Chapter 1: Introduction

1.1 Introduction and Overview

Obligations that exist between business organisations and society tend to interconnect them rather than make them distinct entities. The reason being that society supplies companies with the resources they require and companies in turn are expected to behave responsibly by managing these resources efficiently for the benefit of present and future generations (Porter and Kramer 2002; William 2006). Societal norms and expectations are that businesses manage their environment effectively, adopt innovative and responsible social management systems and ensure business competitive advantage is rated high in sustainable activities (Smith 2007). Prior to the expectation that businesses adopt social management systems and ensure competitive advantage in sustainable activities, companies like Broken Hill Proprietary Limited (BHP) and U.S. Steel had begun to inform the public of the human and environmental impact of their operations. Information disclosed was recognised as part of corporate social responsibility (CSR). Similarly, in this thesis, CSR is recognised as a responsibility of businesses to manage the natural environment as well as to support the expectations of all stakeholders. These disclosures were as early as the late 19th century and beginning of the 20th century (Guthrie and Parker 1989). Since then, corporate social responsibility (CSR) reporting has developed to cover three distinct areas: environmental, social and economic. These areas of reporting manifested in the form of credible ecological stewardship, adaption of innovative and responsible social management systems and placing emphasis on corporate reputation built on sustainable activities undertaken on a continuing basis (Smith 2007). The outcomes of these environmental, social and economic strategies are combined into one reporting package known as ‘sustainability reporting’ or ‘corporate social responsibility reporting’. In other words, companies respond to their social contract by showing accountability and conformity to societal norms and expectations through their sustainability reports (Wild 2008). Crane and Matten (2007; p23) refer sustainability as the ‘continuous maintenance of systems in accordance with environmental, social and economic considerations’. Sustainability is also defined as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (World Commission on Environment and Development [WCED] 1987, p8; Laine 2005). Sustainability is, thus, expected to ensure intergenerational equity.

Sustainability disclosures are expected to aid businesses to create the necessary knowledge base to monitor and mitigate risks as well as help to invest in activities that create long-term corporate value. Businesses with good, sustainable development practices are rewarded by society through various core benefits. One such core benefit is the ability to create and maintain value (Sirmon, Hitt and Ireland 2007), through the use of effective sustainability strategies that will result in competitive advantage (Albareda, Lozano, Tencati, Middtturn and Perrini 2008). Prior research shows the benefits of value-relevant information investors derive from sustainability disclosure that affects future cash flow (Angel and Rivoli 1997; Richardson, Welker and Hutchinson 1999). Share prices respond positively or negatively to externally produced information that impact on the environmental risk profiles of businesses or have consequences for their future cash flows (Blacconiere and Patten 1994; Belkaoui 1976). Studies also show that businesses that disclose sustainability information are less likely to be punished by investors in the event of accidents and infringements compared to firms that did not disclose such information (Chua 2006).

Recent high-profile corporate malpractices have resulted in misgivings about sustainability activities and disclosures. Consequently, there is a heightened quest from international capital markets for more accountability and transparency on the efficient use and management of societal resources (Sarre, Doig and Fiedler 2001; Armstrong and Francis 2008). The demand is for more information that is additional to the traditional financial report disclosures. The limited liability nature of companies also makes it obligatory for them to disclose information on their performance to not only current shareholders but to the public in general.

Effective corporate sustainability reporting requires standards or guidelines that ensure transparency and accountability in sustainable development disclosures. Standardised disclosures also forestall inconsistencies in disclosures and thereby enhance decision-making. Some of these standards or guidelines are SA8000, AccountAbility 1000 (AA1000), Dow Jones Sustainability Index (DJSI), and the Global Reporting Initiative Sustainability Guidelines (GRI). The SA8000 focuses on community and employee activities. It presents a ‘process’ approach to reporting, ensuring that companies comply to established labour and human rights practices as well as implement strategies to improve the environment and social welfare of communities in which they operate (Belal 2008). The GRI guidelines, which is currently a widely accepted framework for sustainability reporting (Enquist, Johnson and Skalén 2006), was developed with the aim of bringing sustainability reporting to a level that

would enhance comparability, flexibility, auditability and global acceptance (GRI 2002). The GRI reporting framework is, therefore, more exhaustive than the SA8000 and more aligned to disclosure issues rather than process issues as in SA8000 and AA1000. The GRI framework is broadly consistent with the DJSI which was developed to track the financial performance of leading global sustainability-driven companies (Szekély and Knirsch 2005). However, the DJSI is investment oriented whilst the GRI is disclosure oriented.

The disclosure focus of the GRI makes it a more appropriate framework to be considered for the current study. Another reason for adopting the GRI is its continuous review to ensure transparency and accountability in sustainable development disclosure, promote international harmonization of corporate disclosure on environmental protection, social order and economic growth as well as enhance stakeholder-informed decision making. The current version, GRI (G3) is adopted for the current study.

Research on the level of reporting on all the various GRI sustainability indicators is vital information needed for governments, companies, academics, society, providers of other guidelines and other standard-setters. Governments require information on areas of corporate contributions for sustainable development and risk management to direct the focus of legislation on sustainability practices. GRI reports also inform companies of various practices and levels of disclosure in their industry sectors and enable them to re-align their strategies in accordance with societal expectations. Academics also need to be well-informed of areas which lack reporting to be able to focus their studies appropriately. Furthermore, other stakeholders including financial analysts, shareholders and creditors also rely on disclosures for making informed decisions.

Reliability and credibility of information is important to stakeholders who make use of corporate sustainability reports for decision-making. A third party opinion in the form of an 'assurance report' is necessary to assure report users the reliability of information disclosed. Researchers, such as Brackney and Helms (1996), Boritz and Cockburn (1998), Hasan, Maijoor, Mock, Roebuck, Simnett and Vanstraelen (2005) have undertaken detailed studies into the supply of assurance services on financial statements. O'Dwyer and Owen (2005) have investigated the level of assurance compliance using various assurance standards and guidelines such as the AccountAbility standard (AA1000AS 2003) and the GRI assurance guidelines. However, there is a paucity of research on the assurance of corporate

sustainability stand-alone reports, with only a few empirical studies, such as those carried out by Deegan, Cooper and Shelly (2006), Park and Brorson (2005), and non-empirical studies, such as those carried out by Dando and Swift (2003) and Adams and Evans (2004), that focus on the issue of closing up the 'credibility' and 'audit expectation' gaps and suggesting social audits as a way of bridging those gaps.

In recent years, reliability and credibility of disclosures in corporate sustainability reports have been a concern to report users. To fulfil the expectations of stakeholders, corporations have sought third-party independent opinion in the form of assurance reports to provide evidence of the credibility to the information disclosed in the reports. Despite this effort, corporate failures and irresponsible practices have prompted the quest for more transparent and accountable voluntary non-financial disclosures. The provision of more accountable and transparent non-financial disclosures has also been the motivation for the current study. Furthermore, the question remains open as to whether social audits and sustainability assurance reports are of value to stakeholders. In view of this gap, the current study also investigates whether assurance and level of disclosures are related.

Apart from the requirements of stakeholders, other factors likely to influence sustainability disclosure are culture, national systems, accounting value dimensions and corporate systems (Archambault and Archambault 2003). Cultural dimensions include power-distance, masculinity, and uncertainty-avoidance. National systems consist of the press/media, legislation, capital markets, inflation and the level of economic development. The accounting value dimension of 'secrecy' is noted to affect disclosure (Doupnik and Riccio 2006). Corporate systems can be divided into two groups: financial and operating. Ownership, auditors, leverage and liquidity form the financial factors. Operating factors consist of size, industry and foreign sales. Culture, national systems and accounting value dimensions together contribute towards the development of corporate systems (Archambault et al. 2003).

These dimensions and systems indirectly affect disclosure whilst corporate systems have a direct influence on disclosure (Archambault et al. 2003). It is, therefore, expedient to adopt the factors constituting corporate systems as a benchmark in the construction of the variable sets for the study. In view of this, ownership, foreign sales and assurance were replaced with the independent variables namely institutional and directors' shareholdings, product and geographical diversification and assurance respectively. Size and industry were employed as

demographic variables in the study. Furthermore, leverage and liquidity were adopted as part of the set of financial variables used in the study.

In an attempt to explain the reasons behind sustainability reporting, studies have been conducted from the perspective of various theories. These theories include accountability theory, agency theory, positive accounting theory, institutional theory, legitimacy theory and stakeholder theory, with the use of legitimacy theory more prevalent than the use of stakeholder theory. Legitimacy and stakeholder theories have generally been regarded as mutually exclusive and, accordingly, treated as separate theories. In effect, the literature reviewed for this thesis shows that generally, these theories are treated as competing rather than complementary. On the other hand, this study also views organisational legitimacy and stakeholder management and inclusion as complementary and equally beneficial.

1.2 Research Problem and Motivation

As far back as 1972, it was envisaged that the increase in industrialisation, pollution and resource depletion was certain to have future devastating global consequences unless measures were introduced to ensure the achievement of a sustainable society (Timpere 2008). Society requires businesses to engage in sustainable practices by meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. Businesses also publish sustainability reports to assure society that they are meeting their societal obligations.

However, current disclosures in sustainability reports concentrate mostly on positive corporate practices and do not provide a balanced disclosure of both the positive and negative practices, to enable public scrutiny of business sustainability activities. Also, certain corporations especially, multinational enterprises (MNEs), have taken advantage of weak compliance and monitoring structures in their countries of operation and failed to perform and report in accordance with societal expectations. For example, the practices of some multinational companies in overseas markets, particularly in the newly industrialised economies such as China, Indonesia, Thailand, Vietnam and South Africa, have been closely scrutinised because their practices have not been seen to meet societal expectations; the enterprises operate in a setting characterised by weak governance, lack of enforcement of legislation and monitoring structures (Savage 2002, DeTienne and Lewis 2005). The

accusation of human rights abuses and deplorable working conditions in Asian factories owned by the Nike Corporation is a specific example of socially unacceptable corporate behaviour (Carty 2002).

Social responsibility practices in multinational companies in overseas markets are directed more towards educational practices and funding, while issues pertaining to environmental protection, product safety, labour relations and community development are often ignored. Documentations of human right violations and environmental degradation by MNEs in their host countries include: negligence in workplace safety which has resulted in numerous accidents and deaths in mines such as those that occurred in South Africa; the mining industry's contribution to the AIDS epidemic in South Africa (Sarra 2004); and chemical contamination, deforestation, flooding and destruction of habitats following mining activities. Another ecological problem caused by the operation of MNEs is the serious environmental degradation, mostly through pollution, in newly industrialized economies like China. To monitor and enable the development of policies by regulatory authorities in respective countries that will reduce the effects of these human rights violations and environmental degradation, companies, specifically MNEs, should be encouraged to voluntarily disclose information on their environmental, social and economic activities and efforts.

This study is motivated by international and capital market concerns about the failure of companies to apply equal standards across the world on the management of environmental, social and economic resources. Other motivation factors are the dearth of research in voluntary environmental, social and economic disclosures in stand-alone reports, disclosure compliance of GRI G3 guidelines as well as the comparative state of disclosure in the Australian, U.K and South African economies. The study is undertaken in the context of a growing demand for more voluntary, continuous, transparent and accountable non-financial disclosures. In addition, fewer studies have been conducted on the influence of the stakeholder on sustainability reporting when compared to studies using the legitimacy perspective. Thus, the direct impact of corporate sustainability activities and disclosure on communities, employees, consumers, shareholders and other primary stakeholders is an issue that has not been much investigated.

Several reviews have highlighted the need to conduct research that uses both the stakeholder and legitimacy perspectives in the one study. Organisational legitimacy relates to corporate

response to societal expectations. Organisations undertake actions in an endeavour to appear legitimate to the societies in which they operate. Society is shaped by norms, values and beliefs. To be accepted and recognised, it is expected that these norms, values and beliefs are incorporated into practices of all members. Likewise, society also expects businesses to perform their operations in a manner that conform to these values and beliefs. In order words, to obtain a good reputation, ensure their survival and retain their legitimacy, businesses are expected to continuously communicate to all societal groups showing their adherence to these norms and values. It follows that, businesses must also communicate to society that their sustainability activities are performed in accordance with societal expectations. Stakeholder theory states that businesses must seek the support of primary stakeholders because the continuous approval of such stakeholders is essential for business survival. Stakeholder theory, therefore, acknowledges that primary stakeholders must be included in the dialogue that exists between businesses and society. In effect, stakeholder theory encourages continuous dialogue between businesses and their stakeholders on sustainability activities and disclosures. This study answers the call for a more integrated theoretical approach by considering both legitimacy and stakeholder theories in developing a conceptual framework for this study; both stakeholder and legitimacy theories were used to determine the variable sets for this study.

This study posits that that legitimacy through public reporting is not adequate to ensure accountability of the use of societal resources. Using stakeholder theory and legitimacy theory, the study presents the argument that stakeholder consultation should be part of the policy formulation and decision-making of corporations. Such consultations will enhance accountability and transparency in sustainability reporting practices. This study explores the efficacy of sustainability reports and proposes stakeholder consultation as a means of enhancing sustainability outcomes. The reporting framework adopted in this study is the GRI G3 guidelines. The theoretical bases for developing a conceptual framework for this study are legitimacy and stakeholder theories. The conceptual framework is also used to develop hypotheses to test the relationship between various predictors and environmental, social and economic performance indicators components. Results show that industry, firm age and return on assets were predictive of all three performance indicators components.

1.3 Objectives of the Research

The aim of this research is to identify empirically the determinants of environmental, social and economic disclosure under the GRI G3 guidelines that would contribute towards increased disclosure and external users' responsiveness to sustainability reports.

Specific objectives of the research are:

1. To investigate which factors influence the environmental, social and economic reporting under the GRI disclosure domains in companies operating in Australia, United Kingdom and South Africa; and
2. To examine whether stakeholder involvement complements legitimacy in enhancing disclosure performance on the environmental, social and economic issues under the GRI disclosure domains of corporate sustainability reporting.

1.3.1 Research Questions

Specific research questions developed to provide answers to the objectives enumerated above are as follows:

1. What components influence environmental, social and economic reporting?
2. To what extent do legitimacy variables influence disclosure in each of these three GRI performance indicator domains (i.e. environmental, social and economic disclosure)?
3. To what extent do stakeholder variables influence disclosure in each of these three GRI performance indicator domains?
4. To what extent do both legitimacy and stakeholder variables act as complementary influences in each of these three GRI performance indicator domains?
5. How do financial variables affect disclosure in each of these three GRI performance indicator domains?
6. How do demographic variables affect disclosure in each of these three GRI performance indicator domains
7. In which domains do stakeholders require assurance on disclosures made in sustainability reports?

1.4 Methodology

A conceptual framework is developed from the literature, reviewed in Chapters 2, 3 and 4 of this thesis. The main theories behind the development of the conceptual framework are legitimacy and stakeholder theories. A sample of 67 companies was selected from over 1300 companies that had their sustainability reports registered on the GRI website in 2008 and 2009, and from the 71 companies included in a report on excellence in sustainability reporting by Ernst and Young (2010). The selection is based on: first, companies' corporate annual reports and stand-alone sustainability reports must be publicly available for both 2008 and 2009; second, the sustainability reports must contain a GRI index table; and third, the companies were not financial institutions. The exclusion of financial institutions is consistent with previous studies. Financial firms belong to a unique industry sector requiring the use of additional disclosure requirements in the GRI guidelines. Data was then collected from corporate annual and stand-alone sustainability reports for 2008 and 2009 for the selected sample. Four explanatory variables sets: demographics, stakeholder, legitimacy and financial were adopted. Size and industry constitute the demographic set, while product and geographical diversification, institutional shareholdings and assurance make up the stakeholder set. Other factors used are directors' shareholdings, board structure and internal policies, forming the legitimacy. Leverage, liquidity, return on assets and firm age constitute the financial set. Some of the financial and operating systems recommended by Archambault et al. (2003) were adopted in the thesis. Using hierarchical regression analysis, the data was analysed to test the set of hypotheses. The conceptual framework for deriving the hypothesis is further explained in Chapter 5.

1.5 Definition of Key Terms

Disclosure

This term is used interchangeably with 'reporting' in this study. It refers to the information provided in corporate sustainability reports by companies on a voluntary or non-voluntary basis. Sustainability disclosure is examined at three levels: categories, aspects and indicators. 'Categories' are at the broadest level of environmental, social and economic issues and denote information to stakeholders on these three issues. 'Aspects' contains a breakdown of issues, impacts and requirements relating to a specific category. 'Indicators', which are

divided into ‘core’ and ‘additional’, are either quantitative or qualitative performance measurements under each aspect of reporting.

Global Reporting Initiative Guidelines (GRI guidelines)

GRI guidelines are globally accepted guidelines for reporting on corporate environmental, economic and social information that can be used by companies of any size, location or in any industry sector. The most recent guideline, G3, was developed in 2006 and is used in this research as measurement criteria for the level of disclosure in 2008 and 2009.

Corporate Social Responsibility (CSR)

CSR is a concept which describes how companies undertake responsibility

- for the impact of their operation on the environment and its management,
- for activities that will ensure social equity amongst employees, stakeholders and the public at large, and
- for contributing to the economic development of their communities of operation and society in general.

Indicators

Indicators are measurements of the environmental, social and economic performance of companies which aid them to ensure consistency in report interpretation. Indicators are classified into ‘core’ or ‘additional’ and are either quantitative or qualitative measures of the aspects used in disclosing actual performance. A ‘core’ indicator is one that is of material value to a wide range of reporting businesses and stakeholders whilst an ‘additional’ indicator might not be used by a large number of businesses but can provide information demanded by stakeholders.

Sustainability reporting

This means the provision of information on a company’s environmental, social and economic performance either as part of the corporate annual report or as a stand-alone report.

Assurance

This refers to examination of corporate sustainability reports by independent third party(s). The level of assurance offered can either be ‘moderate’ or ‘limited’.

Environmentally sensitive industries

These industries are those whose operations produce large volumes of emissions into the atmosphere and also cause extensive damage to the environment.

Non-environmentally Sensitive industries

These industries are those whose activities do not have significant impact on the natural environment.

1.6 Organisation of Chapters

The study consists of nine chapters (see Figure 1.1). Chapter 2 examines corporate social responsibility (CSR). It begins with a discussion of the concept of CSR. This is followed by an examination of the importance of CSR and the theoretical perspectives of CSR, outlining major theories used in research with discussion of how the theories have been used to address the issue of the social responsibility of corporations.

Chapter 3 examines the disclosure framework through the nature, credibility and drivers of disclosure. The chapter explores the theoretical underpinnings of CSR disclosure and CSR mythology. The legitimacy and stakeholder theories and their adoption for the study are also explained in this chapter.

Chapter 4 focuses on sustainability issues, specifically issues concerning the sustainable corporation and sustainability reporting principles. The three forms of sustainability reporting are identified and explained. Drivers of sustainability reporting are also considered in relation to practices in the sustainable corporation. Furthermore, various reporting standards and indices are compared to the GRI guidelines to justify the reason for adopting the GRI guidelines in the current study. The meaning and benefits of assurance are also explained in this chapter. The chapter also examines the sustainability reporting practices in the three countries chosen for the study.

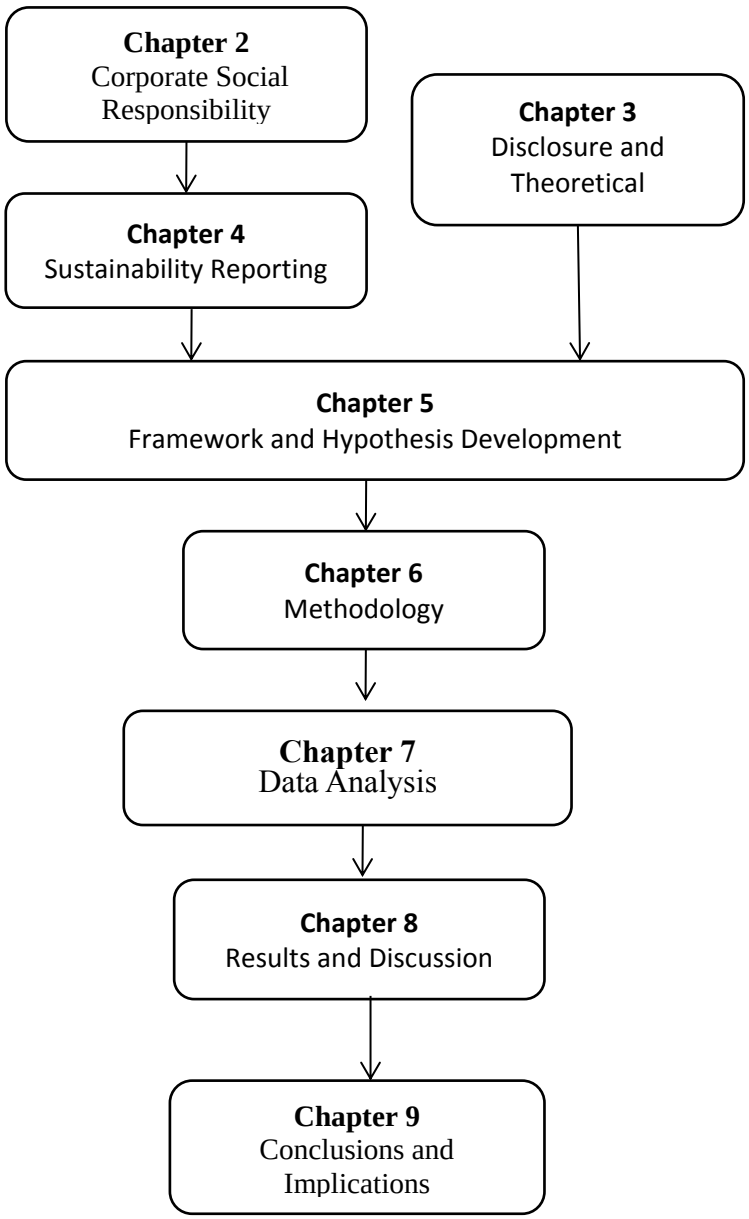


Figure 1.1: Thesis Structure

The research framework is developed in Chapter 5. In this chapter, predictive variables of sustainability disclosure are categorised into four variables sets, such as demographic, stakeholder, legitimacy and financial, and their importance is discussed. Following these discussions hypotheses are development relating to the relationships between the predictive variables and environmental, social and economic disclosure components.

Chapter 6 provides details of the data collection method, measurement of variables and the analytical technique employed in the study. A justification of the research methodology and design adopted in the current study is also made in this chapter.

Chapter 7 discusses the approaches to analyse collected data for determining the number of variables and components that are used in the study.

Regression analysis and findings of the study are presented in Chapter 8, together with the results.

Chapter 9 concludes the thesis and implications of the study. The chapter discusses the limitations of the thesis and provides directions for future research.

In general, stakeholders expect corporations to manage societal resources responsibly for the benefit of current and future generations, and to disclose information on both achievements and management of these resources. In accordance with stakeholder expectations, corporations began to provide information on the impact of their operations on humans and the environment as early as in the 19^{th} century. Over the years, corporate reporting has resulted in a more elaborate form of disclosure. This form of disclosure relates to the environmental, social and economic practices of corporations and is made through sustainability reports.

Chapter 2: Corporate Social Responsibility

2.1 Introduction

The negative impact of business operations on ecological systems and excessive use of non-renewable resources in addition to increasing pollution levels are likely to 'endanger the ability of current and future generations to meet their own needs' (Laine 2005). Organisations are currently under increasing scrutiny as stakeholders demand greater transparency and responsibility in the management of societal resources**.** This demand is in response to heightened global awareness of ecological and social problems created by activities of various organisations. Also because businesses are regarded as social institutions endowed with power, they are expected to use this power responsibly in the management of societal resources and in the performance of their social duties or lose it (Garriga and Melé 2004). To show responsibility in the use of this social power, businesses must be transparent in their interactions with society when performing their social responsibilities.

Sections 2.2 and 2.3 examine the concept and importance of corporate social responsibility (CSR). Section 2.4 examines the theoretical perspectives on CSR and the Chapter ends with a summary in Section 2.5.

2.2 The Concept and Background of Corporate Social Responsibility

The idea of social responsibility has been in existence for over a century. As early as the mid-1880s, companies were disclosing information on their social responsibilities in their annual reports (Guthrie and Parker 1989). Initial disclosures of social responsibility by businesses were focused on employee welfare with later additions of information on various social activities (Hogner 1982). Disclosures on employee welfare and other social activities continued until the emergence of environmental disclosure in the 1950s through the 1970s and 1980s (Deegan, Ranking and Tobin 2002). Thus, businesses began disclosing information on both environmental and social issues from the 1950s onwards. The early 1950s recorded an increase in deliberations over corporate social responsibility with Bowen (1953) emphasising the need for businesses to enact and promote polices which would be beneficial to the objectives and goals of society (Carroll 1999). These deliberations needed to be centred on the existence of an association between businesses and society, recognizing that businesses are under a social contract to use society's resources efficiently, not only for their

own benefit and the benefit of their shareholders but also for all other social claimants (Gray, Owen and Maunders 1988; Chatterji and Listokin 2007). In effect, the argument ran, companies should not only exercise their social responsibility by managing the negative impacts of their operations but should also contribute to societal welfare. Notwithstanding these arguments environmental disclosures in the 1950s remained relatively low. This changed in the 1970s when reports showed an increase in environment disclosures because of public pressure on the mining, steel and oil industries to demonstrate responsibility in their use of the environment (Deegan et al. 2002). A continued increase in the number of environmental lobby groups may have contributed to the gradual increase in environmental disclosures from the 1980s onwards (Deegan and Rankin1996).

About two and a half decades after Bowen's conception of CSR in 1950 (Lindgreen, Swaen and Johnston 2009), Archie Carroll, one of the authorities in the CSR debate, suggested that social responsibility must include economic, legal, ethical and philanthropic responsibilities (Lindgreen et al.). Carroll further indicated that businesses must not only be interested in profit making but also adopt a more responsible attitude towards their social obligations (Frederick 2006). According to Carroll 1991,

- Economic responsibilities require businesses to be rewarding, cost-effective, secure and competitive to their shareholders, employees and consumers;
- Legal responsibilities require businesses to adhere to existing legislation and legal frameworks;
- Society expects businesses to adhere to their ethical responsibilities by conforming to generally accepted social norms; and
- Employees, local communities and society at large hope that businesses will aspire to voluntarily contribute towards their welfare.

Maignan, Ferrell and Hult (1999) continued to build upon Carroll's concept of CSR and argued that companies need to be discretional instead of philanthropic in fulfilling their responsibilities towards their stakeholders. Waddock (2002) also emphasised the need for organisations to satisfy the demands of their stakeholders whilst (Martin 2002) stressed the need to cater for the fulfilment of commitment to employees, communities and the environment. A move to discuss CSR issues raised by Carroll (1991) in more detail resulted in a United Nations (UN) conference on human development at Rio de Janeiro, Brazil in

1992. The focus of the conference was to discuss ways of managing the depletion of global resources and degradation the environment. Twenty years after the Rio de Janeiro conference, another UN conference, the Rio Earth Summit, was organised in Johannesburg to formalize decisions and sign conventions to ensure appropriate management of global resources, the environment and the welfare of the global poor. At the Rio Earth Summit, governments and businesses agreed to seek alternative sources of energy and encourage the use of public transport. This agreement was aimed at reducing fossil fuel and vehicle emissions, managing production patterns and providing appropriate ways of managing the increasing scarcity of water. These decisions, agreed upon at the Rio Earth Summit, began to address the issues of sustainable development and, subsequently, encouraged sustainability reporting.

Events of the 21st Century also pushed up the CSR debate to encourage organisations to implement other measures aside from those agreed upon at the Rio Earth Summit to make organisations socially responsible, ensure sustainable development and improve organisational survival (Perrini, Pogutz and Tencati 2006). The increase in demand for reform is evident by an increase in academic research on the topic and in public debates to delve into issues and reports on CSR (Morimoto, Ash and Hope 2005). Various organisations adopted CSR initiatives. Marketing authority Philip Kotler (Kotler and Lee 2005) and research-based theory researcher James Barney (Barney 2001) began exploring issues relating to corporate social responsibility (Perrini et al. 2006); and international institutions such as the World Bank, World Resources Institute (WRI), International Standards Organisation (ISO 14000), European Union, UN and Organisation of Economic Cooperation and Development (OECD) committed to support CSR practices among businesses (Aguilera, Rupp, Williams and Ganapathi 2007; Godfrey and Hatch 2007). The World Bank promoted CSR as the United Nations Global Compact of 2000. The United Nations Global Compact, the OECD Guidelines for Multinational Enterprises and the Global Reporting Initiative all encourage businesses to act responsibly.

The concept of CSR has been explained under different perspectives such as sustainable development (World Commission on Environment and Development [WCED] 1987); corporate citizenship (Marsden and Andriof 1998), triple bottom line (Elkington 1997) and business ethics (Kilcullen and Kooistra 1999). CSR is now a widespread concept and not confined to the Western economies. China, the second largest global economy in purchasing power parity (PPP) terms (Buira 2003) has adopted CSR. A push from various government

programs and suppliers has encouraged the Chinese private sector to take on environmental and social responsibilities (Idowu and Filho 2009).However, researchers like Chan and Welford (2005) argue that the levels of environmental risk in China are higher than in the Western economies and predict a form of mandatory environmental reporting in China in the very near future.

Despite the relatively long history of CSR and its increasing global acceptance, it has been difficult to develop an "all-embracing definition" (Van Marrewijk 2003) which would be acceptable in both corporate and academic fields (Godfrey et al. 2007). Some scholars are of the view that socially responsible practices are the result of certain ethical norms that can be interpreted within the context of time and place of performance. Another school of thought argues that social responsibility is not a distinct doctrine to be determined by its outcome but instead an attitude or a continuous activity that occurs over a period of time (Idemudia 2008). These schools of thought have provided several definitions of social responsibility, including, 'an action which is likely to further some good' (McWilliams and Siegel 2001) and 'sacrificing profit in the social interest' (Elhauge 2005). In this thesis, CSR is defined as "taking into consideration the needs of all stakeholders and the natural environment in corporate operations" (Waddock and Bodwell 2004). This definition is pertinent to the thesis because, unlike many other definitions, it addresses economic, social and environmental reporting of business operations, aligning with sustainability principles.

Notwithstanding the difficulties surrounding a definition for CSR, the number of companies reporting on various aspect of their CSR has increased globally (Kolk 2003) with a substantial increase amongst Japanese companies. Seventy-two percent (72%) of the top 100 Japanese companies published CSR reports in 2002 (Kolk 2004). Similar to Japanese companies, other organisations continue to adopt the practice of social responsibility; Welford and Frost (2006) argue that they do so because they cannot operate outside the social construct. This widespread adoption of CSR could also be attributed to its importance and the value added benefits enjoyed by organisations with good CSR practices (Orlitzky, Schmidt and Rynes 2003). Another important attribute of CSR is that it plays a significant role in the way organisations behave towards their stakeholders, which also impacts on the way stakeholders perceive these companies.

2.3 Importance of CSR

As far back as 1972, authors of the book *'The limits to Growth'* cautioned that

> *Continuous increase in world population, industrialization, pollution, food production and resource depletion is likely to have devastating global consequences in the next century unless measures are introduced to ensure ecological and environmental sustainability* (Meadows, Meadows, Randers and Behrens 1972, quoted in Timpere 2008).

In order to perform their responsibilities and contribute to environmental and economic development, organisations need to effectively link their actions with that of societal expectations and their economic successes to their social responsibilities (Porter and Kramer 2006). Some of the benefits to be derived are: increase in sales and market value; brand superiority; enhanced corporate image; improved ability to attract and retain good intellectual capital; as well as enhanced investment decisions of external stakeholders (Kotler et al. 2005).

The above discussion indicates the existence of a positive relationship between CSR and market value (Luo and Bhattacharya 2006). Similar to Kotler et al. (2005), Luo et al. (2006) suggest that investment in CSR issues are likely to result in competitive advantages for businesses which will, in turn, impact positively on the level of sales, customer satisfaction and increased financial returns. There is also evidence that customers prefer product brands from companies whose business activities are directly linked to high levels of achievement in the pursuit of their social responsibilities (Du, Bhattacharya and Sen 2007), with companies whose CSR activities are not effectively managed and who produce negative reports are likely to suffer a reduction in their brand positioning (Becker-Olsen, Cudmore and Hill 2006). Furthermore, employee behaviour is dependent on the level of human resource policy implementation (Whitner 2001), which determines how businesses motivate and retain their employees. It would therefore appear essential that CSR initiatives are embedded in business regulations and that CSR policies are followed to the latter in all interactions with employees and not used merely as a form of window-dressing (Weaver and Trevino 1999; Collier and Esteban 2007). Other benefits to be enjoyed from good human resource policy implementation are increases in employee output due to increased satisfaction, a decrease in employee turnover and a subsequent decrease in the cost of recruitment and other transaction costs (Barnett 2007). According to Vermier, Van de Velde and Corten (2005), investors

regard good CSR towards stakeholders as a sign of continuous company survival, and they assign such companies priority in their investment decisions because they expect higher returns in their investment than that expected by traditional investors.

2.4 Theoretical Perspectives on CSR

The social responsibility of businesses has been influenced by various theories (Carroll and Buchholtz 2000). Various researchers like Preston (1975); Klonoski (1991) and Frederick (1998) have attempted to shed light on the theories addressing the social responsibility of businesses. A current review of such early attempts is by Garriga et al. (2004) who categorised CSR theories into four groups: instrumental, political, integrative and ethical theories.

Instrumental theory regards social responsibility as a strategic tool that could be used to create value for any business and therefore assumes that a particular form of business behaviour will result in a predicted outcome. Instrumental theory is, therefore, a behavioural theory which presupposes that businesses that rate their social responsibilities higher than the maximisation of shareholder wealth are likely to increase their market value more than business that do not highly regard their social responsibilities. This means that businesses that perform their social contract become competitive and create more value than other businesses that do not (Jones and Wicks 1999). Additionally, instrumental theory suggests that businesses can manage their stakeholders in a way that the stakeholders turn to be a tool for maximising profits (Odgen and Watson 1999; Jawahar and McLaughlin 2001).

Furthermore, apart from price being a determinant of market equilibrium, businesses can also use their social power to influence the market in order to create wealth. As social institutions, (see Sect. 2.1) businesses can use their social power to either exert their influence on society by lobbying and/or offering monetary or non-monetary support to political organisations, or choose to withdraw their social investments. Notwithstanding the extent to which businesses may be able to exercise their social power, political theory suggests that businesses must obey the regulations that exist in their country of operation. However, political theory also states that business, society and politics are interwoven and therefore businesses must use their power responsibly in the performance of their social contract to the benefit of all (Garriga et al. 2004; Ratanajongkol, Davey and Low 2006).

Integrative theory posits that the survival and growth of businesses is dependent upon a favourable interaction between business and society. This favourable interaction is generated from businesses performing their social responsibilities in accordance with societal values. Businesses must, therefore, incorporate the demands of society into their operations as they fulfil their responsibility under their social contract (Garriga et al. 2004). Integrative theory further argues that social demands are not static, but change as the values of society change. In other words, businesses retain their legitimacy by complying with existing laws, public policies, political expectations as well as the management of their stakeholders (Secchi 2007).

The ethical theory assumes that the business-society relationship is based on ethical norms and, therefore, businesses must positively respond to their social responsibilities and accord those responsibilities the utmost priority according to their ethical obligations (Garriga et al. 2004). Ethical theory suggests that the sustainable development activities of businesses must be directed towards the achievement of high-level human, labour and universal rights. Unlike instrumental theory, where activities performed by businesses are aimed at achieving a specific outcome, ethical theory expects businesses to exercise their fiduciary duties when performing their business operations by seeking the interest of stakeholders (Garriga et al. 2004). Ethical theory can be recognised an extension of managerial theory in that whilst ethical theory considers all stakeholder groups (both primary and secondary) and their expectations; managerial theory is focussed on satisfying the expectations of primary stakeholders (Deegan 2006).

A further review of Garriga and Mele's work was carried out by Windsor (2006) and then by (Secchi 2007). Secchi (2007) found that the theories developed by (Garriga et al. 2004) were "complex, overlapping and not multidisciplinary". This finding was based on the assumption that that CSR activities occur when corporate behaviour and the social systems merge. Seechi's (2007) research linked CSR theories with management science and practices. He proposed the utilitarian, managerial and relational theories. These theories are discussed in detail below.

In Figure 2.1 below, utilitarian theory, a social cost theory is compared to instrumental theory. Also, managerial theory is associated with the social performance of business, business accountability, auditing and public reporting. This implies that managerial theory requires businesses, especially, multinationals to manage their social responsibilities. Furthermore, the ethical responsibility of multinationals to perform their social responsibilities is denoted by a link between ethical theories and social responsibilities. Similarly, integrative theory has been linked to relational theory because both theories dwell on the relationship between businesses and society, the responsibility of businesses towards society and the need for businesses to seek the interest of their stakeholders.

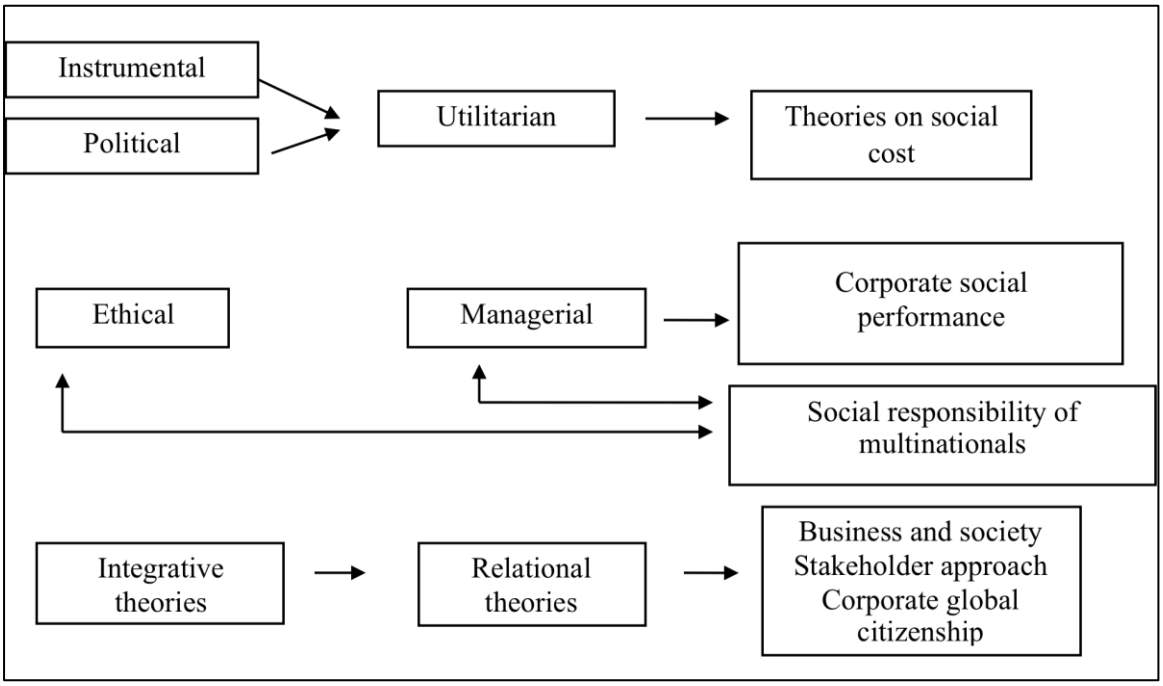


Figure 2.1: Utilitarian, Managerial and Relational Theories of Corporate Social Responsibility

(Source: Adopted and revised from Secchi 2007)

2.4.1 Utilitarian Theory

In utilitarian theory, the business is regarded as part of the economic system and, therefore, has a major focus on investment and profit maximisation (Velo 2003). The theory implies that businesses are self-motivated, profit maximisation institutions that will use their social activities specifically as a means of achieving profits (Jensen 2002). Thus, utilitarian theory acts as a basis for the formulation of business policy to manage the use of natural resources

and subsequently create competitive advantages (Porter et al. 2002). In the same vein, instrumental theory expected that businesses do not only act as wealth creators but also invest in socially responsible activities with the aim of improving the welfare of communities in which they operate (Garriga et al. 2004). Utilitarian theory can also be compared to the theory of social costs, where businesses that accept and perform their social duties are given the opportunity to operate continuously. Utilitarian theory is a combination of political theory and instrumental theory. Instrumental theory emphasises that social responsibility performance is a means to an end and therefore the level of societal control exercised by any business is dependent on its ability to form a positive relationship with society. Thus, utilitarian theory, like instrumental theory, recognises the existence of an association between stakeholders (internal or external) and the value likely to be created by businesses that seek the interest of stakeholders.

2.4.2 Managerial Theory

Managerial theory is concerned with the role that managers play in ensuring organisational success (Stoelhorst and van Raiij 2004). Under managerial theory, the initial objective of managers is to maximising profit for the benefit of stakeholders (Noble and Mokwa 1999). Also in managerial theory, the emphasis is on stakeholders that command control in an organisation and it is expected that management will satisfy the expectation of such primary stakeholders. However, managerial theory assumes that the exercise of authority is with management rather than stakeholders and, therefore, managers are responsible for the social performance of their organisations. This means that management must also take into consideration, during any decision-making process, the effect external influences pose on business operations. Furthermore, managerial theory posits that, because managers exercise their authority when making decisions about socially responsible activities, the decisions made are likely to be for projects acceptable to society. To achieve these objectives, managers, especially those of multinational companies, must provide accountability of their operations to society by ensuring their operations and accounts are audited and publicly reported. This is similar to ethical theory where businesses are focussed on performing activities that are regarded as morally right in order to achieve the good of society.

2.4.2.1 Corporate Social Performance

Companies that implement managerial techniques in the continuous operation of their businesses are of the view that external decisions must initially be addressed internally through corporate social performance activities, both locally and in foreign business dealings, to ensure accountable and credible reporting. In effect corporate social performance can be regarded as the outcome of an association between corporate strategy and the pursuit of social responsibilities. In implementing their social performance agenda, management are also equipped to formulate appropriate beneficial polices and strategies to accomplish corporate goals and effectively deal with external pressures. Thus, Campbell (2007) views a positive link between the level of behaviour, responsibility and institutional norms in corporate operational environment.

2.4.2.2 Social Accountability Reporting and Auditing

Social accountability is a combination of reporting and auditing (SAAR). Managerial theory therefore suggests the existence of a link between social accountability, reporting and auditing. In other words, companies account to stakeholders for their activities, by reporting and publishing their reports which are independently evaluated for credibility. This link has resulted in the promotion of SAAR (an international form of reporting) as a CSR tool for managers (Secchi 2007).

2.4.2.3 Social Responsibility of Multinationals

It is reported that the number of companies with global subsidiaries that are faced with transnational competition are increasing (Enderle 1999) making it difficult to separate social issues from economic issues (Sethi and Williams 2001). Global institutions like the International Labour Organisation (ILO) and OECD (ILO 2000, OECD 2000) have often tried to amicably solve transnational issues. However, because of the difficulty in controlling corporate behaviour, the solution to such transnational problems eventually lies with the management of these multinationals. This dilemma reveals that under ethical or managerial theory, businesses are regarded as ‘moral agents’ whose responsibility extends beyond that of profit maximization to adherence of internal codes and guidelines (De George 2000; Sethi 2002). This type of responsibility will push businesses to effectively and ethically discharge their social responsibilities. Nonetheless, the success or otherwise of any initiatives depends largely on customer expectations, level of societal trust (Bobrowsky 1999) and business reputation.

2.4.3 Relational Theory

Relational theory emerged as a way of diverging from the fixed, 'business-centred' notion of CSR to a more global perspective of creating sustainable relationships with stakeholders (Maessen, Van Seters and Van Rijckevorsel 2007). Relational theory is similar to integrative theory as it focuses on the interaction between business and its environment. The business environment revolves around business and society; stakeholder approach; corporate citizenship; and social contract (Secchi 2007). Like integrative theory, organisations are also expected, under relational theory, to consider the social contract between businesses and society and seek the interest of organisational primary stakeholders in the performance of their social responsibilities.

2.4.3.1 Business and Society

In analysing issues pertaining to business, most researchers make reference to the narrow view of the role of companies in society. The focus of the narrow view is on the social activities performed only within the context of business operations (Aguilera et al. 2007). Activities relating to societal welfare and social development are also viewed within the business context. It is therefore important when considering the role of social welfare and development in society that businesses focus on social activities that affect the whole social system (Secchi 2007).

2.4.3.2 The Stakeholder Approach

The stakeholder approach is a tool which businesses can use in managing their social responsibilities in their own interest and in the interest of stakeholders. This is because business is seen as connected with various stakeholders whose support is beneficial for corporate survival (Philips and Reichart 2000). The stakeholder approach indicates that in order to achieve a better society, businesses must not be accountable to only their shareholders but also integrate the social demands of different interest groups into their business strategy (Van Marrewijk 2003). These interest groups, as shown in the stakeholder model (Figure 2.2 below) are employees, suppliers, local community organisations, customers and governments, competitors, customer advocates, environmentalists, special interest groups and the media (McWilliams, Siegel and Wright 2006; Godfrey et al. 2007).

The stakeholder model shows that a bond is created between stakeholders and the organisation as management performs its social responsibilities in the interest of these stakeholders and also to the benefit of the organisation (Van Marrewijk 2003).

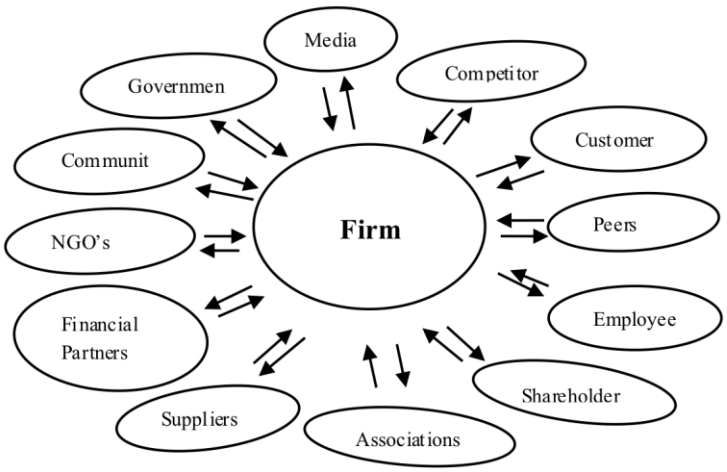


Figure 2.2: Stakeholder model of the firm

(Source: Adapted and revised from Crane and Matten 2007)

2.4.3.3 Corporate Citizenship

Matten, Crain and Chapple (2003) also focus on corporate citizenship as an additional area which companies need to cover. The argument for corporate citizenship is that companies need to recover their legitimate position in a society with the help of 'other citizens' in the same community. The term corporate citizenship was initially associated with voluntary philanthropic activities that companies undertake in their surrounding communities (Carroll 1991). It is envisaged that management perform such voluntary philanthropic activities as a matter of choice and not as an expected social responsibility. Therefore, Wood and Logsdon (2001) regard these voluntary activities as activities of self-interest that will be performed only if they are likely to be economically beneficial to the company. On the other hand, other researchers like Willmott (2001) emphasises a mutual rather than philanthropic relationship in corporate citizenship. Willmott (2001) further argues that corporate citizenship emphasises the need for businesses to regularly interact and be committed to their stakeholders.

From the above discussions, utilitarian theory can be termed as a normative theory in that it stipulates the outcome of the business-societal relationship. Managerial theory, on the other

hand, is business-focussed as it predicts the outcome of the interaction between business and its stakeholders. Relational theory, however, dwells on the value-relevance of the business-stakeholder interconnectivity.

2.4.4 Social Contract Theory

Social contract theory was initially coined by Thomas Hobbes. The fundamental idea behind social contract theory is that society, businesses and economic organisations are under an implied and flexible agreement to interrelate in order to create an ethical and decent community (Palmer 2001). Thus, businesses that perform their social responsibility in accordance with societal norms are regarded as having ethically performed their social duties. Palmer (2001), therefore, argues that CSR is based on social contract theory (as explained in previous sections) and that businesses enter into social agreements with other stakeholders in order to fulfil their social contract.

2.5 Summary

The social responsibility of businesses has been in existence since the mid 1880's. The concept of social responsibility demands that businesses show responsibility and accountability for the use of societal resources and, in addition, contribute to societal welfare and economic development. Businesses which substantially perform their social responsibilities by linking their business strategies and policies to their social responsibility performance are rewarded with value relevant benefits. Social responsibility theories identified by Garriga et al (2004): instrumental, integrative, and ethical theories have been revised into utilitarian, managerial and relational (Secchi 2007) theories. According to utilitarian theory, in their pursuit of organisational legitimacy, businesses focus mostly on profit maximisation rather than on their social responsibility performance. Relational theories, on the other hand, consider the different stakeholder groups and their association with organisations as more important. However, a common ideology of all three theories (utilitarian, managerial and relational theories) is the acceptance of the importance of businesses to perform their CSR obligations.

Chapter 3: Disclosure

3.1 Introduction

The importance of and the theories associated with CSR were discussed in Chapter 2. In order that stakeholders are aware of CSR initiatives carried out by organisations, it is imperative that the performance and outcomes of their CSR activities are publicly communicated to capital markets, investors and other interested parties. Communication of both internal and external corporate activities is made through disclosure. Researchers in various fields of academia have developed an interest in the examination of issues relating to disclosure. This is because of the significant role disclosure plays in linking business performance with interested parties and stakeholders.

The Chapter is organised as follows: Section 3.2 examines the broader aspects of disclosure and considers the reasons for non-disclosure of certain business information. The next section discusses the disclosure framework, elaborating on the nature, credibility and drivers of disclosure. Section 3.4 considers the theoretical underpinnings of disclosure. Section 3.5 reviews prior literature on CSR disclosure. Section 3.6 follows with a discussion of the research focus on legitimacy and stakeholder theories. The next Section discusses the myths of CSR. The Chapter ends in Section 8 with a summary.

3.2 Disclosure

Disclosure is a process by which companies communicate information on their current performance, future forecasted performance and the performance of each of their reporting segments to the market. Corporate disclosure, a necessity for the functioning of capital markets and investor protection, is provided through financial reports, management analysis, forecasts and other corporate reports (Healy and Palepu 2001). This information is mostly provided for report users such as shareholders, creditors, financial analysts and other stakeholders. Investors also rely on disclosures to make informed decisions and help in the process of comparing performance of two or more organisations. Importantly, disclosure, and in particular increased disclosure, is beneficial to companies because it reduces misunderstandings between stakeholders and corporate management (information asymmetry); enhances corporate image and value by increasing marketability of shares and share value and reduces the cost of capital (Lobo and Zhou 2001; Akhtarruddin 2005).

Another attribute of disclosure, especially increased disclosure, is to ensure transparency of performance; the increasing investments of socially responsible funds in businesses require greater accountability and transparency through disclosure (Dembinski, Bonvin, Dommen and Monnet 2003). Third party independent examination is a means of enhancing transparency and credibility of disclosures. Transparency and credibility of disclosure are essential to report users and capital markets. For example, lack of transparency and accountability in disclosures to capital markets was one of the reasons behind the collapse of multinationals like Enron, One Tel, HIH and, recently, Opes Prime. Such perceived corporate irresponsibility has increased the demand for more disclosure and generated increased research into both voluntary and non-voluntary disclosures (Armstrong et al. 2008).

Notwithstanding the advantages of disclosure, businesses may be reluctant to publicly disclose proprietary or private information. This is because proprietary information is regarded as a form of competitive advantage which positively affects future cash flows and must, therefore, not be divulged to competitors (Dye 2001; Prencipe 2004). For example, businesses will not be willing to disclose private information if they are certain that such disclosure is likely to provide insight into some other proprietary information. Furthermore, a company that aims to maximise its value may not disclose negative information which has the possibility of damaging its reputation to investors if the company is uncertain of the reaction and interpretation of such negative information (Suijs 2007). Organisations may also not favour voluntary disclosure of non-financial information relating to human rights, freedom of association, and collective bargaining agreements if such information is negative and can damage their reputation and reduce their market value (Urminsky 2005). Information regarding job security, training and education, intellectual capital may also be considered as private and a source of competitive advantage; organisations may, therefore, not willing to disclose such private information (Urminsky 2005).

3.3 Disclosure Framework

Figure 3.1 is a model of factors affecting disclosure. Factors that have been identified as likely to affect the disclosure of business information include culture, national and corporate systems, and secrecy (Akhtarrudin 2005). Figure 3.1 show that, a country's culture and national systems have an impact on the corporate structures adopted by businesses operating in that country. These corporate systems, in turn, affect the level of disclosure of those

businesses. Power distance, masculinity, individuality and uncertainty avoidance are cultural dimensions that effect disclosure (Hope 2003). The national system of a country is determined by its level of economic development, inflation, types of capital markets, level of political development, legislation and media influence. The national culture of any country is said to influence the development of its accounting values (Gray 1998). However, amongst the four dimensions of accounting values namely, professionalism/statutory control; uniformity/flexibility; conservatism/optimism; and secrecy/transparency (Gray 1988), secrecy is said to have the most influence on business structures and subsequently the amount of information businesses are allowed to disclose (Doupnik and Riccio 2006). According to Figure 3.1 below, disclosure is a function of culture, national systems, accounting value and corporate systems.

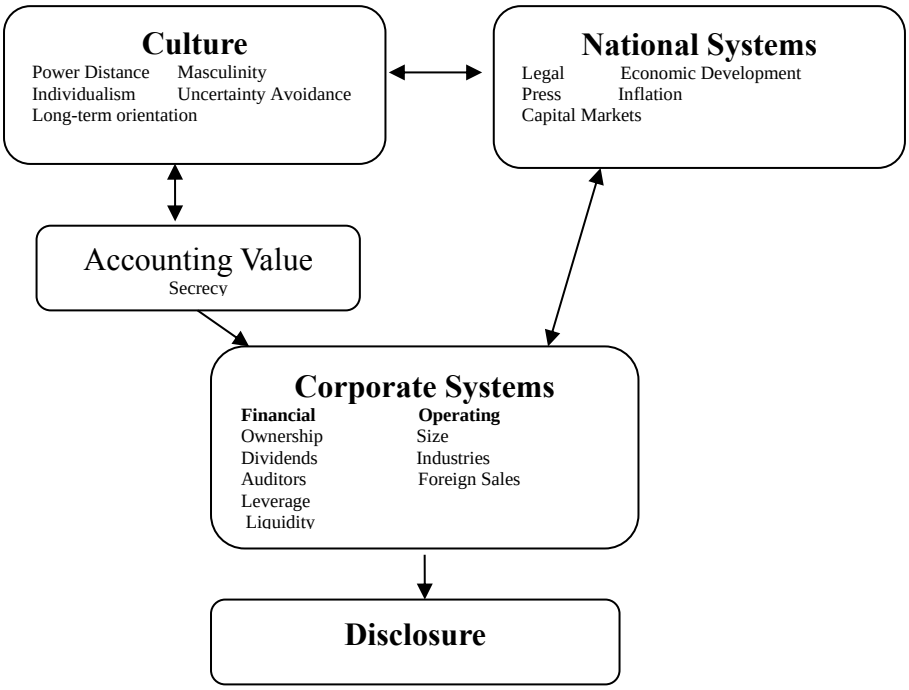


Figure 3.1: Model of Corporate Disclosure

(Source: Modified from Archambault and Archambault 2003)

Several factors, including culture, national systems and corporate systems influence the disclosure patterns adopted by businesses in various countries. Culture can either be organisational or national. The values of any business entity are derived from its organisational culture. Organisational culture is likely to differ among organisations because every organisation has its own values. The differences in organisational cultures can result in

different forms of disclosure. Whilst businesses whose values favour socially responsible practices are likely to produce laudable sustainability disclosures, businesses whose cultures are unfavourable to socially responsible practices may not make laudable sustainability disclosures (Prakash 2000). The national culture of a country can also influence the values of businesses operating in that country.

The norms of a county form its national culture. National culture can be divided into five dimensions: power-distance; masculinity/femininity; high uncertainty-avoidance/low uncertainty-avoidance; individualism/collectivism; and long-term-orientation/short-term-orientation (Hofstede 2001). National culture is convergent with businesses in the same country but mostly divergent with cross-border countries. Power-distance refers to the societal classes acceptable in a country. A high power-distance society values the inequality in power exhibited by different groups in that society. On the other hand, inequality is unacceptable in low power-distance societies and members in those societies strive for equality and power. Societies with preference for achievement, heroism, assertiveness and material success exhibit the masculinity cultural value; whilst societies with femininity values demonstrate their preference for group decision-making, co-operation and relationship creation (Hofstede 1984; Ferraro 2002; Draft and Marcic 2008).

Society's responsiveness to uncertainty and ambiguity is associated with the cultural value of uncertainty-avoidance. Members of a high uncertainty-avoidance society are more aligned to values that portray certainty and prefer organisations that conform to established rules and principles. Such societies adhere to strict codes of beliefs and ethics and are not accepting to change. For example, most economically developed countries rank more highly in uncertainty-avoidance than less economically developed economies. Since high uncertainty-avoidance societies require conformity to establish standards and regulations, corporations operating in such societies will be expected to disclose more information than those operating in less economically developed and low uncertainty-avoidance economies. On the other hand, less principled characteristics are tolerated in societies with low uncertainty-avoidance, with preference for more freedom and non-stringent protocols. People in such societies are generally innovative and desire change.

Societies with loosely knit foundations, where individuals are self-centred, value individualism. Persons from individualistic societies seek their self-interest in their

endeavours and mostly comment on individual achievements and wealth. On the other hand, collectivism is associated with societies that are closely and firmly integrated. Individuals in a collectivist society prefer group membership and are protective of each other. The expectation is that members of a collective society are likely to fulfil their social obligations. Organisations in such societies are likely to protect their employees and are eager to perform their social responsibilities (Hofstede 1984; Ferraro 2002; Draft et al. 2008).

The perseverance and thrifty character of members of a long-term-orientation society allows them to trade-off short-term profits for long-term benefits. Likewise organisations operating in long-term-oriented societies are more concerned with future benefits; and are likely to follow sustainable business practices in their operations and in their use of resources. Such businesses are therefore likely to achieve high performance in social responsibilities with resultant high-level disclosures. On the other hand, their counterparts in short-term-oriented societies are concerned with the past and the present. Therefore, the interest of members in short-term-oriented societies shifts more towards historical and traditional issues. Unlike their counterparts in the long-term-oriented societies, their benefits are more evaluated in the short-term rather than in the long-term (Hofstede 1984; Ferraro 2002; Draft et al. 2008). Low disclosure is expected from businesses in such societies.

In effect, businesses in societies with high power-distance, high individualism and high masculinity cultures are likely to favour division in society, be less committed to social issues but are likely to comply with rules and regulations. Consequently, disclosures from businesses in such societies are likely to be low (Ashkanasy, Trevor-Roberts and Earnshaw 2002). On the other hand, countries with low power distance, low masculinity and low individualism cultures are more likely to be more socially responsible, seek to enhance the welfare of other members of society and adhere to rules and regulations. Companies in such countries are likely to disclose more information to their stakeholders (Ashkanasy et al. 2002).

According to the model shown in Figure 3.1 above, cultural influences have a direct impact on a country's political and national systems such as laws, level of press freedom, inflation and capital market development. These political and national systems, to a large extent, determine a country's level of economic development. Also, the interaction between economic and capital market development has an influence on a country's cross-border stock

exchange listings (De Jong and Semenov 2002; Healy et al. 2001). In addition, the level of development of a country's capital market is likely to affect its disclosure requirement and subsequently its level of corporate disclosure (Healy et al. 2001).

Gray's (1998) theoretical framework on 'cultural influences on accounting' linked cultural values to international differences in corporate accounting values and practices, including disclosure practices. Out of Gray's four accounting values, namely professionalism/statutory control, uniformity/flexibility, conservatism/optimism and secrecy/transparency, the value directly associated with disclosure is secrecy/transparency (Doupnik et al. 2006). The accounting value of professionalism refers to the choice of making personal professional judgements and the maintenance of professional self-regulation, whereas the preference for statutory control relates to accounting information preparation and reporting in accordance with rigid statutory legislations. Uniformity relates to choice made by companies in adopting similar accounting practices and using them on a regular basis over a period of time. Flexibility, on the other hand, relates to freedom for individual companies to report in conformity with their specific circumstances. Companies that adopt the conservatism accounting value prefer a prudent approach to measurement so that future challenges can be effectively managed. On the other hand, organisations that choose a more positive, laissez-faire and risky approach to measurement, practice the accounting value of optimism. An organisation's secrecy or transparency values can have a significant impact on the amount of information that the organisation is prepared to externally disclose (Doupnik et al. 2006). Cross-national divergence on the level of secrecy is also likely to impact either negatively or positively on disclosure levels (Doupnik et al. 2006). As well, businesses with high secrecy values are likely to promote confidentiality rather than transparency in their reporting. This means that businesses operating in a highly secretive environment are more likely to confine disclosures to insiders and those external stakeholders closely associated with business management and finance issues rather than adopt a more transparent approach by being accountable to the public at large through increased external disclosure (Chanchani and Willett 2004; Tsakumis 2007). However, it is evident that whereas local businesses in countries with high secrecy value scores will disclose less information, international companies tend to move away from the secrecy cultural values of their home countries and increase disclosure (Newson and Deegan 2002). The reason behind this conversion may be related to the ownership structure of international companies and the difference in

development of capital markets; as a large external share ownership distributed amongst different types of investors is a pre-requisite for increase external disclosure. The value relevance of external disclosure on capital markets may also be a factor for increased disclosure by international companies (Chanchani et al. 2004).Countries in less-developed Latin and Germanic economies tend to show extreme secrecy in their disclosures than those in Anglo-cultural economies who tend toward extreme transparency in their disclosure practices. Less-developed Asian and African economies exhibit a lower level of secrecy in their disclosures. Nordic and Asian countries are also less transparent in their disclosure practices than their Anglo-cultural counterparts (Gray 1998; Doupnik et al. 2006).

To sum up the above discussion, it can be deduced that corporations in societies with high levels of uncertainty-avoidance and power-distance, and low levels of individualism and masculinity will exhibit high levels of secrecy and subsequently lower level of disclosure and vice versa. Disclosure is also expected to be influenced by legal systems, media, economic development, level of inflation and capital markets.

The legal system of a country can either be Common law or Code law. Code law has its roots from Roman law and requires strict compliance. Code law countries are required to comply with accounting standards to the letter. On the other hand, Common law is more flexible as it is continuous, developed as the cases occur and therefore encourages innovation. This means that standards in Common law countries are not part of statute law but are developed by professional private sector organisations. Standards in Common law countries, therefore, tend to be more adaptive than prescriptive (Choi, Frost and Meek 1999). Interestingly, Common law countries have the strongest protection of shareholders and creditors whereas protection is weak in Code law countries (La Porta, Lopez-de Silanes, Shleifer and Vishny 2000). It follows that disclosure in Common law countries will be increased to either satisfy the request of stakeholders, prevent information asymmetry or both (Ball, Kothari and Robin 2000). The view expressed by Ball et al. (2000) corresponds to the idea expressed by other researches that the level of disclosure in corporations in common law countries is higher than their counterparts in code law countries (Jaggi and Lowy 2000). On the other hand, the argument also runs that corporations operating in either Common law or Code law countries will increase their disclosure levels if those corporations require large amount of external capital. Such increased disclosure is, in turn, beneficial to these corporations because it reduces the cost of both debt and equity funds.

Media can either be electronic (television, radio, internet) or print (newspapers, magazines). Media informs and educates the public on past and current issues. It follows that issues already known to the public that require swift action can be pushed by extensive media coverage, and concerns unknown to the public can also become important to organisations when communicated in the media. The impact of media on society is, therefore, phenomenal as it can shape and transform public perceptions on various issues. Corporations are likely to react to media coverage or publicity. These reactions may positively or negatively affect their legitimacy and continuous operation. Corporations can, however, increase disclosure in order to change society's perception on issues reported by the media. It can, therefore, be argued that the level at which corporations will increase or decrease disclosure is dependent upon previous and current media publicity (Deegan et al. 2002; Aerts and Cormier 2009).

International funding agencies such as the International Monetary Fund (IMF) and the World Bank provide funding for several projects in developed, developing and emerging economies. These economies are, in turn, expected to reform their financial reporting systems to be able to produce reliable financial information that will support continuous access to foreign investments and funding. To help in these reforms, accounting and international regulatory bodies provide technical assistance and advice on current accounting practices, notably the International Financial Reporting Standards (IFRS). Companies in these economies are subsequently required to increase their disclosure levels to provide evidence of their legitimate adoption of these financial practices (La Porta et.al 2000). Although the type of information relevant to stakeholders in the three economies may differ, stakeholders is all economies expect corporations to disclose more information on issues they perceive to be relevant than on issues of less importance to them. For example, stakeholder in developing and emerging economies require more information on contributions made towards economic development such as job creation and poverty reduction. On the other hand, their counterparts in developed economies expect corporate disclosure to be more focussed on issues relating to social and environmental development activities such as labour practices and emissions reduction.

From the discussion so far, it can be deduced that, although stakeholders in both developed, emerging and developing countries do favour increased disclosure, areas of focus differ amongst these economies. Also, corporations in highly developed economies and markets may be able to raise more debt and equity capital than their counterparts in less developed

economies and markets; to do so require them to increase disclosure on performance to capital providers. Disclosure therefore tends to be higher in corporations operating in highly developed economies than in those operating in less developed economies.

Inflation disrupts historical cost accounting and negatively affects the ability of corporations to incorporate price changes into their financial statements (Choi et al. 1999). This limits the usefulness of financial statements for decision making in countries experiencing high levels of inflation. Corporations in such economies may adopt price-level accounting (Archambault and Archambault 1999) and increase disclosure to provide report users with valuable information for decision-making. Increased financial disclosure can provide further detailed explanation on non-financial reports.

Also, the level of development of a country's capital market is likely to affect its disclosure requirement and, subsequently, its level of corporate disclosure. A typical example is the rigorous listing requirements on the U.S. stock markets, which include reconciliation to the generally accepted accounting principles in the U.S. (U.S. GAAP) and the enforcement of disclosures to be made in accordance with requirements of the Securities and Exchange Commission's [SEC] (Edison and Warnock 2008). However the International Accounting Standards Board (IASB) and the International Organisation of Securities Commission (IOSCO) have recommended that financial information on cross-border capital markets should be disclosed in accordance with International Accounting Standards such as International Financial Reporting Standards (IFRS). This recommendation is an attempt to avoid divergence in reporting and encourage harmonisation and comparability (Hora, Tondkar and Adhikari 1997). In this vein, one is likely to argue that the influence of internal forces have reduced significantly on cross-border listing disclosure requirements over the years due to the harmonisation drive by various accounting bodies notably the IASB (Ole-Kristian 2003). Nonetheless, the IASB is yet to gain authority to enforce reporting practices in individual economies. Thus, the enforcement of accounting standards is dependent on a country's enforcement agencies.

According to the above model, corporate systems also affect the level of disclosure. Corporate systems that influence level of disclosure have been grouped under operating and financial systems. The operating systems are size, industry and foreign sales; and the financial systems comprise ownership, leverage, liquidity, auditors and dividends.

The literature also posits that larger corporations are expected to disclose more information than smaller firms. This is because large corporations attract more external capital than small businesses. Most of the capital is either borrowed from financial institutions or sourced from equity investors. These lenders/investors expect corporations that attract capital from them, to disclose more information on their operations. Furthermore, high levels of disclosure require highly skilled intellectual capital, which is more costly to obtain. Since large corporations, rather than the small businesses, can access large amounts of funds; it follows that it is large companies that will also have the capability to attract highly skilled labour (Richardson and Welker 2001; Robb, Single and Zarzeski 2001).

External investors and other report users may require information on corporations in specific industry sectors to enable them to assess their performance for investment and decision making purposes. Report uses expect such corporations to publicly disclose more industry-related information than their counterparts in other industry sectors. Also, internationally exposed corporations that are listed on various stock exchanges will be expected to disclose more information than companies that are non-listed or are listed on only the stock exchange in their home countries. Furthermore, corporations operating in high-risk industry sectors will be expected to publicly disclose more information on efforts to manage those risks than businesses in low risk industry sectors (Lev and Zarowin 1999; Beretta and Bozzolan 2004).

Corporations that expand their sales into foreign markets are likely to require more capital and skilled labour to fulfil the expectations of consumers than domestic corporations. The literature suggests that these corporations will increase their level of disclosure to be able to access the extra resources required.

Another factor affecting the level of information publicly disclosed is the type of ownership structure adopted by a business. Family-owned businesses require lower public disclosure because family members, who are also majority shareholders, can regularly receive information on business operations. On the other hand, listed companies are mostly funded by dispersed equity investors and will require more public disclosure; the reason being, that equity shareholders (although the owners of the business), are not involved in the day-to-day running of the business and are therefore not part of the decision-making process. To reduce information asymmetry and agency cost, businesses largely owned by dispersed equity

shareholders will have to increase their level of public disclosure (Depoers 2000; Chau and Gray 2002).

The capital structure of any corporation is either equity or debt, or both equity and debt. Businesses with high debt structures will have higher agency cost. This occurs because of the possibility that a larger transfer of corporate revenue will be made to managers than to debt holders (Doopers 2000). However, increased disclosure can minimise information asymmetry between managers and debt-holders and therefore reduce agency costs (Barako, Hancock and Izan 2006).

Corporations that are able to promptly pay their short-term liabilities are described as liquid. Highly liquid corporations are motivated to disclose more information to convince report users of their continuous going-concern status. Also, highly liquid corporations will increase disclosure and will also be able to attract more external capital especially from equity investors. This is possible because of the information made available to investors on the solvency and long-term benefits of investing in such businesses (Barako et al. 2006; Grüning 2011).

The type of auditors engaged by a corporation can be categorised into two groups, namely those from the four large internationally recognised audit firms (big 4) and those from other smaller firms (non-big 4). It is argued that while the major concerns of the big 4 firms is to safeguard their reputation Chalmers and Godfrey (2004), retain their clients and become more efficient (Oliveira and Rodrigues 2006), smaller assurance firms strive to meet the demands of their clients in order to retain their engagements (Alsaeed 2006). The independence of the big 4 firms allows them to encourage voluminous corporate disclosures and also provide higher quality assurance (Simnett, Vanstraelen and Chua 2009). By providing quality assurance services, the big4 firms are able to avoid the costly lawsuits and high reputation cost associated with compromising independence and producing low quality assurance reports (Shum, Chen and Burritt 2009). To this effect, the reports of companies that engage the big4 for assurance purposes are also likely to have greater external credibility when compared to the reports of companies that engage smaller audit firms (Bradshaw, Miller and Wu 2008). In effect, corporations that engage the non-big 4 audit firms are more likely to disclose lesser information than corporations that engage the big 4 audit firms (Oliveira et al. 2006; Alsaeed 2006).

Literature posits that increased access to information about public corporations in the media through analyst reports and over the internet has rendered the disclosure of information on dividend changes in annual reports less value-relevant. For this reason, corporations may not obtain any substantial increase in their share values or equity shareholdings after disclosing dividend information; although such information is costly to compile. The decline in value of dividend payout information provided in annual reports is likely to negatively impact on disclosure. Furthermore, others argue that some corporations continue to disclose information on their dividend payouts because of the associated effect on future cash flows. However, such corporations will subsequently reduce their level of public disclosure to cover the cost incurred in disclosing such information (Archambault et al. 2003; Amihud and Li 2006). Publicly disclosed information can either be financial or non-financial. While most financial disclosures tend to be regulated and therefore mandatory, non-financial disclosures are mostly voluntary.

3.3.1 Nature of Disclosure

As stated earlier, disclosures can either be financial or non-financial. Financial disclosure, mostly an in-depth disclosure of corporate financial performance within a regulatory framework (Australian Stock Exchange [ASX] 2002; Debreceny and Rahman 2005) is associated with disclosures in the form of corporate financial as well as information from corporate management. Financial statement disclosures are regulated by standards from accounting bodies such as the IASB and IOSCO. Currently, the IFRSs are accounting standards that have been adopted by more than 100 countries (and Trombetta 2008). Several countries have converged domestic accounting standards with the IFRS in order to regulate financial information disclosure. Other countries have also adopted the IFRS in order to avoid divergence in reporting as well as encourage harmonisation and compatibility of financial reports (Carmona et al. 2008) However information that is specific to any organisation is normally disclosed voluntarily to stakeholders. Examples of non-financial disclosures include product-related information, information on business expansion and environmental management. Social responsibility and voluntary self-regulatory corporate governance codes of practice are currently unregulated and, therefore, disclosure is voluntary (Australia's Corporate Governance Framework: Making transparency transparent, an Australian assessment, (www.treasury.gov.au/documents/178/PDF/ch4, (accessed August 16, 2010)). However, some non-financial disclosures, such as corporate governance requirements and

related party transactions, are regulated by standards such as the IOSCO non-financial disclosure standards and International Accounting Standards (IAS 24) respectively. Non-financial disclosure is also associated with continuous voluntary disclosure by businesses over and above their mandatory requirement (Barako et al. 2006). Thus, continuous disclosure which is essential for efficient security market operations require that companies provide material information to report users through an accepted disclosure framework. For instance, continuous disclosure, a vital part of the Australian disclosure framework, seeks to enhance investor accessibility to 'price sensitive' material information (Corporate Law Economic Reform Program [CLERP] 9 2002). However, quality regulatory or voluntary disclosures require that reporting be frequent and timely (Debreceny et al. 2005). In Australia, sections of listing rules for the three financial markets (Australian Securities exchange [ASX], Bendigo Stock Exchange [BSX] and the National Stock Exchange of Australia [NSX]) and the Corporations Act (2001) provide information on the regulatory framework of disclosure amongst corporate entities. ASX, the largest financial market in the three exchanges with the highest number of listed companies, provides information on continuous and periodic corporate disclosure under sections 3 and 4 of its listing rules. Additional voluntary disclosures reported by the ASX listed companies are likely to bridge the information gap created by limitations in periodic reporting; the ASX listed companies are likely to disclose more information than those mandated in periodic disclosure. The disclosure of voluntary information is also likely to add value to businesses by increasing external ownership (Tasker 1998).This study will focus more on voluntary corporate disclosure and its value-added effects on businesses.

3.3.2 Credibility of Disclosures

Communicating business worth and performance through either financial or non-financial disclosure is essential for the economic development of public corporations and capital markets. It is, therefore, necessary that businesses provided credible information in the financial and non-financial reports they disseminate to the public. Credibility of statutory disclosures improves the quality of public reports, thereby decreasing the occurrence of fraudulent disclosures that are likely to impact negatively on the confidence of report users (Rezaee and Riley 2010). Also, report users, especially investors, expect voluntary disclosures to contain forward-looking and extensive information on business performance, growth and competitiveness. It is, therefore, prudent that such voluntary information is

credible, so that these disclosures can be relied upon for informed investment decision-making. Informed investment decisions from investors are value-relevant because they improve resource allocation on capital markets. Businesses also benefit from credible voluntary disclosures because capital markets communicate value-relevant information (Dye and Sridhar 2002) that positively affect share prices and reduces cost of capital The most common method adopted by businesses in ensuring credibility of financial and non-financial disclosures is through external or third-party verification referred to as assurance (Adams et al.). Credibility can also be ensured through the internal audit function and through internal control systems (GRI 2006). Several factors drive companies to increase or decrease their level of financial or non-financial disclosure. Such factors include cost of capital, stock-based compensation and shareholder litigation. These drivers are discussed in the next Section.

3.3.3 Drivers of Disclosure

Several factors drive the disclosure of both mandatory and voluntary information, although mandatory disclosures are normally driven by legislations. Some of the factors that influence voluntary disclosure are examined below.

Cost of capital: Investors seek information on corporate performance from disclosures made in published annual reports. Companies are expected to disclose adequate and relevant external information on their performance and expected future prospects to enable investors to take informed decisions. This is in conformity with the argument that level of disclosure increases as businesses seek external capital (Botosan 2000). On the other hand, inadequate disclosure or information asymmetry between companies and investors are likely to mislead investors in their decision-making and result in inefficient asset allocations. If this anomaly occurs, investors will have to be compensated for bearing the information-risk associated with inadequate disclosure through increase in corporate cost of capital (Gârleanu and Pedersen 2004). In effect, companies that raise capital or acquire assets that require stock transactions on the capital market but lack adequate external information disclosure on future corporate prospects are likely to increase their cost of capital acquisition. It is, therefore, prudent that companies that intend to acquire public debt or equity deal with any information asymmetry issues between corporate management and external investors. Furthermore, such companies must also increase external disclosure in order to increase public offers (Healy, Hutton and Palepu 1999), reduce cost of equity (Lang and Lundholm 2000) as well as lower

cost of debt. The above conforms to the argument that information asymmetry reduction by way of increased external disclosure will reduce cost of capital, increase stock liquidity and attract large external investors like institutional investors (Diamond and Verrechia 1991).

Stock-based compensation: Managers may be unwilling to make public certain vital corporate information through disclosures. Such information, aside from being important to investors for their effective investment decisions, may also positively affect corporate share liquidity. To avoid such occurrences, companies provide incentives to their managers in the form of stock-price based compensation plans such as share ownership, stock option grants and stock-appreciation rights to encourage managers to increase voluntary information disclosures in order to curtail the disclosure-agency issue (Nagar, Nanda and Wysocki 2003). Stock-based compensation plans are also an incentive for managers to increase disclosure on private information in accordance with insider trading rules. External disclosure of private information may prevent managers from compensating themselves with insider private trading information and rather disclose such information which is likely to boost investor confidence and increase corporate share value (Maug 2002).Furthermore, managers and investors are also likely to be content with economic-gains derived from their stock price-based compensations and shares if share prices reflect a positive assessment of corporate value. Companies that reward their managers through stock-based compensation plans are, therefore, likely to favour increased disclosures.

Shareholder litigation: Shareholder litigation cases mostly end up in lawsuits with excessive payments from companies. These excessive payments from such lawsuits may prompt companies to consider making post-lawsuit changes to their disclosure policies. Such changes can take the form of increasing disclosure or re-considering timing of information releases (Rogers and van Buskirk 2009). Aside from settling litigations through large lawsuit litigation payments, companies may also be compelled by litigants and regulators to reform their governance practices as part of the requirements for litigation settlement. The demand for changes in governance structure is likely to result in an increase in the level of disclosure (Rogers et al. 2009). Considering that timely disclosures may prevent accusation of corporate information concealment, companies are likely to publicly disclose negative information on their earnings early to reduce litigation cost (Skinner 1994). Timely disclosure of negative information is also likely to have a lower negative effect on share price decline as opposed to

infrequent and untimely negative information disclosures, which may result in extreme market reactions and large share price decline (Field, Lowry and Shu 2005).

Internal and competitive factors: Formulating and implementing effective business strategies make 'good business sense' (Epstein and Roy 2001). However, business strategies must be geared towards achieving adequate and relevant stakeholder interaction. Corporate managers who take pride in performing a wide range of voluntary activities also enjoy various economic bottom-line benefits such as market efficiency, low risk-management (McWilliams et al. 2001), cost minimization (Schaltegger and Burritt 2005), first-mover advantage (Bansal and Roth 2000), increased shareholder value and high employee motivation and low turnover (Kotler et al. 2005). Other 'business case' benefits include competitive advantage such as in the area of efficient use of resources and waste reduction, reduced capital cost (Heal 2005), retention of license to operate (Schaltegger et al. 2005) and long-term company survival (Kong, Salzmann, Steger and Ionescu-Somers 2002). Overall, companies that undertake rigorous voluntary activities enhance their image and improve their reputation, and are more likely to be the choice of many investors (Vogel 2005).

External demand from investors and consumers: For most investors, social considerations play a large role in their choice of investment products. Harte, Lewis and Owen (1991) argue that, because socially responsible investments drive voluntary disclosures, companies whose portfolios contain such investments are expected to be involved in numerous social responsibility activities. Also, socially responsible organisations that are innovative and competitive in their pricing of goods and services can expect to take advantage of various market opportunities. Additionally, the shareholder also benefits from the numerous market opportunities through increased capital gains and effective dividend policies (Statman 2000). Benefits enjoyed by invested businesses, investors and stakeholders present a win-win situation for all.

Regulatory factors: Legislation is another driver of disclosure (Gray and Milne 2002). Various forms of regulatory mechanisms have been adopted in different countries to encourage disclosure. Whilst the governments of Sweden, Norway, Netherlands, Denmark, France and Australia have found it prudent to introduce legislation for companies listed on their stock exchanges (Frost 2007), other governments like that of the U.S. have resorted to the introduction of tradable permits and corrective market measurement standards (Abelson

2002). Others, like the Dutch government, have recommended personal income tax exceptions for investments in green projects in industrial sectors like energy, agriculture and technology in an effort to encourage disclosure (Scholtens 2005; Richardson 2009). As already discussed above, culture is also a driver of disclosure.

Various theories form the bases for financial and non-financial disclosure. However, particular interest of this thesis is to discuss the theories that form the framework of non-financial disclosure. The next Section will therefore discuss the theories that form the framework CSR disclosure. These include stakeholder, legitimacy, political, agency, and economic theories.

3.4 Theoretical Underpinnings of CSR Disclosure

The underlying rationale behind CSR disclosures has been enunciated under various socio-political and non-social political theories (Patten 2002) such as agency theory, stakeholder theory, legitimacy theory, economic theory and political theory.

Agency theory: Unlike socio-political theories, such as stakeholder, legitimacy and political theories, where the survival of organisations is dependent upon their response to societal demands, agency theory attributes the survival of an organisation to the economic relationship that exists between economic agents and their principals. Agency theory asserts that investors normally do not play active role in corporate management and expect that decisions made on their behalf will improve corporate financial performance and increase corporate value. However, as this is normally not the case, it is argued that when ownership is concentrated more in institutional shareholdings than managerial shareholdings, institutional shareholders (normally with large shareholdings) are motivated by the benefits derived from monitoring management to actively participate in organisational decision making and governance activities, and thereby reducing agency cost (Kouki and Guizani 2009). The active participation of institutional shareholders is likely to prevent managers from utilising discretionary funds or free cash flows on non-economic ventures, excessive payment of salaries or on activities with outcomes that will be beneficial to only management. The excess cash flows are distributed to shareholders in the form of cash dividends compelling managers to source funding externally. Agency cost is subsequently reduced and managers subject themselves to external scrutiny in the capital market at they borrow externally. Additionally,

the mixture of external debt and internal equity funds for financing organisational operations is likely to reduce agency conflicts between managers and outside stakeholders (Crutchley, Jensen, Jahera and Raymond 1999). In addition, economic agents that operate within efficient markets are likely to take advantage of the opportunities that exist in those efficient markets to the detriment of loyalty to their principals (Cormier, Magnan and Velthoven 2005). To prevent disloyalty that may exist between agents and principals because of non-disclosure of vital information; agency theory posits that businesses increase disclosure to reduce information asymmetry.

Agency theory can be compared to managerial theory in CSR in that both theories have the principal-agent connotation. While traditional agency perspective is more related to the maximisation of wealth by managers, for the benefit of shareholders the managerial CSR perspective deals with managers performing social activities to the benefit of stakeholders including shareholders. Although agency theory is relevant in financial disclosure studies, it will not be considered under this study because it is one of the theories that have been significantly examined by researchers (Depoers 2000). Most importantly, agency theory (as applied in financial accounting research) requires managers to increase information disclosure to mainly shareholders and not all stakeholders. It is, therefore, not relevant for this study which considers issues relating to all stakeholders and not only shareholders.

Legitimacy theory: This theory has been defined by Suchman (1995 p.574) as 'the impression created by businesses through disclosure to show that their operations are in accordance with the standards, cultures and beliefs (values) of society'. Similarly, Campbell (2003) and Campbell, Craven and Shrives (2003) are also of the view that businesses disclose information on their activities in order to bridge the legitimacy gap between societal expectations and business operations. Researchers like Deegan and Gordon (1996); Wilmshurst and Frost (2000), after examining the association between factors affecting disclosure decisions of environmental information and actual disclosures, also concluded that businesses show legitimacy of their operations by disclosing information on their operations to stakeholders. In advancing the theory of corporate legitimacy, Neu, Warsame and Pedwell (1998); Milne and Patten (2002); O'Donovan (2002) stated that businesses will act in accordance with the requirements of their social contract by adopting and disclosing information in line with corporate expectations of societal demands. Consequently, companies disseminate more information when their legitimacy is at risk to positively alter

negative perceptions about both their financial and operational performance (Patten 2002). Furthermore, in proving their legitimacy, companies can form partnerships with other companies that have achieved higher levels of legitimacy (Deegan and Blomquist 2006).

The issue of legitimacy and its effect on socially responsible disclosures is addressed in this thesis research question:

To what extent do legitimacy variables influence CSR disclosure?

Legitimacy theory is similar to utilitarian theory in that in both theories businesses portray their operations as legitimate to their external stakeholders as a means of fulfilling their business-social contract (Hui and Bowrey 2008) and continuous survival. Also, as in utilitarian theory, businesses incorporate social expectations into their policies and strategies as they seek to manage the resources entrusted to them and prove their legitimacy. However, aside from proving their legitimacy, businesses expect to be rewarded with value-relevant benefits, such as increase in reputation and share value. This expectation of seeking reward is similar to the business expectation under the utilitarian theory where businesses perform their social activities as a means to achieve their profit motive (see Section 2.2).

Stakeholder theory: This theory suggests that companies have a social responsibility towards society and must therefore manage their valuable resources in a way that fulfils societal demands and improve public welfare (Psaros 2009). In other words, provision of information on corporate operational performance is important in order to satisfy demands from various stakeholders (Ortlitzky et al. 2003) for information on actual performance (Clarkson, Li, Richardson and Vasari 2008). Stakeholder theory, also a system-oriented theory, was initially conceived by Freeman (1984 p.25) who defined stakeholders as 'an individual or group of persons that can influence or are influenced by corporate performance'. This individual or group of persons include shareholders, employers, customers, government and suppliers. Stakeholders are an important corporate interest group and because their support is paramount to continuous corporate survival, continuous interaction between corporate management and stakeholders is necessary. Stakeholder theory is generally discussed under three perspectives namely the managerial, normative (Deegan 2000) and sustainability perspectives. The managerial aspect focuses on stakeholder management and stresses the need for businesses to formulate strategies and establish

structures to manage their stakeholders. The normative aspect dwells on communication with stakeholders. It advocates the inclusion of stakeholders, and stakeholder interests in organisational decision-making. The sustainability perspective focuses on the role businesses play in contributing to a sustainable world. This study will particularly investigate the sustainability perspective of stakeholder theory.

Demands for corporate disclosure emanate from two groups of stakeholders, namely primary and secondary stakeholders (Waddock, Bodwell and Graves 2002). Primary stakeholders are those whose support and approval are essential for corporate survival whilst secondary stakeholders are those whose demands may affect the company. Secondary stakeholders may not have direct dealings with an organisation and, therefore, are not of essence to the organisation's survival. Primary stakeholders include employees, shareholders and suppliers, while non-governmental organisations (NGOs) and communities form part of secondary stakeholders (Waddock et al. 2002; Clement 2005). For most shareholders, social considerations play a major role in their choice of investment products. Such shareholders are likely to support companies whose portfolios contain 'green investments' by investing in these companies. Also, skilled intellectual capital (employees) is a primary stakeholder group and a source of competitive advantage to organisations. Employees who obtain satisfaction from the social status attained by organisations are willing to work in companies with good social reputation (Clement 2005). Furthermore, most shareholders are also likely to demand that businesses continue to engage in their social responsibility activities. Businesses, in turn, are likely to adhere to the expectations of this 'powerful' group of stakeholders (also referred to as primary stakeholders) since corporate competitiveness and survival also largely depends on their approval.

From the above discussion, it can be said that stakeholder theory relates more to issues of stakeholder power. Islam and Deegan (2008) also state that stakeholder theory relates to a narrower view of corporations fulfilling the expectation of their primary stakeholders while legitimacy theory focuses on corporations operating in accordance to the values of society at large. Also, Van der Laan, Adhikari and Tondar (2005) state that disclosure is more likely to increase in companies that operate in countries such as Australia, United Kingdom (U.K.) and South Africa, which insist on stakeholder inclusiveness (Simnett et al. 2009), than in companies that operate in countries with low or weak stakeholder emphasis.

This discussion has prompted the second research question of this thesis:

To what extent do the stakeholder variables influence disclosure?

The stakeholder approach under relational theory has a similar connotation to stakeholder theory. The stakeholder approach places emphasis on the inherent value of the stakeholder-business relationship and the need to integrate stakeholder interest into business strategy. Similar to the stakeholder theory, the stakeholder approach argues that satisfying the interest of stakeholders usually foster trust and legitimacy between businesses and stakeholders, and improve the prospects of attaining business objectives. This argument is also in line with that put forward by integrative theory, which suggests that businesses incorporate societal demands/interests into their operational strategies

Economic theory: Researchers in favour of economic theory suggest that economic cost-benefit analysis is the determinant of the quantity of corporate disclosures disseminated to capital markets. Under economic theory, businesses are only willing to perform their social responsibilities in profitable activities; this is similar to the utilitarian theory where businesses are willing to perform their social responsibilities only when such activities will create wealth. Friedman (1970; 2007) initiated the idea of businesses creating wealth whilst performing their social responsibility when he stated that the primary responsibility of businesses was maximisation of shareholder profits. However, Odgen and Watson (1999) and McWilliams et al. (2001) argue that satisfying stakeholders by performing socially responsible activities in areas of their interest is also a wealth creating activity which could maximise shareholder value. Furthermore, researchers like King and Wallin (1995) argue that companies must disclose both positive and negative information to prevent report users from interpreting undisclosed information as unfavourable; as this form of interpretation has the tendency of negatively affecting business value. Economic theory has been examined in numerous studies on social responsibility, especially regarding the relationship between social responsibility and financial performance. Although most of these studies have reported a positive relationship between social responsibility and financial performance (Waddock and Graves 1977; Key and Popkin 1998), researchers such as Rowley and Berman (2000) and Griffin (2000) recommend that the outcomes from studies on the association between social responsibility and financial performance must be considered with caution because the

association is difficult to measure. This is a reason why economic theory will also not be used in this study.

Political theory: Political theory relates to activities performed by political leaders in advancing the production of goods and services (Gray, Kouhy and Lavers 1995). Political theory envisages a push from political bodies, the general population and regulatory bodies for businesses to adhere to socio-political norms and regulations in the performance of their social responsibilities (Patten 2002). Political theory does not only focus on the wealth maximisation of businesses but also takes into consideration the 'political, social and institutional framework' within which businesses operate (Gray et al. 1995). Therefore, businesses that perform poorly in their social responsibilities are likely to face political pressure. Although most of the socially poorly performing companies desire to lobby political and regulatory bodies in order to avoid political pressure, the high cost of acquiring adequate information for effective lobbying acts as a deterrent to most companies. In effect, it is beneficial for socially poorly performing companies to consider carrying out their social responsibilities and disclosing any additional performance to the public through increased disclosure efforts. It is likely that such increase in disclosure can positively affect their legitimacy (Clarkson et al. 2007). It is prudent to deduce from the above statement that political and public pressure may also push businesses to disclose more information (Cormier and Gordon 2001). The next Section on prior literature will also consider how the above theories have been used in previous studies.

3.5 Prior Literature on CSR Disclosure

Prior studies on the relationship between CSR and disclosure have examined several factors that can be classified under three main groups: corporate characteristics, contextual influences, and internal factors (see Table 3.1 below). Corporate characteristics include size, leverage, industry, risk, return on asset, share price and age. Country, culture, stakeholders, media, political and economic influence and pressure groups make up the contextual influences. Internal factors include policies, board chair, board of directors, CSR committee, governance, business structure and benefits, and costs of reports (Adams 2002; Adams and McNicholas 2007). CSR disclosure literature has been compiled under the three groups, as presented in Table 3.1 below:

Table 3.1: CSR Disclosure Influences

Factors influencing CSR disclosure	Prior literature
Corporate characteristics	Deegan and Gordon 1996; Inchausti 1997; Owsu-Ansah 1998; Naser and AL-Khatib 2000; Street and Bryant 2000; Gray, Javad and Power 2001; Camfferman and Cook 2002; Naser, Al-Khatib and Karbhari 2002; Ali, Ahmed and Henry 2004; Al Saeed 2006; Hassan, Giorgioni and Romilly 2006; Mangena and Taurigana 2007
Contextual influences	Adams 1999; Adams and Kuasirikun 2000; Buhr 2001; Aerts and Cormier 2008; Branco and Rodrigues 2008; Reverte 2009
Internal factors	Campbell 2000; Bansal and Roth 2000; Adams 2002, Springett 2003; Craven and Shrives 2003; Adams and McNicholas 2007

Prior research on CSR disclosure has mostly centred on Europe, Australia and the U.S. (see Gray et al. 1995, Newson et al. 2002; Deegan 2002; Ho and Taylor 2007). Few studies have been conducted in countries such as Qatar (Naser, Al-Hussaini, Al-Kwari and Nuseibeh 2006); Egypt (Samaha and Dahawy 2010); Nigeria, (Disu and Gray 1998); Bangladesh (Belal 2001) and South Africa (De Villiers 1999). Furthermore, studies on CSR disclosure have mostly considered the environmental theme (see Deegan et al. 1996; Bewley and Li 2000; Cormier et al. 2001; Cormier and Magnan 2003; Elijido-Ten 2004). Also, most of the literature on CSR disclosure relates to studies conducted on individual countries with only few studies centred on two or more countries (see Buhr and Freedman 2001, Newson et al. 2002; Holland and Foo 2003, Ho et al. 2007; Chen and Bouvain 2009). Some of these prior studies are examined below.

Buhr et al. (2001) conducted a study of the culture, institutional factors and differences in CSR disclosure between Canada and the U.S. With a focus on environmental reporting and the application of content analysis, the study analysed disclosures in the annual and environmental reports of Canadian and U.S. companies from 1988 to 1994. The study concluded that disclosure levels were higher in Canadian companies than in their U.S. counterparts. The study attributed this finding to Canada's culture.

The research by Newson et al. (2002) was conducted on companies in Australia, Singapore and South Korea. This was an exploratory study to determine whether CSR in multinational companies was performed in accordance with demands from the home country or as a response to global demands. Using legitimacy theory as a theoretical framework, and applying content analysis as a methodology approach, the study reviewed annual reports of

companies in the three Asia-Pacific economies. The study concluded that a non-significant association existed between global expectations and the CSR disclosure of large multinational companies.

Similar to Buhr et al. (2001), Holland et al. (2003) examined the annual reports of 40 companies from the U.S. and U.K. The study was conducted to determine whether differences existed in the annual and stand-alone environmental reports of the selected companies. Adopting the accountability framework and using content analysis to collect information from the annual reports, the study reported that companies in both the U.K and U.S continue to increase their CSR disclosures. However the study showed that increase in disclosure was pushed by different drivers such as the development of environmental management systems in the U.K and by legislation in the U.S.

Furthermore, Ho et al. (2007) conducted an investigative study on CSR disclosures of 50 large U.S and Japanese companies. Regression analysis was applied to empirically test the determinants of CSR reporting practices amongst the selected companies. Using content analysis to examine annual and stand-alone reports of selected companies, the study concluded that CSR disclosures were mostly driven by non-economic and company specific factors. The results also indicated higher CSR reporting in Japanese companies than in U.S. companies. This result was attributed to the differences in national, regulatory and institutional factors between the two countries.

Also Chen et al. (2009) conducted a study on companies in the U.S, U.K., Australia and Germany to test the relationship between CSR disclosure and membership of the UN Global Compact. Adopting institutional theory and using content analysis to collect information from the CSR reports of selected companies, the study concluded that a significant relationship existed between CSR reporting and Global Compact membership. It was further stated that the factors that contributed to this positive relationship were divergent in all three countries.

From the above discussion, it can be deduced, firstly, that studies on CSR disclosure in multiple countries are mostly centred in the Asia-Pacific region, Europe and the Americas. This implies that CSR research in multiple countries rarely consider African countries or emerging economies in Africa. Secondly, most of the studies adopt content analysis as a data collection method. Thirdly, most of the theoretical frameworks in these studies adopt a single

theory such as legitimacy, institutional and not multiple theories. Fourthly, data is normally sourced from annual reports.

This study improves upon prior research by including a sub-Saharan African country that is also an emerging economy in our selected countries. South Africa is an emerging economy with one of the 'most developed and regulated equity markets in Africa' the Johannesburg stock exchange (Hearn, Piesse and Strange 2010). The Johannesburg stock exchange is ranked globally as the 18th largest exchange (Ocran 2010). It is also recommended that as sub-Saharan equity markets continue to attract foreign direct investments (including socially responsible investments), attention must be given to CSR disclosures to encourage public dissemination of accountable and transparent information. Furthermore, this study digresses from previous studies by using secondary data instead of the content analysis data collection method used in previous CSR research. Again, this study further improves upon prior CSR research (which has mostly collected data from only annual reports) by sourcing information from both stand-alone and annual reports. Contrary to previous reports that limited number of companies issue stand-alone reports (Frost et al. 2005), current literature has documented an increase in the publication of stand-alone CSR reports for the past 15 years after the mid-1990s (Dhaliwal, Li, Tsang and Yang 2011). The literature review posits that continuous examination of the impact of business operations on the environment and society, coupled with the growth in socially responsible investments globally, may have pushed the publication in CSR stand-alone reports (Dhaliwal et al. 2011). Stand-alone reports, arguably, provide greater details on sustainability achievements than details presented as part of the annual report.

Furthermore, previous studies on CSR reporting have been conducted from either a legitimacy theory perspective (see Deegan 2000; Newson et al. 2002; Guthrie, Petty, Yongvanich and Ricceri 2004) or a stakeholder theory perspective (see Al-khater and Naser 2003; Sweeney and Coughlan 2008, Belal and Roberts 2010).This thesis will adopt both legitimacy and stakeholder theory approaches to put forward the argument that both (and not one or the other) are important when pursuing accountability and transparency in CSR reporting. This argument that stakeholders control business resources and therefore require businesses to adhere to social norms to ensure their survival has prompted this study to examine the effect of both legitimacy and stakeholder theories on social responsibility disclosures. Two of the socio-political theories are also examined in this study because of the

report by Newson et al. (2002) that socio-political theories explain patterns in data that economic disclosure theories are not able to explain. The report by Newson et al. (2002) has therefore prompted this research question:

> ***To what extent do both legitimacy and stakeholder variables act as complementary variables in influencing environmental, social and economic disclosure***?

3.6 Research Focus on Legitimacy and Stakeholder Theories

Researchers like Suchman (1995) and Nasi, Nasi, Philips and Zyglidopopulos (1997) argue that stakeholder and legitimacy theories are not connected. On the other hand, Freeman (1984), an advocate of the stakeholder theory, states that stakeholder and legitimacy theory may be dependent on each other. This opinion from Freeman, which lacks a suggestion of absolute interconnectivity, is likely to deprive companies from realising the opportunity and competitive advantage inherent in their CSR activities. Corporations therefore are not regarding primary stakeholders as important to corporate survival and do not include them in the decision-making process. Also, stakeholders or society in general may be deprived from benefiting from corporate welfare activities and economic development programs they deserve as a result of this lack of absolute interconnectivity. Contrary to the views of Suchman (1995); Nasi et al.(1997); and Freeman (1984) researchers like Deegan et al. (2006), Adams and Whelan (2009), recognise the similarity between stakeholder theory and legitimacy theory and recommend that both theories be regarded as complementary instead of competing. Deegan et al. (2006) and Adams et al. (2009) further suggest that companies must identify and include demands from primary stakeholders in their objectives and policies. This is because stakeholders play an important role in business survival; their management can also externally impact positively on other members of society. For example, stakeholder inclusion in business decision-making may help provide education, health care, housing and other essentials requirements for the well-being of all corporate employees. Also, successful companies that can support communities in which they operate by providing jobs, wealth, safe and innovative products that improve society's welfare (Psaros 2009), are held in high esteem by stakeholders. This implies that such companies enhance their reputation.

The essence of involving primary stakeholders in corporate decision-making has become imperative since published reports have been classified as 'greenwash', 'myth' or 'window dressing'. This classification is a result of the perception that actual achievements of policies and systems implemented to manage corporate operational risks as well as social and

economic issues fall short of information disclosed in the published corporate reports (Deegan et al. 1996). An example is disclosure that pollution reduction systems have been implemented to significantly reduce corporate pollution levels when in reality these initiatives have only a minimal impact on pollution reduction (Milne et al. 2002). Another reason is that an organisation's strategy may impact negatively or positively on its stakeholders, especially customers and employees. A positive impact is that the actual implementation of corporate employee safety programs, education and training, and the accordance of equal opportunity and diversity for all employees can have significant effect on labour turnover. Likewise a high of level of human rights practices in the areas of employee non-discrimination, avoidance of child, forced or compulsory labour, and effective security system can impact positively on labour turnover. Furthermore, business strategy focussed on attracting 'green customers' may also positively impact on its image and improve its reputation (Vogel 2005). In effect, stakeholder involvement in business decision-making is important to close the gap between actual performance and disclosures. Also, the existence of an association between market conditions, corporate performance and disclosure shows the possibility of a positive relationship between stakeholders and the legitimacy process. This relationship may need to be encouraged on a win-win basis if the gap between actual performance and disclosure is to be reduced.

In spite of these benefits, including stakeholders in areas such as: corporate strategy formulation and decision-making; efficient management of risk; reputation improvement; market expansion; as well as improvement in customer care and employee confidence is currently on the low side. This has been reiterated in a research conducted by the Association of Chartered Certified Accountants (ACCA) Australia and New Zealand (ACCA Australia and New Zealand 2007). The research reported the existence on low levels of stakeholder inclusion and responsiveness amongst Australia's ASX top 50 companies. Only two companies, BHP Billiton Ltd (BHP) and National Australian Bank (NAB) showed evidence of high stakeholder inclusion in corporate issues, with 18 out of the 50 companies not disclosing any information on their interaction with stakeholders. Seven companies, in addition to BHP and NAB, further aligned procedures under implementation to include the outcome of interactions with stakeholder into the development of corporate strategies and policies (ACCA Australia et al. 2007). A similar study by ACCA United Kingdom (U.K.) in 2004 indicate that U.K. companies perform better in the area of stakeholder engagement and

information disclosure on such interactions than their Australian counterparts by about 45% (ACCA UK 2004). There is, however, still the need for improvement amongst U.K. companies. Similar to Australia, it is likely that South Africa may also fall behind the U.K. in the area of stakeholder engagement and participation because the U.K. is an acknowledged global leader in the field.

From the above discussion, it can be deduced that stakeholders and corporations may benefit on an equal bases and business survival will be better assured if corporations involve their stakeholders in achieving business objectives rather than only striving to adhere to stakeholder demands. To encourage stakeholder participation, it may be imperative that corporate objectives be of equal importance to both stakeholders (especially primary stakeholders) and the management of corporations. Furthermore, any material outcomes from dialogue regarding stakeholder participation will have to be effectively managed, since such information may either become significant assets or costly liabilities to any corporation (ACCA 2007).

Similar to the opinion shared by Deegan et al. (2006) and Adams et al. (2009), this study views organisational legitimacy and stakeholder management and inclusion as complementary and equally beneficial. This therefore suggests the existence of a mutual relationship between legitimacy theory and stakeholder theory if the demands of stakeholders are integrated into business decision-making. If that occurs, business survival can also be supported and approved by stakeholders. This view is also similar to the statements made by Campbell (2000) and Porter and Kramer in (Porter 2008) that legitimacy theory and stakeholder theories must not be seen as competitor theories but rather as complementary theories. The above discussion has been summarised in the Figure 3.2 below.

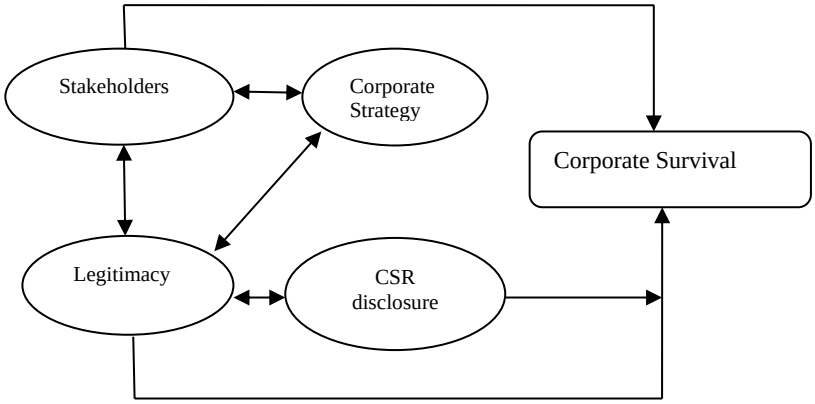


Figure 3.2: Relationships between Stakeholder Theory and Legitimacy Theory

Figure 3.2 shows an association between stakeholders and organisational legitimacy. A corporation that adheres to primary stakeholder expectations is likely to include such suggestions in its corporate strategy, implement those strategies and disclose outcomes in its CSR reports. Figure 3.2 also shows that stakeholder management and inclusion can result in societal approval of corporate social responsibility practices that positively support corporate survival (as noted in the previous paragraph). It can therefore be suggested that the level of legitimacy a corporation decides to achieve (which emanates from its corporate strategy) can be a determining factor of the level of disclosure in its CSR report. Likewise, society determines corporate legitimacy by CSR disclosure and such decision can either positively or negatively affect the level of societal support for business survival. In summary, the level of organisational legitimacy is likely to determine the period that society will grant such organisation the licence to operate.

This discussion has prompted the fourth research question of this thesis**.**

To what extent do both legitimacy and stakeholder variables act as complementary influences in each of these three GRI performance indicator domains?

Notwithstanding the numerous CSR studies, Devinney (2009) argues that the idea of a socially responsible company is a paradox. This is because of the contradictory environment in which CSR operates and the limited knowledge of its social setting. Another reason is that CSR activities are mostly influenced by the expectations of primary stakeholders and those activities may not always produce the positive outcome expected by society in general. About half a decade earlier, researchers like Doane (2005) have expressed similar opinions of the CSR phenomenon in four myths.

3.7 CSR Mythology

Doane (2005) argues that the CSR concept has failed to recognise the trade-offs between corporate financial performance and ethical decisions, and its effect on short-and long-term profits. Furthermore, market failures, incorrect information disclosure and other externalities can also render the achievement of short-or long-term profits unattainable. According to Doane (2005), the four myths of CSR also explain the rationale behind these failures. The myths are elaborated below.

Myth 1: The market can deliver both short-term financial returns and long-term social benefits

Doane (2005) argues that profit-seeking businesses assume they can make profits despite providing false CSR disclosure to the market. The reason for this assumption is the expectation that investors make decisions from publicly released information. It follows that investors are inspired to invest in corporations whose CSR reports disclose activities that preserve the environment and build up economies irrespective of the false nature of these disclosures. Another reason is that profit-seeking motives of businesses and societal expectations may often be at par and, therefore, socially responsible investments may not yield profits within the period required by investors. In effect, the 'business case' or the assumed equilibrium of market forces may not result in both short-term financial returns and long-term social benefits for stakeholders and businesses.

Myth 2: Voluntary codes and management systems change corporate behaviour

Numerous codes such as those from the UN Global Compact, ISO and CSR-based standards exist to guide businesses to account for their product stewardship and manage the negative environmental effect of their operations. In addition to these, businesses must also conform to self-audit procedures to ensure compliance to voluntary codes. However, factors like market pressures and lack of enforcement mechanisms may prevent corporations from improving their performance despite their compliance with voluntary codes (Donne 2005). An example of market pressures outweighing the adherence of voluntary CSR-based codes of conduct is the pressure on the Sri Lankan government to increase normal working hours for garment manufactures in that country to compete internationally with their Chinese rivals. This request has to be implemented notwithstanding the negative impact of such regulation on labour, health and safety standards. Compliance with voluntary codes through conformity

with industry self-regulation have also proved challenging with the occurrence of corporate scandals including that of Enron and WorldCom. It follows that the perception that voluntary codes and flexibly self-compliance corporate systems change corporate behaviour may only be an assumption and not a phenomenon that can be substantiated.

Myth 3: The consumer will drive change

Harrison (2003) recognises consumers of this age as brand conscious because they have more quality brands to choose from. Notwithstanding their brand consciousness and their readiness to pay a premium for 'green' products, it has been shown that the choices made by 'green conscious' consumers are based more on price, quality and convenience rather than on socially acceptable features such as CSR outcomes (Auger and Devinney 2007). In other words, a gap exists between consumers who are only 'green conscious' and those who show evidence of being 'green' consumers. 'Green' customers are those that continuously consider CSR in their purchase decision. An example of a gap between 'green conscious' and 'green' consumers was reported in the 2002 Roper Green Gauge Survey report. In this report, 9% of the consumers in the U.S. were said to be 'green' consumers as against 33% 'green conscious' consumers (Roper 2002, Meredith and Bloom 2004).The report stated that although the percentage of 'green conscious' consumers was higher than that of 'green' consumers, 'green conscious' consumers hardly purchased 'green' products because they perceived that the products were of low quality and did not conform to information disclosed in corporate CSR report. The small number of 'green' consumers is, therefore, less likely or unable to push for more socially responsible and accountable businesses (Mohr, Webb and Harris 2001; Auger, Devinney and Louviere 2007)

Myth 4: The investment industry can provide the strongest incentives for socially responsible investments

Socially Responsible Investment (SRI) is perceived to be a tool that promotes and elevates ethical business. The SRI sector has, since the 1990s, experienced increasing growth in its investments at an average of about 25% per year Doane (2005). The Turnbull Committee report indicates that pension regulations which require pension-fund trustees to make ethical investment choices has been the main force behind this increase (Friedman and Miles 2001). Furthermore, the level of importance attributed to environmental and reputational risk management has also played a major role in the increase of socially responsible investments (Jayne and Skerratt 2003).

Despite the growth in investments, the SRI sector is considered a niche market (Jayne et al. 2003) with most investments still made into conventional investment funds. SRI funds must, therefore, follow the same market rules as all conventional investments (Mackenzie and Lewis 1999). The reason for such compliance is effective management of social and environmental risks is essential to ensure substantial impact on level of investment. However, SRI funds invested into medium size sustainable businesses have the smallest probability of obtaining the growth needed for effective competition in the market place (Doane 2005). In the current situation, where most SRI funds are invested into medium size businesses, such funds do not represent a significant portion of the overall share market investment. Thus, currently, SRI funds do not have much influence on large business investments. To encourage significant growth in SRI investments, researchers like Sethi (2005) suggest the development of a new measurement standard that can redefine the SRI concept as a tool necessary for long-term corporate growth.

The four myths presented above are associated with the economic, political, legitimacy and stakeholder theories previously discussed in Section 3.3 above. These associations are explained in the subsequent paragraphs.

According to economic theory, businesses are mainly driven by wealth creation in the performance of their social responsibilities. Myth 1 reiterates the wealth-creation focus of profit-making, socially responsible organisations. However the difference between economic theory and myth 1 is that economic theory recognises that social responsibility activities performed in accordance with societal expectations can yield profits. On the other hand, myth 1 presumes CSR activities or disclosures can create wealth/profits even if such activities are at par with societal values or disclosures are false. Economic theory therefore encourages ‘balanced’ disclosure whilst myth 1 supports ‘false’ disclosure. In order words, economic theory suggests that businesses are likely to create value from both negative and positive disclosures of their social responsibility activities and not only from making false disclosures. Unlike the argument made in myth 1, economic theory supports the argument that the market can deliver both short-term financial returns and long-term social benefits.

Myth 2, which states that voluntary codes and management systems change corporate behaviour, is compared to the political and agency theories. According to myth 2, voluntary codes and self-audits that are left to the implementation of companies may impact positively

on their performance despite the negative effects posed by market pressure and lack of enforcement. Contrary to the claim made in myth 2, political theory argues that businesses may not voluntary adhere to regulations or norms unless these regulations or norms are enforced by political bodies and society in general. Similarly, agency theory also suggests that market pressures will prevent economic agents/managers from adhering to decisions and policies made to improve corporate behaviour. In effect, agency theory maintains that businesses implement management systems and policies when they are externally monitored and are required to increase their voluntary disclosures. This indicates that political and social pressure, external monitoring of self-audits and increased voluntary disclosure are requirements recommended by political and social theories as enforcement mechanisms that can encourage businesses to adhere to voluntary codes and implement management systems. These enforcement procedures are likely to impact positively on performance.

Myths 3 and 4, which suggest that the consumer will drive change and investment which can provide the strongest incentives for SRIs, are assessed under the stakeholder and legitimacy theories. Under stakeholder theory, the support of stakeholders (consumers inclusive) is essential for continuous business operation. This implies that continuous business interaction with consumers is apparent and material because monetary outcomes could become investments. It means that businesses that manage their consumers are rewarded with change and increase in SRI funds. However, it is essential that the type of consumers that will drive change must be primary consumers that form a large percentage of the consumer group. When consumers are narrowed to 'green' consumers, the current low percentages of 'green' consumers (as reported by Meredith et al. 2004) are unlikely to push forward any substantial change and act as an incentive for SRI funds. The statement that the consumer will drive change is not a myth under stakeholder theory but the claim that 'green' consumers will drive change can currently be termed as a myth.

As already stated, to show accountability, businesses should disclose their legitimate use and management of society resources through their CSR reports. The demand by society for accountability, the value relevance of such accountability and disclosure becomes the three main initial essential drivers of CSR/SRI investments. Economic theory also states that profit-making socially responsible activities that are not in the interest of society are not likely to create value. Thus, the claim that investment industry can provide the strongest incentive for socially responsible investments continues to be a myth.

3.8 Summary

The social responsibility of businesses is a phenomenon that has been in existence since the mid-1880s. Society demands that businesses show responsibility and accountability for the use of societal resources and, in addition, contribute to societal welfare and economic development. Businesses which substantially perform their social responsibilities by linking business strategies and policies to their social responsibility performance are rewarded with value-relevant benefits.

Instrumental, integrative, ethical (Garriga et al. 2004), and, recently, utilitarian, managerial and relational (Secchi 2007) theories have been developed to address the social responsibility of businesses. Under utilitarian theory, businesses focus mostly on the maximisation of profits as opposed to the performance of their social responsibility in the pursuit of organisational legitimacy. Performance of corporate social responsibility in the areas of accountability, reporting and ensuring credibility of disclosures is considered under the managerial theory. The different stakeholder groups and their association with organisations in the performance of the social contract are considered under relational theories.

The study also argues that stakeholder and legitimacy theories are complementary and as such their effect on disclosure should be assessed together and not separately. Furthermore, it is suggested that accomplishment of CSR through the stakeholder-legitimacy partnership must be on a win-win basis.

The Chapter further elaborates on the inability for companies to benefit from their social responsibility practices both in the short and long-term. It also explains the unsubstantiated idea that voluntary codes and management systems do impact on corporate CSR behavior. Other areas also discussed are the issue of consumers pushing for ‘green’ products and the ability of SRIs to become the greatest motivator of CSR. However these CSR drivers are currently considered to be unsupported illusions.

Chapter 4: Sustainability Reporting

4.1 Introduction

To advance the argument of CSR and disclosure, it is important to recap briefly the evolution of CSR and link it to the current development of sustainable development and sustainability reporting.

The initial concept of social responsibility evolved around corporations improving upon certain social or human capital concerns, turning it into economic opportunities and then into economic benefits that create wealth (Guthrie et al. 1989). Industrialisation and globalisation developments in the 1950s through to the 1980s introduced a new experience and added another dimension to the business-society contract. This new experience brought about an additional societal desire to monitor the environmental impact of business operations. Society thereafter, expected businesses to include environmental responsibilities in the economic concerns of the social contract. This new development gave birth to the term sustainable development/sustainability in the 1980s (Banerjee 2008).

Chapter 4 will narrow the broad discussion on disclosure in Chapter 3 and focus on sustainability reporting, which is an aspect of disclosure that relates to sustainable development. Thus, Chapter 4 elaborates on business accountability for social responsibility in terms of sustainability reporting. This study considers sustainability and CSR jointly, putting forward the opinion that both concepts address the relationship between business and society and their wealth creation. However, to reflect current global trends and the sustainability perspectives of the study, the term ‘sustainability’ or ‘sustainable development’ generally replaces CSR.

The next Sections are arranged as follows: Section 4.2 describes the characteristics of sustainable corporation. This is followed by an elaboration of the forms and drivers of sustainability reporting (Sections 4.3 and 4.4). The different types of reports that make up the sustainability information are discussed in Section 4.5. Section 4.6 compares various reporting standards and Section 4.7 narrows the discussion to the contents of the GRI guidelines reporting principles. Sections 4.8 and 4.9 explain the benefits of assurance and sustainability reporting issues in the three countries examined in the study. The chapter concludes with a summary in Section 4.10.

4.2 The Sustainable Corporation

The operations of corporations, especially multinational enterprises (MNE's), are often accused as being the cause of environmental degradation in communities and the world at large (Bruno and Karliner 2002). It is, therefore, imperative that these corporations play a major role in finding solutions to the ecological and poverty problems created by their activities (Clifton and Amran 2011). A sustainable corporation is expected to manage operations to ensure credible ecological stewardship, adapt innovative, responsible social management and social systems in order to contribute to a just and fair society (Smith 2007). A sustainable organisation can be described as one that:

> *Motivates key players in industry and in society to focus on attaining a just and fair society; uses its innovative environmentally sustainable products and services to influence sustainable societal development; and advocates for innovation and changes in markets and social values to reflect a sustainable society by supporting and pushing for sustainability policies and legislations.* (Dunphy, Griffiths and Benn 2003; Linnenluecke and Griffiths 2010*)*

In addition to contributing to global sustainable development, corporations must implement measures to economically sustain themselves. One way of implementing such economic strategies is to communicate organisational legitimacy to stakeholders and the public through sustainability reports. In effect, companies respond to their social contract by showing legitimacy to societal norms and expectations through their sustainability reports (Wild 2008).

4.2.1 Sustainability Reporting

Crane et al. (2007; p.23) refer to sustainability as the 'continuous maintenance of systems in accordance with environmental, social and economic considerations'. Sustainability is also defined by the World Commission on Environment and Development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development [WCED] 1987, p.8; Laine 2005). The GRI defines sustainability as 'a reporting process that divulges the environmental, social and economic performance of any business to society' (Australian Council of Super Investors [ACSI] 2008; p.4). Although the definition by WCED is commonly accepted for sustainable development, academics are yet to agree on a single definition of sustainability (Moneva, Archel and Correa 2006). Notwithstanding the lack of

an agreed upon definition, sustainability aims to promote the principle of fairness, justice, peace, safety and security in the use and management of resources to the benefit of present and future generations (Shiva 2005). Sustainability also promotes the measurement and disclosure to both internal and external stakeholders of corporate sustainable development achievements and management of risks. The measurement and disclosure of corporate sustainable development activities acts as a form of accountability. To further show accountability, it is important that sustainability reports provide details of both positive and negative information regarding corporate sustainable development practices (GRI 2006). To report both positive and negative information, corporations are expected to disclose their contributions to sustainable development, damages caused by their operations and efforts made towards the management and mitigation of these risks. This is of essence of reporting required because sustainability practices promote the conservation and renewal of the natural ecology as well as encourage fair distribution of resources for societal well-being. The type of information expected to be disclosed through sustainability reports show that sustainability practices and reporting value effective business continuity and management more than short-term profit (Bridges 2008). Furthermore, sustainability reporting can assist in ensuring effective corporate planning and decision-making (Adams et al. 2007). This means that disclosures in sustainability reports can prepare corporations for the management of future challenges and to take advantage of current and future opportunities (Environment Australia 2003).

From the above discussion, it can be deduced that sustainability disclosures act as a tool to help businesses access, monitor and mitigate risks relating to their operations and also take advantage of opportunities emanating from their social responsibility practices. In addition, sustainability disclosures provide various bottom-line benefits to companies. One such bottom-line benefit is the ability to create and maintain value (Sirmon et al. 2007). This is possible through the use of effective strategies that will result in competitive advantage (Albareda et al. 2008).Value is therefore created when investors are able to assess corporate non-financial information through sustainability reports and make informed decisions (Rikhardsson and Holm 2008). In addition to investors, stakeholders, including customers, suppliers, employees and communities, are also broadly informed on corporate operational impacts on ecology, their risk management efforts and the subsequent impact on corporate performance (Rasche and Esser 2006). Customers can therefore make decisions on which

green products to purchase and employees can also decide on which environmentally friendly organisations to work in. Likewise, communities can make decisions on which environmentally sustainable corporations to grant licenses to operate. Furthermore, supply-chains can also be formed between suppliers of green products and corporations that are sustainable in their operations.

The type of information that society expects from sustainable development corporations is discussed in the next Section.

4.3 Indicators of Sustainability Reporting

Environmental, social and economic performance indicators combine into one reporting package known as a sustainability report. The performance indicators help organisations to capture the total set of values, issues and processes to be addressed as well as help to keep record of operational changes and achievements over time; and in line with international guidelines, policies and organisational goals (GRI 2006). The environmental, social and economic performance indicators are further elaborated below.

4.3.1 Environmental Indicators

Environmental indicators refer to performance that relates to the use of energy, materials, water, environmental impacts and the mitigation of environmental impacts. Other indicators are non-compliance with policies and regulations and monetary outcomes of environmental projects. Reporting on these performance areas require organisations to compile and analyse information on: the efficient use of energy, material and water, and the impact of their operations on biodiversity, air, land and water. Additional requirements pertain to expenditure incurred in mitigating operational impacts on the environment and, if any, corporate non-compliance with legislation and its outcome.

4.3.2 Social Indicators

Social performance indicators are described under four different indicator protocols: labour practices and decent work conditions, human rights, product responsibility and society. In the G3 guidelines, issues relating to labour practices and decent work conditions has fourteen indicators whilst human rights and product responsibility has nine and eight indicators respectively. The relative numbers of indicators describing the indicator protocols does not

necessarily mean that issues pertaining to human rights and product responsibility are of less importance in characterizing social responsibility. The difference in the number of indicators may be an indication of the emphasis on issues relating to labour practices and decent work. Also, the vast literature under the universally accepted labour standards and that of the two key legal documents on social responsibilities instruments may have contributed to an emphasis on the labour practices and decent work indicator. Universally accepted labour standards include the United Nations Universal Declaration of Human Rights and its Protocols, United Nations International Covenant on Civil and Political Rights and the United Nations International Covenant on Economic, Social, and Cultural Rights. Others are the International labour Organisation (ILO) 1998 Declaration on Fundamental Principles and Rights at Work, and the Vienna Declaration and Programme of Action. The two key legal documents on labour practices are the ILO Tripartite Declaration Concerning Multinational Enterprises and Social Policy, and the Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises (GRI 2006).

4.3.3 Economic Indicators

The current measurement of corporate performance does not only consider ability to maximise profits but also ability to contribute to economic value-added activities (Stomer 2003). In effect, the economic component of sustainability transcends the traditional financial disclosure focus on shareholders to include both direct and indirect economic interaction between corporations and their stakeholders (Moneva et al. 2006). The economic indicators address issues concerning capital flow amongst various stakeholders, including capital flows between suppliers, employees and communities. These indicators are also concerned with issues relating to the major economic effects of corporate activities on society. They envisage that companies that implement effective sustainability strategies as part of their core business instead of as philanthropic programs, and which direct their operations, products and services towards long-term poverty reduction, climate change and resource augmentation activities are likely to survive into the future (Epstein et al. 2001; Psaros 2009).

4.4 Drivers of Sustainability Reporting

Companies that implement sustainability strategies as part of their core business objectives are motivated by several factors including value added activities, avoidance of undesirable consequence and the expectation from stakeholders (Psaros 2009).

4.4.1 Value Adding

The traditional purpose of most businesses is to maximise profits and improve financial performance. Under this notion, businesses tend to engage in sustainability practices if the outcomes of such activities will add value and improve operational and financial performance. It follows that corporations that perform a wider range of sustainable activities are likely to be rewarded with various economic bottom-line benefits. Some of which are reputational and competitive advantage, attraction of equity and debt capital, risk enhancement practices and global expansion.

Reputational and Competitive Advantage

Companies that undertake rigorous sustainable changes to their operations enhance their image and improve their reputation and are therefore more likely to be the choice of many socially responsible investments [SRIs] (Vogel 2005). The more such corporations are able to produce innovative sustainable brands or products, the greater the likelihood that they will be able to diversify into new or larger markets. The reason for this is because they become more competitive than their less innovative rivals. In addition, such corporations enjoy first mover advantages, which can improve their reputation thereby placing them in a better position to attract investors. On the other hand, it is likely that the scandals of MNEs, including Enron and WorldCom in the United States (U.S.), undermined the link between image, reputation and investor confidence and negatively affected the integrity that society and financial markets had for corporate information; their decline in reputation was a major contributor to their collapse.

To ameliorate future poor corporate behaviour, society has heightened the request for more corporate responsibility practices that will result in accountable and transparent disclosures (Parliamentary Joint Committee on Corporations and Financial Services [PJCCFS] 2006) in addition to mandatory financial information. It is therefore envisaged that companies that are able to demonstrate responsible workplace practices, such as reduction in child labour, payment of fair wages and improvement in human rights obligations, can also improve their reputation and attract, motivate and retain quality intellectual capital (Vogel 2005).The difference between good and great companies is seen from the ability of great companies to make stakeholders out of employees and retain intellectual capital because employees gain satisfaction from working in such businesses. For most investors, social considerations play a

large role in their choice of investment products. Such investors expect that corporations engage in environmental conservation activities (Haigh and Jones 2006) in order to improve their reputation and be competitive. A strategy scholar, Michael Porter, also affirms a link between competitiveness and sustainable activities and argues that sustainable investments result in long-term market benefits for corporations (Porter et al. 2002).

Equity and Debt Capital Attraction

Corporations whose portfolios contain socially responsible investments are expected to execute a high level of social responsibility. Such corporations are likely to attract institutional investors who rate such virtues high in their investment decisions (Sparkes and Cowton 2004). Studies have established a link between the supply and demand for SRI investments (Gelb and Strawser 2001; Scholtens 2006). Literature posits that companies strive to meet investor demands as their quest for SRI investments increases. The efforts made to meet demands of SRI investors drive such companies to be more socially responsible (Psaros 2009). As such, corporations that increase their sustainability activities and disclosure in a socially responsible manner are able to attract debt capital such as loans from the banks. Increase in the ability of these corporations to attract debt capital can reduce cost of capital and result in better long-term financial performance (Scholtens 2006). Non-financial risk mitigation is another factor which MNEs need to enforce in their companies and subsidiaries to ensure they remain competitive. It implies that, corporations that increase their financial performance in the long-term are more likely to have excess discretionary funds to manage their operational risk.

Enhanced Risk Management

Corporations, especially MNEs, are likely to benefit from efficient environmental management of their operations and the enforcement of fair employment practices. These benefits come in the form of reduced risk, increased productivity and enhanced corporate performance (Rondinelli and Berry 2000).This implies that corporations that are able to meet the expectations of their primary stakeholder do not only manage their financial risk but also their regulatory, community and litigation risks, and ensure long-term survival. On the other hand, inadequate management of corporate non-financial risk is likely to result in increased direct or indirect operational cost. Inadequate management of corporate non-financial risk can

also increase the possibility of legislative enforcement to mitigate the damage caused by the uncontrolled risks (Psaros 2005).

It should also be noted that employees, suppliers, and customers are cautious of the risks associated with their investment. As such, corporations that disclose information on risk management are likely to convince a large number of stakeholders to make corporate and industry-specific investments (Wang, Barney and Reurer 2003). Notable amongst these stakeholders are investors and pension fund holders in capital markets who are continuously considering the financial risks and outcomes from corporate social and environmental operations in their decision making. In effect, corporations that are able to manage and enhance their operational risk and increase their financial performance are likely to expand their activities into global markets.

Global Expansion

It is argued that corporations with intention of expanding their activities globally, especially into third world countries, will obtain competitive advantage over their rivals in securing a license to operate. Such licenses are more likely to be given if such corporations are able to show evidence of their commitment to sustainable practices in their previous country(ies) of operation. This is because of the expectation that these socially responsible companies can extend their positive sustainable practices to the benefit of the intended country of operation (Psaros 2009). This attitude is likely to positively impact on other non-socially responsible companies, especially MNEs, that desire to remain competitive in global markets. Accordingly, these non-socially responsible corporations may request their supply chains and subsidiaries to implement sustainable policies and practices (Rondinelli et al. 2000).

4.4.2 Avoidance of Undesirable Consequences

Most businesses will comply with sustainability obligations because of the desire to be recommended as good corporate citizens who abide by the laws of the land. Although legislation can be a driver of CSR, governments are yet to enact substantive legislation that will enforce sustainability reporting (Gray et al. 2002). Nevertheless, governments of some European countries, such as Sweden, Norway, Netherlands, Denmark, France and Australia (such as the Corporations Act 2001 and the National Greenhouse Energy Reporting Act 2007 in Australia), have found it prudent to introduce legislation on environmental disclosure

requirements for companies listed on their stock exchanges and those operating in their countries (Frost 2007). Some governments, such as the U.S. government, have enacted mechanisms such as tradable permits and corrective market measures like emissions standards (Abelson 2002) to push social and environmental activities and subsequently sustainability reporting. In an effort to encourage sustainable operations in industrial sectors like energy, agriculture and technology, the Dutch government has recommended personal income tax exemptions for investors in those industries (Haigh et al. 2006).

Globalisation, the role that corporations play in society (Detomasi 2007) and the link between trade investment and sustainable development are reasons for governments to encourage sustainable operations and reporting. Governments can play this significant role through the use of public policy initiatives, employing public sector roles of mandating, facilitating, partnering as well as endorsing the consolidation of sustainable practices and reporting (Fox, Ward, and Howard 2002) to enhance national competitiveness (Albareda et al. 2008). Furthermore, governments can partner with businesses in the private sector and with civil society, and combine interrelated skills and inputs to push sustainable activities, while endorsing and encouraging these activities through the issue of 'soft regulatory' policies. In addition, governments can promote other socially responsible activities such as sustainable production and consumption as well as advocating for transparency and accountability in sustainability reporting by encouraging assurance through various legislation and multilateral processes (Fox et al. 2002). Governments also enact laws to curb negative corporate behaviour and corporations have to adhere to these legislations in order to avoid sanctions and penalties. On the other hand, corporations can increase their sustainability performance and disclosure to avoid such government interventions. Corporation will want to avoid government interventions because adherence to legislation can be costly. In cases where government legislation is inevitable, pricing or tax incentives have been used by governments to make it impossible to pass on corporate costs to consumers and external stakeholders (PJCCFS 2006).

Another reason to encourage increased sustainability performance and disclosure is that national competitiveness is enhanced when businesses discharge their social, economic and environmental activities in accordance with societal expectations. Furthermore, it is a win-win situation for businesses because markets reward businesses that report high sustainability performance.

Aside from value-added benefits, avoidance of legislation and other undesirable consequences pushing sustainability reporting, social and environmental lobby groups, and non-governmental organisations also continuously demand that companies improve their sustainability performance and reporting.

4.4.3 The Public Expectation

Non-governmental Organisations (NGOs) operate within and across nations to draw attention to corporate incidents and infringements in an attempt to encourage good sustainability practices and reporting. NGOs have increased in number over the years, and have been able to influence corporate actions and governance (Doh and Guay 2006) by supporting companies with good disclosure practices, and by using boycotts or negative media threats to demand changes to negative sustainability practices (Lyon and Maxwell 2008). NGOs also work in partnership with socially responsible investment funds by encouraging shareholders to exercise their rights to demand good sustainability performance. Other NGOs work in partnerships with businesses to encourage the development of more innovative and sustainable products (Kong et al. 2002) and encourage balanced reporting.

One such NGO is the Global Reporting Initiative (GRI) which has supported social responsibility practices with its sustainability reporting guidelines. As previously stated, good corporate environmental, social and economic practices, and balanced disclosures are rewarded with financial bottom line benefits and access to new markets (Haigh et al. 2006). Communities are also willing to grant socially responsible corporations the licence to operate. Such corporations gain community approval for their continuous operation. Furthermore, the media, and especially sustainability rating agencies, publicly commend socially responsible corporations. This serves as a form of encouragement for corporations that fall short of such public commendation to improve their sustainability performance. An example of one of the sustainability rating agencies is RepuTex. RepuTex is an autonomous research organisation which rates the largest 100 companies in Australia according to their sustainability performance, corporate governance, and workplace practices.

Consumer Drivers

‘Green’ consumers have a preference for eco-products and services. ‘Green’ consumers therefore expect business to provide them with innovative eco-products and services

(Schwartz 2003). On the other hand, businesses may not be encouraged to adjust their operations to suit 'green' consumer demands, if their numbers are not large enough to effect a substantial positive change to business value. However, 'green' consumer product response has been increasing (Luo et al 2006) over recent years. It is therefore possible that 'green' consumers may be able to encourage corporations to meet their product and services demands in the near future. This expectation from 'green' consumers also requires their willingness to pay a premium for 'green' products and services and boycott products from non-sustainable companies. A positive side of such innovative products is that they enhance brand recognition and boost corporate image as investors continuously identify corporations that produce such products as leaders in their field. Also, consumer sovereignty, a form of consumer behaviour, is likely to provide competitive advantage to 'green' companies and influence non-sustainable companies to follow in the same direction (Haigh et al. 2006).

Organisational Drivers

Attracting skilled intellectual capital has become a form of competitive advantage for corporations. Employers can improve their reputation by implementing strategies to provide safe workplaces and promote diversity and non-discriminatory behaviour to ensure employees are satisfied with their jobs (Greening and Turban 2000). Such employers will not only attract a highly skilled workforce, but will also improve their financial performance through increased productivity, low employee turnover and a subsequent improvement in brand value (Perrini, Russo, Tencati and Vurro 2010).

Environmental Drivers

Literature shows that corporations that pursue environmental management activities, such as pollution reduction and waste recycling in the form of product and process innovation, are likely to achieve sustainable development competitive advantages. These competitive advantages may result in risks reduction, reduction in material cost and usage, reduction in energy usage and/or access to new markets (Hoffman 2000; Darnall, Jolley and Handfield 2008). Furthermore, the competitive advantages can increase corporate wealth through increases in returns on asset, encourage more equity funds investments and create a continuous bond with stakeholders (King and Lenox 2001).

Klynveld Peat Marwick Goerdeler (KPMG) summarized the drivers of sustainability reporting in their 2008 report. According to KPMG (2008), 'economic consideration' is

currently the highest driver of sustainability reporting, increasing from 68% in 2005 to 74% in 2008. Economic consideration is followed by 'ethical consideration', which was the highest motivator in 2005 at 69% and reducing to the second position in 2008 at 53%. Ethical consideration is closely followed by 'innovation' which showed a minimal decrease from 55% in 2005 to 53% in 2008. The preference for 'reputation' as a motivator or driver of sustainability has reduced significantly from a high of 55% in 2005 to 27% in 2008. This means that most respondents do not currently regard 'innovation' as a major driver of sustainability. 'Risk management', 'supplier relationship' and 'access to capital' are minimal drivers, showing an increase from 35% to 47% and 29% to 39% from 2005 to 2008 for risk management and access to capital respectively. Similarly, 'relationship with suppliers' was, for most companies, not a motivator for sustainability reporting in 2008, showing a decrease from a high of 32% in 2005 to 13% in 2008. The smallest drivers for sustainability reporting were: 'improvements in government-business relationship', 'increase in market share' and 'cost saving'. These were not regarded as motivators of sustainability as their scores decreased to 9%, 21%, and 9% respectively in 2008.

Also, according to a report released in Australia by the Department of Environment and Heritage [DEH] (2005), employees are the foremost target of sustainability reports with an 87% score with the least targeted sector being government and non-governmental organisations with a score of 28%. In between employees and non-governmental organisations are customers (79%), shareholders (74%), local community (67%), institutional investors (54%), suppliers (59%) and analysts (51%). However, it must be noted that these trends change overtime. Academic journals, accounting and international bodies also play substantial roles in encouraging and supporting accountable and transparent practices amongst corporations. Notably, amongst such accounting and international bodies are the GRI, AccoutAbility Strategies, Fédération des Experts Comptables Européens (FEE), World Resources Institute (WRI), International Standards Organisation (ISO 14000), European Union, United Nations and Organisation of Economic Cooperation and Development (Aguilera et al. 2007; Godfrey et al. 2007). Although GRI guidelines are globally recognised, it is envisaged that an increase in socially responsible investments, coupled with the demand from various stakeholders has resulted in the development of other economic standards and indexes in addition to that of the GRI guidelines. Academic journals such as *Accounting, Auditing and Accountability Journal, Accounting Forum, Australian Accounting Review,*

European Accounting Review, Asia Pacific Journal of Accounting and Economics have also published numerous articles on sustainability issues (Deegan 2002).

4.5 Sustainability Disclosure Statistics

Sustainability information can be disclosed as part of the annual report, as a stand-alone report or an environmental or social impact report. Although sustainability reporting has increased over the years (Kolk 2004) reporting in Australia is low (24%) as compared to U.K (71%) and South Africa (81%). Stand-alone documents comprise 23%, 71% and 18% of sustainability reports from companies operating in Australia, U.K. and South Africa respectively. Globally, Japan produces the highest number of sustainability reports (81%) with the lowest reports of 18% produced by Belgium (DEH 2005). Disclosure through stand-alone reports has increased over the years with U.K. producing the largest percentage of stand-alone reports at 100%, followed by Australia with 96% and the least number of stand-alone reports produced by South Africa at 22% (DEH 2005). According to a survey by Deloitte (2006), companies with stand-alone sustainability reports disclose more information and are expected to benefit from increase reputation, brand enhancement and improvement in stakeholder/management relations.

4.6 Various Reporting Standards and Indexes Compared to GRI

Several standards, guidelines and indexes have been developed to bring conformity in sustainability reporting, provide ranked information on leading sustainable companies, or improve the level of value creation and capital market performance in corporations. These standards, guidelines and indexes include AccountAbility 1000 (AA1000), SA8000, SustainAbility, Dow Jones, FTSE4 Good and Global Reporting Initiative (GRI).

4.6.1 AccountAbility (AA1000)

AccountAbility Strategies is a ‘non-profit self-managed partnership’ with offices and country representatives worldwide including Switzerland, U.K., Canada, Brazil, China, and the United States of America (www.accountability21.net/default2, accessed 26 October 2009). AccountAbility Strategies began operating in 1975 with its core business providing assurance and accountability management tools through its voluntary AccountAbility (AA1000) standard series. The AA1000 series, developed through a multi-stakeholder approach, has

accountability and inclusivity as its major principles. The AA1000 series are principles-based standards. They consist of Principle Standards (AA1000PS) – also known as the 'accountability guidance', the Stakeholder Engagement Standard (AA1000SES) and the Assurance Standard (AA100AS). These standards have been designed to help companies become more accountable and responsible in the management of their sustainability activities. Companies are able to legitimise their stakeholder 'inclusiveness' by showing conformity to the standards when implementing systems and processes to advance their sustainability practices (Beckett and Jonker 2002).

4.6.2 SA8000

The SA8000 is developed by Social Accountability International by using, predominantly principles embraced by the International Labour Organisation (ILO) and other human right conventions. Thus, the SA8000 focuses on community and employee issues such as: forced labour; health and safety; freedom of association and collective bargaining; and working conditions in the supply chain (Belal 2008). The SA8000 is a 'process' standard which helps companies to continuously improve and review their social management system and to ensure compliance in the formulating and implementation of corporate labour and human rights practices (Gobbels and Jonker 2003). Both AA1000 and SA8000 standards are process-focused detailing the processes companies must align themselves to for continuous improvement. However, the principle of inclusivity is not a core principle under SA8000 – as in AA1000, which means the approach adopted by companies applying SA8000 principles in their decision making may not be stakeholder-centred (Gobbels et al. 2003).

4.6.3 SustainAbility

SustainAbility is a consultancy firm that works with sustainability experts in advancing the sustainability agenda. In 1994, SustainAbility, in partnership with United Nations Environmental Program (UNEP), developed a scoring tool for evaluating corporate sustainability developments. This scoring tool, which ranks the global corporate leaders in sustainability, is reviewed periodically. It is also familiar in sustainability reporting in the U.K. and other international businesses (Morhardt, Baird and Freeman 2002; Milne, Tregida and Walton 2003).

Standard and Poor's is an international financial rating organisation based in the U.S that reviews corporate sustainability practices and provides information on corporate credit ratings, indices and risk assessments. Standard and Poor's, in partnership with SustainAbility and UNEP, conducts yearly research into sustainability process and management activities of global corporate sustainability leaders through their Global Reporters program. The reports from these studies are used by sustainability experts to strategically advice companies that participate in the yearly surveys on ways of effectively merging sustainability practices into their corporate objectives. Results from their 2008 survey showed that the efforts made by NGOs to advance the sustainability agenda superseded that of companies and governments, with efforts from companies slightly higher than that of governments (UNEP, Standard & Poor's, SustainAbility 2009).

4.6.4 Dow Jones Index

The Dow Jones Sustainability Index (DJSI) was initially launched in 1999. The DJSI is the first global index that is linked to financial markets. In collaboration with Sustainable Asset Management (SAM) Sustainability Group and STOXX limited, the DJSI tracks the financial performance of leading global sustainability-driven companies (www.sustainability-index.com, accessed 27 October, 2009). The DJSI has undergone various reviews since its initial development. Its focus is to inform investors of non-financial opportunities and risk in leading global sustainability-driven companies for their investment decision-making (Szekély et al. 2005). The DJSI also recognises corporate sustainability actions and management of environmental, economic and social risks as a form of long-term value creation which signifies the success of any business (Hart and Milstein 2003).

4.6.5 FTSE4Good

The Financial Times Stock Exchange (FTSE) is a company jointly owned by the Financial Times and the London Stock Exchange. The FTSE initially developed the FTSE4Good Index in 2001 to benchmark the performance of companies to environmental, social, stakeholder and human rights globally recognised standards, in order to attract investment into those companies (Vogel 2005). Companies with business interests in tobacco, nuclear weapons, whole weapons systems, nuclear power and the extraction of uranium are disqualified from participation in this index. All other companies must disclose information on policy and management indicators in addition to information on social responsibility if they wish to be

included in the FTSE index. The final selection of 50 companies into a tradeable index is done on the basis of their level of market capitalisation. The companies that form the U.K. 50 Index are highly profitable companies and also recognised as leaders in environmental, social, stakeholder and human rights practices (Curran and Moran 2007). The FTSE indices are used by various investors for analysing investments, measuring performance, allocating assets, hedging portfolios and creating index tracking funds (FTSE 2006). The FTSE4Good Index is similar to the Dow Jones Index in that both are investment focussed, linked to financial markets and used to track the financial performance of leading global sustainability-driven companies.

4.6.6 GRI Guidelines

The development of global sustainability reporting guidelines began with the Coalition for Environmentally Responsible Economies (CERES), a group established in 1989 to deal with investment issues that had occurred as a result of environmental risks created by the private sector (Hoffman 1996). The CERES issued reporting guidelines to enhance corporate environmental disclosures and worked in partnership with the UNEP to achieve its aim. To ensure consistency in the disclosure of CERES principles, the Voluntary Environmental Reporting Initiative (VERI), a framework for environmental and social reporting, was developed in 1997. This reporting framework was initially meant for voluntary environmental and social reporting among companies in the North American market. The slow adoption of this framework by companies operating in the North American market prompted the CERES to move into the global market, which was likely to be more responsive to a global framework. The context of this new framework was then expanded to include economic and governance issues in addition to the previous environmental and social disclosures (GRI,www.globalreporting.org/NewsEventsPress/LatestNews/2007/NewsSept07Reporting10YearsOn.htm (accessed 30 July 2090)).

The limited focus of SA8000, SustainAbility, Dow Jones and FTSE4Good make them less exhaustive than the GRI, which was developed through a multi-stakeholder approach. The GRI is continuously reviewed and improved with the aim of bringing sustainability reporting to a level that will enhance comparability, flexibility, auditability and global acceptance (GRI 2002). The GRI has subsequently become a widely accepted guideline for sustainability reporting (Enquist et al. 2006). The similarity between AA1000 and the GRI lies in the

adoption of a multi-stakeholder approach in the development of both standards. However, while GRI focuses on 'disclosure' by providing guidelines for reporting on corporate environmental, social and economic issues, the AA1000 series presents 'a process' approach which ensures effective corporate social and ethical activities (Belal 2008). Unlike the GRI, the Dow Jones Sustainability Index and the FTSE4Good are focused on informing investors of non-financial opportunities and risk in leading global sustainability-driven companies in order to attract investments into these companies (Szekély et al. 2005). The Dow Jones Sustainability Index and the FTSE4Good are therefore 'investment focused' but the GRI is 'disclosure focused'.

4.7 History behind development of the GRI Sustainability Reporting Guidelines

The demand for social and environmental reporting in addition to the traditional financial reporting dates back to the 19th and 20th century (Guthrie et al. 1989). With the rapid growth of capital markets and private businesses, it was necessary to ensure that private sector organisations inform various stakeholders on the human, environmental and economic impact of their activities. This is information that financial reports alone have not been able to provide (White 2005). There were other frameworks for reporting corporate environmental and social information prior to the inception of the global reporting initiative guidelines. These frameworks were numerous, different among countries and even within industry sectors. In countries like Denmark, publication of environmental information in the form of a 'green account' was a requirement from Danish companies (Frost 2007). A different form of reporting, the European Union's Eco-Management and Audit Scheme (EMAS) was adopted as a requirement for corporate environmental reporting in the Netherlands. Also, the National Environmental Agency in Japan required companies operating in that country to adhere to a different form of corporate environmental reporting.

These different forms of reporting resulted in the disclosure of inconsistent and incomparable corporate environmental and social performance information to stakeholders and amongst companies (Willis 2003). It therefore became necessary to develop a guideline that would encourage harmonisation of the reports. International harmonisation of environmental and social reporting was desirable to encourage transparency and accountability in corporate sustainable development disclosures, forestall inconsistencies in disclosures and enhance

decision-making. Harmonisation was important among various global voluntary corporate responsibility reporting requirements such as United Nations (UN) Global Compact, the OECD guidelines for multinational companies and other financial sector measurement initiatives. To ensure harmonisation among these standards, the GRI has continued to review and improve its global reporting guidelines by collaborating with other similar global voluntary corporate responsibility guidelines and standard setting organisations including the OECD and Social Accountability International.

4.7.1 Transformation of Corporate Reporting

As stated earlier, corporate reporting under environmental, social and economic performance indicators or the GRI guidelines is stakeholder focused as opposed to financial reporting which focuses mostly on reporting to shareholders. This implies that under environmental, social and economic reporting, various groups of people should be included in corporate decision making and strategy formulation. This is important to ensure transparent disclosures. Disclosures disseminated through sustainability reports include information on corporate future risk management and improvements, and actions taken on sustainable development issues with emphasis on current and value based assessment. This information is disclosed to enable users of sustainability reports take decisions using current information and not only on historical cost figures as in financial reporting. Enhancement of corporate reporting to include environmental, social and economic reporting is show in Table 4.1.

Table 4.1: Transformation of Corporate Reporting

Financial Reporting	Environmental, Social and Economic Reporting
Shareholder focus	Stakeholder focus
Standardised information	Tailored stakeholder information
Financial information	Environmental, social and economic information
Company-controlled information	Open and transparent approach including third-party information
Periodic reporting	Continuous reporting
Distribution of information	Stakeholder dialogue
Technical features and past performance	Greater emphasis on strategy, future projects, risk management and sustainable development
Historical cost	Value-based assessments
Audit of accounts	Assurance of underlying system
Typical static system	Continuous evolving model

(Source: Modified from Suggett and Goodsir 2002)

4.7.2 Development of the Global Reporting Initiative Guidelines

In 1998 a multi-stakeholder steering committee including several working groups produced an exposure draft of the initial GRI sustainability guidelines with an aim of bringing sustainability reporting to a level which can enhance 'comparability, flexibility, auditability and global acceptance' (Willis 2003; GRI 2002). This exposure draft was released in 1999 and about 31 companies contributed to a pilot testing of the draft guidelines (Brown, De Jong and Lessidrenska 2009). A final release of the initial GRI guidelines was made in 2000. The GRI guideline consists of principles underlying the content of sustainability reports (KPMG 2008).

Other guidelines that existed prior to the development of the GRI guidelines were in the form of codes of conduct or systems meant to assist management in the appraisal of internal performance measures. GRI guidelines, on the other hand, serve as an external reporting framework which assists corporations in reporting the results of current strategies implemented on their economic, environmental and social performance. The GRI guidelines help corporations to improve upon their current strategies (GRI 2002).

The framework of the guidelines consists of performance indicator protocols, aspects and indicators. These are regularly reviewed and updated to satisfy the demand of stakeholders (GRI 2002). Not long after the release of the initial guidelines, stakeholder working groups were assigned the duty of revising those guidelines to broaden the stakeholder base and enhance the value of the guidelines (Moneva et al. 2006).

The G2, an updated version of the initial guidelines, was published in August 2002. The aim of the G2 was to facilitate the understanding of both reporting companies and their stakeholders regarding sustainable development issues and disclosures (GRI, 2002). The globally accepted G2 guidelines were, at that time, regarded as a complete up-to-date framework (Weber, Koellner, Habegger, Steffensen and Ohnemus 2008; Deegan 2005).

The GRI framework is, therefore, a model which can be used by all businesses of any size, in any location or industry sector. The framework was the only significant document of the G2 GRI guidelines. A high number of companies in the developed countries adopted the G2 GRI guidelines in their sustainability reporting. However, adoption was rather slow in companies operating in developing countries. Out of the 334 companies which adopted the GRI guidelines in 2002, the highest reporting countries were Japan (78), U.K. (49), U.S. (46) and Spain (23). Among the least reporting countries were Chile (2), Argentina (1) and Mauritius (1) (GRI 2002).

4.7.3 GRI Framework

The sustainability reporting framework, a core element of the GRI guidelines, is divided into performance indicator protocols, categories, aspects and core/additional indicators. The performance indicator protocols act as a guide to companies in the preparation of their sustainability reports. The performance indicator protocols provide information on compilation requirements, definitions and other important material to help forestall any interpretation in consistencies (GRI 2006). The categories indicate disclosures of stakeholder demands under each of the economic, social and environmental areas. The aspects provide a breakdown of issues, impacts or required disclosures on various sustainable development practices. The core/additional indicators, which are both quantitative and qualitative in nature, specifically measure each of the aspects used to locate and disclose actual performance (Annik 2003). A core indicator is one that is of material value to a wide range of reporting corporations and of much significance to most stakeholders. An additional indicator

is also important for corporate economic, social and environmental assessment and provides information expected by stakeholders; but it is not of much significance to a large number of corporations. An additional indicator has the likelihood of becoming a core indicator in the future. The indicators and aspects of the GRI 2002 sustainability reporting guidelines are shown below in Table 4.2.

Table 4.2: Indicators and Aspects of GRI G2 Reporting Guidelines

Performance Indicator Protocol	**Categories**	**Aspects**	**Indicators**	
			CORE	ADDITIONAL
Environ-mental	Environmental	Materials, Energy, Water, Biodiversity, Emissions, Effluents and Waste, Suppliers, Products and Services , Compliance, Transport and Overall	EN1, EN2, EN3, EN4, EN5, EN6, EN7, EN8, EN9, EN10, EN11, EN12, EN13, EN14, EN15, EN16	EN17, EN18,EN19, EN20, EN21,EN22, EN23, EN24, EN25, EN26, EN27, EN28 ,EN29, EN30, EN3I, EN32, EN33, EN34, EN35
Social	Labour Practices and Decent work	Employment, Labour/Management Relations, Health and Safety, Training and Education, Diversity and Opportunity	LA1, LA2, LA3, LA4, LA5, LA6, LA7, LA8, LA9,LA10, LA11	LA12, LA13, LA14, LA15. LA16, LA17
	Human Rights	Strategy and Management, Non-discrimination, Freedom of Association and Collective Bargaining, Child labour, Forced and Compulsory labour, Disciplinary Practices, Security Practices, Indigenous Rights	HR1, HR2, HR3, HR4, HR5, HR6, HR6, HR7	HR8, HR9, HR10, HR11, HR12, HR13, HR14
	Society	Community, Bribery and Corruption, Political Contributions, Competition and Pricing	SO1,SO2,SO3	SO4, SO5.SO6,SO7
	Product Responsibility	Customer Health and Safety, Products and Services , Advertising, Respect for Privacy	PR1, PR2, PR3	PR4, PR5, PR6, PR7, PR8, PR9, PR10, PR11
Economic	Direct Economic Impacts & Indirect Economic Impacts	Customers, Suppliers, Employees, Providers of Capital, Public Sector	EC1, EC2, EC3, EC4, EC5. EC6, EC7, EC8, EC9, EC10	EC11, EC12, EC13

The GRI G2 sustainability reporting guidelines comprise 37 aspects. These are broken down into 10, 22 and 5 aspects for environmental, social and economic respectively. The 22 social

aspects are made up of 6 for labour practices and decent work, 8 relating to human rights, 4 for society and 4 for product responsibility.

The total number of core and additional indicators in the 2002 GRI sustainability reporting guidelines is 97. The highest number of indicators, 35 of which 16 and 19 are core and additional respectively, relate to the environmental performance indicator. Social has 49 performance indicators with economic having the least number of indicators at 13, 10 being core and 3 additional. The 49 social performance indicators are made up of 11core and 6 additional indicators for labour practices and decent work, 7 core and 7 additional for human rights, 3 core and 4 additional for society, and 3 core and 8 additional from product responsibility.

As already noted, the GRI framework and indicator protocols are constantly undergoing improvements through extensive multi-stakeholder consultative processes to improve harmonisation and value reporting (GRI 2002). In 2006, a third generation of GRI guidelines, the G3, was released (Ballou, Heitger, Landers, and Adams 2006).

4.7.3.1 The Third Generation GRI Framework (G3)

The release of the G3 was to further improve and progress the robustness of the GRI reporting framework by making it a more efficient, realistic and user-friendly measurement tool for corporate sustainability reporting (Moneva et al., 2006). Unlike the G2 framework, which had the guidelines as its main document, the G3 framework consists of sector supplements and protocols in addition to the guidelines. Protocols define the main concepts and scope of each indicator and provide guidance on recording methodologies in addition to other technical information (GRI 2006). Sector supplements, on the other hand, provide reporting guidance for unique industry sectors which require different or additional disclosure requirements (Dallas 2004). While the G2 indicators combine both descriptions and measurement of corporate strategies and performance, the G3 separates corporate information from performance outcomes. This and several other improvements in the G3 increased the number of corporate reports using GRI from 685 in 2007 to more than 1000 in 2008; showing an increase of about 46%. Currently, reporting is highest in Spain and followed by the U.S. (Green 2009). Reporting in Europe is also high with 49% of companies using G3 in their sustainability disclosure. On the other hand, reporting is on the low side in Asia, North America, Latin America, and Oceania continents where reporting is 15%, 14%, 12% and 6%

respectively. Sustainability reporting is lowest in the continent of Africa (4%) as well as in Oceania (6%) where most the economies can also be classified as developing (Green 2009). The G3 performance indicators protocols are shown below in Table 4.3.

Table 4.3: The G3 Indicators and Performance Protocols

Performance Indicator Protocol	Categories	Aspects	Indicators	
			CORE	ADDITIONAL
Environmental	Environmental	Materials, Energy, Water, Biodiversity, Emissions, Effluents and Waste, Products and Services, Compliance, Transport and Overall	EN1, EN2, EN3, EN4, EN8, EN11, EN12, EN16, EN17, EN19, EN20, EN21,EN22, EN23, EN26, EN27, EN28	EN5, EN6, EN7, EN9, EN10, EN14, EN15, EN18, EN24, EN25, EN29, EN30
Social	Labour Practices and Decent work	Employment, Labour/Management Relations, Occupational Health and Safety, Training and Education, Diversity and Opportunity	LA1, LA2, LA4, LA5, LA7, LA8, LA10, LA13, LA14	LA3, LA6, LA9, LA11, LA12
	Human Rights	Investment and Procurement Practices, Non-discrimination, Freedom of Association and Collective Bargaining, Child labour, Forced and Compulsory labour, Security Practices, Indigenous Rights	HR1, HR2, HR4, HR5, HR6, HR7,	HR3, HR8, HR9
	Society	Community, Corruption, Pubic Policy, Anti-Competitive Behaviour and Compliance	SO1, SO2, SO3, SO4, SO5, SO8	SO6, SO7
	Product Responsibility	Customer Health and Safety, Products and Service labelling, Marketing Communications, Customer Privacy and Compliance	PR1, PR3, PR6, PR9	PR2, PR4, PR5, PR7, PR8
Economic	Direct Economic Impacts & Indirect Economic Impacts	Economic Performance, Market Presence and Indirect Economic Impact	EC1, EC2, EC3, EC4, EC6, EC7, EC8	EC5, 4C9

4.7.3.2 GRI G3 compared to G2

The aspects of the environmental, social and economic G3 guidelines have been reduced to 34 as compared to 37 in the G2 guidelines. This is made up of 9 for environmental, 22 for social and 3 for economic. Although the number of social aspects (22) did not change from that of G2, distribution within the individual categories changed in 2006. Labour practice and decent work and human rights reduced to 5 and 7 aspects respectively while society and product responsibility increased to 5 aspects each.

To make reporting more efficient and cost effective, the 97 indicators of the G2 guidelines made up of 50 core and 47 additional, were compressed into 79 indicators in the G3 guidelines of which 49 are core and 30 additional. This improvement resulted in a decrease of about 18% of the G2 indicators in the 2006 G3 guidelines. Thirty out of the 79 indicators relate to environment, 40 are social and the least indicators of 9 are for economic. Out of the 40 social indicators, 9 relate to the human rights and product responsibility categories, 14 for labour practices and decent work and 8 for society. Seventeen indicators for environment are core and 13 additional, an increase of 1 and a reduction of 6 in the G2 core and additional indicators, respectively. There was a slight increase in the total social core indicators from 24 in G2 to 25 in G3 but a significant decrease in the additional indicators from 25 in G2 to 15 in G3. Both the core and additional economic indicators decreased to 7 and 2 in G3, respectively.

The major difference between the GRI G2 and G3 can be summarised under their format and structure. Under the G2, information on reporting guidance, trends, structure and history of the guidelines were all combined in a single document known as the Guidelines. However, a more streamlined approach was adopted in the G3 to increase the number of guidelines reported and also bring clarity and succinctness into disclosure. The G3 guidelines focus mainly on aspects and indicators to be disclosed. Resources to aid report preparers and users in application and interpretation are separated into protocols, sector supplements, aspects of reporting framework or extra supporting information. Unlike the GRI G2, the G3 has been systematically structured into two main parts to conform to the pattern of an acceptable reporting process. This systematic structure is to ensure flexibility and continuous increase and improvement in sustainability reporting practices.

The first part, the reporting principles and guidance, details the tenets for defining report content and quality, and provides guidelines for managing the report boundary. The second part configures standard disclosures anticipated from organisations into information on organisational strategy and profile, management approach and performance indicators (GRI 2006). As a form of corporate reporting, this research will provide information on the performance indicators.

4.7.3.3 GRI G3.1

An update of the GRI G3 guidelines, the GRI G3.1, was released in March 2011. The GRI encourages companies to use the updated G3.1 version of the framework in their sustainability reporting. However the GRI also stated that companies who are not able to adapt immediately can still use the G3 guidelines. Notwithstanding this advice, like all changes, it may take time to incorporate these updates into corporate sustainability reporting. Below is a detail of the updates in GRI G3.1.

Indicators

Labour: A new aspect, 'Equal Remuneration for Women and Men' has been added to the aspects under the labour performance indicator. The LA14 core indicator is no more part of the indicators under the 'Diversity and Equal Opportunity' aspect but currently an indicator under the new aspect 'Equal Remuneration for Women and Men'. A new core indicator, LA15 has also been added to the indicators under the Employment aspect. The LA15 indicator requires organisations to provide information on employee retention rates after their return to work from parental leave.

Society: Under the revised GRI 3.1 a new aspect 'Local Communities' has replaced the previous aspect named 'Community'. Also, the core indicator SO1, formerly a society performance indicator, has been expanded into three core indicators namely SO1, SO9 and SO10. SO1 requires information on percentage of operations implemented in local communities, including development programs and their impact assessments. SO9 requires documentation of operations that have the potential to significantly impact local communities, or have actually negatively impacted local communities. SO10 reporting must provide a record of measures implemented to manage significant, potential or actual negative impacts of operations on local communities.

Human Rights: Two new aspects, HR10 and HR11, and indicators, namely assessment and remediation respectively, have been added to the human rights performance indicator. HR10 deals with information on the total number and percentage of operations that have undergone human rights reviews and/or impact assessments. HR11 requires information on the number of human rights abuses filed and dealt with through formal grievance procedures.

Other updates: Several G3 indicators have also had portions of their previous requirements either deleted, entire content revised or information added. These indicators are, EC5 under the economic category, EN9 and EN14 under the environmental category, and LA1, LA2; LA3, LA7, LA10, LA12, LA13 and LA14 under the social category. Also under the social category, HR1, HR2, HR3, HR4, HR5, HR6, HR7, PR5 and PR6 indicators have either had their entire content revised or information added. In addition, the content of the reporting principles on materiality, stakeholder inclusiveness and sustainability context have been revised under the current G3.1.

4.7.3.4 The Fourth Generation GRI Framework (G4)

The GRI organisation has announced the publication of a fourth generation guidelines, the G4, in May 2013. Six companies, Alcoa, Enel, GE, Goldman Sachs, Natura, Shell and the big4 accounting firms are the major sponsors of the development of the G4 guidelines. The G4 is expected to be more stakeholder-focused and more relevant to current issues. It is expected that aside from the guidelines, there will also be principles to guide the preparation of sustainability reports. This can enhance comparison among businesses and ensure corporations meet most of the expectations of stakeholders (Moneva et al. 2006).

4.8 GRI Sustainability Reporting Principles

Auditability, transparency and inclusiveness are the three principles that underpin the GRI G3 reporting framework (Khagram and Ali 2008; Wills 2003; GRI 2002). Inclusiveness and auditability are the initial requirements of the sustainability reporting process with the principle of inclusiveness initially emphasised in the GRI 2002 guidelines (Carpenter and Ladson 2005). Transparency, an underlying factor for accountability, mandates companies to inform stakeholders and report users on assumptions made as well as processes and procedures followed in collating information for their sustainability reports (Carpenter et al. 2005). Auditability requires sustainability reports to be made available for internal and

external examinations. Information provided in sustainability reports must, therefore, be accurate, complete, consistent and reliable. Transparency and inclusiveness provide guidance to report content and report quality. It is, therefore, expected that the content of reports provide complete, clear and relevant information within a sustainability context. Similarly, quality reports must also provide accurate, neutral and comparable information (Carpenter et al. 2005). Furthermore, the multi-stakeholder consultative approach, an underlying factor for the global acceptance of the GRI guidelines, is one of the principles companies must adopt in defining the context of their sustainability reports. The value created by stakeholder 'inclusiveness' in corporate stakeholder decision-making has also been emphasised by AccountAbility strategies. As stated earlier, 'inclusivity' is the foundation of the 2008 AA1000 AccountAbility principles, which is intended for use by corporations to manage and enhance their sustainability performance and reporting.

From Table 4.4 below, it can be seen that, although the characteristics of sustainability principles have changed overtime, the underlying principles of the GRI guidelines auditability (verifiability), transparency (clarity) remain important principles in all three periods that the guidelines has been revised. It is, however, recommended that, as corporations are currently being encouraged to assure their reports, the principle of auditability must be included in the upcoming G4. Evolution of the GRI sustainability reporting guidelines to date is shown in Table 4.4 below.

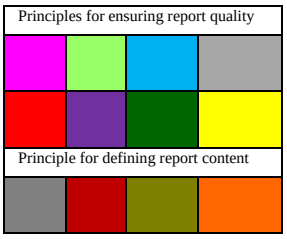
From the release of the draft exposure in 1999 through to the release of the current G3 in 2006, GRI has continued to pursue its vision of bringing sustainability reporting to a level which will enhance comparability, flexibility and auditability. This has been done by ensuring that the principles of completeness and comparability were emphasised throughout the periods in which the guidelines were revised. Comparability requires consistency in continuous reporting of corporate sustainability information. It is essential that report content must be material and complete to ensure adequate comparability. GRI expects that the principle of comparability will help to achieve its vision of building a reporting framework to the equivalent of financial reporting. In addition, the principles of relevance, sustainability context, accuracy, neutrality, clarity and timeliness have been continuously emphasised in the GRI guidelines to ensure that sustainability reports effectively address the demands of primary stakeholders (Clarkson et al. 2008).

Table 4.4: Evolution of GRI Sustainability Reporting Guidelines

PRINCIPLES			
1999	**2000**	**2002**	**2006**
Qualitative Characteristics	**Underlying principles of GRI Reporting**	**Principles**	**Principles for Defining Report Content**
Relevance	The reporting entity principle	Inclusiveness	**Stakeholder Inclusiveness**
Reliability	The respecting scope principle	**Auditability**	**Materiality**
Valid Description	The reporting period principle	**Completeness**	**Completeness**
Substance	The going concern principle	**Sustainability Context**	**Sustainability Context**
Valid Description	The conservation principle		
Substance			**Principles for Ensuring Report Quality**
Neutrality	The materiality principle	**Relevance**	**Balance**
Completeness	**Qualitative Characteristics**	**Comparability**	**Comparability**
Prudence	**Relevance**	**Accuracy**	**Accuracy**
Understandability	**Reliability**	**Timeliness**	**Timeliness**
Comparability	**Valid Description**	**Clarity**	**Clarity**
Timeliness	Substance	**Neutrality**	**Reliability**
Verifiability	**Neutrality**		
Underlying Assumptions	**Completeness**		
The Entity Assumption	Prudence		
The Accruals Basis of Accounting	**Clarity**		
The Going Concern Assumption	**Comparability**		
The 'Precautionary Principle'	**Timeliness**		
The Materiality Principle	Verifiability		

(Source: Modified from Etzion and Ferraro 2007)

Key: Principles Emphasised in at Least Three Years of the GRI Evolution



GRI also seeks to offer every business the flexibility and creativity it requires in applying the GRI guidelines in its reporting. This is done by offering the option of either preparing reports 'in accordance with' the guidelines or using an informal approach. The informal approach

requires adherence to a limited aspect of the reporting guidelines and gradually moving towards a complete adoption. The flexibility in reporting 'in accordance with' is an option which is adopted by any company willing to enjoy first-mover advantage in high level sustainability reporting (GRI 2002).

Report users rely on information reported in organisational sustainability reports for their decision making. Third-party opinion on sustainability reports add credibility to reports and make information disclosed more reliable. The benefits of third party opinion to organisations and report users are discussed in the following Sections.

4.9 Meaning and Benefits of Assurance

Although sustainability reporting continues to increase overtime, the credibility of reports is low – both within private and public companies, and in almost all industrial sectors (CPA 2009). This lack of credibility is a concern for stakeholders who have entrusted their resources to corporate executives, and who require affirmation of effective management and good stewardship through credible communication in the form of assurance reports.

Various explanations and definitions have been given to the term 'assurance'. Assurance, as explained by AA1000, refers to the use of principles and standards to evaluate information in corporate reports. According to GRI (2006), external assurance 'involves activities that are designed to express an opinion on the quality of information' contained in sustainability reports that are intended for publication. Gill, Cosserat, Leung and Coram (2001) define assurance as 'contentment with reliability of information disclosed'. Zadek, Raynard and Forstater (2006) expanded Gill et al.'s definition by stating that users of assured reports are confident that information disclosed is 'complete' for adequate decision making.

Focusing on the independence of assurance providers and sustainability reports, this research defines assurance as an engagement where the credibility of written or implied assertions in sustainability reports is assessed by an independent and qualified provider who communicates an opinion to stakeholders or users of that information. It can therefore be said that assurance ensures that management disclose accountable, relevant, accurate and trustworthy information and assertions for stakeholder decision-making (Zadek and Raynard 2004). Stakeholders are also more confident when making decisions with information in

assured reports. Thus, sustainability reports not assured are regarded as merely a form of publicity which does not offer any future corporate value (Mock, Strohm and Swartz 2007).

Organisations can implement internal processes such as internal audit and internal controls, to help manage and improve the integrity of information reported. However the GRI encourages organisations to seek external assurance in addition to their internal audit processes. External assurance providers can be professional assurance providers (such as the big 4 audit firms), stakeholder panels or individuals. However, GRI recommends that for external assurance of sustainability reports to be credible:

- Companies must engage competent and independent external assurance providers
- The assurance procedure must follow recognised assurance standards, be written and evidence-based
- Assurance providers must examine reports to ensure the reports provide reasonable and balanced information of the organisation's sustainability performance
- Assurance providers must examine the extent to which report preparers have implemented requirements of the GRI reporting framework and principles
- Opinion expressed or conclusions made to the public by the assurance provider must be written; and information on the relationship between the assurance provider and the report preparer must also be stated.

Source: G3 Guidelines, General Reporting Notes (www.globalreporting.org/Reporting Framework/G3Guidelines/AboutG3GeneralReportingNotes.htm, accessed 2 March 2011)

Although assurance statements add credibility and reliability to information disclosed in sustainability reports (O'Dwyer et al. 2005), only about 68% of the best global sustainability reports include some sort of assurance statements (SustainAbility 2002).

Assurance is not only beneficial to stakeholders but also to the reporting organisations. Assurance engagements ensure organisations meet legal requirements for both financial and non-financial reporting. Also, recommendations from third party independent opinion after assurance engagements can help improve corporate strategies and ensure continuous improvements in organisational performance. Furthermore, assurance reports are expected to educate, inform and change the perceptions of corporate executives to provide better and more informed sustainability reports in the future (O'Dwyer et al. 2005). Companies that seek assurance for their reports also benefit in the areas of assessment, improvement and

protection of internal quality standards. As well, assurance enhances the credibility of data collected by any corporation because such information can be used continuously to improve activities in that environment (Kolk 2008). In addition, employees, management and board members who are interested in corporate risk and value creation benefit from assurance reports as a reliable source of information. Other stakeholders who benefit from assurance statements include regulators, the media and non-governmental organisations. This shows that assurance can be linked more to the stakeholder theory than to the individual shareholder profit maximisation agenda.

The above discussion has prompted the seventh and eight research questions of this thesis**.**

In which domains do stakeholders require external party opinion on disclosures made in sustainability reports?

In which domains do stakeholders require physical evidence of corporate responsibility to society?

Although literature posits that sustainability reporting has been increasing over the years, the percentage of increase is different in all countries including the three countries in the current study.

4.10 Sustainability Reporting in Countries Examined

Culture, national systems and accounting values differ amongst countries. In the same vein, corporations that operate in different countries differ in their reporting practices. Corporations are expected to comply with the cultural, national systems and accounting practice in the countries in which they operate. It is, therefore, obvious that the level of sustainability reporting also differ amongst companies. Differences in reporting patterns amongst companies operating in Australia, U.K. and South Africa are discussed below.

Policies and indices play a minimum role in motivating corporate responsibility practices and sustainability reporting. Rather, ideals and relationships built on appropriate leadership, good governance practices, as well as principles and strategies implemented to manage operational impact of corporate activities on the environment and society, largely motivates corporate responsibility and sustainability reporting (KPMG 2008).

4.10.1 Sustainability Reporting Amongst Australian Companies

Sustainability reporting became evident amongst Australian companies around 1999 (Dibley 1999), but the initial focus was on environmental reporting (Deegan et al. 2002). Huge cost associated with damaged environmental repair may have prompted companies to implement strategies and systems to manage risks and report on efforts made to mitigate those risks. High greenhouse gas levels emitted by Australia companies (Australian Greenhouse Office 2005) coupled with current threats to global economies and the need to manage and monitor the environmental impact of such high emission levels, may also have prompted an increase in the level of reporting amongst companies in Australia.

The Australian Federal government, through the Department of Environment and Heritage, encouraged sustainability reporting as a means of controlling and minimising the risk of corporate irresponsibility (Sarre et al. 2001). In 2003, the Department of Environment and Heritage (DEH) published a guideline for environmental reporting based on the GRI guidelines. DEH also developed an online library to help companies with data collection, compilation and disclosure of sustainability information. The DEH has, thereafter, been at the forefront of various programmes and schemes to encourage sustainability reporting in Australia.

In order to regulate sustainability reporting, various Acts have been enacted, and frameworks and schemes developed by Federal and State governments to reduce energy usage and greenhouse gas emissions. Notable amongst them are the Mandatory Renewable Energy Target (MRET) and the National Framework for Energy Efficiency (NFEE). Another is the Victoria Renewable Energy Act, an investment initiative to promote clean, emission free electricity. The industrial sector, specifically the Minerals Council of Australia (MCA) and the Australian Industry Group (AIG) have also made progress in encouraging corporate environmental reporting. Signatories to the Environmental Management Code developed by MCA are obliged, within two years, to produce stand-alone environmental reports. The AIG is also in partnership with the group which developed the ‘Framework for Public Environmental Reporting’ in Australia (Environmental Australia 2000; Frost, Jones, Loftus and Van Der Laan 2005).

Despite increases in sustainability reporting, the level of such reporting by companies in Australia continues to be low compared to that of other countries. Only about 24% of

Australia's 500 largest public and private companies produced sustainability reports in 2005. Reporting was dominated by the manufacturing, mining, wholesale trade, finance and utilities sectors with only 3% of sustainability reports produced from government departments (DEH 2005). The low level of sustainability reporting was again evident in a survey conducted by KPMG in 2005 amongst 100 publicly listed companies in 16 countries. In this survey, Australia was ranked 14th with a reporting rate of 23% (KPMG 2005).

Generally, there have been claims that the format for sustainability reporting is unsuitable for decision-making. Thus, financial markets and financial analysts have, up to date, not been very responsive to sustainability disclosures. The financial market in Australia is not an exception. Companies that have published sustainability reports in Australia have not benefited since their sustainability practices have not been accorded much value by the financial markets (DEH 2005). This unresponsiveness could also be a contributory factor for the low drive in sustainability reporting amongst Australian companies.

Although sustainability reporting amongst Australian companies still lags behind that of most other developed countries, reporting increased by100% over 2005 levels by 2008 with about 68% of ASX N100 companies publishing sustainability reports (KPMG 2008). This increase in sustainability reporting amongst Australian companies can be attributed to the climate change agendas well as an increase in stakeholder expectations.

The climate change agenda is being championed by the Federal government. The Commonwealth of Australia has enacted various pieces of legislations, including the National Greenhouse and Energy Reporting Act (NGER), the Carbon Pollution Reduction Scheme (CPRS) and an amendment to the Australian Securities Exchange (ASX) principle 7. Furthermore, a legal obligation under s299 (1) (f) of the Corporations Act 2001 requires disclosure of breaches of environmental laws and licences to be made in the annual reports of Australian corporations. Corporate reports that conform to the above requirements or legislations are normally confined to the relevant government agencies.

The PJCCFS (2006) recommends that sustainability reporting must remain voluntary in Australia. This is because of the possibility of mandatory reporting encouraging 'form over substance' type of reporting. The committee also suggested that a gradual approach rather

than the use of legislation be followed to encourage increase voluntary sustainability reporting amongst Australian companies (PJCCFS 2006).

4.10.2 Sustainability Reporting by Companies in the United Kingdom

United Kingdom (U.K.) is one of the countries where sustainability reporting has been on the increase since 1993. About 20% of companies were reporting in 1993, about 27% in 1996, about 32% in 1999, about 49% in 2002 and approximately 71% in 2005. In the same vein, sustainability reporting by MNEs in the U.K. has been on the increase since 1999, with 57% reporting in 1999, 71% in 2002 and 100% in 2005 (Kolk 2005). These sustainability reports are either published as stand-alone reports or as part of annual reports. As at 2008, the number of companies publishing stand-alone sustainability reports in the U.K. had risen by 13%, but companies disclosing such information as part of their annual report had only increased by 7% (KPMG 2008). This shows an increased preference for stand-alone sustainability reports in the U.K. Industry sector reporting has also increased, with electronics, trade and retail, manufacturing, transport and some extractive sectors scoring almost 100% in their sustainability disclosures. On the other hand, oil and gas, media and pharmaceutical sectors scored 83%, 90% and 67% respectively. This score puts reporting amongst U.K. industries at above average (KPMG 2008).

Motivation to report can be attributed to activities unique to U.K. organisations, initiatives by the U.K. government as well as issues similar to both U.K. and non-U.K. companies. The U.K. government has been a major player in advancing sustainability activities and practices in the country since the 1970's. In 2000 the U.K. government appointed a cabinet minister for CSR activities. It was the first country to make such an appointment. The initial mandate of this minister was to ensure that U.K. companies, especially the FTSE 350 listed companies, adopt sustainable development practices and report their activities (Idowu and Filho 2009). Large U.K. companies were encouraged to appoint a sustainability manager and also include on their boards a member responsible for sustainability activities (Idowu and Towler 2004). Further attempts to encourage sustainability practices and reporting, resulted in the U.K. government launching several documents in 2004, including a draft strategic framework, to address major sustainability issues facing U.K. companies (Department of Trade and Industry [DTI] 2004). One such document was produced by the Department of Environment, Food and Rural Affairs (DEFRA). This document contained guidelines (consisting of 15 major

indicators and 56 principles) to help companies advance their sustainable development practices and reporting, especially in the area of greenhouse gas, waste and water. Another document, the Public Environmental Reporting Initiative (PERI) was published as a tool to aid businesses in the formulation and implementation of their environmental policies, practices and performance reporting (KPMG 2005). A website was also set up in 2002 and government departments in the U.K. were requested to provide information of their sustainable development plans and the roles they play in helping to advance the government's sustainable development goals. The U.K government has also encouraged companies operating in the country to take a leading role in the reduction of greenhouse gas emissions.

Apart from the efforts made by the U.K government, other organisations in the U.K. like Business in the Community (BitC) also continue to support and motivate businesses to improve their sustainability practices and reporting. One such motivation is through the implementation of the 5 'T' principles: inspiring, integrity, integration, innovation and impact. Corporations are expected to follow these principles when performing their social responsibilities. The FTSE4Good index is another initiative to motivate companies, especially financial institutions, to advance their sustainability activities and improve their reporting. Furthermore, the Association of Chartered Certified Accountants (ACCA), through its best practices for sustainability awards, inspires sustainable corporate environmental practices as well as reward innovative green products and services. U.K companies and several companies in other countries including Australia, South Africa, New Zealand and Hong Kong benefit from these yearly awards (Idowu et al. 2009).

Apart from the requirement in the Climate Change Bill of 2008, which require companies and medium-size business in the U.K. to report their greenhouse gas emissions from 2012 (DEFRA 2009), sustainability reporting remains voluntary amongst U.K. companies. An attempt by the U.K. government to enforce mandatory reporting in listed U.K. companies had to be abandoned in 2006 because of the widespread belief that such a move could stifle corporate innovation and competitiveness (Delbard 2008).

4.10.3 Sustainability Reporting in South African Companies

Sustainability reporting continues to increase rapidly amongst companies in South Africa. As few as 1% of companies were publishing sustainability reports in 2002 (Kolk 2005) but by 2008, 86% of companies were doing so (KPMG 2008). Over 50% of companies in the

mining and communications industry sectors issued sustainability reports in 2008. However, only between 22% and 41% of companies in the trade and retail, transport, chemical and synthetic and food and beverage industry sectors published sustainability reports in 2008 (KPMG 2008).

The number of companies publishing stand-alone reports in South Africa increased from 18% in 2005 to 26% in 2008 (KPMG 2005; 2008). Out of the 399 companies listed on the Johannesburg Stock Exchange (JSE) in 2009, 162 companies published some form of sustainability report using GRI. The published reports of 82 out of the 162 listed companies were in 'accordance with' the GRI G3 guidelines with 80 companies making reference to certain aspects of the G3 guidelines in their reports (Rea 2009). The trend in sustainability reporting indicates an increase of almost 50% over the number of companies reporting in 'accordance with' the GRI guidelines in 2007 (Rea 2009).

Reporting by companies in South Africa, specifically MNEs, is driven by a number of factors: size, environmental impact of operations, exposure to international markets and external investments (KPMG 2008). Due to their access to international markets and their size, MNEs are likely to have more discretionary funds to support reporting. The demand by stakeholders that MNEs manage risk associated with the negative impact of their activities on the environment can also encourage them to publish sustainability reports. This is because actions taken to manage or mitigate these environmental risks can be disclosed in publish sustainability reports (KPMG 2008).

Other socio-political factors also drive sustainability reporting by companies in South Africa. One such factor is the expectation that all publicly listed companies in South Africa adopt the King II Code on Corporate Governance in disclosing their performance on good corporate governance as well as incorporate extensive information of their sustainability practices in their reports. All members of the FTSE/JSE All Share Index continually publish sustainability reports (KPMG 2005).

There are a number of factors that discourage sustainability reporting by companies operating in South Africa, causing such reporting to be lower than that of levels in other global economies. One factor is that the demand for sustainability reports is low, especially among employees and investors. This implies that employees and investors are yet to appreciate the

importance of both financial and non-financial information in assessing corporate performance. Other stakeholders and civil society organisations in South Africa are also yet to make use of sustainability reports to assess corporate legitimacy on the use of societal resources (Sonnenberg and Hamann 2006). Similar to Australia and the U.K., sustainability reporting continues to be voluntary amongst companies operating in South Africa.

The above discussion on sustainability reporting in the three countries, therefore, indicates that aside motivation factors which are specific to country of operation, several other factors already explained in previous Sections also motivate corporations to pursue sustainability activities and improve their reporting irrespective of where they operate. Furthermore, corporations want to communicate publicly their accountability of the use of societal resources by reporting sustainability as a core part of corporate strategy (Idowu et al. 2007)

4.11. Summary

Corporate legitimacy for the use of societal resources is substantiated through sustainability disclosures from corporations. These disclosures also publicly communicate efforts made by corporations to measure, monitor and manage operational risks. Various issues, apart from the value-relevance of reporting, motivate companies to disclose their sustainability practices. Some of these drivers are corporate desire to avoid undesirable outcomes which might lead to sanctions or payment of fines. The public, including civil society organisations, communities and 'green' consumers can push for more sustainable companies; thus motivating business to disclose information on their sustainability practices. Currently, sustainability reporting is predominantly voluntary, with only a few governments, such as those of Denmark and the Netherlands require mandatory environmental reports.

Various standards, guidelines and indexes have been developed to either encourage conformity in reporting and/or increase investments in social responsible companies. Some of these standards and guidelines are the AA1000, SA8000, SustainAbility, Dow Jones, FTSE4Good and the GRI. With the exception of the GRI guidelines, which is focused on disclosure, the others standards are either 'investment' focused or serve as guides to help companies implement effective corporate social and ethical practices. As a result, the GRI guidelines, which were initially developed in 1999, have been globally accepted for sustainability reporting.

The GRI guidelines have been subject to constant review. The most current versions are the G3 and its update the G3.1. The G3 was released in 2006 with the aim of further improving and advancing the robustness of the GRI reporting framework.

The GRI G3 consists of 79 indicators of which 49 are core and 30 are additional. Both core and additional indicators are adopted in this research. The core and additional indicators are also used to construct an index to determine disclosure from the companies under examination.

Sustainability reporting has increased significantly over the years, especially in the U.K. Reporting but reporting by Australian companies lags behind those of U.K and other developed countries but is above the reporting rate of companies in South Africa. Research to guide improvements in sustainability reporting amongst companies in Australia, the U.K. and South Africa is limited and the current research aims to fill some of these gaps.

Chapter 5: Research Framework and Hypotheses Development

5.1 Introduction

Chapter 2 established the existence of a social contract between businesses and society. Chapter 3 initiated an argument that sustainability disclosure is pushed by both legitimacy and stakeholder expectations. Chapter 4 reiterated the existence of the business society contract. The chapter also elaborated further on the evidence businesses are expected to provide to show their responsibility and accountability in the management of societal resources. Furthermore, Chapter 4 explained that sustainability disclosures, although voluntary, have increased over time. However, this increase in reporting varies amongst companies.

A framework is developed in Chapter 5 to examine the influences of various factors on sustainability disclosure among sample companies. A sample of sustainability stand-alone reports and annual reports from corporations in Australia, U.K. and South Africa is used for the examination. The rest of the chapter is organised as follows: Section 5.2 explains the research framework while Section 5.3 elaborates on the individual variables. The research model and analytical framework form the bases for the hypotheses development in Section 5.4. The control variables are discussed in Section 5.5; and the chapter concludes with a summary in Section 5.6.

5.2 Research Framework

Company specific factors and financial factors, amongst others have been noted in previous studies as likely to be the cause of differences in disclosure amongst companies. Most studies on voluntary disclosure have found it expedient to categorise these factors into different groups (Jones. Frost Loftus and Van der Laan 2007). Factors or predictors that can be similarly operationalised are put together under one group. For example, company size, debt, ownership and firm age are grouped under structure-related variables. Financial factors such as return on equity, liquidity and profit margin are grouped under performance-related variables (Alsaeed 2006).

Similar to prior studies, this study categorises predictor variables into four groups: demographics, stakeholder, legitimacy and financial variable sets. The framework for factors affecting sustainability disclosures is presented in Figure 5.1 below.

Environmental, social and economic disclosures of selected companies make up the dependent variable of this study. The stakeholder variables comprise product and geographical diversification, institutional ownership and assurance. Board structure, association membership, internal environment and social policies, board member with environmental duties and employee enhancement make up the legitimacy variables. Tobin's Q, leverage, liquidity, return on assets and firm age make up the financial variable set. Finally, the demographic variable set consists of size, industry and country.

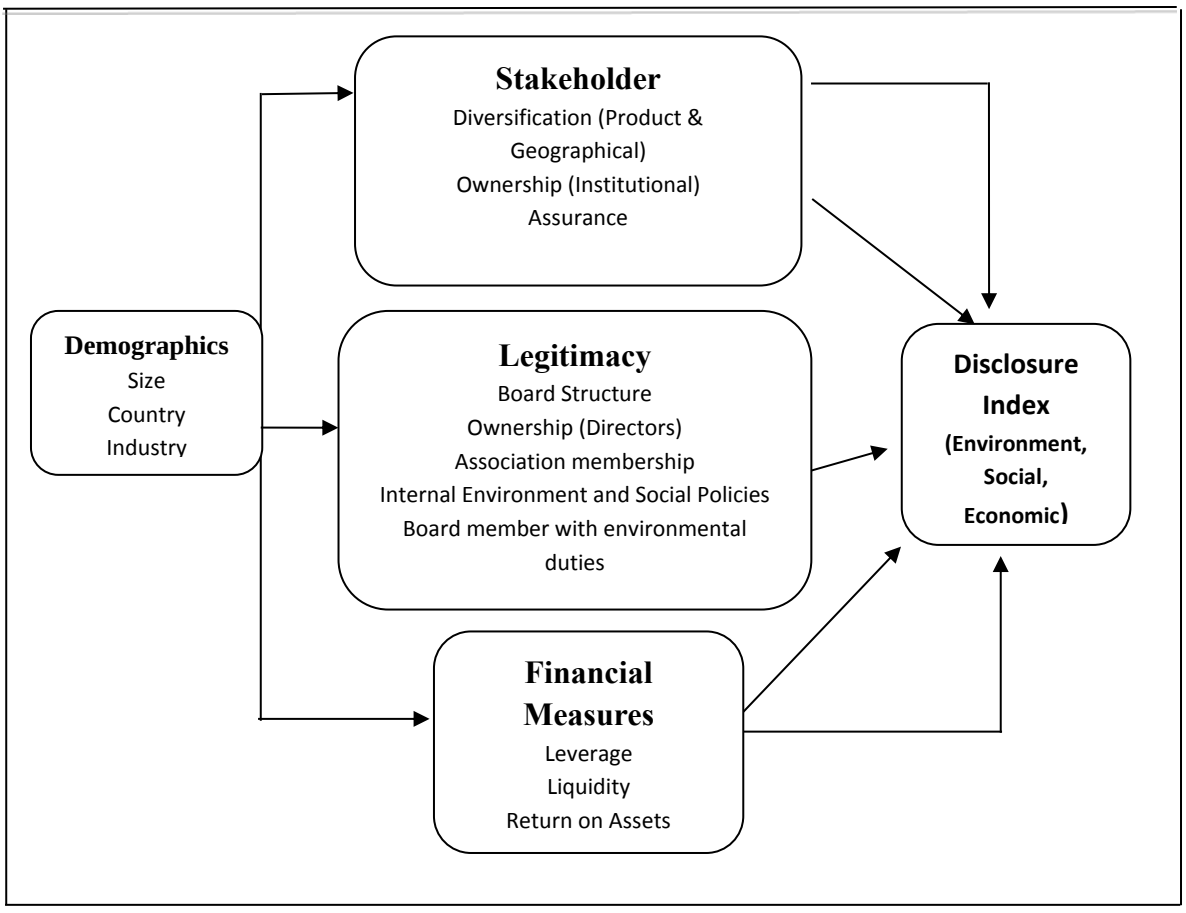


Figure 5.1: Sustainability Model

5.3 Variable Indicators

Businesses have, over the years, measured organisational performance through the implementation of balance scorecards for major achievement areas. One such scorecard that

has been adopted and revised by many businesses is that of Kaplan and Norton (Banker, Chang, Janakiraman, Konstans 2004; Davis and Albright 2004). The scorecard concept can be adopted as a management tool for tracking and streamlining organisational outcomes. Moreover, the balance scorecard helps companies to focus their policies on achieving both internal and external desired goals (De Gooijer 2000, Andon, Baxter and Mahama 2005). The scorecard also focuses on a combination of both financial and non-financial indicators within an environment of short-term and long-term corporate objectives. Thus, companies can use the scorecard to implement policies that assist them in achieving long-term internal and external desired goals (De Gooijer 2000, Andon et al. 2005). This is because the traditional method of measuring corporate outcomes on mainly its short-term financial achievements is no longer adequate for present day corporate challenges (Ahn 2001).

The balance scorecard concept links the formulated strategy of a business to its social actions in four key results areas: financial performance, internal business processes, customers and growth (De Gooijer 2000). This research will not delve into the balance scorecard concept since it has already been extensively studied by others, including Banker et al. (2004) and Andon et al. (2005). This study will, however, adopt and modify the four key results areas to address the influences of demographic, stakeholder, legitimacy and financial factors on sustainability disclosures.

5.3.1 Financial Indicators

Companies that traditionally seek to improve short-term operating efficiencies and profits require information on corporate financial performance. This information may be determined by financial variables, including those relating to profitability, cash flow and return on investment. Similarly, financial measurements are also relevant to corporate reporting since they summarise significant information that affects corporate value. Most of the accounting studies on corporate financial performance or disclosure have focused on accounting variables such as leverage, managerial ownership (Eng and Mak 2003) and profitability (Akhtaruddin 2005).

Accounting studies with a focus on non-financial indicators and voluntary disclosure have also adopted these accounting variables as well as including other financial factors **(**Gray, Javad and Powell 2001; Jones et al. 2007). These other financial factors are: working capital, asset backing, capital expenditure and turnover, operating cash flow, debt serving, and

retained earnings. A specific example is the exploratory study of the top 100 listed companies on the Australian Stock Exchange that reported a significant association between operating cash flows, working capital, asset backing, retained earnings, debt servicing and capital expenditure, and non-financial disclosures (Jones et al. 2007).

Results from studies have been mixed and inconsistent, rendering comparison amongst companies in similar industry sectors arduous. Furthermore, as already mentioned, studies on the effect of financial variables on all three areas of sustainability reporting, that is, environmental, social and economic aspects are sparse. Thus, the current study focuses on all the three sustainability reporting areas. It also adopts other firm-specific variables such as leverage, return on asset liquidity, and firm age, to add to existing knowledge. Other non-financial variables relating to stakeholder and legitimacy have also been adopted in this research.

5.3.2 Stakeholder and legitimacy Indicators (Non-financial; Internal and External Business Processes)

As indicated in the previous paragraph, prior studies on disclosure are mostly based on accounting measures. Because accounting measures are historic and backward looking, they may not be adequate to sustain stakeholder expectations. For this reason, and to ensure effective management, companies require information on other internal and external activities that create stakeholder value and fulfil corporate goals.

Another reason to consider non-financial factors is to evaluate current competition in both financial and consumer markets. Factors underlying competition in financial and consumer markets may be due to globalisation, technological change and consumer demand for innovative and competitively priced products and services (Busi and Bititci 2006; Sirikrai and Tang 2006). To be competitive in the current global markets, companies need to re-orient their policies and strategies. This re-orientation is also important for companies to move towards achieving both long- and short-term performance and reporting objectives.

Notwithstanding all these potential positive outcomes from sustainability reporting, the accounting literature on disclosure has focussed predominantly on influences of financial and accounting measures on performance and disclosure to the detriment of non-financial measures.

The association between non-financial outcomes and corporate wealth should be a motivating factor for researchers to delve more into studies that include non-financial factors (Cumby and Conrod 2001). In line with this suggestion, non-financial factors relating to stakeholder and legitimacy are included in this study.

Some of the studies that have combined both financial and non-financial measures in evaluating corporate outcomes are shown in Table 5.1.

Table 5.1: Studies that Adopted Non-Financial Indicator

Indicators	Article(s)
Supplier quality management, process control and improvement, product design, quality system improvement, leadership, vision and plan statement, evaluation, participation, recognition and reward, education and training, customer focus	Zhang Z. (2000)
Customer satisfaction, employee satisfaction, product and service quality, efficiency and productivity, employee safety, market share, process improvements and re-engineering, new product development, innovation, employee development and training, workforce diversity , leadership	Ittner C.D. and Larcker D.F. (1998)
board member with specific environmental duties; corporate environmental policy, environmental audit department, employee and supplier environmental education programs; environmental stewardship, programs to regularly communicate with stakeholders	Springett D. (2003)
Customer satisfaction, advisory board, product development and innovation, number of employees, awards , employee function	Cumby et al. (2001)

The non-financial indicators in the above studies are compared to the GRI aspects and independent variables adopted in the current study.

- customer satisfaction/focus – product responsibility aspect in GRI indicators
- employee satisfaction – human rights and labour practices, and decent work in GRI indicators
- employee education and training – human rights and labour practices and decent work in indicators
- workforce diversity – diversity and equal opportunity in GRI indicator under Diversity and equal opportunity aspect
–

• employee safety	– occupational health and safety aspect under labour practices and decent work GRI indicators)
• efficiency and productivity proxy	– employee enhancement
• environmental stewardship proxy	– sustainability committee/board member with environmental duties
• corporate environmental policy	– voluntary environmental management systems/internal policies
• advisory board	– board structure

Product and service quality management, which is another variable common to all four studies above, is not be considered in this study as it cannot be measured using secondary data.

Other independent variables considered in this research relate to ownership (managerial and institutional), diversification (product and geographical), employee enhancement programs, assurance, association membership, internal policies and board member with environmental duties. 'Sustainability committee' was not considered as one of the independent variables because it was linearly related with the variable 'board member with environmental duties'.

5.4 Hypotheses Development

5.4.1 Financial Indicators Hypotheses

5.4.1.1 Leverage (debt ratio)

It is envisaged that companies with high leverage ratios are likely to incur high monitoring and agency cost (Jensen and Meckling 1976). High leverage companies are, therefore likely to continually disclose more voluminous information. This is because increased disclosure can reduce information asymmetry and assure creditors of the company stability to fulfil their obligations. Increased disclosure also leads to a reduction in agency and finance costs during credit agreement negotiations.

Prior studies on the relationship between corporate disclosure and leverage have adopted diverse measures, including: total liabilities as a ratio of total assets, total liabilities as a ratio of equity, and long-term debt as a ratio of book value of equity (Alsaeed 2006; Oliveira et al. 2006; Cormier et al.2005; Reverte 2009). Leverage, in this research, is a proxy of the ratio of

total debt to total equity as used in Oliveira et al. (2006). This proxy is chosen because it is envisaged that information on total debt to total assets can be obtained more accurately in annual accounts than the other leverage measurements.

Various studies including Jaggi et al. (2000) found a positive relationship between leverage and disclosure. Contrary results from other studies, such as that of Ho et al. (2007) and Zarseski (1996) suggest a negative relationship between leverage and disclosure, especially in highly leverage companies. Zarseski (1996) argued that the relationship between leverage and level of disclose is negative. The reason for such an argument was that creditors may be able to obtain information from other external sources other than corporate reports. Similar to the report from Ho et al. (2007), Haron, Ismail and Yahya (2007) reported a negative relationship between leverage and sustainability disclosure. A contrary opinion was expressed by Eng et al. (2003). They indicated that free cash flow, rather than increase disclosure, was controlled by leverage. Others also argued that agency cost of debt was regulated by restrictive debt agreement and not by increase disclosure (Zarseski 1996). In line with these arguments, Wallace and Naser (1995) also found no association between leverage and disclosure. Their study therefore had a different opinion about the cause of the nil association to those noted above.

Similar to the suggestions made by Jensen et al. (1976), Ahmed and Courts (1999), Ku Ismail and Chandler (2004) this thesis predicts a positive relationship between leverage and the extent of disclosure:

H_1: Disclosure is higher in companies with higher leverage than in companies with lower leverage (RQ5)

5.4.1.2 Liquidity

Studies, including those of Oyelere, Laswad and Fisher (2003), and Camfferman and Cooke (2002), have found that highly liquid companies produce more voluntary comprehensive information to assure short-term creditors and other stakeholders of their continuous ability to meet their short-term contracts. This assurance is important because short-term creditors find such companies less risky and will be willing to offer them credit facilities. Contrary to this opinion, others suggest that shareholders may prefer firms with low liquidity since such companies can use corporate assets to increase business growth. Alsaeed (2006) also suggested that it was imperative for less liquid companies to strive to increase disclosure.

Alsaeed (2006) explain that by doing so, less liquid companies are able to inform stakeholders, including shareholders, of their ability to mitigate the risk factor associated with weak liquidity.

The ratio of current asset less inventory to current liabilities; cash assets to total assets, and current assets to current liabilities were adopted as liquidity measurements by Owusu-Ansah (1998), Oyelere et al. (2003) and Ho et al. (2007), respectively. Similar to the measurement used by Ho et al. (2007), the ratio of current assets to current liabilities is used as a proxy for liquidity in this research.

Prior empirical research on the association between liquidity and corporate disclosure has produced inconsistent results, with some results showing a positive relationship between liquidity and disclosure, others showing a negative relationship, and yet others showing no relationship between liquidity and disclosure. Camfferman et al. (2002) reported a positive relationship between liquidity and disclosure. But, Ho et al. (2007) and Alsaeed (2006) found a negative association between liquidity and disclosure, while Belkaoui and Kahl (1978) found no relationship between liquidity and disclosure (Premuroso and Bhattacharya 2008).

This study is of the view that, since cash flow in highly liquid firms is likely to be higher than cash flow in less liquid firms, highly liquid firms can access more funds to increase their disclosure. Furthermore, highly liquid firms increase their disclosure to inform stakeholders of their efficiency in wealth maximisation/creation. This thesis, therefore predicts a positive relationship between liquidity and disclosure:

H_2: Highly liquid companies are likely to show increased environmental, social and economic disclosure than companies with lower liquidity (RQ5)

5.4.1.3 Return on Assets

Return on assets, an accounting-based measure, provides information on a company's internal efficiency status (Orlitzky et al. 2003). It is envisaged that profitable companies with high return on asset ratios are likely to perform better in their sustainability performance and reporting because of their access to internal funds. Return on assets rather than return on equity is used in this study because it is envisaged that return on equity may be influenced by the leverage variable.

Various ratios employed in literature as proxies for return on assets include: profit as a ratio of assets, net profit after tax as a ratio of total assets, and operating income before interest. Other proxies for return on assets are: taxes plus extraordinary items as a ratio to total assets; and net earnings as a ratio to corporate year end assets (Lim, Matolscy and Chow 2007; Kent and Monem 2008; Leuz 2004 and Aerts, Cormier and Magnan 2008).

This thesis adopts a proxy similar to that employed by Hardwick and Adams (2002), of net profit before tax as a ratio of total sales to represent the variable return on assets. However, EBIT is adopted instead of earnings after tax, as used in Kent et al. (2008), because returns are regarded as income earned before tax in most western economies, which are the countries aligned to this research.

Prior studies have reported mixed relationships between return on assets and disclosure. Aerts, Comier, Gordon and Magnan (2006) reported a positive association between return on assets and disclosure. Similarly, Cormier and Magnan (1999) and Bodkin and Perry (2004) concluded that profitable companies were likely to disclose more information on their social responsibility activities. This is because profitable companies have high return on asset ratios. On the contrary, Prado-Lorenzo, Rodriguez-Dominguez, Gallego-Alvarez and Garcia-Sanchez (2009) found a negative relationship between return on assets and disclosure.

This study agrees with Cormier et al. (1999) that companies with high return on assets are likely to increase disclosure. Therefore, this study predicts a positive association between return on assets and disclosure:

H_3: Companies with higher return on asset disclose more information than companies with lower return on assets (RQ5)

5.4.1.4 Tobin's Q

Various studies have found a link between 'green' companies and profitability and a further link between profitability and corporate disclosure. Although currently, the small number of green consumers is unable to sustain production, it is envisaged that the number of green consumers will increase with time. The market for green products will therefore increase and it will be profitable for companies to produce solely to satisfy the large market. Profitable green companies will attract more socially responsible investors and this can increase the share values of those companies. Also, increases in share value have positive impact on market values of green companies and subsequently Tobin's Q. Companies with high market

values are seen to be profitable. Profitable companies are supposed to have access to more discretionary funds and are, therefore, capable of increasing their sustainability practices and disclosures (Gray et al. 2001; Camfferman et al. 2002; Jones et al. 2007).

Various ratios have been adopted as proxies for Tobin's Q. These include: the sum of replacement value plus preferred stock and debt as a ratio of total assets; and net current liabilities to book value of total assets. Replacement value plus preferred stock has been replaced with market value of the firm or sum of firm equity value in other calculations (Konar and Cohen 2001; King et al. 2001) because of the difficulty associated with its computation.

This study adopts market value instead of replacement value of assets plus preferred stock. Thus, Tobin's Q is calculated in this study as market value of each company as a ratio of book value of assets. This ratio is also similar to the one used by Konar et al. (2001).

Results from prior studies on the association between Tobin's Q and disclosure are varied. Dowell, Hart and Yeung (2000), Konar et al. (2001), King et al. (2001) and Lo and Sheu (2007) established that there was a significant relationship between sustainability disclosures and Tobin's Q. However, Clarkson et al. (2008) found no association between Tobin's Q and disclosure. On the other hand, this study envisages that an increase in corporate profitability/market value will push companies with higher Tobin's Q to increase sustainability disclosure (Gray et al. 2001). In order words, more disclosure by corporations with higher Tobin's Q is predicted and therefore, the following is hypothesised:

H_4: Companies with higher Tobin's Q are likely to disclose more environmental, social and economic information than those with lower Tobin's Q.(RQ5)

5.4.1.5 Firm Age

Stakeholders expect corporations to provide them with value-relevant information for decision-making. Corporations able to meet the expectations of stakeholders gain competitive advantage over their rivals. One of the factors that determine the ability to provide such value-relevant information is the age of the corporation. In other words the age of an organisation impact negatively or positively on its level of sustainability reporting.

The impact of age on performance has been examined in several studies (see Moore 2001, Anderson and Reeb 2003; Wang, Choi and Li 2008). However, only few researchers

including Alsaeed (2006) and Menassa (2010) have examined the effect of firm age on the level of disclosure. This study will improve knowledge on such relationship by further examining the effect of firm age on sustainability disclosure.

Lang (1991) reported a positive relationship between younger corporations and disclosure. Lang (1991) further argued that the uncertainty surrounding future performance of younger corporations will encourage them to disclose more information. Roberts (1992) and Haniffa et al. (2002) reported significant relationships between age and social disclosure. Roberts (1992) and Haniffa et al. (2002) explained that stakeholders expect corporations that have been in existence for many years to be more socially responsible and also provide more disclosure about their social responsibility activities. These findings indicate that corporations that want to secure their licence and continue operation for several years are motivated to disclose more information on their sustainability practices. Similar to this prediction, Moore (2001) found a positive relationship between firm age and sustainability disclosure. On the other hand, Alsaeed (2006) and Menassa (2010) found no relationship between firm age and disclosure.

This study examines Lang's (1991) assertion that younger corporations are likely to inform stakeholders of their ability to continue to perform into the future by increasing disclosure. The hypothesis is:

H_5: Younger companies are likely to disclosure more information on their environmental, social and economic activities than older companies (RQ5)

5.4.2 Legitimacy Indicator Hypotheses

5.4.2.1 Board Structure

It is assumed that when high-level managers hold leadership positions in a company, it has substantial impact on corporate performance. Although other factors may also be relevant in assessing this association (Waldman, Ramirez, House and Puranam 2001), board structure is a factor that this research envisages does affect performance and subsequently influence reporting. The reason for this assumption is because of the high level of advocacy for board reforms in recent years coupled with the distinct roles board members are expected to play to ensure corporate survival.

Board members are expected to perform several duties. These duties include monitoring, exercising control over management's activities and formulating policies to ensure corporate survival and competitiveness (Ghosh 2006). Various stakeholders have, however, raised concerns about the performance of corporate boards and their ability to enforce balanced disclosure. Stakeholders have emphasised the importance for companies to include a greater number of independent, non-executive directors on their boards. Similar to the suggestion made by stakeholders, the ASX also recommends a larger membership of independent directors on corporate boards in its best governance practice recommendations (Hill and Thomas 2012).

The recommendations of the ASX and the concerns of stakeholders are similar to the argument raised by Bonn (2004) that, unlike non-independent directors, the interest of independent non-executive directors is not in conflict with that of the owners of the companies. Bonn (2004) further suggests that independent directors are in a better position to influence and control management's egocentrism and therefore, more likely to support the interest of stakeholders. Likewise agency theory favours a majority of external directors on corporate boards. This is because the theory predicts that external directors are likely to monitor and control shareholder wealth by aligning the interests of owners to that of managers and the company (Jensen et al. 1976).

The discussion in the preceding paragraphs shows that the structure of the corporate board can help board members perform their roles effectively. Stewardship theory, however, states differently. Contrary to agency theory, and the above discussion, stewardship theory argues that the majority of board members must consist of internal directors to ensure more constructive decision-making. According to stewardship theory, internal directors are more informed of corporate operations and avoid putting their reputation at risk by performing their duties to the benefit of shareholder profit maximisation (Kiel and Nicholson 2003). Literature however posits that independent executive directors are more likely to align their interest to the owners of the business than internal directors. This opinion is supportive of the argument put forward by agency theory.

Various measurements have been used in previous studies as proxies for board structure. These include: ratio of independent non-executive directors to total number of directors (Chen and Jaggi 2000; Chen and Tang 2009); proportion of independent directors on the

board (Cheng and Courtenay 2006); percentage of outside directors on the board (Eng et al. 2003); and proportion of non-executive directors with no related party transactions sitting on the board of directors. This study will adopt a proxy similar to that of Chen et al. (2000) which is the percentage of independent non-executive directors to total number of directors.

Results from prior studies present inconsistent findings; for example Chen et al. (2000), Huafang and Jianguo (2007) and Cheng et al. (2006) reported positive and significant relationships between boards with a higher number of independent non- executive directors and disclosure. On the other hand, Haniffa and Cooke (2002), Eng et al. (2003), Nurhayati, Brown and Tower (2006) reported a negative association between boards with a higher number of independent non-executive directors and disclosure. Likewise, Bassett, Koh and Tutticci (2007) found a negative relationship between non-executive independent directors and disclosure. Contrarily, Ho and Wong (2001) reported the non-existence of any association between non-executive directors on a board and voluntary disclosure. Due to these inconsistent outcomes, this research has found it expedient to test the relationship between board structure and sustainability reporting. It is also envisaged in this study that a board composed of a large number of non-executive directors will seek to better represent the interests of stakeholders and advocate for more disclosure. The following hypothesis is tested:

H_6: Corporate boards with high levels of independent non-executive directors will increase environmental, social and economic disclosure (RQ2)

Internal Policies

5.4.2.2(a) Voluntary Environmental/Sustainability Policy

For the past two decades the public, governments and corporations have continuously expressed their desire for more sustainable development practices (Proto and Supino 2000). It follows that in order to thrive in this current socially competitive environment, organisations must disseminate legitimate information regarding the efforts they make to: manage the negative environmental impacts of their operations, promote social equity and stimulate economic growth. Aside from adherence to regulations, organisations can also employ other proactive tools to achieve better outcomes from their sustainable development goals. One such tool is through the implementation of internal voluntary environmental/sustainability policy. This policy must promote initiatives to improve sustainable development concerns

emanating from corporate operations (Rondinelli et al. 2000). Formulating and implementing voluntary environmental/sustainability policies have been beneficial to organisations. Benefits to be derived from implementing these policies include increased profits (Hart 1997; Porter and van der Linde 1995), improved share prices (Gottsman and Kessler 1998), lower operational costs – mostly from less waste from the production process (Shrivastava 1996), and reduction in the number of civil and criminal prosecutions regarding pollution (Gottlieb, Smith and Roque 1995).

Extant literature has reported on the implementation of regulated environmental/sustainability legislations and its effect on disclosure but research involving voluntary environmental or sustainability organisational policies have not been accorded similar attention. Prior studies on the implementation of regulated environmental/sustainability legislations and its effect on disclosure have centred mostly on developed economies. However, companies in emerging economies like South Africa have voluntarily implemented environmental policies since the era of democracy in that country. There is, therefore, the need to study if any relationship exists between voluntary environmental/sustainability policies and corporate voluntary disclosure. This makes the current study of voluntary environmental/sustainability policy implementation and its association with disclosure timely and appropriate.

There are few studies into voluntary corporate sustainability policy, and the association of voluntary corporate sustainability policy with disclosure is inconclusive. Rondinelli et al. (2000) reported a significant relationship between corporate environmental policy and disclosure. Following the above discussion, it is hypothesized that:

H_{7a}: Companies that have environmental/sustainability policies in place will show significantly increased environmental, social and economic disclosure (RQ2)

5.4.2.2(b) Code of Ethics and Whistle Blower Policy

Codes of ethics are principles set by organisations to guide their employees to recognise positive behaviours they should emulate and negative behaviours to avoid (Long and Driscoll 2008). Codes of ethics can either be regulatory or voluntary. Voluntary codes of ethics disseminated to employees through ethical programs encourage ethical behaviours (Weaver, Trevino and Cochran 1999). Adoption of ethical programs is also likely to enhance corporate reputation, which can result in competitive advantage and increase corporate value (Lordi

2000). Furthermore, the adoption of ethical programs communicates to stakeholders how a corporation adheres to societal norms and values through its policies and internal structures (Wood 1991; Weaver et al. 1999; Long et al. 2008).

Mathews (1995) argues that increasing sustainability disclosures to enhance legitimacy and show performance of the social contract requires 'practical demonstration' of ethical behaviour by organisations. In corporations where ethical codes of conduct are not adequately implemented, illegal acts such as violation of professional standards, human rights violations or incompetency, can be exposed in other ways by 'whistle blowers'. Some of the ways whistle blowers can expose illegal acts are by reporting to either persons of higher authority within an organisation or externally to newspapers or law enforcement agencies. Exposure of such unethical or illegal conducts is likely to adversely affect the reputation of a corporation and subsequently its legitimacy (Boatright 2000). Therefore, corporations are motivated to control unethical practices within the organisation and curb external exposure of any unethical acts; implementing ethical programs helps deal with these problems. One form of curbing external exposure of unethical acts is by setting up whistle blower hot lines or directing that reports of breaches of ethical behaviours be made to the ethics ombudsman (Tavakoli, Keenan and Crnjak-Karanovic 2003).

Patten (2002) suggested that companies whose unethical activities impact negatively on the environment make effort to increase positive disclosures. Also, Murray, Sinclair, Power and Gray (2006) reported that corporations will be punished by financial markets if they are suspected of having committed illegal practices. This implies that, businesses are willing to implement ethical codes of practice to avoid punishment, increase the positive impact of their social responsibility actions and create value (Gunthrope 1997). This is similar to arguments made by Deegan et al. (1996) and Patten (2002) noted earlier. Although not statistically tested, studies, including those of Barnett (1992), Callahan, Dworhin, Fort and Schipani (2002), suggest negative relationships between disclosures and whistle-blowing. This is because corporations do not want any negative information about their operations to be publicly reported. With reference to the discussion above, it is hypothesised that:

$H7_{b(i)}$: Companies with both environmental/sustainability and ethical policies are likely to show increased environmental, social and economic disclosure (RQ2)

$H7_{b(ii)}$: Companies with environmental/sustainability, ethical and whistle blower policies are likely to show decreased environmental, social and economic disclosure (RQ2)

5.4.2.3 Ownership Concentration (Managerial)

According to Jensen et al. (1976), corporate ownership structure is one of the major governance issues that impact on agency costs. According to principal-agent relationship or agency theory, managers acting as company stewards are required to act in the interest of the owners of the business – who are normally the shareholders. However, it is the normal trend for managers to allocate more of the corporate resources in their interest to the detriment of outsiders (Jensen et al. 1976). On the other hand, this natural desire sometimes subsides and managers pursue value maximization by aligning their interests more to that of shareholders. This change can occur when insider equity ownership increases, thereby reducing the divergence between the interest of managers and owners (De Miguel, Pindado, De La Torre 2004).

Another school of thought argues that managers become invulnerable as their corporate ownership increases above a certain level. At this level, managers may misappropriate the investments of minority shareholders as they allocate more corporate resources in their interest (Thomsen and Pedersen 2000; Singhchawla, Evans and Evans 2010).

Various measures have been adopted as proxies to represent managerial ownership and disclosure association. These include: proportion of ordinary shares held by the CEO to that of executive directors or dichotomous measurement of managerial ownership ≥ 5%; and dichotomous measurement of managerial ownership ≥ one-third of total shares (Eng et. al. 2003; Gul and Leung 2004; Ho, Lam and Sami 2004). The dichotomous measurement of managerial ownership of ≥ 5% is adopted in this research. Furthermore, it is argued that managers who are also majority shareholders are likely to demand for more incentives. When such demand is agreed internally without the consent of shareholders, managers may decrease disclosure to prevent such information from getting to report users. Furthermore, more incentives to management mean fewer funds to pursue sustainable development activities and therefore less disclosure. This assumption can occur even though agency theory expects that disclosure must be increased to lower agency cost. This assumption has prompted the hypothesis below:

H_8: Companies with higher ownership control invested in management are likely to show lower environmental, social and economic disclosure levels (RQ2)

5.4.3 Stakeholder Indicator Hypothesis

5.4.3.1 Ownership Concentration - (Institutional)

The degree to which a company's shares are concentrated in either a small number of large investors or dispersed among a large number of small investors is said to have an effect on corporate disclosure (Brammer and Pavelin 2006). The major impact of ownership structure on corporate activities might be one of the motivations for an increase in studies in that area of research. However, literature on ownership has been focussed on business in the U.S. and U.K. with a recent shift to German and Japanese businesses (Ramaswamy 2001). It is, however, important for more studies to be conducted in other countries, especially in emerging economies. This is one of the reasons for including institutional ownership structure as a variable in this research. Reiterating the argument made by Brammer et al. (2006), Aerts et al. (2006) reported that institutional ownership was positively related to disclosure amongst companies operating in European countries.

It is envisaged that the positive relationship between ownership concentration and corporate disclosure found amongst European countries is because of the numerous social legislations that mandate corporate management to exercise due care and responsibility in the execution of their duties. Corporate management is also expected to take decisions that are in the interest of primary stakeholders. For this reason, shareholders who own majority shares may be able to influence managerial decisions. Another reason for the positive institutional ownership-disclosure relationship is the volume of corporate resources under the control of institutional shareholders. Since the group with the highest ownership control in any corporation also has a significant role to play in the survival of that company, majority institutional shareholders can push companies to increase performance and disclosure on their sustainable development activities (Van Der Laan et al. 2005).

Various measurements have been adopted as proxies for concentrated ownership. Aerts et al. (2008) adopted proportion of shares owned by the top 20%. Ho et al. (2001) used proportion of top two, top five and top 20 to determine the association between different categories of shareholdings and voluntary disclosure. IFRS and IAS28 refer to an individual or block holders who directly own between 20% and 50% equity share (voting rights) in any company

as associates who have significant interest in the company and have the authority to participate in financial and operational policy decisions. Also, institutional shareholders in the U.K. can, by legislation, own a maximum of 5% or more shares in a company (Philip 2002; Neslihan 2007). Notwithstanding the IFRS and IAS28 requirements, an ownership proxy of 5% or more is adopted in this study in line with Philip (2002). Philip (2002) argues that the lower the maximum percentage holdings of equity allowed, the higher the level of funds available to maintain corporate liquidity or generate profitability.

Divergent conclusions have been drawn by researchers on the relationship between ownership and disclosure. Berglof and Pajuste (2005), after examination of the extent of disclosure in 370 public listed companies in Central and Eastern Europe, concluded that concentrated ownership was associated with lower disclosure levels. On the other hand, Chalmers and Godfrey (2004) did not find any significant relationship between institutional ownership and voluntary disclosure. Similarly, Eng et al. (2003) reported no significant association between ownership and disclosure and Brammer et al. (2006) also reported no significant positive association between ownership and disclosure. On the other hand, Hossain, Lin and Adams (1994) and Aerts et al. (2006) found positive relationships between ownership concentration and voluntary disclosure. It is argued that ownership concentrated amongst institutional investors is likely to result in the demand for more transparent disclosure. It is therefore hypothesised that:

H_9: Companies with higher ownership control invested in institutional shareholders are likely to show higher levels of environmental, social and economic disclosure (RQ3)

5.4.3.2 Diversification (Product and Geographical)

Diversification is generally associated with the extent of corporate operations across national borders as well as corporate expansion into foreign markets. A company can either diversify its products on local or external markets or diversify business sectors geographically. Product and geographical diversification are strategies adopted by companies, especially MNEs, to take advantage of opportunities or to find alternative means of dealing with the constraints presented by the environments in their host nations or markets. Thus, MNE's are likely to improve their external operations and take advantage of economies of scale as they diversify their product(s) into global markets. Other benefits to be enjoyed include building lower and more efficient value-chain partnerships, taking advantage of further opportunities arising

from imperfections in foreign markets (Kotabe, Srinivasan and Aulakh 2002), and accessibility to cheap labour and flexible environmental practices (Osland 2003). Another benefit of diversification that could also be considered is the value-adding factor. By diversifying and taking advantage of these benefits, MNEs, especially those operating in developing countries, are likely to have stronger financial resource bases than their local counterparts. Product and geographical diversification may result in expansion in corporate operations. This expansion can also increase managerial power and cash flow.

Due to the benefits to be enjoyed, many companies are encouraged to continue to expand their investments in external markets without considering the negative implications of over-expansion (Denis, Denis and Yost 2002). But expansion has its limit and any expansion above that limit may result in dis-economies of scale. In relation to product diversification, domestic companies could also take advantage of opportunities available in diversifying their products on emerging local markets in their country of operations. MNEs and domestic companies that take on such opportunities are likely to gain competitive advantage over their rivals (Khanna and Palepu 2000). However, MNEs who diversify their products on internal markets may have to offer the same high quality product mix as offered on their foreign markets. This is because local customers are likely to be aware of the high quality products offered elsewhere in the same corporate name (Khanna and Palepu 1997). Also, MNEs that operate other subsidiaries aside those in their country of operation have to fulfil the demand of their numerous stakeholders (specifically foreign stakeholders like customers) by providing more detailed financial and non-financial disclosures. Burgers, Padgett, Bourdeau and Sun (2009) therefore state that the importance of product and geographical diversification relate to quality of diversity rather than quantity of diversity.

It is evident that diversification is a factor to be considered by companies, especially MNEs. Nonetheless, the benefits to be derived from operating across national borders have to be compared to the cost associated with such ventures before a decision is made to invest in international markets.

Product diversification has been an issue of research for quite a long time. However, most studies on product diversification relate to performance. Studies on the relationship between product diversification and disclosure are sparse. Similar to studies on product diversification and disclosure, research on geographical diversification and disclosure are also sparse.

Furthermore, results from studies on both product and geographical diversification, and their association with disclosure are either contradictory or inconclusive. The reason for such inconsistency is partly attributable to the lack of simultaneous examination of issues surrounding both diversification strategies (Delios and Beamish 1999). Also, studies on local level MNE operations is sparse although necessary, as most MNEs are being encouraged by country influences like entry mode, information accessibility and local adaption to implement within-country product-diversification strategies in their host markets (Delios, Xu and Beamish 2008). Examples of some of these MNEs are Matsushita and Phillips who have set up their central offices in China as a strategy to diversify their products on the Chinese market (Delios et al. 2008).

Various proxies have been adopted as measures of diversification. Some of these proxies are that of the Wrigley-Rumelt type measure used by Montgomery (Sambharya 2000) or the Herfindahl type measure used by Tallman and Li (1996) and Geringer, Tallman and Olsen (2000). Another is the entropy type measure adopted by Clarke, Fee and Thomas (2004). Unlike the entropy type measure, which is suitable for differentiating between related and unrelated diversification; the Herfindalhl measure, a resource-based type of measure, considers the number of corporate segments and their relative importance to total assets/sales (Geringer et al. 2000). This makes the Herfindalhl type measure appropriate for adoption as a diversification measure in this thesis. The ratio of assets per segment to total assets is, therefore, adopted as a proxy for geographical diversification measurement; and the ratio of sales per segment to total sales is adopted as a proxy for product diversification.

It is envisaged that divergence between the two diversification strategies is more apparent when two similar measures are used. Materiality of each segment's asset/sales is determined at 10% or more (IFRS 8) and therefore any segment's assets that are less than 10% is considered immaterial and will not be part of the calculation.

Prior studies have produced divergent conclusions on the diversification-disclosure relationship as stated above. Jaggi et al. (2000), Riahi-Belkaoui (2001), Bens and Monahan (2004), Brammer et. al (2006) and Nalikka (2008) reported positive associations between diversification and disclosure. However, other researchers like Lopes and Rodrigues (2007), Hossain, Islam and Andrew (2006) found no such association.

The paucity of studies on diversification and its relationship with disclosure has motivated the testing of the diversification variable. Also, most of the results from prior studies argued in favour of the existence of a significant relationship between diversification and disclosure. These positive results have also motivated the testing of the diversification variable to either find evidence for the positive relationship or for the existence of no relationship.

In line with the above discussions and similar to previous research, a positive relationship is predicted between product diversification and disclosure, as well as geographical diversification and disclosure. It is, therefore, therefore hypothesised that:

H_{10a}: A significant relationship exists between product diversification and environmental, social and economic disclosure (RQ3)

H_{10b}: A significant relationship exists between geographical diversification and environmental, social and economic disclosure (RQ3)

5.4.3.3 Sustainability Assurance

Management of listed companies are faced with several issues when making decisions about the quantity of information to voluntarily disclose. These issues include stakeholder demands, agency costs and signalling concerns (Lopes et al. 2007). For example, companies listed on multiple international stock exchanges can increase disclosure in order to reduce shareholder monitoring costs (Lopes et al. 2007). On the other hand, companies may also reduce agency costs and manage information asymmetry through assurance of sustainability reports (Oliveira et al. 2006). This occurs because assurance enhances credibility of reports. Report users regard assured sustainability reports as transparent information indicating accountability of corporate use of societal resources. This credible information can therefore be used for decision-making.

It is observed that more empirical studies have been conducted on the association between assurance provider and performance than on the association between assurance and sustainability disclosures (Shum et. al 2009). The sparse studies that do exist have reported divergent outcomes. Therefore, this study finds it expedient to include the variable assurance.

Adnan (2010) reported a significant association between sustainability disclosure and assurance. Kolk and Perego (2010) also found that companies operating in countries that enforce sustainability reporting are likely to assure their reports. On the other hand, Shum et al. (2009) reported no significant relationship between sustainability reporting of low

leverage, large companies and assurance. Contrary to the negative outcome from Shum et al. (2009), it is argued in this study that the high cost associated with assurance engagements encourage corporations to increase disclosure levels before seeking assurance for their reports. It is, therefore, hypothesised that:

H_{11}: Companies that assure their environmental, social and economic reports are likely to increase disclosure (RQ3)

5.4.4 Demographic Indicator Hypotheses

The demographic variables, company size and industry, serve as control variables in this study**.**

5.4.4.1 Size

Size has been identified in prior literature as relating positively with the level of corporate disclosures (Deopers 2000; Liu and Eddie 2007). In support of this statement, Deopers (2000) argued that larger companies can employ skilled intellectual capital and implement complex management reporting systems which impact positively on the amount of information they disclose. The limited liability nature of larger companies also mandates them to voluntarily increase the amount of information disclosed to the public. Furthermore, as the number of subsidiaries vary with company size it is prudent for larger companies to disclose information on operations from their subsidiaries. Also, relative costs associated with disclosure in larger companies are lower than in smaller companies. This lower cost of disclosure encourages large companies to increase disclosure and take advantage of associated benefits.

Various studies have reported the existence of a relationship between size and the level of corporate disclosure (Debreceny, Gray and Rahman 2002; Bollen, Hassink and Bozic 2006). Ho et al. (2007) investigated triple bottom-line reporting in the largest 50 companies in the U.S. and Japan and concluded that firm size had a positive significant relationship with the level of sustainable disclosures. Similarly, Meek, Robert and Gray (1995) and Boesso and Kumar (2007) reported significant relationships between size and sustainability disclosure.

It has also been assumed in prior literature that production cost is influenced by economies of scale. This assumption implies that the larger the company, the lower its cost of production and subsequently the more information it can publicly disclose (Clarkson et al. 2008). However, Jensen et al. (1976) argued that large companies were likely to conceal certain

proprietary information and therefore disclose less information voluntarily. This is due to associated costs, such as stiffer regulations, increased taxation and other social commitments, the companies may incur for publishing such information (Alsaeed 2006). This argument was supported by Hackston and Milne (1996) who suggested that size on its own was not likely to affect the level of corporate disclosure.

Various measures have been adopted in prior studies as proxies for size. These measures include revenue, assets, number of employees, and the natural logarithm of market value (Clarkson et al. 2008). Similar to the measurement adopted by Clarkson et al. (2008), this study uses the natural logarithm of year-end sales as a proxy for size. The current study agrees with the report from Clarkson et al. (2008) and previous literature, that size is significantly related to disclosure. Using mostly MNEs, the current study substantiates the argument that a relationship exist between size and sustainability disclosure.

The above discussion has prompted research sixth question of this thesis

How do demographic variables affect disclosure in each of these three GRI performance indicator domains?

5.4.4.2 Industry

Prior literature has indicated that disclosure differs amongst various industry sectors. However, companies in the same industry sector are likely to implement similar disclose strategies. This means that an increase in disclosure by one company in the same industry is likely to positively affect the disclosure practices of other companies in that industry (Ho et al. 2007). This means that the failure of a company to follow industry-wide disclosure practices is interpreted as concealing bad news (Oyelere et al. 2003). Adams, Hill and Roberts (1998), from their examination of social reporting practices in six European countries, concluded that industry membership was a determinant of the level of social disclosures. Furthermore, Ho et al. (2007) and Brammer et al. (2006) also reported the existence of a positive relationship between industry and disclosure. Lim et al. (2007) and Wanderley, Lucian, Farache and Filho (2008) also reported outcomes similar to that of Ho et al. (2007). On the other hand, disclosure may also vary because of differences in the operating environment of various companies (Brammer et al. 2006). To be more specific, corporations whose activities produce substantial amount of emissions into the atmosphere or pollute water bodies, are likely to be encouraged by society to provide more information on their emission or pollution reduction strategies. Environmentally-sensitive corporations fall

under this category and are therefore likely to disclose more information. It follows, therefore, that corporations whose activities impact less on the environment (non-sensitive industry) are less likely to be encouraged by society to disclosure more information.

Various studies have reported positive relationships between sensitive corporations and sustainability disclosure (Gray, Javad, Power and Sinclair 2003; Reverte 2009). A few studies, including that of Branco and Rodrigues (2008), reported current increases in disclosure among both sensitive and non-sensitive industries.

The above discussion has prompted research sixth question of this thesis

How do demographic variables affect disclosure in each of these three GRI performance indicator domains?

5.5 Summary

The current study refers to the balance scorecard as a tool for reporting on the influence that demographic, stakeholder, legitimacy and financial indicators are likely to have on corporate sustainability disclosures. Expected outcomes from the analysis of this study are predicted in this chapter.

In short, this study hypothesises that companies with high leverage ratios disclose more information to assure stakeholders of their ability to effectively manage operations and finances. Furthermore, in order to continue to benefit from short-term credits, highly liquid companies are likely to disclose more information about their cash flows and ability to fulfil short-term contracts. Also, companies with high return on assets ratios (ROAs) will use the increased revenue to improve disclosure in their sustainability reports. In addition, good business practice resulting from stakeholder management and inclusiveness is likely to encourage transparent and accountable disclosures.

Specifically, the study assumes that variable indicators such as board structure and ownership concentration are stakeholder-related factors that can significantly influence the disclosure of transparent and accountable corporate information. It is also assumed that stakeholder wealth maximisation can largely improve when corporate boards are composed of a larger number of independent non-executive directors. Furthermore, reduced agency cost, low demand for incentives and subsequently high levels of disclosure are predicted in companies where a significant proportion of ownership is held by institutional shareholders than in companies in

which majority shareholding is held by managerial shareholders. In a similar way, diversification strategies are predicted to significantly affect sustainability reporting. One way diversified companies are likely to benefit from financial markets is when investors consider them profitable companies and decide to increase investments in such companies. To be able to enjoy these benefits, diversified companies have to increase information to stakeholders through their sustainability reports. Companies should also strive to assure their reports because stakeholders are more confident of relying on information from assured sustainability reports for decision making.

Chapter 6: Methodology

6.1 Introduction

Review of the literature on sustainability reporting and development of the research framework were made in the previous chapters. In the current chapter, appropriate research design and methods are adopted to empirically test the hypotheses developed on factors influencing sustainability disclosure. One objective of this research is to document sustainability disclosures in stand-alone reports of corporations in Australia, U.K. and South Africa. In addition, this research will empirically test the existence of relationships between increased sustainability disclosures in companies operating in the three countries and other financial and non-financial indicators. The research design and process adopted in this study consists of methodology, data collection and analytical technique.

Section 6.2 describes the methodology adopted for the study and provides a justification for the selection of the methodology. Section 6.3 discusses issues relating to data collection and sampling. Section 6.4 elaborates on coding and weighting issues. Section 6.5 provides reasons for the development of a disclosure index for the study. Section 6.6 justifies the analytical technique used in the study and the last Section provides a summary of the chapter.

6.2 Methodology

The 'knowledge claims' or epistemological stance adopted by researchers are likely to influence their methodological approaches and shape the research process (Newman 2000; Creswell 2003). This is because the underlying assumptions of each epistemological emphasis impact differently on occurrences in the social world (Yeganeh, Su and Chrysostome 2004). This implies that different epistemological emphases will result in the adoption of different methodological approaches. Deshpande (1983) recommended that the methodology and procedures adopted in previous studies in a particular area of research should be accepted by another person(s) performing research in a similar area. This is because of the difficulty of separating theory from methodology. Nonetheless, researchers are not limited to the adoption of specific methodological approaches. An important issue however, is that the researcher must ensure the methodology adopted is in agreement with the researcher's own philosophy and will also contribute in obtaining meaningful outcomes to the research questions (Johnson and Onwueghuzie 2004).

Two issues that could be considered in selecting a research method are, firstly, the pre-existing theories about the research problem at hand, and, secondly the theoretical nature of the methods (Laughlin 1995). Notwithstanding these considerations, McNeill and Chapman (2005) suggested that compromises have to be made in the selection of any research approach since no perfect solutions exist with any research approach. Deshpande (1983) also suggests that a link exists between a paradigm and a research method. He further explained that the link is created as the paradigm is translated into an 'actionable set of principles' for examining or discussing issues relating to the social world (Yates 2004). It follows that the paradigm and research questions can be the determinant of the methodological approach of any particular research (Mackenzie and Knipe 2006).

The methodological approaches used in prior literature on sustainability reporting are content analysis, quantitative, qualitative and mixed methods. These approaches are discussed below.

6.2.1 Content Analysis

Content analysis is used as a research approach where 'particular words and concepts from which inferences can be made are obtained within statements or texts' (Jose and Lee 2007). Most studies in sustainability reporting have adopted content analysis as a measurement technique (see Guthrie et al. 2004; Unerman 2000; Milne and Adler 1999; Gray et al. 1995). Content analysis involves using sentence counts, details from tables, graphics, pictures or typefaces to quantify information disclosed on a page or a proportion of a page. However, it is argued that this technique is subjective and therefore likely to result in unreliable findings relating to disclosures made in corporate reports (Unerman 2000). Also the coding and interpretation aspect of content analysis have been criticised as subjective; with counting becoming too fundamental and coding sometimes unsuitable for the data interpreted (Walter 2010).

6.2.2 Qualitative and Quantitative Methodologies

Qualitative and quantitative methodologies are the two main methodological approaches commonly adopted in research (Yates 2004, Bernard 2000). Quantitative methodology is a scientific methodological approach because it focuses on theory, hypothesis testing and statistical analysis of numerical data (Johnson et al. 2004). Furthermore, the quantitative methodology is designed to ensure 'objectivity, generalisability and reliability across

settings' (Zawawi 2007). Quantitative research can therefore be employed in diverse areas of research including exploratory, descriptive, explanatory, diagnostic or evaluative research (McGivern 2006). Survey, questionnaire, structured observation and analysis of secondary data can be employed in quantitative research (Kelly, Clark, Browm and Sitzia 2003).

Qualitative methodology, on the other hand, observes reality within a diverse range of information sources combined. To achieve more substantiated results, observation must be combined with the researchers' experience and interpretation in the context of that particular setting (Denzin and Lincoln 2006). Procedures adopted under qualitative approach include direct observation, in-depth interviews, document reviews and visual data analysis (Mackenzie et al. 2006).

One advantage of the quantitative approach is its appropriateness in studying both small and large samples. By using a quantitative approach, causal relationships can be substantiated between variables, and outcomes are independent of the researcher's expectations (Kelly et al. 2003; Johnson et al. 2004). Outcomes from the rigorous form of hypotheses-testing and statistical analysis provided by quantitative analysis could be of much significance in policy-making and decision taking (Amarantunga, Baldry, Sarshar and Newton 2002). Another advantage of the quantitative approach is that the distinct measurement of variables allows another researcher to test for reliability of outcomes.

Contrary to the rigid nature of quantitative methods, qualitative methods are flexible and can be used to either describe individual issues or explain relationships between complex phenomena (Johnson et al. 2004). However, the in-depth study associated with qualitative methods renders it an expensive and time-consuming methodology. Furthermore, the linearity usually associated with quantitative research is virtually absent in qualitative research. The reason is that a clear distinction between data collection and analysis is non-existent in qualitative research. Another reason is that in qualitative research, the separate processes intersect and overlap making it difficult to pursue a systematic procedure that can control the 'end points of the research' (Corbetta 2003).

Yin (1994) made an important point, which guides the selection of methodology for this study; that is, the circumstances surrounding any research determine the methodology to be adopted. This research examines causes and influence of social phenomena and other

indicators on environmental, social and economic reporting. The research involves concepts that have to be operationalised so they can be measured for causality. The circumstances surrounding this research, therefore, align it with a quantitative research methodology.

6.2.3 Mixed Methods

The mixed-methods approach is used when the researcher combines quantitative and qualitative methodologies in one research project (Johnson et al. 2004). Researchers can expand the scope of their studies and improve upon analytical outcomes by adopting the mixed-method approach. However, the mixed-method approach demands that a research be up-to-date with characteristics of both qualitative and quantitative methodologies. Also it should be appropriate to combine both approaches in a research and achieve meaningful outcomes.

Mixed-method approaches can be expensive and time-consuming. There is also a possibility that the researcher may find it difficult to explain conflicting results (Greene 2008). Choice of mixed-method approaches is therefore, rare in sustainability studies. This could be attributed to the complexity associated with effectively combining both qualitative and quantitative methodologies, in order to make valid inferences from the outcomes. Therefore, a mixed method approach is not adopted in the current study. This study however, improves upon previous sustainability studies by adopting a quantitative methodology, thereby making the statistical outcomes of the hypotheses tested of relevance for policy decisions.

6.3 Data Collection

The next Section will discuss the data collection method to be used in the study after an initial discussion of the sample process.

6.3.1 Sampling Process

Australia is used as a base for selecting the countries for this research. Australia is an Anglo-Saxon country. Australia has also adopted IFRS as a framework for the preparation and presentation of corporate financial information for both domestic and international reporting. Anglo countries are developed economies with at least a history of British colonisation (Ashkanasy et al. 2002). Anglo countries comprise of Australia, Canada, U.K., U.S., Ireland, New Zealand and South Africa. Anglo economies which have similar cultural, industrial,

historic and legal features as Australia but which have institutional differences have been selected for this study.

6.3.1.1 Selection of Countries

As previously stated, the GRI guidelines have been globally adopted by numerous companies to guide the type of disclosure information to be included in their sustainability reports. Irrespective of the large number of countries and companies that have adopted the GRI, country selection in this study is essentially limited by characteristics similar to that of Australia. Although Anglo economies include Australia, Canada, Ireland, New Zealand, U.S., U.K. and South Africa, for this study only two countries, the U.K. and South Africa are selected in addition to Australia. The selection of U.K. and South Africa is based on similarities with Australia in their cultural, financial and legal environments but differences in their institutional set-up and practices.

Culture

Anglo countries form part of the democratic and highly industrialised global economies. Christian values, a sense of confidence with the desire to take up risks, tolerance and power to control are the characteristics of Anglo economies. Their culture portrays a low power-distance dimension that and are willing to support others in society (Beugelsdijk and Frijns 2010). Egalitarianism is highly supported in such societies as people are more committed to social issues and more concerned about the welfare of others. The Anglo culture further portrays the low-uncertainty avoidance also portrays the low uncertainty avoidance dimension. Organisations operating in low power distance and low uncertainty societies are innovative and willing to provide consumers with more information on their products. High inter-personal skills are required by employees working in such organisations because of the emphasis on customer and client satisfaction (Tran and Skitmore 2002). Furthermore, because such organisations support diversity and require low levels of conformity, are high risk takers and encourage diverse opinions and behaviours. Thus, employees are able to contribute substantive but productive changes to work ethics (Kirkman and Shapiro 1997; De Mooij 2010). Companies in such societies are therefore likely to formulate policies to deal with ethics violations (Ardichvili, Jondle and Mitchell 2009). Anglo societies also portray high masculinity and are therefore assertive but respect extremely high achievements. Thus, managers encourage high performance and competitiveness resulting in recognition in

workplaces; the achievement of which may also result in high job stresses. In such organisations, the charismatic value-based style of leadership which require leaders to inspire their subordinates to achieve set goals; is preferred to the authoritarian approach to leadership. Team oriented and participative leadership styles are also preferred in such an environment (Ashkanasy et al. 2002). With regards to reporting, Anglo countries are expected to be transparent in their disclosures and therefore likely to voluntarily disclose more information on their social responsibilities (Tsakumis 2007).

Financial

With the exception of the U.S. and Canada which are now in the process of adopting or converging to the IFRS, Australia, U.K., New Zealand and South Africa are amongst the countries which have either implemented the IFRS, have a policy of convergence with IFRS, or require listed companies to adhere to the IFRS (Nobes and Zeff 2008; Zeff and Nobes 2010).

However with regards to the equity markets, the New Zealand Stock Exchange (NZX) is small in terms of domestic market capitalisation (DMC) and listed companies (LC) as compared to the ASX, London Stock Exchange (LSE) and the Johannesburg Stock Exchange (JSE). Listed companies (both domestic and foreign) on the three stock exchanges ASX, LSE and JSE as at December 2009 were 1,966, 2,792 and 396 respectively as compared to 165 on NZX (World Federation of Exchanges Report, (www.world-exchanges.org/statistics/time-series/number-listed-companies, accessed 2 August 2010)). Similarly, DMC for ASX, LSE and JSE were approximately U.S$1.26 trillion, U.S$2.79 trillion and U.S$799 billion respectively; overshadowing the approximately U.S$ 35.5 billion DMC of NZX (World Federation of Exchanges Report, (www.world-exchanges.org/statistics/time-series/market-capitalization, accessed on 2 August 2010). New Zealand will not be included in this study because of the small size of the NZX and a lower DMC as compared to that of the U.K., South Africa and Australia. Another reason for not including New Zealand is that such differences may also have an adverse effect on comparison of certain independent variables if companies operating in New Zealand are included in the study.

Industries

Australia, U.K. and South Africa have several primary and manufacturing industries, and they are also endowed with natural resources such as coal, gold, natural gas and iron ore.

Furthermore, an increasing number of listed companies in all three countries adopt the GRI guidelines for their environmental social and economic disclosures. Also, about 86% of companies in South Africa either disclose some form of sustainability information in annual reports or publish stand-alone sustainability reports (KPMG 2008).

Law

The legal systems in U.K. and Australia are based on Common Law (Leuz, Nanda and Wysocki 2003), whilst the legal system in South Africa is a combination of both Codified and Common Law (Nobes and Parker 2010). The legal systems in all the three countries strongly protect external investors namely shareholders and creditors. The protection of external investors result in more efficient stock and credit markets, large numbers of listed securities per capita and a high rate of internal public offering (IPOs) (LaPorta et al. 2000). Since the enforcement of legislations to protect external investors can impact positively on corporate disclosures (Freedman, and Jaggi 2005), it is envisaged that companies in U.K, Australia and South Africa will increase their voluntary disclosures. Aside from the above similarities, institutional differences in the areas of economic development, inflation, business environment and taxation exist between the three selected countries.

Economic Development

The level of development of the financial system in any country impacts greatly on its economic growth. Under-development of the financial system can reduce the performance of social responsibilities and consequently affect the ability of corporations to increase their disclosure. For example, low performance in the business environment is likely to affect disclosure levels as financial stability impacts on the cost of capital for institutions. Companies need to lower cost of capital to be able to source more funds for sustainability projects. In effect, availability of excess cash flow improves social responsibility performance and subsequently increases disclosure.

The world economic forum's report for 2010 shows differences in the level of financial development in Australia, U.K. and South Africa. Out of a total of 57 global economies, U.K. ranked second, down from a first ranking in 2009; Australia ranked fifth, also down from a second ranking in 2009; with South Africa improving from the 32nd ranking in 2009 to a 31st position in 2010. The three countries also performed differently in the institutional, business and financial stability developments for 2010. Under the institutional environment, U.K was

ranked sixth with Australia at 18th position and South Africa at 28th position. However, Australia performed better in the business environment at 13th position, with U.K. and South Africa at 15th and 45th position respectively. Again, Australia's financial stability was better at 9th position, South Africa at 28th position with U.K. lagging behind at 46th position (World Economic Forum 2010). The low level of financial stability in the U.K can also be the result of the continuous crisis in European countries. As stated earlier these differences in ranking positions and economic stability in the three countries can also have positive or negative impacts on corporate social responsibility performance and disclosure.

Taxation

The level of tax rates and its impact on corporate earnings can affect corporate sustainability performance and subsequent disclosure differently in the three countries. Companies in South Africa pay a basic corporate tax rate of 28% in addition to a secondary tax of 10% on net dividends. Subsidiaries of multinationals pay tax of 33% but are exempted from the secondary tax on dividends. Similar to that of South Africa, companies in Australia pay a flat rate of 30% but tax is paid at the corporate level before dividends are distributed to shareholders. Companies in Australia may declare franked dividends that may provide tax credits to shareholders. On the other hand, corporate tax in the U.K. is progressive and, for the 2009-2010-tax-year, corporate tax ranges from a minimum of 21% to a maximum of 28%.

In the event of increases in corporate profits in a financial year where UK's corporate tax increases to more than 30%, companies operating in countries like South Africa and Australia may have more funds to fulfil their financial, discretionary and social commitments than their counterparts in the U.K. This is because companies in countries that apply the proportionate tax system tend to pay more tax as their profits increases than companies in countries with a flat tax rate. More tax means less cash available for companies operating in the U.K to fulfil other obligations including their social responsibilities. Reduction in social responsibility performance subsequently decreases voluntary disclosure.

6.3.1.2 Sample Method

The impracticality of collecting data from a whole population raises the need for sample selection. A sample is part of a population from which characteristics of the population can be inferred (Zikmund 2000). Either probability/random sampling or non-probability/non-

random sampling methods could be used to select a sample from a population. Probability sampling provides each member of the population with a non-zero chance of being selected. On the other hand, samples in non-probability sampling are selected on some other criteria like personal judgement or convenience (Schreuder, Gregoire and Weyer 2001). Larger probability sampling may be more costly to conduct. However, unlike non-probability sampling, results from probability sampling can be generalised to the population and figures obtained can be termed as reliable (Gorard 2006). The use of probability samples for studies on corporate reporting has increased over the years. This is due to the threat of lawsuits and the possibility of defending survey methods amongst governments and environmental groups (Max, Schreuder, Hazard, Teply and Algeria 1997).

This research applies stratified sampling similar to the method used in previous studies, such as those of Esrock and Leichty (1998), Boesso et al. (2007), and Holder-Webb, Cohen, Nath and Wood (2009) with a hybrid form of random and non-random sampling in selecting the companies. The selected companies are classified under two strata – emission intensive (sensitive) and non-emission intensive (non-sensitive) industries. Emission intensive companies belong to the metal and mining, transport, energy, utility, chemical or oil and gas industries (Johansson 2006; Stepp, Winebrake, Hawker and Skelos 2009).

6.3.1.3 Sampling Size

Researchers are not expected to follow a specific procedure of sample selection. Although the use of large size samples in research is normally recommended, small size samples also provide statistically significant outcomes (Kelly et al. 2003). Several other factors will also have to be considered prior to sample selection, especially for a study where secondary data is used. These include the number of variables in the data source, the distribution of the variables, the aim of the study and the quality of statistical outcomes expected (Sorensen, Sabroe and Olsen 1996).

After taking cognisance of the factors above, 67 companies were selected from over 1300 companies registered on the GRI website in 2008 and 2009. One of the criteria for selecting the 67 companies was the availability of both 2008 and 2009 corporate sustainability reports registered on the GRI data base. The year 2009 is selected in addition to 2008 to adjust for the fluctuations in financial and non-financial corporate activities and information disclosure in 2008. The selection of 2009 reports is also to control for the financial reporting effects

which arose as a result of the global financial crisis and subsequent recession in several countries.

A second selection criterion was that the listed companies must fulfil three other criteria:

- have stand-alone sustainability reports for 2008 and 2009 publicly available
- have annual reports for 2008 and 2009 publicly available
- not be financial institutions

The exclusion of financial institutions from the companies selected is consistent with previous studies, such as those by Van Tendeloo and Vanstraelen (2005). Financial institutions belong to unique industry sectors that require the use of additional sector supplement GRI guidelines due to their peculiar or additional disclosure requirements. Also, the number of companies in the GRI database was not large enough for the study as many of the companies did not meet the selection criteria. Companies were therefore selected from other reports to make up the final sample of 67. Details of more Australian companies were sourced from (thehub.ethics.org.au/gri/gri_reporters_in_australia (accessed May 2010)); whilst details of more South African companies were found in Ernst and Young's (2010) report on sustainability reporting in South Africa. All the 67 companies included in the sample use the GRI G3 guidelines for the sustainability reporting. The main reason for using two years of data was because the data was collected for the thesis in 2010. The annual reports available at that time were that of 2009. 2008 was added as a way of reducing any adverse effect that may have occurred in corporate sustainability disclosure/reporting during the global financial crisis. It was also assumed that companies had begun using the GRI G3 guidelines (which was a revised version of GRI G2 in 2006) in reporting by 2008.

6.3.1.4 Data Collection Method

The use of secondary data is in line with most studies in sustainability reporting such as those by Luo et al.(2006), Gray (2006), Khan, Islam, Fatima and Ahmed (2011) and Amran and Haniffa (2011). An advantage of using secondary data is that data is easily accessible, thereby reducing the cost of collection (Walter 2010). For this study, information is collected mainly from stand-alone sustainability reports and annual reports on the websites of selected companies. Specifically, the GRI index tables in corporate sustainability reports provide information on indicators reported on by each company. However, where necessary and to

ensure consistency, further information is also collected from other reports on the websites of the selected companies.

6.4 Coding and Weighting

A disclosure index comprising environmental, social and economic core and additional indicators (see Appendix 1) is used as a benchmark against the GRI content index table provided in each company's sustainability report. A disclosure index can be constructed in two ways; either by the weighted index method or by the unweighted index method. The weighted index method requires ranking disclosure items according to subjective weights either allocated by the researcher or by users of financial statements. One disadvantage of the weighted method is the likelihood of allocating more weight to preferred disclosure items (Alsaeed 2006). The unweighted method, on the other hand, assigns dichotomous scores to items disclosed, thereby allocating equal importance to each item in the group (Lopes et al. 2007). Naser and Nuseibeh (2003) argued that no significant difference exists between the weighted and the unweighted index methods but Spero (1979) noted that, because companies that disclose more important information may also make less disclosure, it may be irrelevant to attach weights to disclosure items (Lopes et al. 2007, Alsaeed 2006). Thus, most researches like Chalmers et al. (2004), Alsaeed (2006) and Lopes et al. (2007) have adopted the unweighted index method.

Similar to these researchers, this study also adopts the unweighted approach. Undisclosed corporate indicators are assigned a score of 0 and disclosed indicators are assigned a score of 1. However, partial information is considered as full disclosure in this study because the focus is on quantity and not quality of disclosures. It is also unlikely that all the indicators will be applicable to the operations of every company. It is therefore important to adjust for the non-applicable indicators in order to generate a fair representation of items disclosed by each company. It is expected that non-applicable indicators will be noted in the GRI content index table provided by each company. In order not to penalise any company for not disclosing non-applicable items, the total score for each company is calculated as follows:

Index = Actual disclosure/Total possible disclosure which is denoted by

$$\frac{\sum_{i=1}^{m} d_i}{\sum_{i=1}^{a} d_i}$$

where: d_i =1 if item i is disclosed or 0 if otherwise; m= number of items disclosed; and

a= maximum number of applicable items expected to be disclosed

(Source: Chavent, Ding, Fu, Stolowy and Wang 2006)

6.5 GRI Disclosure Index

Various studies on environmental reporting have designed, adopted or modified several disclosure index formats to measure the extent of corporate reporting. One such extensively adopted and modified disclosure index is that by Wiseman (1982). This disclosure index was made up of 18 items divided into four groups. They are economic factors, pollution abatement practices (five items each), environmental litigation (two items) and a fourth group of six items for environmental disclosure not listed under any of the other three groups. Bewley et al. (2000) adopted this disclosure index to examine the extent of environmental reporting in the annual reports of 188 Canadian manufacturing companies. Hughes, Anderson and Golden (2001) also modified and used the Wiseman index to examine environmental disclosures in 1992 and 1993 of 51 U.S. manufacturing firms. Yet still another researcher, Patten (2002) modified and adopted the Wiseman index as a measurement in a study examining environmental reporting amongst 131 U.S. companies. Researchers have observed that the results of these studies are unconvincing and the use of the Wiseman index might be one of the reasons for such unconvincing results (Clarkson et al. 2008).

To improve upon the development of indices, researchers began to employ the assistance of experts to help develop their disclosure indexes. One such study was that of Clarkson et al. (2008) which digressed from the use of the Wiseman index and sought the services of an environmental expert to construct a disclosure index. Clarkson et al.'s (2008) decision to use an index similar to the GRI guidelines was based on recommendations from experts that it was the best measurement tool for the study on environmental reporting. In line with this recommendation, a disclosure index comprising 95 items out of which 79 items related to 'hard' environmental disclosures and 16 related to 'soft' environmental disclosures was constructed for the study undertaken by (Clarkson et al. 2008). The 79 'hard' environmental disclosures focused on governance structure and management systems, environmental

disclosure credibility, specific environmental indicator disclosures and environmental spending. The 16 ‘soft’ environmental disclosures relate to vision and environmental strategy, corporate environmental profile and initiatives. The results of the study showed a positive relationship between environmental performance and discretional environmental disclosure, which was consistent with the economics-based voluntary disclosure theory. Also, most of the 95 ‘hard’ and ‘soft’ items in the disclosure index adopted by Clarkson et al. (2008) exist within the GRI guidelines. As this disclosure index had already been tested and recommended by experts, the current study found it expedient to adopt a similar index.

The current study therefore adopts and modifies the disclosure index used by Clarkson et al. (2008) in determining disclosure in the sustainability reports of the sampled companies. Our disclosure index consists of the 79 core and additional indicators of the GRI G3 sustainability reporting guidelines. Appendix 1 on page 216 summarises the indicators that are used to measure differences in disclosure amongst the listed companies.

6.6 Analytical Technique

Multivariate analysis, a group of statistical techniques used to concurrently analyse multiple measurements, is adopted to describe and predict interrelationships amongst the variables (Hair, Black, Babin and Anderson 2010). The multivariate statistical techniques employed in this study are principal component analysis and multiple regression analysis. Principal component analysis (PCA) is initially used to identify the interrelationships among the individual environmental, social and economic GRI indicators. PCA is further used to sort and group the initial data by extracting important information relating to each group in order to determine the indicators that are finally retained for use in the next stage of the analysis, in consistent with (Abdi and Williams 2010).

The next step in the analysis uses multiple regression analysis, a widely used statistical tool for multi-predictor data analysis, to investigate functional relationships between the dependent and the predictor variables (Chatterjee and Hadi 2006). Multiple regression analysis is also a flexible data analytical tool which is applied in studies where secondary data are used to predict an outcome (Cohen, Cohen, West and Aiken 2003).

There are three main forms of multiple regression analyses namely, simultaneous, stepwise and hierarchical. Simultaneous regression is mostly used in exploratory research. No logic or

theoretical basis regarding either the data or the research objectives is applied in considering the method of entering predictors into the prediction model (Cohen et al. 2003). Thus, all predictors are entered into the regression model at the same stage and considered on equal basis. Stepwise regression is applied in studies with large numbers of predictors but insufficient knowledge of the theoretical basis for entering the predictors into the prediction model. The selection of variables is based on the R^2 contribution at every stage (Cohen et al.). This type of selection is likely to result in a reduction of the number of independent variables entered into the model. It is also subject to sampling error idiosyncrasies.

With hierarchical regression analysis, predictors are entered into the prediction model on the basis of a pre-determined theoretical order. This makes it an appropriate method for studies where theoretically based hypotheses are used (Pallant 2007). Furthermore, unlike Ordinary Least Square (OLS) regression, which examines the relationship between a dependent variable and one group of predictors, hierarchical regression analysis is used to examine the relationship between dependent variable(s) and set(s) of predictors. By adapting hierarchical regression method, this study improves upon the outcomes on disclosure from previous accounting studies that have applied OLS for analysis (see Lobo et al. 2001; Patten and Trompeter 2003; Hammersley, Myers and Shakespeare 2008).

This study adopts hierarchical regression and predictors are entered into the prediction model in a pre-determined order based on underlying theory. The regression model below will be tested based the hypotheses developed in the previous chapter (see Chapter 5).

$$GRIdv = \beta_0+\beta_1LEV+\beta_2LIQ+\beta_3ROA+\beta_4PDI+\beta_5GDI+\beta_6ASSR+\beta_7OWNIN+\beta_8 OWNMA+\beta_9BST+\beta_{10}INPO1+\beta_{11}INPO2+\beta_{12}TOBQ+\beta_{13}FAGE+\beta_{14}INDS +\beta_{15}SIZ+e_j$$

Where:

GRIdv = Sustainability reporting by the individual companies determined by the specific disclosure index

Financial Variables

LEV= [Leverage] Debt as a ratio of Equity
LIQ= [Liquidity] Current assets as a ratio of current liabilities
ROA= [Return on Assets] Net profit before tax as a ratio of total assets
FAGE= [Firm Age] Firm age since incorporation
TOBQ= [Tobin's Q] market value/capitalisation as a ratio of book value of assets

Shareholder Variables

PDI= [Product Diversification] Sales per segment as a ratio of total sales
GDI= [Geographical Diversification] Asset per segment as a ratio of total assets
OWNIN= [Institutional Ownership] Institutions owning 3% or more of the total shares
ASSR= [Assurance] Assured report (1) or non- assured report (0)

Legitimacy Variables

BST= [Board Structure] Independent non-executive directors as a ratio of total directors
INPO1= [Internal Policies 1] environmental/sustainability policy, ethical policy, whistle blowing policy of each company (dummy variable 1,0,0)
INPO2= [Internal Policies 2] Internal environmental/sustainability, whistle blowing policy, ethical policy of each company (dummy variable 0,1,0)
OWNMA= [Directors Ownership] Directors shares to total shares

Demographic Variables

INDS= [Industry] Sensitive (1) and non-sensitive companies (0)
SIZ= [Size] log of sales
β_0 = Intercept
β = Estimated slope coefficient of each variable

e=Error term

6.7 Data Cleaning and, Screening and Combining

The data collected from the sample was cleaned before using it for using it for any analysis. The initial process was to check the raw data for errors especially for missing or overstated values that were out of the range of possible values for variables in the data set. To correct such errors, values from the original data were rechecked with those in the data set to make sure the correct values were initially extracted. Also values in the raw data were re-calculated and errors corrected. This process was done to reduce the errors from the raw data that were transferred to the spreadsheet database in SPSS. The raw data was then transferred to the spreadsheet of database of SPSS. Then, SPSS was used to check variable scores for outliers or extreme scores which were out of range with scores in the data set. Tests were also conducted to check that the frequencies were within limits of possible values. Values that were extremely below or above those in the data set were a cause for concern. To correct such errors, values transferred to the spreadsheet database on SPSS were rechecked to make the raw data did not contain any mistakes from the transfer.in the raw data were corrected. Then, the values were recalculated and changes made in the data file. Outliers that still

existed after re-calculation were considered to be missing. The data set was then ready for other preliminary analyses such as descriptive statistics.

6.8 Summary

The chapter examines methodological issues in the study. After discussing the different methodological approach applied in earlier research, a quantitative methodology is adopted as an appropriate approach for this study.

Three Anglo-Saxon countries are selected for the research. They are Australia, U.K and South Africa. These countries have similar legal, financial and industrial environments but different institutional set-up and practices. It is envisaged that the mix can provide evidence that companies operating in countries with similar cultures and historical backgrounds are likely to exhibit similar disclosure patterns. With a disclosure index similar to the GRI performance indicators, data is collected from the sustainability reports of 67 companies operating in the three selected countries. Information is also sourced from the annual reports of the 67 selected companies. The 67 companies consist of 21 companies from Australia, 24 companies from South Africa and 22 companies from U.K. The small sample size was because few companies registered their sustainability reports on the GRI database in 2008; and companies with reports on the GRI database in 2009, but not in both 2008 and 2009 are disqualified from being part of the selection. The data set was also cleaned and screened for subsequent analyses

Initially, factor analysis is performed on the indicator data collected in order to extract essential information for subsequent analyses. Hierarchical regression analysis is chosen over OLS as the appropriate analytical technique to test the hypotheses developed in the previous Chapter. Finally, sensitivity analysis is conducted to test the robustness of the outcomes from the multiple regression analyses.

Chapter 7: Principal Component Analysis

7.1 Introduction

This chapter discusses data analysis approaches to constructing sustainability disclosure index, in particular the components to be tested empirically as dependent variables in the three reporting categories, namely the environmental, social and economic. The data is initially screened and cleaned and exploratory factor analysis, a widely used multivariate statistical procedure in the social sciences (Costello and Osborne 2005), is adopted to determine the number of dependent variables and components that will be retained in the study.

The chapter is arranged as follows: Section 7.2 develops the variable condensation approach used in the present study to reduce the number of indicators to a smaller number of interpretable components. This is followed by Section 7.3 which reports the outcomes from principal component analyses for the dataset of the combined years. Section 7.4 deals with the reliability measures for the resulting components and describes how components are scored in preparation for the hierarchical regression analyses. The chapter ends with a summary in Section 7.5.

7.2. Identifying the Key Components of the Quantitative Dependent Variables

Exploratory factor analysis is performed to ensure that the ratio of cases to predictors approaches the minimum 5 cases to 1 predictor ratio recommended by Tabachnick and Fidell (2007). A 10 case to 1 predictor ratio was suggested by Nunnally (1979), but this ratio would be much harder to achieve given the hypotheses to be tested. Furthermore, an oblique approach, notably Promax rotation (with Kaizer normalization) is also adopted to transform the factor matrix into pattern loadings that will be simpler to interpret while allowing factors to be correlated (Dien, Spencer and Donchin 2003). The oblique rotation approach is somewhat more difficult to interpret than its orthogonal counterpart. However, the oblique rotation approach was adopted in this study because of the assumption that fundamental constructs/factors to be extracted will correlate (Tabachnick et al. 2007).

Various factor methods can be adopted to extract factors. These methods include maximum-likelihood, alpha, unweighted least square and image factoring and principal component analysis (PCA). For this study, PCA is chosen to extract the factors that best describe the relationships among the indicators. PCA is a multivariate technique that has been widely employed in most empirical studies including sustainability studies (see Abreu, David and Crowther 2005; Waldman, Siegel and Javidan 2006). PCA analyses data which represents observations from a number of inter-correlated variables and extracts components that reflect similar patterns of relationship amongst the variables (Peres-Neto, Jackson and Somers 2005). PCA is also described as a 'psychometrically' sound and simple-to-understand technique that is not associated with the 'factor independency' issues of factor analysis (Stevens 1996; Pallant 2007). Tabachnick et al. (2007) further argues that PCA presents theoretical outcomes that are unique and with less error variability. PCA is, therefore, an appropriate method for analysing data from observations captured from several inter-correlated variables (Peres-Neto et al. 2005). Furthermore, researchers including Velicer and Jackson (1990) suggest the existence of the problem of over extraction when PCA is applied to larger sample sizes. Velicer et al. (1990) further argued that PCA was a more robust extraction method for smaller samples than minimum likelihood extract and other sophisticated factorial analysis.

The eigenvalue method was applied to retain those components that accounted for a greater amount of variance than could be accounted for by a single variable. A widely used method for this process is the eigenvalue greater than 1.0. This method is widely used because it is simple to apply. The EVG1 method, which was initially introduced by Kaiser (1960) is the default of SPSS and its aim is to retain those components with eigenvalues more than 1.0 (Hayton, Allen and Scarpello 2004). Kaiser (1960) argues that the eigenvalue has to be more than 1.0 to ensure positive reliability. This rule is recommended as a better method for estimating components that will be retained in studies with less than 40 variables (Gorsuch 1990).

Three exploratory principal component analyses (PCA) were employed to extract dependent variable components within the separate sets of environmental, social and economic indicators. The variables for these PCA analyses were averaged across 2008 and 2009. For these initial analyses, the eigenvalue greater than 1.0 rule was applied. The initial PCA analyses of the environmental and social sets of indicators produced far too many distinct

components and, as a consequence, the eigenvalue rule cut-off was increased to 2.0 and the PCA analyses rerun. This was done in order to present an outcome where the components accounted for a higher level of total variance scores than in stage 1 while reducing the total number of components to interpret to a more manageable number. The eigenvalue cut-off for the economic indicators was left at the SPSS default of eigenvalue greater than 1 as a small number of interpretable components was produced. Cronbach's alpha was employed to assess the internal consistency reliability of all identified components.

7.3 Principal Component Analyses

Results from the three PCA analyses on 2088/2009 averaged indicator values yielded three environmental performance indicator principal components, four social performance indicator principal components and three economic performance indicator principal components. Tables 7.1, 7.2 and 7.3 below present the summary results of the environmental, social and economic performance indicator components, in terms of component pattern coefficients, component inter-correlations and internal consistency reliability coefficients.

Table 7.1: Environmental Category Variables: Component Pattern Loadings, Component Inter-correlations and Reliability Measures.

	Preservation[a]	Initiatives [b]	Responsibility[c]
Components for Eigen Values ≥2.0			
Eigenvalue	12.18	3.04	2.52
mEN9- Water sources significantly affected by withdrawal of water	.88		
mEN11- Location and size of land owned, leased, ……	.83		
mEN10- Percentage and total volume of water recycled and …..	.78		
mEN1- Materials used by weight or volume	.78		
mEN25-Identity, size, protected status, and biodiversity value of water bodies and related habitats	.75		
mEN12- Description of significant impacts of activities,……	.71		
mEN2- Percentage of materials used that are recycled input…..	.68		
mEN15- Number of IUCN Red List species and national…….	.65		
mEN13- Habitats Protected and Restored	.65		
mEN14- Strategies, current actions, and future plans ……	.53		
mEN30- Total environmental protection expenditures …….	.51		
mEN23- Total number and volume of significant spills	.46		
mEN24- Weight of transported, imported, exported,…….	.43		
mEN27- Percentage of products sold and their packaging ……...	.43		
mEN28- Monetary value of significant fines and total number …….			
mEN5- Energy saved due to conservation and efficiency…….		.92	
mEN6- Initiatives to provide energy-efficient or renewable ……		.81	
mEN18- Initiatives to reduce greenhouse gas emissions …….		.73	
mEN29- Significant environmental impacts of transporting…….		.71	
mEN7- Initiatives to reduce indirect energy consumption……		.68	
mEN4- Indirect energy consumption by primary source		.52	
mEN26- Initiatives to mitigate environmental impacts ……..		.47	
mEN22- Total weight of waste by type and disposal method			.87
mEN21- Total water discharge by quality and destination			.70
mEN16- Total direct and indirect greenhouse gas emissions by weight			.62
mEN20- NOx, SOx, and other significant air emissions by type and weight			.62
mEN17- Other relevant indirect greenhouse gas emissions by weight			.60
mEN8- Total water withdrawal by source			.56
mEN19- Emissions of ozone-depleting substances by weight			.50
mEN3- Direct energy consumption by primary energy source			.46
Component Correlation Matrix			
Preservation: Material and water recycled and reused to protect land, water sources, flora and fauna	.94		
Initiatives: Activities to reduce ecological impact of outputs through reduction in energy usage and greenhouse gas emissions	.47	.86	
Responsibility: Waste management; greenhouse gas, other air and ozone-depletion substances emissions and energy consumed	.38	.25	.83

∗Cronbach alpha internal consistency reliability reported on the diagonal
[a]Material and water recycled and reused to protect land, water sources, flora and fauna
[b] Activities to reduce ecological impact of outputs through reduction in energy usage and greenhouse gas emissions
[c] Waste management; greenhouse gas, other air and ozone-depletion substances emissions and energy consumption

The three components extracted from 2008/2009 averaged environmental indicators were: preservation; initiatives; and responsibility respectively. Component 1 is labelled Preservation, which relates to material and water recycled and reused to protect land, water

sources, flora and fauna. Component 1 is thus focused on issues relating to the conservation of natural resources such as water and water bodies and the protection of land and materials alongside these nature resources. These issues reflect the preservation of natural resources. Component 2, which is described as the Initiatives component, relates to activities to reduce ecological impact of outputs through reduction in energy usage and greenhouse gas emissions. Component 2 thus deals with innovations put in place by businesses to reduce their energy consumption levels; as well as the adverse effect their operations and conveyance of outputs have on the environment.

Component 3, which is labelled Responsibility, refers to waste management, greenhouse gas, other air and ozone-depletion substances, emissions and energy consumed. Component 3 focuses on issues relating to corporate response to emission reduction and the use of proper waste disposal methods. This shows the responsibility businesses need to show with regards to such environmental issues.

Table 7.2: Social Category Variables: Component Pattern Loadings, Component Inter-correlations and Reliability Measures

	Development[a]	Information[b]	Improvement[c]	Advancement[d]
Components for Eigen Values ≥2.0				
Eigenvalue	17.58	3.28	2.89	2.14
mSO4- Actions taken in response to incidents of	.84			
mHR5- Operations identified in which the right to exercise freedom of ……	.81			
mSO2- Percentage and total number of business units..	.80			
mLA4- Percentage of employees covered by collective bargaining….	.77			
mLA8- Education, training, counselling, prevention, and risk-control…….	.70			
mLA6- Percentage of total workforce represented in formal joint ……..	.66			
mHR6- Operations identified as having significant risk	.64			
mHR4- Total number of incidents of discrimination ..	.60			
mLA10- Average hours of employee training per year	.54			
mHR2- Percentage of significant suppliers …..	.47			
mSO3- Percentage of employees trained …..	.46			
mSO8- Monetary value of significant fines ……	.45			
mPR1- Life cycle stages &health and safety impacts ….		.99		
mPR3- Type of product and service information …..		.74		
mHR9- Total number of incidents of violations……		.74		
mHR7- Operations identified as having significant risk..		.67		
mLA5- Minimum operations notice period(s)…		.63		
mSO5- Public policy positions and participation….		.60		
mPR2- Total number of incidents of non-compliance..		.59		
mHR8- Percentage of security personnel trained….		.56		
mHR1- Percentage and significant investment…….		.55		
mPR4- Total number of non-compliance incidents ….		.52		
mLA9- Health and safety topics…..		.52		
mHR3- Total hours of employee training …..		.46		
mPR6- Programs for adherence to laws, standards, ……			.80	
mPR5- Practices related to customer satisfaction			.79	
mLA7- Rates of injury, occupational diseases,…..			-.77	
mPR9- Monetary value of significant fines….			.74	
mPR7- Total number of incidents of non-compliance ..			.53	
mSO6- Total value of financial & in-kind contributions			.47	
mLA1- Total workforce by employment type, ……			.43	
mSO7- Total number of legal actions ….			.43	
mPR8- Total number of substantiated complaints …..				
mLA2- Total number and rate of employee turnover..				.96
mSO1- Nature, scope, and effectiveness of programs…				.74
mLA13- Composition of governance bodies …..				.65
mLA14- Ratio of basic salary of men to women….				.55
mLA3- Benefits provided to full-time employees…				.54
mLA12- Percentage of employees….				.48
mLA11- Programs for skills management……				.43
Component Correlation Matrix				
Development: Programs to manage corruption, employee development and health and safety	.91			
Information: Management of health and safety impacts of outputs and contributions to public policy	.49	.93		
Improvement: Employee training and actions for non-compliance with regulations	.39	.45	.85	
Advancement: Managing impact of operations on communities and employee remuneration matters	.50	.51	.38	.83

*Cronbach alpha internal consistency reliability reported on the diagonal

[a]Programs to manage corruption, employee development and health and safety

[b] Management of health and safety impacts of outputs and contributions to public policy

[c] Employee training and actions for non-compliance with regulations

[d] Managing impact of operations on communities and employee remuneration matters

The four components extracted from the social performance indicator were: Development; Information; Improvement; and Advancement. Component 1, which is labelled Development, constitutes programs to manage corruption, employee development and health and safety. Component 1 focuses on corporate attempts to reduce corruption and enhance freedom of association. These issues are fundamental to the development of organisations.

The Information component (component 2) relates to management of health and safety impacts of outputs and contributions to public policy. The title Information was given to component 2 because it provides information on safeguards that organisations must implement to ensure their products are healthy and safe; and also that their employees have access to safer working environments.

Component 3, which is Improvement, relates to employee training and actions for non-compliance with regulations. Component 3 deals more with efforts put in place to enhance business-customer relationship and management-employee relationship. These relationship-improvement measures can have a positive effect on other areas of the business.

Component 4, which is Advancement, relates to managing impact of operations on communities and employee remuneration matters. Organisations that implement measures to regulate employee turnover rates as well as managing the impact of their operations on communities in which they operate can be said to be involved in addressing issues relating to the advancement of their employees and communities.

Table 7.3: Economic Category Variables: Component Pattern Loadings, Component Inter-correlations and Reliability Measures

	External Investment[a]	Value Creation[b]	Market Presence[c]
Components for Eigen Values ≥1.0			
Eigenvalue	3.28	1.43	1.26
mEC7- Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	.87		
mEC6- Policy, practices, and proportion of spending on locally-based suppliers	.80		
mEC8- Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind	.72		
mEC9- Understanding and describing significant indirect economic impacts, including the extent of impacts	.70		
mEC3- Coverage of the organisation's defined benefit plan obligations		.86	
mEC2- Financial implications and other risks and opportunities for the organisation's activities		.74	
mEC4- Significant financial assistance received from government		.71	
mEC1- Direct economic value generated and distributed, including revenues…			.89
mEC5- Range of ratios of standard entry level wage compared to local minimum wage			-.47
Component Correlation Matrix			
External Investment: Recruitment from local communities and investments for public benefit	.70		
Value Creation: Operational risks and opportunities and benefits from government	.44	.64	
Market Presence: Economic value generated from operations	-.13	-.04	-.31

*Cronbach alpha internal consistency reliability reported on the diagonal
[a]Recruitment from local communities and investments for public benefit
[b] Operational risks and opportunities and benefits from government
[c] Economic value generated from operations

The three components extracted for the economic performance indicator category were: External Investment; Value Creation; and Market Presence. External investment is associated with component 1. Corporations that are keen on investing in infrastructural developments in their local communities, engaging with local suppliers as well as providing employment to people in the communities in which they operate, can be said to be investing their resources externally.

Component 2 relates to Value Creation. Component 2 focuses on the finances and the financial obligations of the organisation. Efforts made to improve these obligations may in turn result in both financial and non-financial outcomes that can enhance corporate value.

Market Presence is reflected in component 3. Component 3 deals with issues that portray an organisation's ability to generate funds both internally and externally and at the same time meet obligations of its employees and other creditors. This can be said to be a way that an organisation indicates to the financial market that it has the ability to meet its financial obligations. In order words, that organisation announces its presence on the market.

7.4 Reliability Assessment

Various measures have been recommended as estimators for assessing reliability or construct validity. These include measures that relate to each separate item; and the reliability of coefficient measurements (Nunnally et al. 1979). Furthermore, to ensure reliability, the item to total correlation must exceed .50 and the inter-item correlations must also exceed .30 (Robinson, Shaver and Wrightsman 1991). The reliability coefficient measure is an estimator of the consistency of the whole scale. Cronbach alpha is a generally adopted estimator of this measure. Cronbach's alpha is a measure of reliability that ranges from 0 to 1 with values close to 1 indicating high internal consistency of the different factors. Scales with values of .70 and above are widely recommended as acceptable limits of reliability (Hair et al. 2010). The reason behind recommending a higher minimum limit may be that, as reliability increases, the association between the constructs and the factors also increases. Nonetheless, values of .60 can be accepted as a minimum limit in certain types of research (Robinson et al. 1991).

Cronbach's alpha values for the three environmental performance indicator components, Preservation, Initiatives and Responsibility, were 0.94, 0.86 and 0.83 respectively (also reported in Table 7.1). The values all exceeded 0.70 and therefore all the three components were recognised as having achieved internal consistency. Similarly, Cronbach's alpha values of the four social performance indicator components, Development, Participation, Improvement and Advancement were 0.91, 0.93, 0.85 and 0.83 respectively (also reported in Table 7.2). The values all exceeded the minimum acceptable limits of 0.70 and therefore all three components were recognised as having achieved internal consistency. Furthermore, Cronbach's alpha values for the three economic performance indicator components, External Investment, Value Creation and Market Presence were 0.70, 0.64 and -0.31 respectively. Components 1 and 2, External investment and Value creation were retained as their individual Cronbach's alpha values even though below 0.70, could be accepted. The range of ratios of standard entry level wage compared to local minimum wage indicator (mEC5) was reversed scored and the reliability coefficient computed again for component 3, Market Presence. The results reliability was 0.26**,** which was below the lower bound acceptable reliability value of 0.60 (Robinson et al. 1991). Component 3, Market Presence was, therefore, excluded from the study.

Identification of the components to be used in further analyses has prompted the first research question of this thesis:

What components influence environmental, social and economic reporting?

Figure 7.1 below shows the G3 performance indicators and their aspects and the new components of the environmental, social and economic performance indicators.

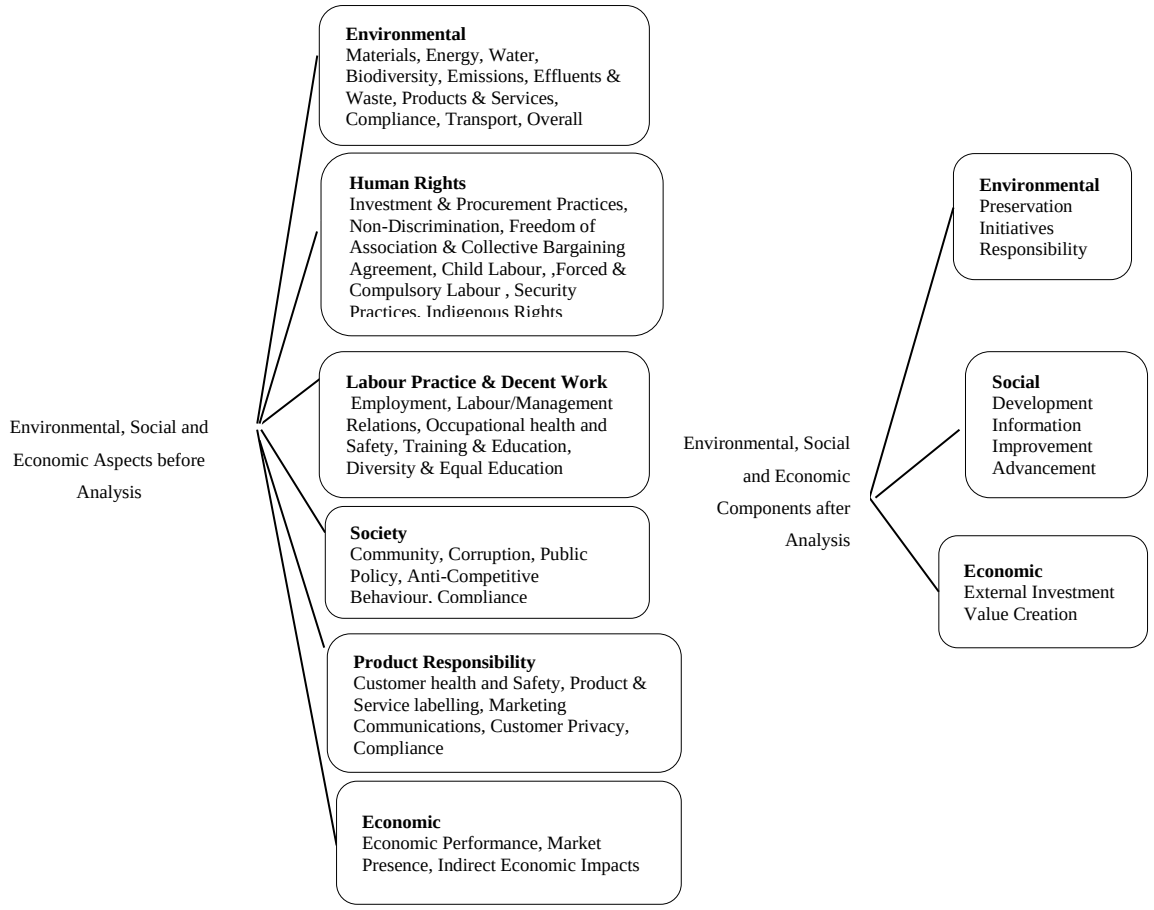


Figure 7.1: Environmental, Social and Economic Components

Figure 7.1 shows the initial 34 aspects of the GRI G3 guidelines comprising of 9, 22 and 3 environmental, social and economic aspects respectively in Appendix 1; reduced to 3, 4 and 2 environmental, social and economic components respectively after extractions have been made from the composite variables.

For each component, scores were calculated as the mean of all defining performance indicators (as listed in Tables 7.1, 7.2 and 7.3). Unit weighted component scores are recommended because they are more robust under cross-validation. Gorsuch (1990) also

recommends the use of the unit-weighted component scores because the scores can be replicated for new samples. This method performs better even with small sample sizes (Morris 1979) as in this study. The scores on these 9 components were then used for the next stages of the analyses.

7.5 Summary

Exploratory principal components analyses of the performance indicator dependent variables were carried out within each grouping of indicators, environmental, social and economic. Prior to the PCA analyses, the scores for each indicator were averaged across the two years, 2008 and 2009, covered by the data sample. Since too many components were identified for the environmental and social performance indicators, the eigenvalue cut-off for the environmental and social performance indicator components was increased to 2.0 and the PCA rerun. Cronbach's alpha was used to measure the internal consistency reliability of each component. The Cronbach alpha values of all the 9 components exceeded the minimum acceptable level of 0.70. All the 9 components were therefore recognised as having achieved internal consistency.

Chapter 8: Results and Discussions

8.1 Introduction: Analysis of the Sample

We outlined the methodology adopted for this research in Chapter 6. This was followed, in Chapter 7 with a discussion of the approaches used in the data analysis; Chapter 7 also discussed the components obtained from the analysis that make up the three categories, namely the environmental, social and economic. The nine components and independent variables were tested in a hierarchical regression model. This chapter outlined the results of the empirical tests for the nine components (i.e. dependent variables) identified in the previous chapter as proxies for disclosure index in three sustainability reporting categories. The test results are also discussed.

This chapter is organised as follows: Section 8.2 shows the descriptive statistics of the independent variables. This is followed by transformation of the independent variables in Section 8.3. Section 8.4 provides by an introduction of the regression model used in the study. Independent variable sets, individual independent variables and their constituent sub-constructs are also presented in this section, as well as order of entry of individual variable sets into the hierarchical regression model. Section 8.5 discusses issues relating to testing of the conceptual model. This is followed, in Section 8.6 by a presentation and explanation of the outcomes from the hierarchical regression tests. The next Section then discusses the results provided Section 8.7. Section 8.8 highlights sensitivity test of the original model findings. Finally, Section 8.9 provides a summary of the chapter.

8.2 Independent Variables

The descriptive statistics for the predictors in the study sample are presented in Table 8.1 below.

Table 8.1: Descriptive Statistics of Predictors

Independent Variables	Abbreviated labels	N	Minimum	Maximum	Mean	Median	Standard Deviation	Skewness		Kurtosis	
								Statistic	Standard. Error	Statistic	Standard Error
Tobin's Q*	mtobQ	67	.26	6.06	1.37	1.13	.97	2.48	.30	8.54	.58
Liquidity*	mliqu	67	.35	5.33	1.63	1.28	1.06	1.56	.30	2.28	.58
Return on assets *	mroa	67	-.09	.41	.10	.103	.08	.62	.30	1.63	.58
Product diversification	mpdi	67	.00	1.00	.52	.50	.27	.20	.30	-.60	.58
Geographical diversification	mgdi	67	.00	1.00	.46	.46	.29	.06	.30	-.82	.58
Employee enhancement	epn	67	.03	6.0	1.15	.72	1.25	2.14	.30	5.25	.58
Institutional shareholdings	mownin	66	.06	.91	.43	.46	.22	.12	.30	-.90	.58
Directors' shareholdings*	mownma	66	.00	.57	.03	.00	.10	4.23	.30	18.44	.58
Board Structure	mbst	67	.08	1.00	.67	.69	.18	-.53	.30	.39	.58
Member of sustainability association	mmeb	67	.00	3.00	1.24	1.0	1.12	.36	.30	-1.26	.58
Board member with environmental duties	mmed	67	.00	1.00	.73	1.0	.45	-1.0	.30	-.95	.58
Size	msiz	67	1.81	6.07	4.0	3.9	.73	-.10	.30	1.41	.58
Country dummy1	cdum1	67	.00	1.00	.36	.00	.48	.60	.303	-1.68	.58
Country dummy2	cdum2	67	.00	1.00	.33	.00	.47	.75	.30	-1.49	.58
Industry	minds	67	.00	1.00	.54	1.0	.49	-.19	.30	-1.98	.58
Assurance	massr	67	.00	1.00	.62	1.0	.48	-.50	.30	-1.75	.58
Sustainability/environmental, ethical and whistle blower policy1	minpo1	67	.00	1.00	.58	0.5	.45	-.33	.30	-1.70	.58
Sustainability/environmental, ethical and whistle blower policy2	minpo2	67	.00	1.00	.30	0.0	.44	.85	.30	-1.13	.58
Firm age	fage	67	.04	1.77	.59	.59	.42	.52	.30	-.47	.58
Leverage	mlev2	66	.26	1.02	.72	1.08	.14	-.73	.30	.72	.58

*Skewness statistics < 0-3*s.e.

Table 8.1 presents information on 67 multinational companies. These companies comprise 34 sensitive (energy intensive) and 33 non-sensitive (non-energy intensive) companies (see sect. 6.4.1.3). The skewness and kurtosis values support concluding normality in the distribution of the scores of the predictors with the exception of Tobin's Q, percentage of directors' shareholdings, liquidity and return on assets. These predictors were transformed and results are discussed in Table 8.2 below.

8.3 Transformation of Independent Variables

The descriptive statistics for 20 predictors in the study sample (2008 and 2009 combined) were presented in Table 7.7 in Chapter 7. The 20 predictors considered for this study were Tobin's Q, liquidity, return on assets, product diversification, geographical diversification, employee enhancement, institutional shareholdings, directors' shareholdings, board structure and size. Other predictors were industry, assurance, internal policy 1, internal policy 2, firm age, leverage, member of sustainability association, board member with environmental duties, country dummy1 and country dummy 2. However, skewness and kurtosis values did

not support the normality assumption with respect to the distribution of scores for several of the independent variables, namely Tobin's Q, directors' shareholdings, liquidity and return on assets. Osborne (2002) suggested transformation of such variables to improve their normality through the square root, logarithm or inverse functions. The logarithm function was applied in transformation of Tobin's Q, director's shareholdings, liquidity and return on assets in order to reduce the extent of positive skew. The descriptive statistics for the transformed predictors are presented in Table 8.1.

Table 8.2: Descriptive Statistics of Transformed Predictors

	N	Minimum	Maximum	Mean	Standard. Deviation	Skewness		Kurtosis	
						Statistic	Standard Error	Statistic	Standard Error
Log of mean Tobin's Q	67	-.59	.78	.05	.26	.16	.29	.29	.60
Log of mean Return on assets	61	-2.06	-.39	-1.04	.34	-.76	.31	.54	.61
Log of mean Liquidity	67	-.46	.73	.14	.26	.14	.30	-.07	.60
Log of percentage mean of Directors shareholdings	65	-4.12	-.25	-2.68	.95	.78	.30	.04	.60

The log transformed predictors, Tobin's Q, return on assets, liquidity and of director's shareholdings showed skewness values of 0.160, -0.761, 0.135 and 0.776, respectively which were within normality tolerances. Hence, the $\log_{10}$ transformations of these predictors were used in all subsequent analyses.

8.3.1 Correlations

The Pearson correlation coefficients amongst the predictors are presented in Appendix 2. The correlations showed significant positive interrelationships between directors' shareholdings and geographical diversification, board structure and institutional shareholdings; return on assets and product diversification; liquidity and return on assets, Tobin's Q and return on assets and Tobin's Q and liquidity at $p \leq 0.05$ level. On the other hand, product diversification and size, board structure and size, board structure and directors' shareholdings; and firm age and directors' shareholdings were significantly negatively correlated at $p \leq 0.05$ level. There were no significant interrelationships between the other predictors.

Also, multicollinearity was an issue to be considered carefully in regression analysis (Kutner, Nachtsheim, and Neter 2004); the correlations were checked for patterns suggesting multicollinearity. Correlations exceeding 0.80 indicate average levels of multicollinearity whilst correlations above 0.95 depict extreme levels of multicollinearity (Grewal, Cote and

Baumgartner 2004). None of the predictors displayed correlations of 0.80 or above. This indicated that multicollinearity was not a concern in this study.

8.4 Hierarchical Regression Analyses

One objective of this study was to test empirically which endogenous and exogenous factors influence the level of sustainability practices and reporting in companies operating in both developed and emerging economies. Based on existing literature, the GRI (G3) performance indicators were adopted and transformed into three sets of dependent variables: environmental GRI performance indicator domain; social GRI performance indicator domain; and economic GRI performance indicator domain. Several contextual and non-contextual factors were also identified as independent variables likely to influence sustainability reporting. A confidence interval interpretation of the z-score method for assessing skewness and kurtosis recommended by Allen and Bennett (2010, p.38) for diagnosing the normality of a distribution, was used to select the variables in this study. This confidence interval criterion embodied the rule that a skewness value falling in the interval bounded by plus/minus twice the standard error of skewness suggests a normal distribution. Similarly, a kurtosis value falling in the interval bounded by plus/minus twice the standard error of kurtosis also suggests a normal distribution. Thus, variables showing skewness values less than or equal to +/-.60 or kurtosis values less than or equal to +/-1.16 were presumed not to significantly deviate from a normal distribution.

The country predictor was not used for further analysis because the sample size within each country was not large enough to enable viable statistical model testing within a country. Since there was no hypothesised main effect due to country, such a predictor was not included in the hierarchical regression models. Instead, the datasets across countries were pooled in order to achieve a workable overall sample size. Differences in relationships between the two years for which data were collected, 2008 and 2009, were not hypothesised and were thus not of interest in this study. Instead, the measurements across the two years for each variable were averaged, prior to all subsequent analyses. This had the additional benefit of producing more reliable individual variable scores in the combined years dataset

After transformation, 14 predictors were finally selected for the hierarchical analyses. Employing hierarchical regression, the relative influence of each of the predictors on the level

of sustainability reporting was analysed. In the hierarchical multiple regression analyses, the individual predictors were assessed for their contribution at the step they were entered into the model. Individual predictors were assessed only if the contribution of the entire set has already been shown to be significant. The predictors for the hierarchical regression were logically grouped into four sets with two variables for the demographics set and four individual variables for each of the other three sets. Table 8.3 presents the sets of predictors and the individual variables.

Table 8.3: Independent Variable Sets

OVERALL MODEL		
Independent Variable Sets	**Individual Independent Variables**	**Explanation of independent variables**
Demographics	Industry - dummy Size	Sensitive=1; non-sensitive =0 Log of sales
Stakeholder (external)	Product diversification Geographical diversification Institutional shareholdings above 3% Assurance-dummy	Sales per segment as a ratio of total sales Asset per segment as a ratio of total assets Institutions owning 3% or more of the total shares Assured=1; non-assured=0
Legitimacy (Internal)	Board structure Directors shareholdings Internal policy1 Internal policy2	Independent non-executive directors' as a ratio of total directors Directors shares as a ratio of total shares Environmental/sustainability policies =1; Ethics=0, whistle-blower policies=0 Environmental/sustainability policies =0; Ethics=0, whistle-blower policies=1
Financial	Leverage Liquidity Return on assets Firm age	Debt as a ratio of Equity Current assets as a ratio of current liabilities Net profit before tax as a ratio of total assets Firm age since incorporation

The set of demographic independent variables comprised industry and size. Industry was a dummy variable with 1 coding for 34 sensitive companies and 0 coding for 33 non-sensitive companies. Stakeholder variables, also known as exogenous or external variables, were product diversification, geographical diversification, assurance and institutional shareholdings in each of the companies. Furthermore, the legitimacy variables, which were also referred to as the endogenous or internal factors, constituted board structure, shareholdings of directors and internal policies. Internal policies were further divided into two dummy variables: internal policy 1 and internal policy 2. Internal policy 1 comprised of 3 codes: 1 (ethics, environmental/sustainability policies), 0 (ethics only) and 0 (ethics, environmental/sustainability and whistle–blower policies). Likewise internal policy 2 comprises 3 codes: (ethics only) as 0, (ethics, environmental/sustainability and whistle–blowing policies) as 1; (ethics, environmental/sustainability policies) as 0. Leverage, liquidity, return on assets and the firm age represented the financial independent variables.

The computed scores on the demographic, financial, legitimacy and stakeholder independent variables and the descriptive statistics were from information on composite variables in Chapter 7, the descriptive statistics and the transformed descriptive statistics of the independent variables (see Sections 8.2 and 8.3 above).The format and order for entering the predictors into the hierarchical regression model in Figure 5.1 was presented in Table 8.3 above and discussed below.

There were nine dependent variables (GRI G3) for which hierarchical regression models were tested. These dependent variables were: water, biodiversity and materials also referred to as the preservation component ; energy and impact of product and services also referred to as the initiatives component; emissions, effluents and waste for the environmental performance indicator also known as the responsibility component; labour/management relations also referred to as development component; product and services also referred to as the information aspect; marketing, communication and compliance - improvement component; employment and training also referred to as the advancement component, which made up the social performance indicator; and indirect economic impact referred to as external investment component in this study and economic performance referred to as value creation component in this study.

Similar to studies such as those carried out by Mason and Mudrack (1997) and Kleinman, Siegel and Eckstein (2002), the set of demographic predictors was entered initially into the hierarchical regression model. This first order entry was designed to initially control for the effect of demographic diversity amongst the companies prior to considering the other sets of theoretically-based factors. This was similar to the order of entry suggested by Cohen et al. (2003).

The next set of four predictors to be entered into the hierarchical regression was the stakeholder predictor set. This study argued that stakeholder theory should be viewed as complementary to legitimacy theory and therefore proposed the inclusion of stakeholder consultation in corporate decision-making in addition to legitimacy through public reporting as an effective way of ensuring accountable and transparent disclosures. On this basis, the stakeholder set of predictors was the additional theoretically-based variable proposed in this study to positively improve accountability and transparency, and contributed to increases in sustainability disclosure when considered before the legitimacy set of predictors.

The stakeholder predictors were regarded as additional variables of relevance and of fundamental importance in this research and therefore, as suggested by Wampold and Freund (1987), considered prior to the legitimacy predictors. Furthermore, legitimacy, which showed adherence to societal norms and expectations, were factors to be considered immediately before disclosure – which also made it appropriate to enter the stakeholder set of independent variables prior to considering the factors that related to legitimacy. The third set of predictors entered was therefore the legitimacy set.

The fourth set of independent variables entered into the hierarchical regression was the financial set of variables. The reason for such an ordering was that achievement of corporate objectives (in this case increases in transparent and accountable sustainability reporting) would require funds from various sources. It was envisaged that the level and type of funding can be determined after demographic, stakeholder and legitimacy factors that could influence improvements in performance have been accounted for and included in corporate strategy.

Furthermore, various studies have found it appropriate to include, in their independent variables, firm age as a measure of corporate performance or growth (see Autio, Sapienza and Almeida 2000; Anderson and Reeb 2003). Similarly, firm age was also included in the financial predictors for this study to determine its effect on improved performance of corporate sustainability disclosure.

8.5 Test of Conceptual Model

A number of hierarchical analyses were performed to test the model illustrated in Figure 5.1 in Chapter 5. Phases in the conceptual model tests are discussed below.

8.5.1 Model II Error

Testing of the conceptual model in this study was performed in several phases. First, a partial F test (refer to Equation 8.1) was used to evaluate the R^2 change at each step in the hierarchical regression model when sets of predictors were entered. Calculation of Partial F-test required the use of Model II error which did not need adjustments to remove any systematic contributions as would be required if the Model I error-based partial F-test reported by SPSS was used. Thus, all partial F tests were re-calculated on the basis of Model II error in accordance with reasoning set out in Cohen et al. (2003). According to Cohen et al.

(2003), the Model II error is the purest form of error where all known systematic predictor influences have been removed, but at a penalty of reduced error degrees of freedom for each test. The formula for recalculating the Partial F-test for squared part correlations using Model II error is shown in (Equation 8.1).

$$\text{partial F} = \frac{R^2_{\text{change}} / df_{\text{change}}}{(1 - R^2_{\text{last step}}) / df_{\text{residual last step}}} \qquad \text{(Eq. 8.1)}$$

(Source: Cohen et al. 2003)

In Equation 8.1, the F for each set of predictors was the results of: the combination of the R^2 change; the degrees of freedom for predictors in the set being tested; R^2 at the final step and the residual degrees of freedom from the final step (Cohen et al. 2003). A Partial F-test was considered significant if $p \leq .05$ and marginally significant if $.05 < p \leq .10$. If the results produced a significant or marginally significant R^2 for any particular set, that set was considered to be worthy of further investigation with respect to individual predictor contributions within the set to variance explanation in the dependent variable. This meant that the contribution of individual independent variables was only examined if the sets of predictors were either significant or marginally significant (a logic similar to that used for evaluating post hoc multiple comparisons in analysis of variance designs). The contribution of each individual predictor to variance explained in the dependent variable was assessed by using a Partial F-test to test its part-correlation at that step. The contribution of individual predictors was measured by sr^2 (squared part or semi-partial correlation) using Model II error. The formula for calculating the Partial F-test for an individual predictor at any particular step is shown in Equation 8.2.

$$\text{partial F}_i = \frac{sr^2_{\text{predictor } i} / 1}{(1 - R^2_{\text{last step}}) / df_{\text{residual last step}}} \qquad \text{(Eq. 8.2)}$$

(Source: Cohen et al. 2003)

In Equation 8.2, the F_i for each individual predictor was determined by the square of the part correlation of the predictor at the level of entry, the results of R^2 at the final step and the

residual degrees of freedom from the final step. Results from the conceptual model are explained below.

8.6 Results and Explanation of Disclosure Outcomes

Results of the hierarchical regression analysis that was used to test the relationship between the predictor sets, individual predictors and the disclosure outcomes are presented below in Tables 8.4 to 8.12. One aspect of each of the tables (Panel A) presented the set of predictors in their order of entry into the hierarchical regression analysis. Specifically, information on R^2 change, degrees of freedom, recomputed (using Model II error) Partial F and Sig. Partial F that related to each predictor set was recorded. Another part of each table (Panel B) presented a list of the variables that were significant in each set of predictors at the step of entry into the regression model, provided information on the part correlation, the p-values of the recomputed Partial F-test and the p-values of significant and/or marginally significant predictors. A separate sub-table also provided details on the overall model for each dependent variable. Information provided relates to the overall R^2, the overall adjusted R^2, the results of the F-test and criterion p-values for judging significant and/or marginally significant predictors.

Results from the hierarchical regression analyses were discussed under the three GRI performance domains, namely; environmental, social and economic indicators. The environmental performance indicator domain consisted of three dependent variable components; four dependent variable components made up the social performance indicator domain, and the economic performance indicator domain consisted of two dependent variable components.

8.6.1 Environmental GRI Performance Indicator Domain

The three components of the environmental performance indicator were water, biodiversity and materials component – also referred to as the preservation aspect; the energy and impact of products and services component – also referred to as the initiatives aspect, and the emissions, effluents and waste component also known as the responsibility aspect. The results for water, biodiversity and materials component, the energy and impact of products, and services component and the emissions, effluents and waste component analyses are provided in tables 8.4, 8.5 and 8.6.

8.6.1.1 Water, Biodiversity and Materials Disclosure (Preservation)

Table 8.4 shows results of disclosure on water, biodiversity and materials component.

Table 8.4: Analysis Predicting Preservation Disclosure

PANEL A					PANEL B			
Variable Set	R^2 Change	df	Partial F	Sig. Partial F	Variable	Part Corr	Partial F[a]	Sig.
Demographics	.130	2	4.269	0.018*	Industry	.339	7.562	0.001*
Stakeholder	.040	4	0.660	0.622	NS			
Legitimacy	.020	4	0.323	0.860	NS			
Financial	.142	4	2.341	0.069 [m]	Firm Age (Log_{10}) Returnon Assets	-.293 .198	5.663 2.576	<0.001* 0.050*

Overall Model	R^2 =.332, adjusted R^2=.119; F (4,44)= 2.341,p = 0.069[m] *≤ .05 considered significant [m] .05<p≤.10 considered marginally significant [a] Partial F for R^2 change and Part Corr. significance tests calculated using Model 11 Error with error df=44

*=p≤0.5; [m] =0.5 ≥p ≤.10

The demographic set of predictors contributed significantly to an explanation of variability in the preservation component (see panel A of Table 8.4). This significant association accounted for 13% of the variance of the preservation disclosure outcomes. Furthermore, the individual variable of industry within the demographic set was significantly predictive of the preservation component (see panel B of Table 8.4). This outcome showed that companies in the sensitive industry sectors were associated with higher levels of disclosure on the preservation component compared to companies in non-sensitive industry sectors.

The set of financial variables contributed significantly to explaining variability in the preservation component (see panel A of Table 8.4). This significant association accounted for an additional 14% of the variance of the environmental disclosure outcomes above the sets preceding the financial set. In addition, the individual variables of firm age and log of return on assets were significantly predictive of the preservation component (see panel B of Table 8.4). This relationship showed that older companies were associated with a decrease in the quantity of disclosure on the preservation component. Similarly, companies with higher return on assets ratios were also associated with increase in the quantity of disclosure on the preservation component. However, stakeholder and legitimacy variable sets were not significant in predicting the preservation component (see panel B of Table 8.4).

8.6.1.2 Energy and Impact of Products and Services (Initiatives)

Table 8.5 shows the results on the energy and impact of products and services component.

Table 8.5: Analysis Predicting Initiatives Disclosure

PANEL A					PANEL B			
Variable Set	R^2 Change	df	Partial F	Sig. Partial F	Variable	Part Corr	Partial F[a]	Sig.
Demographics	.100	2	4.173	0.020*	Size	.316	8.333	<0.001*
Stakeholder	.106	4	2.215	0.079[m]	Assurance	.265	5.857	<0.001*
Legitimacy	.145	4	3.037	0.025*	Board Structure	.364	11.055	<0.001*
Financial	.123	4	2.562	0.051[m]	Firm Age	-.305	7.755	<0.001*

Overall Model	R^2 =.474, adjusted R^2=.306; F (4,44)= 2.562, p =0.051[m] *≤ .05 considered significant [m] .05<p≤.10 considered marginally significant [a] Partial F for R^2 change and Part Corr significance tests calculated using Model 11 Error with error df=44

*=p≤0.5; [m] =0.5 ≥p ≤.10

The demographic set of predictors contributed significantly to explanation of variability in the initiatives component (see panel A of Table 8.5). This significant association accounted for 10% of the variance of the initiative disclosure outcomes. Furthermore, the individual variable of size within the demographic set was significantly predictive of the initiatives component (see panel B of Table 8.5). This result showed that larger companies were associated with higher disclosure on the initiatives component than smaller companies.

The stakeholder set of predictors contributed significantly to explanation of variability in initiatives component (see panel A of Table 8.5) which also accounted for an additional 11% of the variance of the initiatives disclosure outcomes above the sets preceding the stakeholder set. Furthermore, the individual variable of assurance was significantly predictive of the initiatives component amongst the stakeholder variables (see panel B of Table 8.5). This relationship showed that companies with assurance sustainability reports were associated with increase in the quantity of disclosure on the initiatives component.

Furthermore, the legitimacy set of predictors contributed significantly to explaining variability in the initiatives disclosure (see panel A Table 8.5). This significant association accounted for about an additional 15% of the variance of the initiatives disclosure outcomes above the set preceding the legitimacy set. In addition, the individual variable of board structure was significant in predicting the variance in legitimacy on the initiatives component (see panel B Table 8.5). This implies that companies with large numbers of independent non-

executive directors on their boards were associated with increase in disclosure on the initiatives component.

The financial set of predictors contributed significantly to an explanation of variability in the initiatives component (see panel A Table 8.5). This significant association accounted for 12% of the variance of the initiatives disclosure outcomes above the sets preceding the financial set. However, only the variable firm age was significantly predictive of the initiatives component of sustainability disclosure (see panel B Table 8.4). The result showed that, younger companies were associated with more disclosure on the initiatives component than older companies.

8.6.1.3 Emissions, Effluents and Waste (Responsibility)

Below, in Table 8.6, are the results of the analysis on the emissions, effluents and waste component of sustainability disclosure.

Table 8.6: Analysis Predicting Responsibility Disclosure

PANEL A					PANEL B			
Variable Set	R^2 Change	df	Partial F	Sig. Partial F	Variable	Part Corr	Partial F[a]	Sig.
Demographics	.076	2	2.900	0.063[m]	Industry	.267	5.435	0.006*
Stakeholder	.141	4	2.683	0.041*	Assurance	.297	6.731	<0.001*
Legitimacy	.038	4	0.718	0.583	NS			
Financial	.167	4	3.168	0.022*	(Log_{10}) Return on Assets	.361	9.914	<0.001*

Overall Model	R^2 =.422;adjusted R^2=.238; F (4,44)= 3.168, p =0.022* *≤ .05 considered significant [m] .05<p≤.10 considered marginally significant [a] Partial F for R^2 change and Part Corr significance tests calculated using Model 11 Error with error df=44

*=p≤ 0.5; [m] =0.5 ≥ p ≤.10

The demographic set of predictors contributed significantly to an explanation of variability in the responsibility component (see panel A of Table 8.6). This significant association accounted for about 8% of the variance of the responsibility disclosure outcomes. Furthermore, the individual variable of industry within the demographic set was significantly predictive of the responsibility component (see panel B of Table 8.6). This outcome indicated that companies in the sensitive industry sector were associated with increased levels of disclosure on the responsibility component compared to companies in non-sensitive industries.

The stakeholder set of predictors at step 2, contributed significantly to the explanation of variance in the responsibility component (see panel A of Table 8.6). This significant association accounted for an additional 14% of the variance of the responsibility disclosure outcomes above the sets preceding the stakeholder set. Still at step 2, the individual variable of assurance was significantly predictive of the responsibility component (see panel B of Table 8.6). This relationship showed that companies with assurance sustainability reports were associated with increased quantity of disclosure on the responsibility component.

At step 4, the financial set of predictors contributed significantly to explaining variability in the responsibility component (see panel A of Table 8.6). This significant association accounted for about 17% of the variance of the responsibility disclosure outcomes above the sets preceding the financial set. Also at step 4, only return on assets was significantly predictive of the responsibility component (see panel B of Table 8.6). The result showed that companies with higher levels of return on assets ratios were associated with increased disclosure on the responsibility component compared to older companies.

8.6.2 Social GRI Performance Indicator Domain

The four components of the social performance indicator were labour/management relations component – also referred to as development aspect in this study, product and services component – also referred to as the information aspect. Others were the compliance and communication component – also known in this study as the improvement aspect, and the communication, employment and training component – also referred to as the advancement aspect.

8.6.2.1 Labour/Management Relations Disclosure (Development)

Results of disclosure on labour/management relations component is shown below in Table 8.7.

Table 8.7: Analysis Predicting Development Disclosure

PANEL A					PANEL B			
Variable Set	R^2 Change	Df	Partial F	Sig. Partial F	Variable	Part Corr	Partial F[a]	Sig.
Demographics	.113	2	3.782	0.028*	Industry size	.283 .205	5.360 2.794	0.007* 0.069[m]
Stakeholder	.059	4	0.990	0.420	NS			
Legitimacy	.032	4	0.535	0.710	NS			
Financial	.137	4	2.286	0.075[m]	Firm Age (Log_{10}) Return on Assets	-.224 .243	3.360 3.950	0.017* 0.007*

Overall Model	R^2 =.341;adjusted R^2=.132; F (4,44)= 2.286; p =0.075[m] *≤ .05 considered significant [m] .05<p≤.10 considered marginally significant [a] Partial F for R^2 change and Part Corr significance tests calculated using Model 11 Error with error df=44

*=p≤ 0.5; [m] =0.5 ≥ p ≤.10

The demographic set contributed significantly to explaining variability in the development component (see panel A of Table 8.7). This significant association accounted for 11% of the variance of the development disclosure outcomes. Furthermore, the variables of industry and size within the demographic set were significantly predictive of the development component (see panel B of Table 8.7). This implies that companies in the sensitive industry sectors were associated with higher levels of disclosure on the development component compared to companies in non-sensitive industries. Also, larger companies were associated with marginal levels of increased disclosure on the development component.

Furthermore, the financial set of predictors contributed significantly to an explanation of variability in the development component (see panel A of Table 8.7). This significant association accounted for about 14% of the variance of the development disclosure outcomes above the sets preceding the financial set. In addition, the individual variables of firm age and return on asset were significantly predictive of the development component (see panel B of table 8.7). This result showed that older companies were not significantly associated with higher disclosure on the development component. On the other hand, companies with higher levels of return on asset ratio were associated with higher disclosure on the development component.

8.6.2.2 Product and Services Disclosure (Information)

Results of disclosure on products and services component are shown below in Table 8.8.

Table 8.8: Analysis Predicting Information Disclosure

PANEL A					PANEL B			
Variable Set	R^2 Change	df	Partial F	Sig. Partial F	Variable	Part Corr	Partial F[a]	Sig.
Demographics	.173	2	6.994	0.001*	Industry	.394	12.577	<0.001*
Stakeholder	.079	4	1.592	0.190	NS			
Legitimacy	.067	4	1.358	0.262	NS			
Financial	.138	4	2.795	0.037*	Firm Age (Log_{10}) Return on Asset	-.206 .276	3.425 6.170	0.015* <0.001*

Overall Model	R^2 =.457; adjusted R^2=.284; F (4,44)= 2.795; p =0.037* *≤ .05 considered significant [m] .05<p≤.10 considered marginally significant [a] Partial F for R^2 change and Part Corr significance tests calculated using Model 11 Error with error df=44

*=p≤ 0.5; [m] =0.5 ≥ p ≤.10

The demographic set of predictors contributed significantly to explaining variability in the information component (see panel A of Table 8.8). This significant association accounted for 17% of the variance of the information disclosure outcomes. Furthermore, the individual variable of industry within the demographic set was significantly predictive of the information component (see panel B of Table 8.8. This showed that companies in the non-sensitive industry sectors were not associated with higher disclosure on the information component compared to companies in sensitive industries.

The financial set of predictors contributed significantly to explaining variability in the information component of sustainability disclosure (see panel A of Table 8.8). This significant association accounted for almost 14% of the variance of the information disclosure outcomes above the sets preceding the financial set. In addition, the variables of firm age and return on asset were significantly predictive of the information component (see panel B of Table 8.8). This result indicated that younger companies were significantly associated with increased disclosure on the information component. Furthermore, companies with lower levels of return to asset ratios were associated with decreased disclosure on the information component.

8.6.2.3 Marketing, Communication and Compliance Disclosure (Improvement)

Results of disclosure on marketing, communication and compliance are shown below in Table 8.9.

Table 8.9: Analysis Predicting Improvement Disclosure

PANEL A					PANEL B			
Variable Set	R^2 Change	df	Partial F	Sig. Partial F	Variable	Part Corr	Partial F[a]	Sig.
Demographics	.052	2	1.773	0.179	NS			
Stakeholder	.099	4	1.678	0.168	NS			
Legitimacy	.079	4	1.335	0.270	NS			
Financial	.124	4	2.114	0.095[m]	Firm Age (Log_{10}) Return on Asset	-.226 .219	3.489 3.251	0.014* 0.020*

Overall Model	R^2 =.354; adjusted R^2=.148; F (4,44)= 2.114; p =0.095 [m] *≤ .05 considered significant [m] .05<p≤.10 considered marginally significant [a] Partial F for R^2 change and Part Corr significance tests calculated using Model 11 Error with error df=44

*=p≤ 0.5; [m] =0.5 ≥ p ≤.10

The financial set of predictors contributed significantly to an explanation of the improvement component (see panel A of Table 8.9). This significant association accounted for 12% of the variance of the improvement disclosure outcomes above the sets preceding the financial set. In addition, the variables of firm age and return on asset were significantly predictive of the improvement component (see panel B of Table 8.9). This result indicated that older companies were not significantly associated with increased disclosure on the improvement component. On the other hand, companies with high levels of return to asset ratio were associated with increase disclosure on the improvement component.

8.6.2.4 Communication, Employment and Training Disclosure (Advancement)

Results of disclosure on communication, employment and training are shown in Table 8.10.

Neither the demographic set, stakeholder set, legitimacy set nor the financial sets contributed significantly to explaining variability in the advancement component (see panel A of Table 8.10).

In accordance with Section 8.5.1 above, since none of the sets in the advancement component produced a significant or marginally significant R^2 neither of the sets were considered worthy of further investigation. In other words, the contributions of individual independent variables were not examined.

Table 8.10: Analysis Predicting Advancement Disclosure

PANEL A					PANEL B			
Variable Set	R^2 Change	df	Partial F	Sig. Partial F	Variable	Part Corr	Partial F[a]	Sig.
Demographics	.067	2	2.174	0.123	NS			
Stakeholder	.076	4	1.219	0.314	NS			
Legitimacy	.067	4	1.081	0.376	NS			
Financial	.107	4	1.725	0.161	NS			

Overall Model	R^2 =.317; adjusted R^2=.100; F (4,44)= 1.725; p =0.161 *≤ .05 considered significant [m] .05<p≤.10 considered marginally significant [a] Partial F for R^2 change and Part Corr. significance tests calculated using Model 11 Error with error df=44

*=p≤ 0.5; [m] =0.5 ≥ p ≤.10

8.6.3 Economic GRI Performance Indicator Domain

The two components of the economic performance indicator were indirect economic impact– also referred to as external investment aspect in this study, and the economic performance component – referred to as the value creation aspect.

8.6.3.1 Indirect Economic Impact Disclosure (External Investment)

Results of disclosure on indirect economic impact component are shown below in Table 8.11.

Table 8.11: Analysis Predicting External Investment Disclosure

PANEL A					PANEL B			
Variable Set	R^2 Change	df	Partial F	Sig. Partial F	Variable	Part Corr	Partial F[a]	Sig.
Demographics	.085	2	2.710	0.075 [m]	Industry	.242	3.716	0.030*
Stakeholder	.122	4	1.936	0.118	NS			
Legitimacy	.044	4	0.699	0.595	NS			
Financial	.056	4	0.887	0.479	NS			

Overall Model	R^2 =..307; adjusted R^2=.087; F (4,44)= 0.887; p =0.047 *≤ .05 considered significant [m] .05<p≤.10 considered marginally significant [a] Partial F for R^2 change and Part Corr. significance tests calculated using Model 11 Error with error df=44

*=p≤ 0.5; [m] =0.5 ≥ p ≤.10

The demographic set of predictors contributed significantly to an explanation of variability in the external investment component (see panel A of Table 8.11). This significant association accounted for about 9% of the variance of the external investment disclosure outcomes. Also, the individual variable of industry was significantly predictive of the external investment

component (see panel B of table 8.11). This showed that companies in the sensitive industry sectors were associated with higher levels of disclosure on the external investment component compared to their counterparts in the non-sensitive industry sector.

8.6.3.2 Economic performance Disclosure (Value Creation)

Results of disclosure on economic performance component are shown below in Table 8.12

Table 8.12: Analysis Predicting Value Creation Disclosure

PANEL A					PANEL B			
Variable Set	R^2 Change	df	Partial F	Sig. Partial F	Variable	Part Corr	Partial F[a]	Sig.
Demographics	.017	2	0.584	0.560	NS			
Stakeholder	.122	4	2.120	0.091[m]	Assurance	.325	7.306	<0.001*
Legitimacy	.095	4	1.646	0.177	NS			
Financial	.131	4	2.270	0.076[m]	Leverage (Log_{10}) Return on Assets	.176 .278	2.142 5.363	0.091[m] 0.001*
Overall Model	R^2 =.365; adjusted R^2=.163; F (4,44)= 2.270; p =.076 *≤ .05 considered significant [m] .05<p≤.10 considered marginally significant [a] Partial F for R^2 change and Part Corr. significance tests calculated using Model 11 Error with error df=44							

*=p≤ 0.5; [m] =0.5 ≥ p ≤.10

The stakeholder set of predictors contributed significantly to an explanation of variability in the value creation component (see panel A of Table 8.12). This significant association accounted for an additional 12% of the variance of the sustainability disclosure outcomes above the sets preceding the stakeholder set. In addition, the individual variable of assurance was significantly predictive of the value creation component (see panel B of Table 8.12).This relationship showed that companies without assurance sustainability reports were associated with significant decrease in the quantity of disclosure on the value creation component.

The financial set of predictors contributed significantly to an explanation of variability in the value creation component (see panel A of Table 8.12). This significant association accounted for 13% of the variance of the sustainability disclosure outcomes above the sets preceding the financial set. In addition, the variables of firm age and return on assets were significantly predictive of the value creation component (see panel B of Table 8.12). This outcome implies that companies with higher leverage were associated with higher disclosure on the value creation component. On the other hand, companies with lower return on assets ratios were associated with decrease in the value creation component of sustainability disclosure.

8.7 Discussion of Disclosure Outcomes

8.7.1 Preservation Component

The significant relationship that existed between sensitive-industries and the preservation component in the current study supported the argument made in prior studies (see Gray et al. 2001; Reverte 2009; Gamerschlag, Moller and Verbeeten 2011). Prior studies and the current study showed that society was more likely to demand evidence of better responsible environmental management, from corporations whose activities posed a lot of danger to the environment than from corporations whose activities were less environmentally risky. To show evidence of responsibility, high environmental polluters would have to increase disclosure on both the environmental impact of their operations and efforts put in place to reduce this impact. The outcome from this study, that companies in the sensitive industry sector were associated with increase in the preservation component, supported the findings of Gray et al. (2001); Reverte (2009); and Gamerschlag et al. (2011*)*. However, these results contradicted those of Branco et al. (2008) who reported significant relationship in disclosure for both sensitive and non-sensitive industry sectors.

Companies enjoyed competitive advantage over their peers when they disclosed information in accordance with stakeholder expectations. It was argued that younger corporations that desired to assure stakeholders (especially investors) of their ability to stay as going concerns and perform efficiently into the future, would have to publicly disclose more information on their operations than older companies that had already established their reputation within society (Lang 1991). As such, younger companies rather than older companies would disclose more information on their sustainability activities to prove to the public that they were less risky, in order to attract more investment. In agreement with the above discussion Yao, Wang and Song (2011) reported a negative relationship between firm age and sustainability disclosure. The result of this study conformed to both the report of Yao et al. (2011) and $H_{5,}$ which stated that younger companies would disclosure more information on their sustainability activities than older companies.

According to Orlitzky et al. (2003), a company's internal efficiency was a measure of its return on assets ratio. Thus, companies with a high return on assets ratio were associated with efficiency in their internal performance. Since good news was value-relevant on capital markets, companies with high return on assets ratios were likely to disclose more information

publicly than their counterparts with lower return on assets ratios. In support of the above argument and that of Bodkin et al. (2004) and Aerts et al. (2006), the current study also reported a positive relationship between return on assets and the preservation component of sustainability disclosure. This outcome was also supportive of H_3 that companies with higher return on assets would disclose more information on the preservation component in sustainability reports than companies with lower return on assets ratios.

8.7.2 Initiatives Component

Larger companies are more politically visible than smaller companies and therefore likely to be scrutinised more by society. Also, the operations of larger companies were likely to have more impact on the environment than the operations of smaller companies. In other words, any negative operational impact by larger companies would cause extensive environmental damage (Artiach, Lee, Nelson and Walker 2010). In view of this, larger companies would publicly disclose more information on their sustainability activities to reassure society of efforts made to mitigate any such negative impacts. Larger companies also enjoy economies of scale and are, therefore, endowed with more resources for collecting and processing their social responsibility data than are smaller companies (Alsaeed 2006). This is because larger companies are able to raise more funds from numerous sources than their smaller counterparts. In effect, the large amount of capital and resources available to larger companies were incentives for such companies to publicly increase their sustainability disclosure.

The 2002 KPMG survey on sustainability reporting stated that primary stakeholders could demand from companies an improvement in their reputation regarding their social responsibility (Kolk et al. 2010). The literature also suggested that companies could improve their reputation through assurance of their sustainability reports. In effect, assured sustainability reports increased stakeholder confidence in the credibility and transparency of sustainable development activities performed by corporations as well as information disclosed from such activities (KPMG 2005). In pursuant of the above, it had been suggested that, a relationship may exist between assurance of sustainability reports and disclosure (see Adnan et al. 2010). However studies on this relationship are scarce (Hasan et al. 2005). Shum, et al. (2009), in one of such few studies, reported no significant relationship between assurance and sustainability reporting. However, the outcome from this study did not support

the findings of Shum et al. (2009). This study found a significant relationship between companies that had assured their sustainability reports and the initiatives component of sustainability disclosure. Also, results from the current study supported H_{11} that multinational companies which assured their sustainability reports were likely to increase their level of disclosure.

Prior studies have acknowledged the need for corporations to reform the structure of their boards and duties of their board members with regard to monitoring and control as well as policy formulation (Ghosh 2006). The restructuring was necessary to ensure continuous operations. In view of this, agency theory was in favour of companies that employed majority independent non-executive directors on their corporate boards (Jensen et al. 1976). Likewise, the ASX, in its best governance principles, encouraged corporations to allocate a larger proportion of their board membership to independent non-executive directors. The reason was that the role of independent non-executive directors was limited with regards to corporate internal activities. This made independent non-executive directors more likely to support the interest of all stakeholders since their interests were more aligned with the owners and primary stakeholders of the company (Bonn 2004). Consequently, non-executive directors were likely to push for the increased disclosure of sustainability information expected by stakeholders. The above discussion was similar that of Barako and Brown (2008) and Rouf (2011) that higher numbers of independent non-executive board directors were significantly related to increased sustainability disclosure. The result from this study supported Barako et al. (2008) and Rouf (2011), and $H_{6.}$

In suggesting that firm age was significantly related to environmental disclosure, Roberts (1992) argued that newly listed corporations had not been in operation for a long period and therefore were less likely to have as many sustainability issues to disclose as do older corporations. Parsa and Kouhy (2008) also stated that, because publicly disclosed information on the capital market was value relevant, younger corporations might be deterred from disclosing a lot of information on their sustainability operations for fear of such information negatively impacting on their competitiveness. Contrary to the above, Elsayed (2006) was of the opinion that younger corporations were not held back by any past information on their operations. Thus, they were likely to disclose more information on their environmental activities and policies implemented to manage any negative impact of such activities. In effect, younger corporations would be able to improve their reputation and create a positive

image to their stakeholders. Elsayed (2006) therefore suggested the existence of a negative relationship between firm age and sustainability disclosure. This report was supported by the results from the study and $H_{5,}$ which predicted that younger companies would disclosure more information on their sustainability activities than older companies.

8.7.3 Responsibility Component

Similar to this study, prior studies have described corporations in the mining, oil and gas, chemicals and construction industries as sensitive industries (see Brammer et al. 2006; Reverte 2009). Society has criticised such sensitive corporations for the environmental damage caused by their operations either through pollution or resource depletion (Branco et al. 2008). Since the negative impact of their operations were likely to tarnish their reputation, sensitive companies were expected to inform society, especially their stakeholders, through increased disclosure of efforts implemented to manage or mitigate these environmental risks. In support of the above discussion, Patten (1992) stated that after the Exxon Valdez oil spill in North America, oil companies increased their environmental disclosures as a way of protecting their reputation. This discussion also confirmed the report by Gray et al. (2003) that companies in environmentally sensitive industries were likely to increase their disclosure. This report was supported by the outcome of the current study that companies in the sensitive industry sector would increase their disclosure on the responsibility component.

Current reports have shown an increase in corporations seeking assurance for their sustainability reports (Zadek et al. 2004). In addition to other reasons, this increase in assurance was also ascribed to an increase in sustainability assurance guidelines issued by various institutions such as AccountAbiliity and the European Federation of Accountants (Deegan et al. 2006). Although sustainability assurance was in its formative stages when compared to assurance of financial statements (audit reports), several companies sought third-party independent engagement for their sustainability disclosures in order to improve the reliability and credibility of such statements (Kolk et al. 2010). Also, it was envisaged that corporations operating in countries that enforced sustainability reporting would seek assurance of such statements to prove transparency and credibility (Kolk et al. 2010) of information reported. Furthermore, since third party assurance engagements were expensive especially when engaging any of the 4 big audit firms, corporations were likely to improve upon their level of disclosures before seeking assurance for their sustainability reports (Shum

et al. 2009). Improvement in the level of disclosure was likely to result in increase in the quantity and quality of information provided to stakeholders. Examples of such improvements include: implementation of effective and efficient processes; as well as a more efficient way of managing environmental impact of operations including that pertaining to the responsibility component.

This argument was supported by the outcome of this study which found a significant relationship between assurance and the responsibility component. This result was further strengthened by the findings of Adnan et al. (2010) and H_{11} which also predicted a significant relationship between assurance and sustainability disclosure.

Outcome of the return on asset ratio was essential to stakeholders, especially majority shareholders because the ratio informed them of the efficient use of corporate assets in the generation of income. It could, therefore, be said that companies with high return on asset ratios indicated their ability to use corporate assets to generate extra earnings/income. Stakeholders viewed such companies as profitable and were willing to invest their capital into these companies. Subsequently, companies with high return on assets ratios were able to raise equity capital at a lower rate than their counterparts with low return on assets ratios. The extra equity capital raised and the earnings generated from efficient use of assets could be employed by such companies to improve their sustainability programs and processes. Results of improvements (which are likely to include reduction in ecological depletion, recycling of waste, the use of renewable sources of energy and its subsequent emissions reduction) would be disclosed because such information was value-relevant on capital markets. It was, therefore, argued that companies with higher return on asset ratios would be able to disclose more sustainability information than companies with lower equity of asset ratios (Bodkin et al. 2004). The outcome of this study supported this argument; the results showed that companies with higher return on assets would increase disclosure on the responsibility component. H_3 was also supported.

8.7.4 Development Component

Literature posits industry as one of the factors that can impact on voluntary social disclosure. Specifically, literature envisaged that larger corporations would disclose more information on their sustainability activities. Furthermore, companies in the utility, oil and gas and industrial goods sectors may have been accorded the status of sustainability leaders because they source

large amounts of equity capital to engage in various sustainability programs to the benefit of both the communities in which they operate and all stakeholders. Companies in such industry sectors were included in the group referred to by this study as sensitive industries.

From the above observation, it is envisaged that sustainability leaders in these sensitive industries will collate large volume of information from their numerous activities and subsequently publicly disclose this information. In effect, companies in sensitive industries, which were also referred to as sustainability leaders, were likely to disclose more information than their peers in the non-sensitive industry sector. This argument had also been made by (Ho et al. 2007; Lim et al. 2007).

The outcome of this study supported the argument and showed the existence of a significant relationship between sensitive industries and the development component. It was argued that larger corporations in the resource sector were likely to emit high volumes of polluted emissions due to the nature of their operations. Such corporations are therefore constantly under public scrutiny as society exerts pressure on them to put systems in place to mitigate the negative ecological and social impact of their activities (Artiach et al. 2010). Constant communication to the public was therefore necessary to avoid any negative implications on corporate reputation. Increase in the amount of disclosure was also likely to reduce external pressures on such corporations. Furthermore, larger companies with large numbers of sustainability programs were likely to realise economies of scale in their data collection and processing and would therefore be able to produce large volumes of information for disclosure to their stakeholders (Artiach et al. 2010). In support of the above argument (Jones et al. 2007, Elijido-Ten 2011) reported a significant association between larger corporations and increase sustainability disclosure. On a similar note, the outcome of this study showed a significant relationship between larger companies and the development component.

The age factor has been suggested by researchers as likely to affect social disclosure (see Roberts 1992; Haniffa et al. 2002; Michelon 2007). Contrary to expectations, unlike older companies who: have formed their reputation over several years; and have been able to capture a portion of the market and may therefore not disclose any negative information for fear of adverse repercussions, younger companies would, rather, increase their level of disclosure to lessen the uncertainty surrounding their future performance. Also, younger companies do not have any past information to hold back as they are yet to create an impact

on capital markets. Consequently, younger companies were more likely to communicate more to stakeholders through increased disclosure (Elsayed 2006) of their sustainability activities (including innovations made to their products and services) than their older counterparts.

Studies such as those by Elsayed (2006) and Yao et al. (2010) reported negative relationships between firm age and sustainability disclosure. Likewise results from this study supported the outcome from both studies and reported the existence of a negative relationship between firm age and increase in disclosures of the development component. Thus $H_{5,}$ which predicted that younger companies would disclose more sustainability information, was supported.

Corporations with high return on assets ratios were likely to be poorly rated on capital markets. This may happen because a company with high return on assets ratio was considered by the capital market as being more internally efficient and therefore more profitable than a company with low return on asset ratio (Moore 2001; Orlitzky et al. 2003). Furthermore, this meant that socially responsible corporations with high return to assets ratios were deemed profitable and would be encouraged to disclose more information on their sustainability activities.

Aerts et al. (2006) and Bodkin et al. (2004) supported this argument. The outcome from this study also supported the above argument and found a significant relationship between return on assets ratio and the development component. H_3 was also supported.

8.7.5 Information Component

Companies in the mining, chemical and energy industry sectors belonged to the 'risky' or 'sensitive' industry sector (Young and Marais 2001). Also, because their operations impacted negatively on humans and the environment, such companies were expected to increase disclosure to show their compliance with social values and expectations as well as improvements of their processes. Thus, such sensitive companies increased disclosures on their sustainability activities as a response to public scrutiny. Further, sensitive companies increased disclosure to reduce reputational damages by showing their accountability towards societal resources entrusted to them (Branco et al. 2008). Findings from studies, including those by Gray, et al. (2003) and Reverte (2009), supported the above argument and reported that companies in the sensitive industry sectors produced more sustainability disclosure than

their counterparts in the non-sensitive industry sectors. Such findings were supported by results of the current study, which also stated that a significant relationship existed between sensitive companies and the information component.

Capital markets were likely to reward corporations that had listed on stock exchanges over a long period of time and had created good reputation through information disclosed in their annual and sustainability reports. These corporations might be able to attract more equity capital than their peers, thereby lowering their cost of capital (Clarkson et al. 2008). Lower cost of capital meant more resources to collect and process data. The larger the amount of information processed the more disclosure corporations would be able to make to their stakeholders. On the other hand, newly listed corporations were yet to make an impact on capital markets and were therefore not likely to attract large amount of equity capital. As such, younger companies might not also be able to lower their cost of capital. Therefore, in order to improve their reputation and be rewarded by capital markets, younger corporations would have to continuously communicate to their stakeholders through increased disclosures of their efficient performance and continuous contributions towards social welfare and economic development.

In support of the above argument, Haniffa et al.'s (2002) study found a significant relationship between firm age and disclosure. This finding was confirmed by the outcome of this study, which also found a significant relationship between younger companies and increased disclosure on the information component. $H_5$was also supported by this outcome.

Companies with high return on assets ratios were likely to be rated high in their earnings performance and, as such, regarded as efficient in managing their internal resources (Orlitzky et al. 2003). Previous studies have also reported that companies with high return on assets ratios were likely to continuously and publicly disclose in-depth information about their activities and achievements (Ho et al. 2007) because of access to extra resources. Likewise, socially responsible companies with high return on assets depicting high earnings performance would also disclose more information on their contributions to community enhancement activities and social development in general.

The above argument was supported by the finding from studies by Aerts et al. (2006) and Bodkin et al. (2004). Similarly, the outcome of this current study supported the hypothesis

that a significant relationship exists between higher return on assets and higher disclosure of the information component. The outcome supported $H_{3.}$

8.7.6 Improvement Component

In accordance with stakeholder expectations, companies reported their sustainability outcomes to provide stakeholders with information on corporate responsiveness to social responsibility. Aside the requirements of socially responsible investors and other report users, sustainability rating corporations also required information on corporate sustainability to determine which companies were more socially responsible than others. Sustainability rating institutions collected and processed information material from corporate sustainability reports and analysed such information for interested parties, including investors. Companies that had listed on the capital markets for longer periods with the above attributes were conversant with sustainability information requirements of rating institutions. They would, therefore, be able to produce such information at a lower cost than newly listed companies. Lower cost of production results in the ability to produce more relevant disclosures. Furthermore, older companies that were able to disclosure more relevant information would be able to attract more equity capital at a lower cost than their younger counterparts (Clarkson et al. 2008).

It could be deduced from the above discussion that a significant positive relationship was likely to exist between older companies and increased sustainability disclosure. The current study did not support this deduction: it found that a significant negative relationship existed between older companies and the improvement component. Nonetheless, H_5 was supported by the outcome.

Stakeholders, especially investors and creditors were concern with the ability of corporations to improve earnings by good asset management and thereby improved internal efficiency. This implied that good asset management and internal efficiency were the benchmarks for companies with high return on assets ratios. It follows that companies with high return on assets ratios were considered by the capital market and report users to be more efficient and profitable than companies with low return on assets ratios (Geringer et al. 2000). Highly efficient companies were also expected to be endowed with more resources for collecting, processing data and subsequently increasing their disclosure. Likewise, socially responsible companies with high return on assets ratios depicting high earnings performance would also

disclose more information on their contributions on community enhancement activities and socio-economic development in general.

The above argument was supported by the findings of Aerts et al. (2006) research. Likewise the current study found a significant relationship between return on assets and the improvement component. H_3 was supported.

8.7.7 External Investment Component

Companies operating in sensitive industry sectors were mostly under scrutiny by the public to ensure their activities did not deplete natural resources or caused extensive pollution to the environment. Such companies would therefore have to continuously disclose information to the public on measures they put in place to reduce their environmental footprints; the measures they used in order to manage or avoid extensive damage to natural resources and subsequently the environment. In addition, companies in sensitive industrial sectors were required to disclose publicly their contributions towards community welfare, social advancement and economic development (Michelon 2011). Furthermore, since companies in similar industry sectors were likely to adopt similar disclosure patterns, it was envisaged that companies in the sensitive sectors would disclose more sustainability information if their peers were disclosing the same. Also, Oyelere et al. (2003) argued that the inability of any company in a particular industry sector (for example, sensitive industry sector) to increase disclose in line with its peers would be interpreted externally and by the markets as efforts made to hide negative news.

From the above discussion it would be expected that companies in the sensitive industry sectors would have greater rates of disclosure than companies in the non-sensitive industry sector. Ho et al. (2007) reported a significant relationship between industry and social and environmental disclosure. Similarly, the outcome of this study also reported a significant association between companies in the sensitive industry sector and the external investment component.

8.7.8 Value Creation Component

An analysis of the literature found that the ability to produce and implement the use of innovative and renewable products in accordance with stakeholder expectations to improve corporate sustainability performance depicted a form of transparency and accountability

(Dando et al. 2003). However, this level of transparency and accountability might be insufficient to earn stakeholder credibility as a demonstration of corporately active performance in sustainable development projects. It was also envisaged that the level of control exerted by management over the process and reporting of sustainability information would allow disclosure of more positive information that would enhance the corporate image, and a concealment of the negative practices that depicted corporate irresponsibility (Ratanajongkol et al. 2006).

One way of ensuring completeness and credibility, as well as enhancing transparency and accountability in publicly disclosed corporate sustainability information was through seeking third party independent assurance of such reports (O'Dwyer et al. Owen 2005). Third-party independent assurance had, therefore, been reported to have increased stakeholder confidence in the credibility of figures and statements and the overall reliability of sustainability reports (Hodge, Subramaniam and Stewart 2009). Another way of pushing for high levels of transparency and accountability in the corporate sustainability agenda would be through stakeholder responsiveness, reaction and acknowledgement for corporate assured sustainability reports (O'Dwyer, Owen and Unerman 2011). This had been reiterated and supported by empirical results from the current study. With the current increase in corporate sustainability reports (Mock et al. 2010) it would be prudent for stakeholders to push for a similar increase of third party independent assurance to be sought for in these reports. Furthermore, the reduction in value of non-assured sustainability reports to stakeholders (Ridley, D'Silva and Szombathelyi 2011) and the calls for robust third party assurance to provide credibility and completeness to sustainability reports (O'Dwyer et al. 2005) could encourage companies to balance their disclosures by providing both positive and negative news on their sustainability activities. A balanced disclosure in reporting was also likely to improve the quantity and quality of information reported.

In agreement with the above discussion, Adnan et al. (2010) suggested the existence of a significant relationship between assurance of sustainability reports and disclosure. Supporting the suggestion by Adnan et al. (2010), the current study reported a significant relationship between assured sustainability reports and increased disclosure of the value creation component. This outcome confirmed the prediction by $H_{11.}$

An increase in the return on assets ratio was an indication of a company's ability to generate revenue from efficient use of its assets. In effect, companies that depicted high return on assets ratios were considered to be internally efficient and profitable (Orlitzky et al. 2003); and were also likely to benefit from increases in share prices as they become more attractive to various stakeholders especially investors. Additionally, such companies were endowed with excess funds to expand their economic development programs to the benefit of all stakeholders. Likewise, socially responsible companies that expanded their investor base and also benefited from increased share prices were likely to disclose more information on their activities and achievements to the expectation of all stakeholders. On the other hand, others argued that companies with low return on assets ratios would rather increase their disclosure to alleviate or weaken investors, analysts and other stakeholder concerns of their lack of good asset management strategies (Aerts et al. 2006).

Similar to the argument made by Orlitzky et al. (2003), this study reported a significant relationship between return on assets and the value relevant component. This outcome supported H_3.

Companies with high levels of debt in their capital structure were externally classified as risky and monitored by debt holders or creditors (Mia and Al-Mamun 2011). To reduce monitoring cost and agency cost, debt holders expected highly leverage companies to publicly disclose more information. Such disclosures, aside from reducing monitoring costs, were also likely to reduce the cost of debt because debt holders (including investors) received assurances that the company was abiding by all debt-covenants. Likewise, stakeholders, as well as debt holders, would expect socially responsible companies with high leverage ratios to increase their level of sustainability disclosure.

In support of the above discussion, prior studies reported a significant positive relationship between leverage and disclosure (see Naser 1998, Richardson et al. 2001). Similar to prior studies and the findings of Richardson et al. (2001), the current study found a significant positive relationship between leverage and the value creation component. H_1 which predicted that highly leverage companies were likely to increase their sustainability disclosure was supported.

8.7.9 Discussions on lack of evidence for hypotheses

8.7.9.1 Environmental GRI performance indicator domain

Demographic Set

The significant relationship that existed between sensitive-industries and sustainability disclosure in the current study supported the argument made in prior studies (*see Gamerschlag, Moller and Verbeeten 2010*). To show evidence of responsibility, high environmental polluters will therefore have to increase their disclosure regarding both the environmental impact of their operations and efforts put in place to manage and reduce this impact. The results indicated a significant relationship existed between sensitive industries and the preservation component of sustainability disclosure. This results was similar to that of the responsibility component but not the initiatives component.

Prior literature has reported a significant relationship between size and sustainability disclosure (*Boesso et al. 2007).* This implies that larger corporations have the necessary capital to employ skilled labour who will implement complex reports that will produce large volumes of information. Stakeholders including institutional investors require this information for decision making; and larger corporations are able to fulfil their request by publicly increasing their sustainability disclosure (Deopers 2000). The results did not support the discussion above. The results of the responsibility component did not also support the discussion. Contrary, the results of the initiatives component was in support of the discussion.

Financial set

Companies enjoy competitive advantage over their peers when they disclose information in accordance with stakeholder expectations. It is argued that younger corporations that will like to assure stakeholders (especially investors) of their ability to stay as a going concern and perform efficiently into the future, will have to publicly disclose more information on their operations than older companies that have already established their reputation within society (Laung 1991). H_5 supported the discussion above. The initiatives component also supported the hypothesis. However, H_5 was rejected by the responsibility component.

According to (Orlitzky et al. 2003), a company's internal efficiency is a measurement of its return on asset ratio. Since good news is value relevant on capital markets, companies with

high return on assets ratios are likely to disclose more information publicly than their counterparts with lower return on assets ratio. H_3 was also supported by the responsibility component but was rejected by the initiatives component.

Leftwich, Watts, and Zimmerman (1981) associated high monitoring costs with high leverage companies. It can therefore be assumed that more information is required from companies with high leverage ratios as debt holders seek assurance of the ability of such companies to pay off their debts. However, H_1 was rejected. H_1 was also rejected by both the initiatives and the responsibility components.

High liquid companies are likely to disclose more information to their creditors on their ability to meet their short-term contracts (Camfferman et al. 2002). Similarly, high liquid companies are expected to disclosure more information on their sustainable development activities to assure stakeholders of continuous performance of their social responsibility. H_2 was rejected. The initiatives and responsibility components also rejected H_2.

Stakeholder set

The 2002 KPMG survey on sustainability reporting stated that primary stakeholders could demand that companies improve their reputation in regards to their social responsibility (Kolk and Perego 2010). Literature also suggests that companies can improve their reputation through assurance of their sustainability reports. In effect, assured sustainability reports increase stakeholder confidence in the credibility and transparency of sustainable development activities performed by corporations as well as information disclosed from such activities (KPMG 2005). Results from the current study supported $H_{11.}$ $H_{11}$was also supported by the responsibility component but was rejected by the preservation component.

Product diversification occurs when companies expand current markets for their products through the creation of new and improved brands. Expansion of markets and increase in customers are likely to result in increase in sales and subsequently increase in income. In effect companies must be recognized as responsible citizens in the performance of their social responsibilities as well as in the management of the negative impact of their operations on the environment in order to take advantage of the benefits of product diversification. H_{10a} did not support the discussion. Neither the preservation nor the responsibility components also supported the H_{10a} .

Companies that diversify geographically into foreign markets are likely to expand their stakeholder groups and make them more diverse (Sharfman, Shaft and Tihanyi 2004). Consequently to the expansion of stakeholder groups, companies also exposed themselves to external pressures such the cultural, legal, regulatory as well as social values of countries in whose markets they are geographically diversified (Brammer, Pavelin and Porter 2006). With this exposure, comes the responsibility of conforming to these values and informing these societies of their conformity. This implies that geographical diversified companies could effectively communicate their sustainable development activities through increase disclosure in their sustainability reports. The results of the study rejected H_{10b}. H_{10b} was also not supported by both the initiatives and responsibility components

Currently, institutional investors have expressed much interest in sustainability issues and have subsequently increased their social responsible investments in many corporations (Sparkes and Cowton 2004). In corporations where institutional investors are in the majority, management is unable to ignore their request and expectations on sustainability issues (Sparkes et al. 2004). Since institutional shareholders are not involved in the day to day activities of corporations, it is expedient for management to inform them of the execution of their social responsibilities through disclosures in their sustainability reports. Contrary to the above discussion H_9 was rejected. H_9 was also not supported by the preservation and responsibility components.

Legitimacy set

Prior literature has acknowledged the need for corporations to reform the structure and duties of their boards and board members in regards to monitoring and control as well as policy formulation (Saibal 2006) in order to ensure continuous operation. The Australian Stock Exchange (ASX) in its best governance principles encourages corporations to allocate a larger proportion of their board membership to independent non-executive directors. Independent non-executive directors are more likely to support the interest of all stakeholders since their interest is more aligned with the owners of the company (Bonn 2004). Consequently, non-executive directors are likely to push for the disclosure of sustainability information expected by stakeholders. H_6 was supported by the initiatives component. However, both the preservation and responsibility components rejected H_6.

Relationship between environmental/sustainability, ethical and whistle-blower policies and sustainability disclosure has not been given much attention in literature. However, to thrive in this current social competitive environment, corporations must disseminate information publicly; manage the negative environment impact of their operations; promote social equity especially amongst employees; and provide internal advocacy mechanisms to address both internal and external illegal and unprofessional acts and human rights violations committed by either the employer or the employees. The implementation of whistle blower policies and the setting up of hot lines to deal with these issues internally is likely to curb any adverse effect that exposing such information may have on corporate legitimacy. On the other hand, corporations with good news about their sustainability, ethical and whistle blowing activities and programs will publicly increase disclosure of such good news in their sustainability reports as good news is likely to positively affect share prices (Gottsman and Kessler1998).

H_{7a} $H_{7b(i)}$ and $H_{7b(ii)}$ were not supported by either the initiatives, preservation or responsibility components.

Prior literature posits that a principal-agent relationship exist between directors (as company stewards) and shareholders (as owners of the business). In this relationship, managers are expected to pursue the interest of the shareholders especially with regards to profit maximization. It is also suggested by De Miguel et al. (2004) that, it is prudent to allocate a larger portion of corporate equity ownership to directors in order to encourage them to pursue the profit maximization interest of owners. An improvement in corporate sustainability means an increase in sustainability disclosure. H_8 was however not supported by either the initiatives, responsibility or preservation components.

8.7.9.2 Social GRI performance indicator domain

Demographics Set

Literature posits industry as one of the factors that may impact on voluntary social disclosure. Specifically literature envisages that larger corporations will disclose more information on their sustainability activities (Meek and Roberts 1975). Companies in sensitive industries who are also sustainability leaders are likely to disclose more information than their peers in the non-sensitive industry sector. The outcome of the study also supported the argument that companies operating in sensitive industries will disclosure more information than those in the

non-sensitive industries. This argument was also supported by the information component but rejected by the improvement component.

It is argued that larger corporations in the resource sector are likely to emit high volumes of polluted emissions due to the nature of their operations. Such corporations are therefore constantly under public scrutiny as society exerts pressure on them to put systems in place to mitigate the negative ecological and social impact of their activities (Artiach et al. 2010). Furthermore, larger companies with numerous positive internal and external sustainability programs are likely to realize economies of scale in their data collection and processing and may therefore be able to produce large volumes of information for disclosure to their stakeholders (Artiach et al. 2010). The hypothesis that size was significantly related to increase in sustainability disclosure was also accepted. On the other hand, both the information and improvement components did not support the hypothesis.

Financial set

The age factor has been suggested by researchers as likely to affect social disclosure (*see Haniffa et al. 2002).* Contrary to expectations, unlike older companies who have form their reputation over the past years, have been able to capture a portion of the market and will therefore not disclose any negative information for fear of adverse repercussions; younger companies will rather increase their level of disclosure to lessen the uncertainty surrounding their future performance. Younger companies are therefore likely to communicate more to stakeholders through increase disclosure (Elsayed 2006) than their older counterparts. Studies including Elsayed (2006) have reported negative relationships between firm age and sustainability disclosure. H_5 was also supported by the current study. Similarly, H_5 was supported by both the information and Improvement components

Corporations with high return on assets ratios are likely to be poorly rated on capital markets. This may happen because it is envisaged that the level of corporate internal efficiency is reflected in a company's return to assets ratio (Moore 2001). Thus, a company with a high return on assets ratio is considered by the capital market as being more internally efficient and therefore more profitable than a company with a low return on asset ratio Orlitzky et al. 2003). This means that social responsible corporations with high return to assets ratios are

deemed profitable and will be encouraged to disclose more information on their sustainability activities. H_3 was supported by the development, information and improvement components.

Literature posits that high leverage corporations are also likely to experience increase in their monitoring costs (Giovanna 2011). Therefore, in order to reduce monitoring costs, such companies will increase publicly disclosed information. Furthermore, since cost of equity is also likely to increase as corporate debt increases (Dhaliwal 2011), companies may increase their public information disclosure to assure debt holders of their ability to pay off those debts. This outcome from the development component did not support H_1. Similarly, the information and improvement components did not support H_1.

It is expected that companies will be able to settle their short-term debt when it falls due. Companies with high liquidity find it expedient to relate this important information to their creditors, stakeholders and also capital markets as such information positively affects cost of capital (Francis et al. 2008). Contrary to the above discussion, H_2 was rejected. H_2 was also rejected by the information component and the improvement component.

8.7.9.3 Economic GRI performance indicator domain

Demographic Set

Companies operating in sensitive industry sectors such as mining, oil and gas are mostly under scrutiny by the public to ensure their activities do not deplete natural resources or cause extensive pollution to the environment. Such companies will therefore have to continuously disclose information to the public on measures put in place to reduce their environmental footprints in order to manage or avoid extensive damage to natural resources, ecology and subsequently the environment. The discussion that sensitive industry will increase their sustainability disclosure was supported. On the other hand, the value creation component did not support the discussion.

As a company expands in size it is likely that its primary stakeholders including customers, employees and investors will also increase in number. An increase in the number of stakeholders comes with an increase in the number of persons requiring information about corporate activities and performance. In addition to the above, larger companies are also likely to have access to more resources than smaller companies. Access to more resources may enhance the ability of larger companies to apply the use of modern systems for

collecting and interpreting large volumes of data from their numerous sustainability activities. With the interpretation of large volumes of data comes increase disclosure. On the contrary the discussion was rejected by both the external creation and the value creation components.

Stakeholder Set

Prior literature states that the ability to produce and implement the use of innovative and renewable products in accordance with stakeholder expectation to improvement corporate sustainability performance depicts a form of transparency and accountability (Dando and Swift 2003). Furthermore, it is also envisaged that the level of control exerted by management over the process and reporting of sustainability information will allow disclosure of more positive information that will enhance the corporate image; and a concealment of the negative practices that depicts corporate irresponsibility (Ratanajongkol, Davey and Low 2006). H_{11} was accepted by the value creation component. Contrary, H_{11} was rejected by the external investment.

Product diversification has been a tool applied by companies that desire to obtain key competitive advantages by entering into niche markets. Although consumers in global markets may differ in their expectations, both consumers of green and tailor made products require increased financial and non-financial information. Socially responsible companies can take advantage of the quest for non-financial information and increase their sustainability disclosures along the expectations of stakeholders. Contrary the discussion H_{10a} was rejected by both the external investment component and the value creation component.

Companies especially multinationals diversify geographically in order to enhance corporate value. Additional, companies also take advantage of benefits likely to be made from expanding operations internationally into countries and markets where operating costs are lower than their home countries. Several multinationals have therefore been noted as having contributed positively to socio-economic development in countries where they geographically diversify (Christmann 2004). Geographical diversification also means access to large number of stakeholders whose expectations have to be met through disclosures provided in corporate sustainability reports. These expectations will encourage multinationals to increase their sustainability disclosures than their non-geographically diversified peers. H_{10b} was rejected. Similarly, H_{10b} was also rejected by the external investment component.

Current globalization advancement has seen most institutional shareholders encouraging their companies to invest in sustainable development programs. For example; socially responsible institutional shareholders with a choice of investment between companies with similar financial performance will choose companies that invest more in sustainability activities; such as activities contributing to economic development, social and community enhancement and eco-efficiency (Boutin-Dufresne and Savaria 2004). H_9 was therefore rejected under both the external investment component and the value creation component.

Financial set

Companies that are socially responsible enhance their reputation over time as they build a relationship between themselves and 'green' stakeholders (Godos-díez, Fernández-gago and Martínez-campillo 2011). Stakeholders however, expect more from these socially responsible corporations and therefore continue to push for enhanced practices and programs. Companies that have listed on stock exchanges for a long period of time are rewarded for continuous improvement in their sustainability practices through lower cost of capital and better skilled professional employees. Irrespective of the above discussion, H_5 was rejected under both the value creation component and the external investment component.

An increase in the return on assets ratio is an indication of a company's ability to generate revenue from efficient use of its assets. In effect, companies that depict high return on assets ratios are considered to be internally efficient and profitable (Orlitzky et al. 2003); and are also likely to benefit from an increase in share prices (Kamstra 2003) as they become more attractive to various stakeholders especially investors. Additionally, such companies are endowed with excess funds to expand their economic development programs to the benefit of all stakeholders. Socially responsible companies that expand their investor base and benefit from increase share prices are likely to disclose more information on their activities and achievements to the expectation of all stakeholders. H_3 was supported by the value creation component but rejected by the external investment component.

Companies with high levels of debt in their capital structure are externally classified as risky and monitored by debt holders or creditors (Mia and Al-Mamun 2011). To reduce monitoring cost and agency cost, debt holders expect highly leverage companies to publicly disclose more information. Such disclosures aside reducing monitoring costs are also likely to reduce

the cost of debt, as debt holders (including investors) receive assurances that the company is abiding by all debt-covenants. Likewise, stakeholders as well as debt holders will expect socially responsible companies with high leverage ratios to increase their level of sustainability disclosure. Results of the value creation component supported H_1. The external investment component results rejected H_1.

Liquidity has been suggested in prior research as an indicator of a company's going concern status and its ability to fulfil short-term obligations. Thus, stakeholders will be willing to associate themselves with highly liquid companies as they find them less risky due to their sound financial position. It can be deduced from the argument so far, that highly liquid companies are likely to disclose more information (*see Oyelere et al. 2003*) not only as assurance of their ability to fulfil their short-term loans (Alsaeed 2006) but also to portray their social development status. Contrary to the expectation from the above discussion, H_2 was rejected under both the value relevant component and the external investment component.

8.8 Sensitivity Analysis

Tobin's Q (TobQ) was not part of the initial predictors used in the multiple regression analyses because both return on assets (ROA) and TobQ can be used interchangeably as measures of performance and disclosure. However, the TobQ variable was used to test robustness of the results from the initial multiple regression analyses. The predictor, TobQ therefore, replaced ROA in the sensitivity analysis. Results were expected to be similar.

Sensitivity analysis is considered essential in any study in which models are built to represent a theoretical measurement system (Saltelli 2002). In this thesis, a predictive model was designed in Figure 5.1 in Chapter 5 to represent a system for measuring sustainability disclosure amongst public companies, especially MNEs. In accordance with the suggestions from prior research, including that of Saltelli (2002), sensitivity analyses were conducted to determine the robustness of the initial results of the study in all the three performance indicator domains.

For the initial sensitivity analyses, hierarchical analyses were performed in two separate groups by substituting two mutually exclusive variables, ROA and TobQ in the first group (group 1); and member of board with environmental duties (med) and sustainability

committee (SCM) in the second group (group 2). Each of the two groups consisted of two sub-groups). It must be noted that results from the ROA sub-group (of group 1) was from the initial hierarchical analyses performed in the studies. All other subsequent results were, therefore, benchmarked again this sub-group to test the robustness or otherwise of the outcomes. Similarities were recorded amongst all two groups of analyses. Although results have not been tabulated, the outcomes are discussed below.

8.8.1 Environmental GRI Performance Indicator Domain

In relation to preservation, both substituted variables in the first group of analysis recorded significant predictions for the demographics and financial variables sets in both sub-groups. Also, the entire four variable sets, namely demographics, stakeholders, legitimacy and financial, were significantly predictive of the initiative component in both sub-groups of the first group. Similar to results from the preservation component, the demographic and stakeholder sets of variables were significantly predictive of the responsibility component. Although this result was also consistent with both sub-groups, the outcome from the ROA sub-group recorded additional significance in the financial variable set.

In the second group, the demographics and the financial variable sets were significantly predictive of the preservation component in both sub-groups. This outcome is consistent with results of the preservation component in both sub-groups of the first group. The initiatives component also showed significance outcomes for the four variable sets in both sub-groups, which is also in agreement with the outcome in the first group of analysis. Furthermore, the demographics, stakeholder and financial variables sets of both sub-groups in the second group were predictive of the responsibility component. This outcome is consistent with the results of the ROA sub-group in the first group of analysis.

8.8.2 Social GRI Performance Indicator Domain

The demographic variable set was predictive of the development component in both sub-groups of the first group. In addition, the financial variable set was predictive of the development component in the ROA sub-group. Furthermore, the result of the development component was similar to that of the information component. In order words, the demographic variable set was predictive of the information component in both sub-groups of the first group. However, the financial variable set was also predictive of the information

component in the ROA sub-group. Whilst the financial variable set was significantly predictive of the improvement component in the ROA sub-group, no sets of variables were predictive of the improvement component in the TobQ sub-group. The result of the improvement component in the TobQ sub-group was therefore inconsistent with results from the initial hierarchical analysis which was same as the ROA sub-group.

On the other hand, none of the variable sets from both sub-groups in the first group were predictive of the advancement component. This outcome was consistent with prior hierarchical analysis performed in the study.

The development and information components in the second group showed significant outcomes for the demographics and financial variables sets. This result was consistent with that of the ROA sub-group and therefore the initial hierarchical analyses. Furthermore, the financial variable set was predictive of the improvement component in both sub-groups of the second group. This was similar to results in the improvement component of the ROA sub-group of the first group and also the initial hierarchical analysis. Consistent with prior analysis, the advancement component did not record significance in any of the variable sets.

8.8.3 Economic GRI Performance Indicator Domain

In the first group, the demographic set of variables was significantly predictive of the external investment component in both sub-groups. However the TobQ sub-group recorded additional significance for the stakeholder set of variables. The stakeholder set of variables was significantly predictive of the value creation component in both sub-groups. In addition, the ROA sub-group recorded significance for the financial variable set.

In the second group, the demographics variable set was predictive of the external investment component in both sub-groups. This outcome was in agreement with results under the ROA sub-group in the first group. In a similar manner, the stakeholder and financial variable sets were also significantly predictive of the value relevant component. This was also consistent with results under the ROA sub-group in the first group.

The outcome from the two different analyses did not show any substantial/significant deviation from results of the initial hierarchical analyses performed on the model in Figure 5.1 of Chapter 5. It is, therefore, concluded that the outcomes of the repeated analyses

indicated the robustness of the outcomes from the initial hierarchical analyses. Furthermore the sensitivity analyses also supported the factors indicated in Figure 5.1 as influencing corporate sustainability disclosure.

8.9 Summary

The current study extracted information from stand-alone sustainability reports and annual reports of companies listed on the GRI website as at 2010. Thereafter, exploratory factor analysis was initially used to sample out the variables and components to be used in the study. A three stage analysis was then carried out to analyse the sample obtained from the exploratory factor analysis. Factors that represented the dependent variable were extracted initially through a PCA; and the unit weighting method was adopted to determine the new factors. At the end of these processes, the dependent variable to be used in the study consisted of nine components (see Chapter 7). With respect to the selection of independent variables, 14 variables were finally selected from an initial 20 variables. These 14 independent variables were separated into four sets which consisted of four independent variables in each set with the exception of the demographic set which had two variables (see Table 8.2 above). Following the selection of both independent and dependent variables, a number of hierarchical analyses were performed to test the contribution of the entire set as well as the contributions of the individual predictors. The outcomes of the tests are summarised below.

As mentioned above, the demographic set consisted of two independent variables: industry and size. Industry was more prominent than size in accounting for variations within components. Under the environmental performance indicator, industry was significantly related to the preservation and responsibility components. Under the social and economic performance indicators, industry was significantly related to development, information, and external investment respectively. On the other hand, size accounted for variations in the initiatives component under the environmental performance indicator and the development component under the social performance indicator.

The stakeholder set consisted of four independent variables: assurance, institutional shareholdings, product diversification and geographical diversification. With the exception of the assurance variable, which was significantly correlated with three components, none of the other three variables accounted for variations within any of the nine components. Assurance

was significantly related to the initiatives and responsibility components under the environmental performance indicator; and value creation component under the economic performance indicator.

Similar to the stakeholder set, the legitimacy set was also made up of four independent variables: board structure, directors' shareholdings and internal policies. Internal policies were further divided into two dummy variables: internal policy 1 and internal policy 2. With the exception of board structure, which was significantly associated with the initiatives component under the environmental performance indicator, none of the other three variables were related to any of the nine components.

The four independent variables which made up the financial set consisted of firm age, return on assets, leverage and liquidity. With the exception of liquidity which did not relate to any of the components return on assets, firm age and leverage related to six, five and one component(s) respectively. The two variables: return on assets and firm age were both significantly related to the preservation, development, information and improvement components. Furthermore, as individual variables, firm age was associated with the initiatives and information components, while return on assets was also associated with the responsibility and value creation components. Similar to the return on assets variable, leverage was associated with the value creation component. On the other hand, contributions from independent variables under the communication, employment and training component of the social performance indicator were not investigated since results from the set did not produce either a significant or marginally significant R^2 (see Section 8.5.1).

The two sensitivity tests performed indicated robustness in the initial hierarchical analyses performed in the study and were therefore supportive of the factors stated as influencing corporate sustainability disclosure.

Chapter 9: Conclusions and Implications

9.1 Introduction

Chapter 8 presented the analysis and results of the hierarchical regression analyses and interpreted the results of the current study showing similarities or differences to prior studies. This chapter concludes the study by providing summary of the major findings of the thesis and their implications. It also discusses the limitations and contribution of the study, and suggests directions for future studies.

The chapter is arranged as follows: Section 9.2 provides a summary discussion of both significant and non-significant variables found in Chapter 8. Implications of the findings in Chapter 8 are then elaborated in the following Section. Section 9.4 provides overall summary of disclosure trends in the components. Sections 9.5 and 9.6 discuss the theoretical implications of the findings and the methodological contributions respectively. This is followed by a presentation of implications for policy and practice in Section 9.7. Limitations of the study and directions for future research are provided in the last two Sections.

9.2 Summary Discussion

Prior literature examines the relationship between legitimacy theory and environmental disclosure, especially amongst companies in developed countries, with few studies on emerging economies. As a way of contributing to prior literature on the legitimacy theory, recent studies have begun focusing on stakeholder theory as well as legitimacy theory. However, both theories are still treated as mutually exclusive or competitive rather than complementary. Thus, the focus on both legitimacy and stakeholder theories concurrently and their effect on corporate sustainability reporting in both developed and emerging markets are yet to gain due attention.

The current thesis examined the areas of corporate sustainability disclosure (CSD) for which stakeholders, especially report users, require third party independent opinion that information disclosed represents transparent and accountable corporate sustainability performance that can be relied upon. There must also be evidence in these reports that both legitimacy and stakeholder involvement issues are considered during the performance of sustainability activities and reporting of such information. Furthermore, the effect of demographic and

financial predictors on sustainability disclosure was also examined and results compared with the results of prior studies.

Initially, the dependent variables were statistically combined and condensed into nine components and the independent variables grouped into four predictor sets with two individual variables in one set, and four individual variables in the other three sets Then, hierarchical multiple regression analyses were performed to test the predictive relationships between the four sets of predictors and the components. A subsequent assessment of the individual predictors was made only if the contribution of the entire set in each of the initial analysis was significant.

9.2.1 Environmental Performance Indicator Category Outcomes

Results from the analyses of the components within the environmental performance indicator category showed that a greater level of assurance was predictive of a greater level of disclosure on the Initiatives and Responsibility components. The Initiatives component relates to innovations implemented by companies to reduce their energy consumption and any negative impact of their products and services on the environment. The Responsibility component also relates to efforts by companies to manage the impact that their emissions, effluents and waste exert on the environment. This outcome was an improvement upon previous studies because previous studies only reiterated report users' acknowledgement for assurance of all sustainability disclosures. The current study has, therefore, gone a step further to highlight specific areas of importance which companies must address in order to encourage report users and stakeholders to positively respond to their assurance reports. Return on assets was also important in predicting the quantity of information to be disclosed on the Preservation and Responsibility components. This showed that efficient companies can use financial resource available to them from return on their assets to implement strategies to reduce their water and raw material usage. The age of a company was an important predictor of the quantity of information likely to be disclosed on the Preservation and Initiatives components. This follows that younger companies will disclose more information on the Preservation and Initiatives components than older companies. Furthermore, the type of industry sector was an important predictor of the quantity of information likely to be disclosed on the Preservation and Responsibility components. Companies in the sensitive industry sector are therefore likely to disclose more information on the Preservation and

Responsibility components than companies in the non-sensitive industry group. Additionally, the number of independent non-executive directors was significantly predictive of the level of corporate disclosure especially with regards to the Initiatives component of environmental disclosure.

On the other hand, this study found that the size of a company did not significantly predict the level of sustainability disclosure, especially on Preservation issues relating to water, biodiversity and materials. Similarly, the size of a company did not also significantly predict the level of sustainability disclosure, especially on Responsibility issues relating to emissions, effluents and waste. On the other hand, the size of a company was significantly predictive of the level of sustainability disclosure on the Initiatives component relating to energy usage and the impact of products and services on the environment.

Prior studies have reported inconsistent results on the relation of organisation size to environmental disclosure. Research, such as those by Ho et al. (2007); Boesso et al. (2007) and Jensen et al. (1996) have found results that supported a positive relationship. A study by Jensen et al. (1996) found that larger companies were not likely to produce more discretionary information for fear of stiffer regulations and increase in other social commitments. Contrary to the above findings, and on a more specific note, this study found that size did not influence disclosure on the Preservation and the Responsibility components.

Extant literature supports the argument that high polluters or sensitive industries tend to increase their sustainability disclosure. These increased disclosures would also provide more insight into measures implemented to mitigate or manage the negative impact of corporate operations on the environment (Branco et al. 2008; Jain and Kedia 2011). The outcome in this thesis showed that sensitive industries did tend to disclose more in terms of Preservation and Responsibility but that Initiatives disclosure was independent of industry sensitivity. This therefore shows that companies in both sensitive and non-sensitive industry sectors were required to implement actions that would reduce energy usage and promote sustainable products and services. Actions implemented must result in ecology preservation, reduction in energy usage and improvement in products and services. Furthermore, results also implied that actions on the initiative component of environmental disclosure should be implemented irrespective of corporate liquidity, return on assets and leverage ratios. In the same vein, results further implied that neither product diversification nor geographical diversification

was likely to influence corporate sustainability disclosure. This outcome was consistent with the reports by Hossain et al. (2006) and Amran, Bin and Hassan. (2009) that no relationship existed between either product or geographical diversification and disclosure.

Recently, institutional investors have expressed much interest in sustainability issues and have subsequently increased their investments in many socially responsible corporations (Sparkes et al. 2004). Thus, in corporations where institutional investors were in the majority, management would be unable to ignore their requests and expectations with regards to sustainability issues (Sparkes et al. 2004). However, results from the current study indicated that this was not the case in relation to the initiatives and responsibility components of environmental disclosure.

A principal-agent relationship exists between directors (as company stewards) and shareholders (as owners of the business). To ensure that directors pursued the interests of shareholders and improve corporate sustainability, De Miguel et al. (2004) suggested that it was prudent to allocate a larger portion of corporate equity ownership to directors. It follows, therefore, that directors who owned majority shareholdings in companies would improve sustainability disclosure in accordance with stakeholder expectations and publicly disclose such information. However, results from this study showed that such majority shareholders did not influence disclosure on issues pertaining to the Initiative component. Likewise, majority shareholders did not also influence disclosure on issues pertaining to the Preservation and Responsibility components

To thrive in this current competitive environment, organisations must disseminate information publicly; manage any negative environmental impact of their operations; promote social equity, especially amongst employees, and provide internal advocacy mechanisms to address both internal and external illegal, unprofessional acts and human rights violations committed by either the employer or the employees. One way of achieving this objective is by implementing environmental, ethical and whistle blower polices. It is envisaged that such policies are likely to result in competitive advantage for companies that implement them. Studies conducted by Gottsman et al. (1998), Rondinelli et al. (2000) and Patten (2002) reported the existence of an association between internal policies and environmental disclosures. Their reports showed that a significant relationship exists between environmental policy and disclosure (Rondinelli et al. 2000). Specifically, companies with

good ethical programs that impacted positively on their environmental activities were likely to decrease their disclosure (Patten 2002). A likelihood of a negative relationship between whistle blowing and disclosure was also predicted (Callahan et al. 2002). However, none of these relationships were supported by the findings of this study which found no significant relationship between any of the policies and the initiative, preservation or responsibility components of environmental disclosure.

9.2.2 Social Performance Indicator Category Outcomes

Results from the analyses of the components within the social performance indicator showed that a higher level of return on assets was predictive of a greater level of disclosure on the Development, Information and Improvement components and not the Advancement component. The Development component relates to corporate efforts in improving labour/management relationship; and the Information component relates to programs to communicate innovations on corporate product and services. The Improvement component relates to enhancement in marketing, communication and compliance issues. When considering the disclosure components within the social performance indicator category, financial stability of the company played a very important role in predicting the provision of social welfare and amenities for all stakeholders. This also shows that companies with higher return on assets are more likely to have the capacity to invest in programs to improve their labour/management relationship and enhance their marketing techniques. These achievements will then be disclosed in their sustainability reports. Similar to the environmental components, the outcomes showed that companies in highly sensitive industries rather than companies in non-sensitive industries were able to provide and report on issues relating to labour/management relations (Development) and product and services (Information) but not marketing, communication and compliance (Improvement) or employment and training (Advancement). The age of a company was also predictive of the Development, Information and Improvement components of social disclosure. Company size was only predictive of level of Developmental disclosures such that larger companies tended to make more of such disclosures.

Results from the current study also indicated that disclosure on the information component of social disclosure was not dependent on company size. Nonetheless the current study did not support the argument that leverage or liquidity was predictive of the Development,

Improvement or Information components. This study also found that ethics, sustainability/environmental or whistle-blower policies were also not predictive of the Information, Development and Improvement components. Furthermore, industry, firm age, return on assets and company size were not predictive of the Advancement component. Employee turnover is likely to be low in companies that implement programs to address employment issues. Employees that stay longer in one place of employment are likely to acquire better skills, be able to perform their duties more efficiently and with less supervision. In the same vein, employers that implement training programs for their employees are likely to have better skilled and high quality staff that can deliver better outcomes. Employment and training issues are therefore of competitive advantage to any company and can also add value to that company. Companies may therefore be reluctant to disclose such information externally. Due to these advantages it is likely that all type of companies irrespective of their size, industry sector, financial resource or age will strive to enhance their employment and training programs. This may be some of the reasons why the Advancement component did not result in any predictive outcomes.

9.2.3 Economic Performance Indicator Category Outcomes

Companies in sensitive industries tend to show greater disclosure on the External Investment component. Higher levels of assurance and higher return on assets were each predictive of a higher level of Value Creation disclosure. Furthermore, the current study showed that corporate leverage significantly predicted the level of Value Creation component of economic disclosure. Jensen et al. (1976) and Michelon (2011) also reported that companies with high leverage ratios can positively influence disclosure and thereby reduce monitoring cost.

On the other hand, a company's liquidity ratio did not predict disclosure on the Value Creation component. Product diversification and geographical diversification did not also predict disclosure on the Value Creation component. Companies are required to implement measures to manage the risk and opportunities resulting from their operations. Companies are also required to manage any financial assistance received from external sources in order to fulfil their obligations to their employees. These activities will have to be performed irrespective of the outcome of their product or geographical diversification. Institutional shareholdings/ownership was also not predictive of the Value relevant component.

9.3 Implications of Findings

Analyses of the findings will be considered separately under the three performance indicators: environment, social and economic.

9.3.1 Environmental Performance Indicator Category

The findings of the current study which indicated that industry, rather than size, accounted for more variations in sustainability disclosure, implied that more companies in sensitive industry sectors tended to increase their sustainability disclosures than companies operating in the non-sensitive industries. Companies in sensitive industries may be subject to greater public and political scrutiny (due to their higher pollution intensity) and this may explain the higher levels of environmental disclosures reported by such companies. To meet the expectations of stakeholders, companies in sensitive industries could enhance their investments in environmentally-sustainable activities so that they have even more positive outcomes to disclose.

The results from this study indicated a relationship between high return on assets ratios and increased environmental disclosure. This implies that companies that are able to enhance their return on assets may be able to generate financial resources that could be used to enhance their environmentally-responsible activities. Outcomes from these activities can then be disclosed.

This study also showed that corporate boards with a larger number of independent non-executive directors were associated with higher-level disclosure patterns. This effect could arise if independent non-executive directors would express perspectives from outside the company; more strongly advocate for greater investment in sustainability activities and subsequent disclosure of outcomes from these activities. Issues in which independent non-executive directors could advocate for increase investment and disclosure include those relating to the Initiatives components. The results also indicated that a larger number of independent, non-executive directors on corporate boards were associated with a greater level of disclosure with respect to improved services and more ‘greener’ products. Again this could reflect a stronger advocacy role being played by independent directors.

The outcome that younger companies predicted increased disclosure on the Preservation and Initiatives components implies that it is prudent for younger companies to consider improving

performance of their operations on issues relating to water and raw material usage and biodiversity as well as on energy usage and the environmental impact of products and services. This result also indicated that older and well-established companies tended to report lower levels of environmental disclosure on the Preservation and Initiatives components. This implies that older companies will have to enhance their performance on issues relating to water and raw material usage and biodiversity as well as energy usage and the environmental impact of products and services. This will enable older companies increase disclosure on the Preservation and Initiatives components. Increase in disclosure can change the entrenched culture and traditional ways in which older companies operate.

The outcome that assurance reports predicted increased disclosure in the Initiatives and Responsibility component implies that companies that assure their report will increase disclosure on efforts implemented to reduce their energy usage and the environmental impact of their products and services; and well as management of their emissions, effluents and waste. Report users consider assured reports as providing credible and reliable disclosures. Companies that report on environmentally-sustainable practices implemented in relation to the Preservation and Initiatives components, in assurance reports are likely to gain better stakeholder response and acknowledgment of their disclosures. Their peers may follow suit and invest more in assurance reports and thereby increase their disclosure

Results from the study also showed that liquidity and leverage were not associated with higher levels of disclosure patterns in the Preservation, Initiatives or Information components. This outcome may indicate that companies are expected to disclose issues relating to their water and material usage and efforts made to manage biodiversity; reduction in energy usage and environmental impact of their products and services; as well as emissions, effluents and waste. These disclosures could be made irrespective of corporate liquidity or leverage levels.

The outcome concerning the association between sustainability/environmental, ethical and whistle blower polices showed that the implementation of these policies did not significantly predict disclosure on any particular aspect of sustainability operations.

The results that neither institutional nor director majority share-ownership influenced disclosure of the preservation, initiatives and responsibility components have similar

implications. Issues regarding the preservation, initiatives and responsibility components are of much concern to both corporations, primary and secondary stakeholders and society at large. Thus, corporations are likely to seek multi-stakeholder opinion prior to the formulation and implementation of policies relating to the preservation, initiatives and responsibility components. It follows that no single group that owns majority shares in any company (such as majority institutional shareholders) have greater influence on disclosure of information of these components. Likewise, directors with majority shareholdings may, as a group, seek to influence decisions that can improve the preservation, initiatives and responsibility components. Similar to the argument above, the important roles that the preservation, initiatives and responsibility components plays in the environmental sustainability of society in general, renders it less likely for a single group to influence disclosure of such information.

The results implied that both legitimacy and stakeholder variables act as influences on the initiatives component of environmental disclosure. Furthermore, the results of the study also implied that stakeholders will require external party opinion on environmental issues. These issues relate to the initiative and responsibility components.

9.3.2 Social Performance Indicator Category

The outcome that larger companies predicted increases in the Development component implies that larger companies will increase disclosure on issues relating to labour/management relationship. Larger companies are likely to be more labour intensive and will therefore require more skilled workers than their smaller counterparts. Since skilled workers are scarce, larger companies will have to implement programs in the area of labour relations, security, and health and safety to be able to retain their employees over a longer period. Such programs which are likely to result in better labour/management relations will have to be disclosed. Furthermore, other companies will also benefit from this disclosure, enhance their employee/management relationships and increase disclosure. On the other hand, larger companies did not predict increases in the Information and Improvement components. This may imply that companies will have to communicate on issues relating to their product and services as well marketing and compliance through disclosure irrespective of their size.

Return on assets predicted increased disclosure in the Development, Information and Improvement components. This implies that companies with better labour/management

relationships, communicate more on the sustainable nature of their products and services and comply with regulations concerning their marketing activities will increase their disclosure. Companies require financial resources to achieve their goals both internally and externally. This could mean that companies that implement programs that will enhance their return on assets will generate surplus funds that could be put towards enhancing their socially-responsible activities. Outcomes of these programs will also be disclosed.

The outcome that younger companies predicted increased disclosure on the Development, Improvement and Information components implies that younger companies should enhance their relationships with their employees; communicate to society more on efforts implemented to produce sustainable, healthier and safer goods; and market their goods and services in the accordance to legislations and societal values. This outcome is also an indication to older companies to review their traditional ways of dealing with their employees and consumers and adopt current strategies which are more productive. Older companies are also encouraged by this outcome to be the leaders in introducing more innovative and better ways of marketing products and services, and disclose such information in their sustainability reports for their peers and younger companies to emulate.

Results of from the study also showed that size was associated with higher levels of disclosure patters in the Development component. This implies that after large companies have identified and engaged their employees, they must implement programs that will enhance their relationships with their employees. In doing so, large companies will be able to retain skilled employees that are normally scarce to recruit. This achievement will then have to be disclosed in their sustainability reports. On the other hand, smaller companies can also take advantage of the achievements by their larger counterparts and emulate such strategies to be able maintain their employees in the current business environment.

On the other hand, neither liquidity nor leverage was predictive of the Development, Information or Improvement components. This may imply that since society requires companies to adhere to their norms and values, society expects companies to communicate publicly efforts implemented to enhance their relationships and welfare of their employees especially those employed in the communities in which they operate. Also in adhering to societal norms, companies will be expected to use innovative and sustainable materials and apply effective strategies in the production of the goods and delivery of their services.

Furthermore, companies need to publicly communicate to society efforts implemented to comply with marketing legislations. The outcome of all these programs must be disclosed in sustainability reports irrespective of the liquidity or leverage status of the companies.

Assurance was not predictive of any of the social performance indicator components. It can be deduced from this outcome that society prefer to be shown physical evidence of corporate contributions made on the Development, Information and Improvement components rather than communication of such outcomes in corporate assurance reports. In other words, the outcome implied corporate social contributions relating to the Development, Information and Improvement components are regarded as credible through physical evidence rather than through disclosures that have been assured by third parties.

None of the variables was predictive of the Advancement component. This outcome may imply that since employment and training issues are paramount to the success of any company, companies will implement appropriate and sustainable strategies in recruiting and retaining their human capital. Society also expects that companies will adhere to societal norms and values as they implement such strategies and maintain their competitive advantage status in the corporate environment. It follows therefore that society will not expect companies to increase disclosure on such areas of business in their sustainability reports. One reason may be that disclosures that are of competitive advantage are of much corporate value and society expects companies to hold on to a larger portion of that disclosure.

9.3.3 Economic Performance Indicator Category

Findings on the economic disclosure components indicate that companies in the sensitive industry sectors disclose more information on the external investment component of economic disclosure. This implies that companies in the sensitive industry sectors would increase their disclosure on activities relating to the provision of infrastructure and other amenities to communities in which they operate as well as to society in general. Other external investment activities to be considered are programs and strategies implemented to improve efficiency of locally based suppliers as well as policies formulated to increase community recruitment. Also, results that companies in the sensitive industry sectors disclose more information on the external investment component conforms to reality, since operations of companies in the sensitive industry sectors are known to impact more negatively on the environment than do their non-sensitive counterparts. It would therefore be prudent for such

companies to provide more economic benefits for the communities in which they operate as well as ensure that negative ecological impact on resources, including materials supplied to them from local sources, are adequately managed.

The study outcomes also imply that companies with high return on asset ratios (irrespective of their size or industry sector) disclose more information on the value creation component of economic disclosure. Some of the value creation activities relate to management of operational risks and opportunities, employee obligations and any financial assistance obtained from the government. Outcomes from these activities increase corporate disclosures made to both internal and external stakeholders. On the other hand, results also indicated that highly leverage companies would disclose average information on their sustainability activities. This implies that highly leveraged companies would strive to disclose average information in order to reduce monitoring costs, reduce cost of capital and assure debt holders of ability to settle their obligation despite their scarce resources. In effect, companies with high leverage ratios and those with large amount of resources from returns on assets both seek to affirm transparency and accountability of information, and obtain credibility for disclosures published. Credible information reported can be relied upon by stakeholders for decision-making. Credibility for sustainability reports are obtained from third-party independent assurance engagements. Specifically, it is expected that stakeholders require third party opinion on information disclosed on corporate economic development programs since such activities and policies are internal to the organisation and performance can only be verified by independent third-parties. Furthermore, results on the value relevant component of economic disclosure implied that companies with high leverage ratios also increase their sustainability disclosure. Aside this influence of the leverage variable on the value relevant component, leverage did not influence any of the environmental, social and economic components. It can therefore be said that, the relationship between leverage and the value relevant component was out of line with the overall findings of this study because the relationship was applicable to only one component. On the other hand this results was consistent with prior literature (see Patten 1992; Barako et al. 2006).

Furthermore, results of the study also implied that stakeholders will require external party opinion on economic issues. These issues relate to the value creation component.

Decisions to formulate and implement policies that affect the financial health of companies must be made by both directors and shareholders irrespective on their level of corporate shareholdings. This implies that majority institutional shareholders are not in a position to solely influence decisions and subsequent disclosure of information on the value relevant component. Companies are also expected to publicly disclose information on internal activities implemented to create value and improve financial health irrespective of their levels of liquidity ratio. Furthermore, although efficient product and geographical diversification strategies are likely to improve the financial resources of companies, this study shows that other factors and not diversification strategies contribute to corporate value creation activities. Consistent with the outcomes of the study, it is therefore unlikely that product and geographical diversification have any impact on the disclosure practices of companies. Although researchers like Strike, Gao and Bansal (2006) reported a significant correlation between geographical diversification and increased disclosure, the current study outcome is more specific and therefore better conforms to reality.

9.4 Overall Summary of Disclosure Trends in the Components

The overall findings from this study imply that companies that disclose more information in their sustainability reports:

1. tend to reflect high earnings in their assets return. Return on assets influenced six of the components namely: Preservation, Responsibility, Development, Information, Improvement and Value creation.
2. tended to belong to the sensitive industry sectors. Industry influenced five companies which were: Preservation, Responsibility, Development, Information and External Investment.
3. tended to be listed companies incorporated for a short period of time (environmental and social areas of disclosure). Firm age also influenced five components namely: Preservation, Initiatives, Development, Information and Improvement.
4. tended to provide assurance reports (environmental and economic areas of disclosure). Assurance influenced three components which were: Initiatives, Responsibility and Value creation.
5. tended to be large in size (environmental and social areas of disclosure). Size influenced two components which were: Initiatives and Development.

6. tended to have a large percentage independent non-executive directors on their corporate boards (environmental area of disclosure). Board structure influenced one component which was Initiatives.
7. tended to be highly leverage (economic disclosure). Leverage influenced one component which was Value Creation

It can be deduced from the above that assets return has the most influence on increased sustainability disclosures. Companies in the sensitive industry sector and younger companies had similar influence on increased sustainability disclosures. This was followed by assurance and company size. Leverage and independent non-executive directors also had similar influences on increased sustainability disclosures. However, these relationships do not occur with all components of disclosure.

As far as the researcher is aware, this study is the only one that has extended previous studies by examining the effect of both legitimacy and stakeholders (together) in addition to financial and demographic factors on sustainability disclosure.

9.5 Implications for Theory

Prior studies, especially in Australia, have mostly examined the variability between legitimacy theory (Campbell 2003) and environmental disclosure (see Siddique 2009) or environmental performance. From a stakeholder perspective, fewer studies compared to studies of legitimacy theory have used stakeholder theory to examine sustainability reporting (also see Deegan et al. 2006; Sweeney et al. 2008; Belal and Roberts 2010). Furthermore, although both stakeholder and legitimacy theories have been recommended as complementary and not competitive, not many studies have been conducted on the complementary nature of legitimacy and stakeholder theories. Also research on the relationship between the normative perspective of stakeholder theory and sustainability disclosure is also sparse. This makes the current thesis one of few such studies.

Furthermore, the current thesis is also an extension to previous research in that it examines the contribution of both legitimacy and stakeholder theory to predicting specific components of sustainability disclosure.

Other theories include accounting, agency, political, economic, structuration and institutional (see McWilliams et al. 2001; Milne 2002; Bebbington, Kirk and Larrinaga 2003) and their relation with sustainability disclosure have also been examined in prior studies. However such studies are few and provide conflicting evidence. Moreover, none of these theories could be appropriately applied in this thesis because its focus was on the contribution of both legitimacy and stakeholder inclusiveness as a tool for encouraging accountability and transparency through to reporting of corporate sustainability issues.

'Theory building' is seen as an ongoing process in sustainability issues (Dyllick and Hockerts 2002) indicating the need for more in-depth study on how current theories might be combined to push the sustainability agenda. This method of forward-looking 'theory building' has been explored in this study by treating stakeholder and legitimacy theories as complementary in the determination of sustainability reporting. Specifically, findings from the results showed that both stakeholder and legitimacy theories must be seen as complementary (see Deegan et al. 2006; and Adams et al. 2009) with regards to issues pertaining to the initiatives component of environmental disclosure of sustainability reporting.

Furthermore, prior studies have mostly focused on the legitimation of corporate sustainability activities as the main benchmark for ensuring continuous operation. This study has shown that companies pursue assurance as a possible pathway to achieving increased disclosure. Also for companies to be assured of continuous survival, issues relating to legitimacy and stakeholder involvement must be considered alongside each other especially in areas pertaining to energy usage and environmental impact of products and services.

It is also worth noting that with respect to the improvement and value creation components neither size nor industry sector was a factor in influencing sustainability disclosure. Rather stakeholder factors and financial factors were the prominent influences of reporting on the improvement and value creation components. In other words, sometimes a company's returns on assets achievement, the age of a company, assurance of sustainability reports are considered more in the execution of corporate social responsibilities relating to marketing, compliance and activities that help to increase the wealth of an organisation.

The above discussion also ushers in a new trend of considering not only internal factors (as in prior studies) but also external factors when addressing the corporate sustainability agenda. In

effect, sustainability disclosures must meet both corporate objectives and societal expectations.

Also, the current study supported prior studies by reporting that the demographic factors, namely size and industry, play an important role in sustainability reporting. However, it further implies that these demographic factors alone may not be sufficient to achieve an adequate understanding of sustainability disclosures but must be considered along with financial, stakeholder and legitimacy factors.

9.6 Implications for Methodology

Prior studies in environmental/sustainability disclosure using the GRI have applied 'soft' and 'hard' indicators as recommended by Clarkson's et al. (2008). In order to streamline this disclosure index to fit their studies, most researchers placed much emphasis on the hard indicators to the detriment of the 'soft' indicators. This way of streaming the disclosure index prior to any analysis can be seen as an attempt to align results of the research to the expectations of the researcher. Such classifications of disclosure indexes may therefore fall short of the consistency required.

The current study adopted but modified the disclosure index recommended by Clarkson's et al. (2008) in accordance with the GRI performance indicators. All the performance indicators were given equally weighting. This sort of classification equally considers the contribution made by each company in the sample to each indicator and therefore, does not seem to have pre-conceived the pattern of reporting. Also the current study considers sustainability reporting on the basis of four functional areas instead of the two functional areas (namely financial and corporate characteristics) mostly considered in prior sustainability studies. It is envisaged that the current procedure will not only enhance the outcome of the analysis but also add to the different areas under which sustainability information can be measured.

The adoption of hierarchical regression models in social research has been suggested by many researchers including Richter (2006). The reason for such suggestion is that observations in social research are normally made on different levels simultaneously and hierarchical regression models allow the consideration of several variances simultaneously. Hierarchical regression models also provide for two alternative error terms (Van der Leeden, 1998). However, these procedures are not available in standard regression models with OLS

estimation which considers variance explained by predictors simultaneously (discarding any shared explanatory variance with other predictors) rather than sequentially [where shared explanatory is explicitly assigned to specific predictors on the basis of a logical or theoretical order of entry into the model] (Richter 2006). It follows that hierarchical regression models are therefore more suitable for analysing research questions relating to such simultaneous observations, making it possible to avoid some of the methodological issues encountered in the standard regression models with OLS estimation. Furthermore, model building which is adopted in this study is more flexible with hierarchical regression models than with the traditional single-level regression models. This is because hierarchical regression models allow the incorporation of several independent variables into each of the many levels used in the process (Richter 2006). It can therefore be said that the numerous advantages of using the hierarchical regression models over the traditional regression models with OLS estimation make it a better method for adoption in social science research. Studies relating to sustainability disclosures that use hierarchical regression models are sparse. This current approach is therefore seen as a contribution to the increasing body of knowledge, as not many sustainability studies have applied hierarchical regression models in analysing data hitherto with small sample sizes.

9.7 Implications for Policy and Practice

The outcomes of the current study have some implications for companies (especially multinationals) in both developed and emerging economies, as well as for policy makers. Since companies in similar industry sectors tend to adopt similar patterns of disclosure in the areas relating to water, biodiversity and materials; products and services; and labour/management , it is envisaged that the outcomes of the current study will communicate to MNEs information disclosed by their industry peers and the level of emphasis accorded to such information.

Currently, companies operating in both the sensitive and non-sensitive industry sectors may differ in their patterns of reporting. These differences may be due to the different effect that operations of companies in these two different industry sectors have on the environment as a whole and the socio-economic development of areas in which they operate. However, societal expectation is that companies operating in both the sensitive and non-sensitive industry sectors behave sustainably and be accountable and transparent in their disclosures.

Results of this study indicates that companies operating in the sensitive industry sectors, provide extensive disclosure on issues pertaining to the preservation, development, responsibility, information and external investment issues. This has been reiterated by Deloitte and Touch in their IAS Plus report on sustainability reporting (Deloitte 2011). To enhance their legitimacy, it is expected that companies operating in the metal and mining, transport, energy, utility, chemical or oil and gas industries may focus more resources on the collection and processing of data on the above issues than their counterparts in the non-sensitive industry sectors. Furthermore, companies which are also legally required to provide information on their social responsibility performance in the area of environmental management may focus on disclosures relating to the preservation and development components.

Findings from the current study have also emphasised the role that independent non-executive directors on the boards of publicly listed companies can play in helping those companies to achieve their sustainability objectives. Shareholders, especially socially responsible shareholders of multinational companies, are encouraged to elect a higher percentage of independent non-executive directors unto the boards of companies to be able to improve their socially responsibility status.

According to this study, information from improved sustainability activities has to be independently verified to be seen as reliable. Since enhanced sustainability activities are likely to yield further investments and improve share prices on the capital market, results of this study encourage multinationals not only to focus on strategies that can enhance their sustainability activities but also strive to have their reports assured by third parties.

Also, in order to achieve the positive outcomes from sustainability projects, companies have to realign their training priorities to focus more on development programs for employees and suppliers. These programs could also be designed to improve labour/management relationships as well as enhancement of the supply-chain process, to ensure the supply of more environmentally friendly products and services. Furthermore, the study advocates that companies that have only been listed on stock exchanges for a short period of time (i.e. younger firms), rather than those that have been listed for long periods, are likely to benefit more from increased disclosure on their sustainability activities. It is therefore envisaged that

companies that fall into the former group give more attention to their sustainability performance and disclosure in order to yield better positive results for their growth.

From a policy perspective, these findings are specifically of much importance to the GRI as the study examines corporate disclosure of the GRI G3 reporting guidelines. The GRI has started making efforts to revise the current G3 guidelines and expects to produce revised guidelines (G4) by May 2013. It is expected that the findings from this study can form part of the inputs to be considered in the upcoming G4. The current aspects of the GRI G3 guidelines and the additional requirements of the G3.1 guidelines could be modified to reflect more concise measurement issues that will prevent repetition of such issues in other aspects. As data collection and processing are costly, the current large number of aspects could also be reduced into fewer components such as the 9 components in this study. This reduction will allow companies to collect data at a lower cost, at the same time not compromising on quality or quantity and be able to provide more relevant outcomes in all three areas of reporting. This can help find some solution to the current problem where companies provide more outcomes on the environmental indicators to the determent of the social and economic indicators. Lower cost of data collection can also prevent some companies from attempting to 'tick the boxes' in order to meet the quantity of indicators reported by their peer in the industry sector. Furthermore, results from the study provide specific outcomes that can also positively contribute to the ongoing improvements of other sustainability reporting guidelines.

It must be noted that substantive component loadings were not observed for monetary and non-monetary values of fines, sanctions for noncompliance and substantial complaints of breaches of customer privacy when PCA was used to identify the initial components for the environmental, social and economic performance indicators. The outcome could mean that, the monetary and non-monetary values of fines, sanctions for noncompliance and substantial complaints of breaches of customer privacy measures are unique and therefore have no identifiable alignment with other indicators. It will therefore be necessary to create more indicators in these areas of reporting; in order to yield more reliable and valid measurements of the construct they represent.

The GRI could consider reducing the structure of the aspects of the G4 guidelines in line with the above. Additionally, corporate disclosure in the sustainability reports of the selected companies on issues relating to management of hazardous waste, recycled packaging

materials, anti-corruption and non-compliance issues, and entry-level wage ratios was very low. This finding was contrary to prior research where issues relating to human rights were rather reported as least disclosed. It is, therefore, recommended that sustainability guidelines developers either reconsider including the above least reported indicators in future revised versions or reword such indicators to make them more conducive to information disclosure.

Findings of the current study have shown that information is provided on most environmental disclosures (except the few stated above). Since the GRI guidelines have become globally accepted sustainability guidelines used by all types of corporations, governments or policy makers may consider all GRI environmental indicators as a mandatory requirement for companies to report. This requirement will ensure completeness, consistency and comparability in reporting. Alternatively, this mandatory policy could start with all corporations in the sensitive industry sector. Furthermore, disclosure on all environmental indicators could provide the much needed information by governments and international bodies on current issues relating to corporate responsiveness to national emission reporting schemes and management of issues contributing to climate change.

Similar to previous studies a notable finding of the current study shows that companies with strong financial ratios are able to process and disclose more sustainability information. It follows that since sustainability legislation and policies require extensive or increased sustainability performance and disclosure at the corporate level, policies that demand such information must initially target profitable multinational companies. These multinationals must also be those that have listed on stock exchanges for a long period of time rather than newly listed local companies.

Finally, several standards, including AccountAbility, emphasise the principle of inclusivity. This principle encourages the inclusion and/or management of stakeholders in corporate decision-making. The results of the study throw more light on the inclusivity principle by indicating the particular areas of corporate activity where stakeholder inclusiveness or stakeholder management can be most effective. Thus, organisations that stress or encourage stakeholder inclusivity can consider reviewing their standards to include information on specific areas where stakeholder inclusiveness or stakeholder management could be most appropriate to both companies and primary stakeholders.

9.8 Contribution made by the Thesis

Hierarchical analysis was adopted to analyse the relationship between selected predictors and sustainability disclosure. To the knowledge of the researcher, this is the initial attempt made at using hierarchical regression to address such issues.

An attempt is made especially by the GRI to encourage researches to identify specific disclosure that stakeholders expect to be made by companies. Contributions in this area will also be relevant for the review of the GRI G3 guidelines. This is therefore a gap yet to be filled in literature and the current thesis attempts to fill that gap. This unique aspect of the study is an attempt to find solutions to the issue of lack of stakeholder appreciation of sustainability reports as mentioned in literature.

Previous literature argues that stakeholders fail to adequately patronise corporate sustainability reports in the same manner that annual financial accounting reports are patronised. Deegan et al. (1996) suggest that a reason for such failure can be the self-laudatory nature of environmental reports. Compiling and publishing sustainability reports are very costly and therefore it is necessary for report users to appreciate and be able to use information disclosed in these reports for decision making. One of the arguments made by the thesis is that the inclusion of stakeholders (especially primary stakeholders) in corporate decision making will improve accountability of the use of societal resources and transparency of disclosure. It is therefore very important that indicators on which stakeholders expect reports from companies are known and disclosed even if those companies will not be able to report on issues relating to all the indicators. This is a gap in literature that the thesis has attempted to fill.

The use of PCA analysis to extract factors that best describe the relationships among the indicators is a very significant contribution made in the thesis. This extraction process although important has sparsely been use in sustainability disclosure literature. The form of classification normally adopted in literature is that recommended by Clarkson et al. (2008). This classification was also later adopted and modified by the thesis. The use of PCA analysis has been recommended as a significant contribution of this thesis even by one of the examiners.

Theory building- Articles including that Dyllick and Hockerts (2002) have recommended the need to combine theories to push the sustainability agenda. The use of theory building in sustainability literature is sparse. An attempt was made in this thesis to address this gap by combining both stakeholder and legitimacy theories to address the issues examined. Furthermore, 'theory building' is seen as an ongoing process in sustainability issues (Dyllick and Hockerts 2002) and this indicates the need for more in-depth study on how current theories could be combined in pushing the sustainability agenda, instead of treating such theories as mutually exclusive.

9.9 Limitations of the Study

Due to certain limitations of the current study, caution should be exercised with respect to the interpretation and generalisation of the results. One important limitation in the study was the small sample size. The small sample size was a result of the few companies that registered their sustainability reports on the GRI database in all the three countries in 2008. As already stated in Chapter 6, companies had to register sustainability reports for both 2008 and 2009 to be selected. The small sample size would therefore limit association of the results with all business types. The small sample sizes achieved for each target country also prevented investigation of regression model differences between those three countries; the data were simply pooled for this thesis investigation. Furthermore, most of the variables used in the study were peculiar to multinational enterprises (MNEs) with several subsidiaries. The outcomes could therefore be generalised to MNEs but care must be taken when interpreting the results in terms of local companies that are small in size and operations and without subsidiaries.

Although the results can be generalised to multinationals it is mostly related to reporting during the global financial crisis and therefore there could be slight changes in results when other normal years are used. However it is expected that the averaging of dependent variables for both years may have reduced this limitation to a large extent and brought the results nearer to that of a normal year. This may therefore reduce the changes that may occur when normal years are used.

Furthermore, although data were collected for a period of two years (2008 and 2009) instead of a single point in time, they were averaged over the two years to enhanced indicator

reliability rather than track trends between the two years. This means that the current study cannot be viewed as a longitudinal investigation. For example, it cannot speak to any changes in sustainability reporting that may have occurred before and after the global financial crisis. It is not known whether corporate sustainability reporting would present similar outcomes if longitudinal data were analysed.

Another limitation was the use of secondary data only in the form of stand-alone reports and annual reports. The current study is however, an improvement on prior studies that have mostly been centred on information from annual reports and therefore, lacked greater details of corporate sustainability disclosure. Nonetheless, adoption of interviews or questionnaire as an additional method of primary data collection could have improved the results through enhancing the contextual sensitivity of the findings.

The use of the GRI G3 as one of the basis for sample selection could be viewed as a limitation, as there were other social responsibility guidelines which could also be considered. However, the GRI was considered appropriate for the current study as it is an internationally accepted sustainability reporting guidelines and therefore used by several companies globally. The GRI is also focused on sustainability disclosure whilst most of the other guidelines are focused on sustainability investments. Additionally, adoption of the GRI G3 for the current study ensured consistency and comparability of corporate stand-alone reports. However, interpretation of the finding of the study in terms of other social responsibility guidelines should be done with caution.

There were also some limitations regarding measurement issues. Several mutually exclusive variables namely Tobin's Q and return on asset; sustainability committee and board membership with environmental duties were adopted as part of the initial predictors for the study. Although these predictors could not be used in the same hierarchical analyses, they were used interchangeably in the sensitivity analysis to determine the robustness or otherwise of the initial outcomes of the study. It should however, be noted that the limitations above do not render the outcomes of this study less significant but are intended to rather provide more insight for future research.

In this study, the economic benefits component, a third component of the economic performance indicator was not analysed because of its low Cronbach's alpha value of .258.

The economic benefits component provides information on amount of economic value generated and distributed by companies. This result could mean that the component was not a coherent economic construct that could be measured with the current data. However, such information is of relevance to stakeholders as they are able to access the level of corporate economic contributions to communities in which they operate. Thus, other measurement options could be considered in future studies to examine the association between the economic benefits component and corporate sustainability reporting.

9.10 Directions for Future Research

Future research should increase the sample size to include both local and multinational companies. Also, the country, employee enhancement, member of sustainability association variables considered by the current study but not used in the analysis as well as other variables which are applicable to both type of companies could be included. This will enrich the model and make the findings more generalisable. A large sample size can also allow for interactions to be made amongst the predictors. The influences of these interactions on the dependent variable(s) can also be obtained.

In future studies, instead of focusing of only two industry sectors i.e. sensitive and non-sensitive, classification of industry sectors could be sub-divided into various sectors such oil and gas, trade and retail, utilities, chemicals, food and beverages, electronics as in Kolk (2003). Similarly, the influence of country could also be investigated in future research where opportunities to obtain a sufficient sample size within each country can be seized. With a sufficient number of companies sampled in each target country, regression models could be separately tested and compared between companies.

Again, further research could also apply a longitudinal methodology in assessing average corporate disclosures after 2009. In doing so, different measurements could also be used to calculate the financial predictors specifically, leverage and liquidity. Also, the influence of the predictors for stakeholder and legitimacy in longitudinal analysis could be examined. The outcome will determine the influence of any changes on the current model and/or render the current recommendations more robust or otherwise. The outcome could therefore provide more insight into the effect of time on reporting. As a form of corporate reporting, this

research provides information on the performance indicators, leaving issues concerning strategy, profile and management approach for future research.

Future research may also focus on economic development tied to and with social responsibility and more related disclosures especially voluntary, in order to ascertain a more solid connection between the two.

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Appendices

Appendix 1: Indicators for Measuring Sustainability Disclosure (Summary)

Performance Indicators	No. of Indicators
Environmental	
Materials	2
Energy	5
Water	3
Biodiversity	5
Emissions, Effluents and Waste	10
Products and Services	2
Compliance	1
Transport	1
Overall	1
Social	
Human Rights	
Investment and Procurement Practices	3
Non-Discrimination	1
Freedom of Association and Collective Bargaining Agreement	1
Child Labour	1
Forced and Compulsory Labour	1
Security Practices	1
Indigenous Rights	1
Labour Practice & Decent Work	
Employment	3
Labour/Management Relations	2
Occupational health and Safety	4
Training and Education	3
Diversity and Equal Education	2
Product Responsibility	
Customer health and Safety	2
Product and Service labelling	3
Marketing Communications	2
Customer Privacy	1
Compliance	1
Society	
Community	1
Corruption	3
Public Policy	2
Anti-Competitive Behaviour	1
Compliance	1
Economic	
Economic Performance	4
Market Presence	3
Indirect Economic Impacts	2

Appendix 2: Indicators for Measuring Sustainability Disclosure (Detailed)

Performance Indicators	Aspects	Indicators
Environment	**Materials**	Materials used by weight or volume; Percentage of materials used that are recycled input materials
	Energy	Direct energy consumption by primary energy source; Indirect energy consumption by primary source; Energy saved due to conservation and efficiency improvements; Initiatives to provide energy-efficient or renewable energy-based products; and services, and reductions in energy requirements as a result of these initiatives; Initiatives to reduce indirect energy consumption and reductions achieved.
	Water	Total water withdrawal by source; Water sources significantly affected by withdrawal of water; Percentage and total volume of water recycled and reused.
	Biodiversity	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas; Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas. Habitats protected or restored; Strategies, current actions, and future plans for managing impacts on biodiversity; Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.
	Emissions, Effluents and Waste	Total direct and indirect greenhouse gas emissions by weight; Other relevant indirect greenhouse gas emissions by weight; Initiatives to reduce greenhouse gas emissions and reductions achieved; Emissions of ozone-depleting substances by weight; NOx, SOx, and other significant air emissions by type and weight; Total water discharge by quality and destination. Total weight of waste by type and disposal method; Total number and volume of significant spills; Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally; Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.
	Products and Services	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation; Percentage of products sold and their packaging materials that are reclaimed by category.
	Compliance	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.
	Transport	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce
	Overall	Total environmental protection expenditures; and investments by type.

Social		
Human-Rights	**Investment and Procurement Practices**	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening; Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken; Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.
	Non-discrimination	Total number of incidents of discrimination and actions taken
	Freedom of Association and Collective Bargaining	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights
	Child Labour	Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour.
	Forced and Compulsory Labour	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures taken to contribute to the elimination of forced or compulsory labour.
	Security Practices	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.
	Indigenous Rights	Total number of incidents of violations involving rights of indigenous people and actions taken.
Labour Practices and Decent Work	**Employment**	Total workforce by employment type, employment contract, and region; Total number and rate of employee turnover by age group, gender, and region; Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.
	Labour/ Management Relations	Percentage of employees covered by collective bargaining agreements; Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.
	Occupational Health and Safety	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs; Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region; Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases; Health and safety topics covered in formal agreements with trade unions; Health and safety topics covered in formal agreements with trade unions.
	Training and Education	Average hours of training per year per employee by employee category; Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings; Percentage of employees receiving regular performance and career development reviews.
	Diversity and Equal Opportunity	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity; Ratio of basic salary of men to women by employee category.

Product Responsibility	**Customer Health and Safety Product and Service Labelling**	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures; Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services, by type of outcomes. Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements; Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes; Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.
	Marketing Communications	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship; Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes
	Customer Privacy	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.
	Compliance	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services
Society	**Community**	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.
	Corruption	Percentage and total number of business units analysed for risks related to corruption; Percentage of employees trained in organization's anti-corruption policies and procedures; Actions taken in response to incidents of corruption.
	Public Policy	Public policy positions and participation in public policy development and lobbying; Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country
	Anti-Competitive Behaviour	Total number of legal actions for anticompetitive behaviour, anti-trust, and monopoly practices and their outcomes
	Compliance	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.

Economic	**Economic Performance**	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments; Financial implications and other risks and opportunities for the organization's activities due to climate change; Coverage of the organization's defined benefit plan obligations; Significant financial assistance received from government.
	Market Presence	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation; Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation; Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.
	Indirect Economic Impacts	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement; Understanding and describing significant indirect economic impacts, including the extent of impacts.

Source: GRI G3 Guidelines

Appendix 3: Correlation Analysis of Predictors

	msiz	mgdi	mpdi	mownin	lmownma	mbst	mlev	fage	lmroa	lmliqu
mgdi	.104									
mpdi	-.295*	-.011								
mownin	-.205	.130	.122							
lmownma	.009	.275*	.086	.076						
mbst	-.285*	-.064	.006	.298*	-.280*					
mlev	-.186	-.099	.066	-.042	-.152	.097				
Fage	.155	-.018	-.028	-.119	-.263*	.025	.167			
Imroa	.223	-.187	.262*	-.099	.027	.006	-.102	.085		
Imliqu	-.219	.032	.160	.167	.172	.129	.086	.067	.289*	
lmtobQ	.024	.142	.203	-.128	-.013	-.111	-.090	.173	.275*	.247*

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).