERAGE
SECTOR	FIRM	SERD	Nlog NA	NPM	Debt/Equity
AGRICULTURAL	1	0.0726	8.0318	0.1922	0.3390
	2	0.1718	7.0893	0.0918	0.5611
	3	0.0368	5.1558	0.0444	0.3629
	4	0.1231	9.0502	0.1543	0.2839
	5	0.2051	8.5548	0.1537	0.3964
AUTO	6	0.0538	7.7936	0.0384	1.7730
BANKING	7	0.2786	10.4599	0.2280	5.2264
	8	0.1410	10.1176	0.1962	6.2794
	9	0.2496	10.8677	0.2656	4.5222
	10	0.0889	8.8331	0.1069	5.8322
	11	0.3137	11.0479	0.2418	5.7389
	12	0.1701	9.1849	0.0977	8.6741
	13	0.2607	9.8035	0.2226	5.5345
	14	0.2222	10.3551	0.2018	4.8516
	15	0.3855	10.3654	0.2922	5.5417
	16	0.3256	10.5107	0.2319	5.6805
COMMERCIAL & SERVICES	17	0.0889	6.0157	0.0399	1.5706
	18	0.0282	5.0617	-0.7048	0.6820
	19	0.2795	9.7951	-0.0754	0.3544
	20	0.2359	8.8922	0.1606	0.4138
	21	0.2137	7.6499	-0.0292	0.5574
	22	0.1308	7.5004	0.0366	1.1685
	23	0.2581	9.0382	0.0883	0.6837
	24	0.0932	8.7190	0.0477	0.6954
CONSTRUCTION & ALLIED	25	0.1658	9.0092	0.0633	2.1142
	26	0.4034	10.2429	0.1524	0.4337
	27	0.1385	7.0974	0.0276	1.8683
	28	0.1154	7.7567	0.0532	1.4837
	29	0.2607	9.1448	0.0257	1.0159

ENERGY & PETROLEUM	30	0.4410	11.5074	0.2158	1.3034
	31	0.1094	9.1509	0.1720	2.0936
	32	0.3171	10.7745	0.0535	2.8498
	33	0.2915	9.5949	0.1836	1.4743
INSURANCE	34	0.1137	9.4092	0.1066	3.9340
	35	0.1658	9.7573	0.1963	0.6116
	36	0.1829	7.8784	0.0383	5.4207
INVESTMENT	37	0.2034	9.8419	0.5321	0.4736
	38	0.0179	6.8639	0.0533	0.4541
MANUFACTURING & ALLIED	39	0.1726	7.3831	0.1144	0.3402
	40	0.2769	8.8834	0.1207	1.1658
	41	0.1009	7.5876	0.4905	0.1660
	42	0.3043	9.5074	0.1570	3.7478
	43	0.2769	8.7424	-1.4551	0.8854
	44	0.2162	8.4034	0.0230	0.6843
TELECOMMUNICATION	45	0.3991	11.3436	0.1742	0.5648
		0.2022	8.8839	0.0849	2.2402