INDEPENDENT ASSURANCE COMPLIANCE OF SUSTAINABLE DEVELOPMENT DISCLOSURES IN THE JOHANNESBURG STOCK EXCHANGE FIRMS

Collins C Ngwakwe*

Abstract

This paper examines the extent to which the sustainable development disclosures of companies listed on the Johannesburg stock exchange (JSE) comply with independent external assurance. This is necessary to provide information to responsible investors and to assess the sustainable development commitment of firms in the JSE. A sample of firms within the JSE was taken from the Socially Responsible Index (SRI) group and the non-SRI group. Analysis indicates an increase in the number of firms vying for recognition as socially responsible firms in the JSE's SRI. Furthermore, a chi-square analysis shows that the SRI and non-SRI group of companies have a comparable rate of compliance with the independent external assurance of sustainable development disclosures. Overall findings indicate that the JSE's SRI initiative has been functional in driving the sustainable development initiatives of firms in the JSE. There is practical evidence of firms' commitment to carbon reduction, energy efficiency, waste management, black economic empowerment, water efficiency and other sustainable development initiatives. The paper concludes that stock exchanges may be a catalyst for driving sustainable development behaviour in firms located in emerging and developing countries, hence the paper recommends that stock exchanges in these countries may replicate the sustainable development initiative of the Johannesburg Stock Exchange as this may contribute to the sustainable economic development of emerging and developing countries. The paper offers opportunities for future research on the role of global stock exchanges in fostering sustainable development.

Keywords: Sustainable Development, Sustainability Disclosure, Stock Exchange, Sustainability Assurance, Responsible Investing, Environmental Initiatives

**School of Accountancy, University of Limpopo, South Africa*

1 Introduction

Society is facing two distressing crises. At one end is the global financial crisis and, at the other extreme, is the environmental crisis; combined these crises threaten human well-being and survival. However, transparent sustainable development commitment is key to remedying these crises (KPMG; UNEP; GRI; UCGA, 2010). Given that contemporary human problems – financial and environmental – are human induced; these problems also require a human solution. Hence, with the realisation that corporations contribute significantly to contemporary environmental problems, global sustainable development campaigns have centred on initiatives to encourage corporate entities to reduce their environmental impacts and to publicly disclose such efforts. Corporate sustainable development disclosure is important in assisting the public to judge the extent of sustainable development compliance and therefore boosts the legitimacy of complying corporations. Above all, disclosure acts as an innate drive to motivate firms to be proactive about environmental social and governance (ESG) risks and opportunities and thus assists towards sustainable development (le Roux 2010). But this can only occur where firms are committed to transparent disclosure and it is this realisation that has brought to the fore the concept of independent external assurance of corporate sustainable development disclosure. It is believed that external assurance of corporate sustainable development disclosure will boost corporate commitment, and hence, the transparency and credibility of such reports. Thus assurance should result in pragmatic corporate sustainable development commitment with the goal of saving the environment and restoring a healthy climate.

Some emerging economies have shown unprecedented commitment in driving corporate sustainable development initiatives (KPMG; UNEP; GRI; UCGA, 2010) and South Africa is one such emerging market in which the organised stock exchange – the Johannesburg Stock Exchange, hereafter the JSE – has initiated the first socially responsible index (SRI) in a stock exchange (World Federation of Exchanges 2009; JSE, 2012). With strong belief that corporations may contribute toward realising the ideals of sustainable development, the JSE has, since 2004, pioneered the socially responsible index (SRI) in which firms are encouraged

to strive toward meeting the independent external assurance requirement of the Global Reporting Initiative (GRI) and the South African King III reporting requirements with emphasis on climate change criteria (le Roux, 2010). South African corporations have been responding with enthusiasm as indicated by the fact that the number of firms vying for listing in the SRI has increased from year to year since 2004. Whilst firms have been striving to meet the requirements of reporting, one key important reporting requirement that has shown little progress is the external assurance of sustainable development reports (Marx and Dyke 2011).

Using the 2009 sustainable development disclosure reports Marx and Dyke (2011) uncovered limited sustainable development assurance reports amongst South African firms; hence they support the King III report (effective March 1 2010) that recommends the inclusion of external assurance on sustainable development reports. It has therefore become necessary to use current 2011 data to evaluate the extent to which JSE companies have complied with the external assurance requirement of the King III report which took effect from March 2010. Thus, the question that motivated this research is: to what extent has the JSE SRI listed firms complied with the external assurance requirement of sustainable development disclosure? Consequently, the objective of this paper is to evaluate the extent of external assurance compliance in the sustainable development disclosures of the JSE SRI listed firms and to highlight the sustainable development implications of external assurance of sustainability reports.

This paper is considered important given current public attention on corporate environmental behaviour (Hopwood 2009) and, with the saturation and gradual weakening of developed economies, investment attention is turning to the emerging markets of which South Africa is the leading one in Africa. With current corporate environmental hazards such as the BP oil spill, astute investors are no longer avid about short-term profitability. They now seek an investment terrain that integrates a sustainable development ethos as this will provide desired corporate resilience against environmental and climate change risks, as well as, promote sustainable development. Given therefore that "markets are driven by information" (Blinch and Panwar, 2012), information regarding the extent to which South African firms comply with sustainable development assurance has implications for the international credibility of such reports and may contribute to attracting socially responsible investors from the international market to the South African market.

The findings of this paper are that South African firms in the JSE are fast embracing the external assurance of sustainable development reports and are taking environmental concerns and sustainable development seriously. This paper is, therefore, considered to be of modest significance to corporate sustainable development analysts, emerging market investors, researchers in emerging markets and scholars in emerging market sustainability. The paper indicates that conscientious cooperation between government and investors may reform the fulcrum of corporate capitalism – the stock exchange – to be a pivot of a corporate sustainable development initiative. Overall, the paper indicates that the South African JSE is showing unwavering capacity to inspire a corporate sustainable economic development initiative and this should therefore be emulated by other emerging and developing markets as an avenue to assist with fostering sustainable development in emerging and developing nations.

Research focussing on the extent of sustainability reporting assurance has been done by KPMG (1999, 2002, 2005), Simnett *et al*., (2009) and, more recently, Marx and Dyke (2011). Other studies on sustainability assurance have dwelt more on the quality of assurance, the drivers for assurance, the benefits of assurance, choice of assurance, content of assurance reports and the effects of assurance on users' perception of the reliability of sustainability reports (Fonseca, 2010; Kolk and Perego, 2010; Park and Brorson, 2005; Mock *et al.,* 2007; O'Dwyer and Owen 2005; Hodge, Subramaniam and Stewart 2009). This paper contributes to existing literature on the assurance of sustainable development reporting by taking a slightly different stance from other works and examines the extent of sustainable development reporting assurance compliance by firms in a stock exchange in an emerging market – South Africa – and how the JSE is spurring corporate adherence to sustainable development initiatives in South Africa.

The rest of the paper is organised as follows: the next section presents related literature on the independent assurance of corporate sustainable development disclosure. This is followed by two short sections; one discusses briefly the sustainable development imperative for external assurance of corporate sustainable development disclosures; the other section highlights the initiative by the Johannesburg Stock Exchange for corporates' sustainable development disclosure. The next section presents the methodology and results and the last section is the discussion and conclusion.

2 Related Literature

Given the voluntary nature of sustainable development reports, independent external assurance has been seen to be strategic in the sustainable development reporting process (Manetti and Becatti 2009). Observations from the Ballou *et al.* (2012) survey indicate that corporate sustainable development disclosure is on the increase and highlight that chartered accountants have an important role to play in acting as external assurers of such information. This role has already commenced in South Africa as firms are employing the services of the Big Four audit firms,

Ernst and Young, PWC, KPMG and Deloitte to give independent external assurance on sustainable development disclosures.

From an assurance quality perspective, Fonseca (2010) studied sixteen member companies of the International Council on Mining and Metals (ICMM) with a view to examining the quality of the external assurance of their sustainable development reports. The study found that nine of the sixteen member companies employed the services of external assurers, but lamented the observable limited quality and scope of such assurance. In a related study Kolk and Perego (2010) found that companies operating in stakeholder oriented countries are likely to report external assurance and to choose large audit firms as sustainable development assurers. They also found that, in countries with market and institutional propelled sustainable development adherence, this is more likely to drive corporations' engagement with the external assurance of their corporate sustainable development reporting. This is akin to the South African case where the drive by the Johannesburg Stock Exchange (JSE) is spurring corporate sustainable development disclosure and the assurance thereof. In their research Simnett *et al.* (2009) concluded that corporate intention to build credibility and reputation drives the external assurance of sustainable development reports. Also, in a study of twenty-eight Swedish firms, Park and Brorson (2005) reported that the externally assured firms indicated that the benefits derived from external assurance of such reports include more insight from external assurers into how to improve internally the sustainable development reports and the credibility these offer to reported data. However, the un-assured group proffered the high cost of assurance as an obstacle to engaging in the independent assurance of corporate sustainable development reports. Due to the alluded cost implications, it has therefore been reasoned that the external assurance of sustainability reports is more likely to be found in firms in which the organisational benefit of assurance out-weighs associated costs (Carey *et al*., 2000; Brammer and Pavelin, 2006; Brown and Fraser, 2006). In a similar study Mock *et al.* (2007) investigated the choice of assurance provider (Big Four and non-Big Four) by firms and concluded that over 60% of sustainability assurance reports come from non-Big Four audit firms. It is possible that firms may be avoiding the higher cost of the Big Four audit firms and their higher level of sustainability assurance scrutiny (see Crespin, 2012). Perhaps the Big Four firms should regard their role in sustainable development assurance as more of a social responsibility than profit making opportunity in order to increase their growing contribution toward sustainability development assurance (O'Dwyer 2011). In a robust study comparing sustainability assurance reports internationally Simnett *et al.* (2009, p. 965) found that the assurance of sustainable development reports is more prevalent in companies "with a larger social footprint" and in big industrial activities such as mining, finance and utilities. Their research findings also suggested that firms in stakeholder oriented countries are more engaged in the external assurance of sustainability reports. This was later corroborated by Kolk and Perego (2010). These repeated findings by researchers point to the importance of stakeholders in driving corporate sustainable development and environmental initiatives. Due to stakeholder and country sustainable development differences, corporate responses to sustainable development assurance differ from country to country. The findings of research by KPMG (2005 cited in Simnett *et al.,* 2009) indicate a low percentage of sustainability reporting assurance in firms in the United States and Canada; with three per cent in the US and ten per cent in Canada. Furthermore, the research indicated that other countries did better; for instance the U.K. recorded fifty-three per cent, Australia forty-three per cent, continental Europe forty-one per cent and Japan thirty-one per cent.

Other research has focused on whether the external assurance of sustainability reports meets desired expectations. Green (2012) undertook an empirical study of an expectation gap in greenhouse gas emissions assurance. Results indicated that a gap exists between preparers, assurers and shareholders regarding the usefulness of emission information and the proficiency of assurers. The study highlighted the need to ensure the credibility of the assurance function. Consequently, in pursuit of credibility, the GRI has recommended the qualities that an assurance report should possess (GRI, 2011, p.1). Furthermore, responses from Green's (2012) empirical study indicated that accounting firms are better equipped to engage in sustainable development assurance reports. In other contrasting research O'Dwyer and Owen (2005) evaluated the extent to which assurance practices promote accountability to stakeholders; their findings revealed some degree of managerial influence over the assurance process. This indicates that such firms did not abide by the GRI standards which seek to ensure the credibility of assurance reports (GRI 2011, p. 1). These standards, amongst other objectives, strive to eliminate managerial control of sustainable development assurance.

This paper attempts to extend this earlier research by evaluating the extent to which the sustainable development disclosures of companies listed on the JSE comply with independent external assurance. It does so by using the 2011 sustainable development reports. It also sheds light on how the Johannesburg stock exchange spurs the sustainable development initiatives of firms in an emerging market, South Africa.

3 Conceptual context

Before proceeding to the main crux of this paper – external assurance compliance of sustainability

disclosure of JSE firms – it is deemed apposite to underscore two closely related conceptual issues that are apparently interwoven with the assurance of sustainability disclosure of firms (Vogel, 2007). These are transparency and private or self-regulation. Whilst the endeavour to remain transparent enhances the performance and credibility of sustainability disclosure through, for instance, external assurance, private or self-regulation places the onus on firms to comply with self-made regulations. The significance of transparency and private or self-regulation (in the context of this paper) is thus briefly discussed in the following sections.

4 Transparency and Sustainability Performance

Transparency and accountability is *sine qua non* for improving corporate sustainable development disclosure and performance (GRI, 2010a). This means that corporate willingness to be accountable by being open about its social and environmental commitments is fundamental to pragmatic sustainable development disclosure that also impacts on sustainable development performance. Corporate transparency pervades all areas of corporate operations (financial and non-financial) and interactions with all stakeholders, including society and environment. Demand for holistic transparency has become important as it contributes to fostering investors' trust especially in the aftermath of the recent global financial meltdown. Consequently, as responsible investors are demanding transparency (Marian, 2012; Industry Canada, 2012), firms are becoming conscious of the implicit competitive advantage embedded in transparency – be it financial or environment, social and governance (ESG). Thus, investors' growing demand for transparency (GRI, 2011b) is becoming one of the motives for corporate transparency.

Transparent disclosure of corporate sustainability initiatives enhances sustainability performance (Lydenberg *et al.*, 2010); this enhancement can arise from two fronts. From the external front, transparency enables the investors and interested public to appraise the corporate sustainability stance; such appraisal and subsequent criticisms place further obligation on the firm to do more. For instance, sustainability appraisals conducted to ascertain whether a firm's extent of transparent disclosure qualifies it to be listed as socially responsible by, for example the Financial Times Stock Exchange for Good Index (FTSE4Good Index Series) and the Johannesburg Stock Exchange Socially Responsible Investing Index (JSE SRI); and the carbon disclosure appraisal conducted by the Carbon Disclosure Project (CDP) will stimulate the sustainability performance of firms. Thus transparency has been seen to be functional in boosting corporate sustainability scores such as in the carbon disclosure project (Tessier, 2012). Furthermore investors' appraisal of transparency in current corporate sustainability disclosure assists firms to strive towards enhanced transparency in subsequent periods as investors' demands for sustainability cannot be compromised if the firm is to meet the capital expectations of the investors who are increasingly becoming avid regarding sustainability issues (GRI, 2010b).

From the internal front, transparency motivates corporate self-appraisal which thus leads to re-strategising to perform better in subsequent periods. Thus, according to GRI (2010a), transparent reporting has been recognised as boosting corporate sustainability performance over time. This is facilitated by corporate self-rethinking, rebuilding and further reporting. Transparency enables a firm to rethink past sustainability achievements, see whether targets have been met, improve upon identified previous strengths and weaknesses and fashion out a new strategy to rebuild the overall sustainability initiatives of the firm. Such internal appraisal and rebuilding may lead to overall improvement in the subsequent sustainability performance of the firm GRI (2010a). Transparency in sustainability reporting offers holistic internal sustainability management:

> CSR reports are valuable tools for internal management of ESG issues, as they present a report card of a company's management of natural capital. They also serve to educate employees about ESG issues as well as are a starting point for discussing ESG issues with external stakeholders (GRI, 2010c, p.1)

Thus according to GRI (2010d, p.1) the reporters' survey indicates that transparent reporting enhances sustainability performance: '70% of participants stated that reporting significantly changes corporate performance'; this has also been suggested by Quaak *et al.* (2007).

A firm's ability to perform objective and effective self-appraisal requires that it has clear self-sustainability regulations. Corporate self-sustainability regulations are self-made corporate sustainable development principles that the firm must adhere to in order for it to remain sustainably credible in the eyes of investors. Such self-regulation emanates from an array of emerging private sustainability regulations geared toward galvanising corporate sustainable development efforts. Hence, according to Vogel (2008), emerging corporate transparency in corporate sustainable development commitment seems to be influenced by private regulations. The next section discusses briefly the significance of private regulations for corporate sustainability.

5 Private Regulation and Corporate Sustainability

Private regulation refers to 'regulations that govern the social and environmental impacts of global firms and markets without state enforcement' (Vogel, 2008, p. 261; Tulder and Swart 2006). Such private regulations

may come in the form of corporate self-regulation whereby a firm engages in voluntary autonomous self-regulation which is self-determined Private regulation may also be in the form of 'self-regulation by groups' (Gunningham and Rees 1997). Combined together therefore, private or self-regulation is defined by Huyse and Parmenter (1990, p. 259 as cited in Gunningham and Rees, 1997, p.364) as 'the normative orders of private governments (such as corporations, schools, hospitals), and the normative orders of professional communities and business networks'.

As explained by Gunningham and Rees (1997) 'the normative orders of professional communities and business networks' is made up of corporate self-regulation and industry self-regulation and, according to Gunningham and Rees, (1997, p. 364), industry self-regulation has a significant capacity to function as an instrument of social and environmental policy. They further define industry self-regulation as:

A regulatory process whereby an industry-level (as opposed to a governmental or firm-level) organization sets rules and standards (codes of practice) relating to the conduct of firms in the industry, (Gunningham and Rees, 1997, p. 364).

This type of private or self-regulation is similar to a stock exchange sustainable development regulatory initiative that strives to motivate firms within the stock exchange market to conform to sustainable practices.

However there has been an array of criticisms against self-regulation; some regard it as ineffective and mere camouflaging and detraction (The New Standard, 2007) which lacks credibility and accountability (King and Lenox, 2000). However Ogus (1999) has suggested that such criticisms may only be applicable to some circumstances and should not necessarily be generalised as critics may have a limited picture of self-regulation, the reason being that certain institutional arrangements may have some self-regulatory effectiveness that may thus escape some traditional criticisms of self-regulation. For instance, according to Baggott and Harrison (1986) self-regulation in the advertising industry has had relative effectiveness given that members foresee benefits accruable from public credibility. Thus Green and Hrab (2003) have argued that the significance of self-regulation towards achieving desired industry behaviour may be 'context specific'. This may imply that, albeit conventional criticisms of self-regulation, in some cases, this may still have some measure of significance in driving desirable industry social and environmental norms (King and Lenox, 2000). Thus, according to Gunningham and Rees (1997, p.363) 'industry self-regulation can be an effective and efficient means of social control that has been largely ignored by economics'; such regulations strive to monitor and reduce corporate excesses that affect society and environment (Gunningham and Rees 1997). Consequently it seems that emerging submissions that private regulation may be useful in motivating corporate social and environmental performance might extenuate (to some extent) criticisms against private regulation as being mere symbolism and/or sham (Gunningham and Rees 1997).

There is a growing realisation that the emergence of private regulations is facilitating increased and improved sustainability reporting and performance of corporations (Brereton, 2002; Midttun, 2007). This may mean that regulations, even when not mandatorily emanating from governmental authorities, may be functional in directing corporate behaviour to desired norms and/or ethos regarding sustainable development. Private sustainability regulation, whether self-made within the firm or made from outside the firm is seen to have a motivational drive on the firm that, although voluntary, compels the firm to perform better (King and Lenox, 2000). Supporters of self-regulation posit that it can be more effective, saves time, is more flexible and remedies the weaknesses and failures in government regulations (Amstel, 2007). Thus industry self-made regulation seems to resemble an oath that the firm is committed to, particularly as self-made corporate sustainability regulations are publicly declared. Firms thus feel compelled to live up to their words by striving to meet self-sustainability regulations to remain credible in the eyes of the public.

Furthermore, proponents of private or self-regulation within industry maintain that it has the potential to promote a firm's sustainability initiative and thus compels business to go beyond expected minimum standards of sustainability behaviour (Hjalager, 1996). In the same vein, Bohdanowicz et al. (2005) opine that a voluntary standard is one important means to achieve corporate sustainability as firms may perceive it as strategic in winning the support of investors. On the other hand, Bramwell and Alletorpo (2001) believe that industry is better placed to enact sustainability practices that meet the expectations of environment and society; this assertion appears plausible from the angle that business is part of society and environment and, by virtue of its closeness to society, it is more aware of what is deemed sustainable for society, environment and business.

It has also been argued that industry self-regulation may possess some measure of effectiveness in enhancing corporate sustainability performance given that effective self-regulation may prevent harsh regulations coming from the government (see e.g. United States Federal Trade Commission (US FTC), 2007) and hence industry strives to abide by such self-regulation in anticipation of being watched and/or monitored by government. Furthermore, as highlighted by Vogel (2008), companies are becoming, more than ever, submissive to and/or compliant with private sustainability regulations. And the GRI (2010) concurs that:

Huge progress has been made on sustainability reporting over the last decadthis is helping investors to factor sustainability considerations into decisions about company management and performance (GRI, 2010b, p. 1)

Thus amidst criticisms, given certain conditions, private regulation may be functional in motivating business behaviour towards social and environmental sustainability.

There is growing evidence of a range of circumstances where self-regulation (either alone, or more commonly, in conjunction with other policy instruments) can be a remarkably effective and efficient means of social control (Gunningham and Rees (1997, p.363).

According to an Australian Government task force report on self-regulation, circumstances under which industry self-regulation may be effective depends on market structure and industry and consumer interests. Consequently it submits that:

- A market structure with an active industry association and cohesiveness is more likely to administer effective self-regulation (p. 48).
- Competitive markets are said to be more favourable to effective self-regulation as participants are most likely to be committed in order to differentiate their products, and protect or improve their market share (p. 48).
- A more mature market is more amenable to effective self-regulation as established industry players are more willing to participate and abide by self-regulation (p.50).
- Self-regulation may be more effective where firms realise that future success of the business transcends the patronage of shareholders and customers, but also includes the community (p.50).
- Self-regulation is more likely to be effective towards improved business services to consumers, society and environment if there are incentives for business to commit to self-regulation (pp.51-53).
- The degree with which industry members are able to sign up to self-regulation scheme may determine their commitment to effective self-regulation.
- If self-regulation wins the recognition and favour of consumers, it is likely to elicit market pressure on non-interested industry members to join the self-regulation scheme (p.55) (Commonwealth of Australia, 2000, pp. 48-55).

According to the US Federal Trade Commission (2007, p.3) self-regulation has an important role to play as it complements law enforcement against industry 'unfair or deceptive acts or practices …., the net effect is greater consumer protection in the marketplace' (p.3). It proceeds further to highlight strongly that:

Well-constructed industry self-regulatory efforts offer several advantages over government regulation or legislation. Self-regulation often can be more prompt, flexible, and effective than government regulation. It can permit application of the accumulated judgment and experience of an industry to issues that are sometimes difficult for the government to define with bright line rules (US FTC, 2007, p.3).

Thus industry self-regulation is seen to possess the capacity to channel firms' behaviour in response to the industry normative codes that conform to societal and environmental values, and hence sustainability values (Gunningham and Rees, (1997).

It aims to protect people or the environment from the damaging consequences of industrialisation (Hawkins and Hutter 1993, p. 199 as cited in Gunningham and Rees, 1997, p. 365).

One such private or self-regulation is the sustainable investing requirements to qualify firms to be enlisted in the Socially Responsible Investing (SRI) index of the Johannesburg Stock Exchange. However, this paper focusses on establishing the extent of firms' compliance with one of the requirements i.e. independent external assurance of sustainable development disclosures. Before delving into the extent of independent assurance compliance by the JSE companies in 2011, the following section discusses briefly the need for external assurance of sustainability disclosure.

6 The Need for External Assurance of Corporate Sustainable Development Disclosures

A central focus for external assurance of corporate sustainability report is on providing accountability to stakeholders by ensuring that reports are complete, relevant and credible (Green, 2012; O'Dwyer, 2011; IFAC 2011; ACCA, AccountAbility and KPMG 2009; International Auditing and Assurance Standards Board, 2008). Chelli (2012) has found that sustainability rating tends to cloud certain aspects of corporate sustainability performance, thus independent external assurance becomes very apposite in unraveling the hidden side of corporate sustainable development declarations; such that assurance may therefore increase organizational accountability for sustainable development (Boiral and Gendron, 2011).

Assurance of corporate sustainable development disclosures has become important to build credibility in corporate sustainable development reports and to attract stakeholder confidence in such reports. Given that astute investors have begun to search for non-financial measures (in addition to financial) to evaluate corporate resiliency in the face of growing sustainability challenges and concomitant climate change, proactive corporations may remain attractive and competitive by convincing stakeholders that their sustainable development disclosures are not mere window dressing, but are rooted in corporate commitment to integrating sustainable development as a vital aspect of corporate strategy. This can be made possible by adhering to the Global Reporting Initiative

and King III Reporting requirement that sustainable development reports should receive the opinion of independent external auditors.

Furthermore, external assurance of sustainability disclosure is also very pertinent given an array of literature that critiques the unreliability of certain sustainability disclosures (Newton and Harte 1997; Adams, 2004; Chesterman, 2008; Mine, *et al*., 2009; O'Connell, 2010; Wannen, 2010; Gray, 2010). As such criticisms may influence investors' appraisal of companies' sustainability claims (Harrison, 2012), it is therefore necessary for firms to heed the requirement of external assurance as proof that reports have not been hijacked by management (Owen, *et al*., 2000; O'Dwyer, 2003). Similarly as with corporate financial statements, if sustainable development reports are presented without external assurance undoubtedly this would weaken the credibility thereof in the eyes of the public; this situation is comparable to a financial statement without auditors' opinion (Ballou *et al*., 2012). Furthermore, Dando and Swift (2003) had earlier observed that growing sustainable development reporting is not accompanied by a simultaneous public trust in such reports and they highlighted that such trust would be regained if third party assurance of sustainable development reports is obtained.

Moreover, external assurance of corporate sustainable development reports instils self-obligation on corporations to make pragmatic and committed contributions to sustainable development. Since the importance of sustainability assurance transcends the needs of investors and ratings agencies, but includes business customers (Ernst & Young, 2012), firms therefore feel pressured towards innovative cleaner operations such as sustainable procurement and distribution, sustainable water usage, waste consumption and innovations in renewable energy (Ernst & Young, 2012). These green, innovative operations are common amongst the Johannesburg Stock Exchange firms as they strive towards meeting the requirements to be recognised as socially responsible. The firms are aware that being listed in the JSE's Socially Responsible Index endears them to government and earns stakeholders' recognition and this spurs the firms to do more about the environment, climate change and sustainable development to maintain their credibility which also acts as a booster to their business (Lodhia *et al.,* 2012).

An earlier study on sustainability reporting in South Africa, based on the 2009 sustainability reports, found very limited external assurance of sustainability reports (Marx and van Dyk, 2011) The King III report which became effective from March 1st 2010 required that firms in the JSE should obtain independent external assurance on their sustainable development disclosures (Marx and van Dyk 2011). However, no additional research has been done since the Marx and van Dyk (2011) findings to ascertain the extent of external assurance after the King III recommendation. This paper therefore extends the aforementioned previous research, with a focus on external assurance and also with an emphasis on the best SRI index firms compared with non-SRI firms. The emphasis of this paper on the external assurance of sustainable development reports is pertinent as South Africa is the first amongst the emerging markets and has the first stock exchange to launch a SRI. International environmentally responsible investors wishing to do business in South Africa, as the key emerging market in Africa, would find this update on sustainable assurance information vital in their decision to invest. There is also the possibility that other exchanges in emerging markets may draw a lesson from the trend of events in the JSE's SRI as the JSE is a member of the World Federation of Stock Exchanges.

7 The Drive for Sustainable Development Disclosure in the Johannesburg Stock Exchange

Contemporary sustainability initiatives in stock exchanges around the world (KPMG; UNEP; GRI; UCGA, 2010) indicate that governments are not alone in championing sustainable development reporting; stock exchanges have also taken the responsibility to save the earth (World Federation of Stock Exchanges, 2009). The Johannesburg Stock Exchange (JSE) recognises that the global transition to green economic development (Sustainability SA, 2012) is possible with sustainability commitment from stock exchanges. The JSE, believing strongly that business can contribute to save the earth and that it has a role to play in steering business toward the global quest for sustainable development, became the first stock exchange to launch a socially responsible investing (SRI) index in 2004.

The SRI Index was a pioneering initiative – the first of its kind in an emerging market, and the first to be launched by an exchange – and has been a driver for increased attention to responsible investment into emerging markets like South Africa (JSE 2012, p.1)

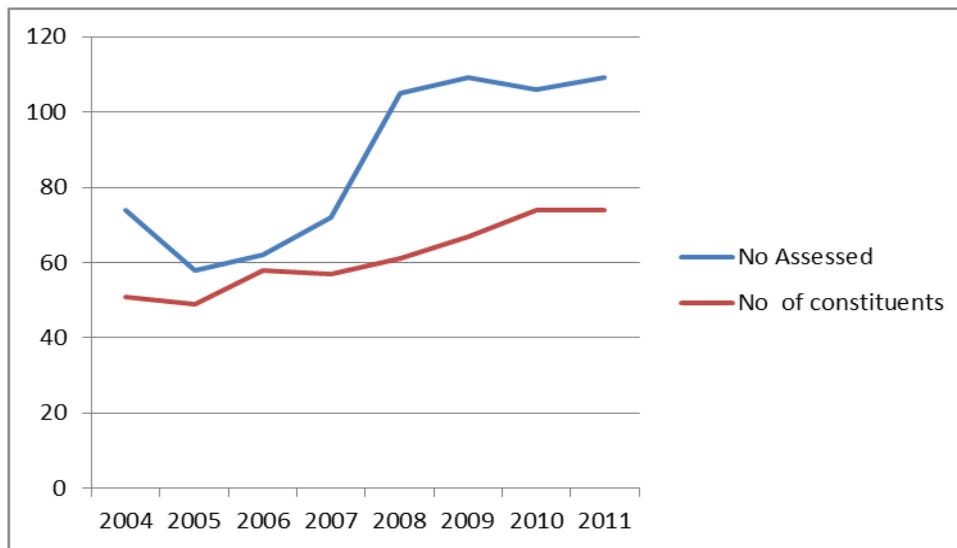
This bold step echoes the inherent transformation that characterises emerging markets and, most importantly, against conventional expectations, the SRI index project in the JSE was, in part, encouraged by the South African corporate sector (World Federation of Stock Exchanges, 2009). Given that the SRI has been sustained for about eight years, the JSE seems to have established a pedigree suggesting that its SRI is neither political image laundering nor mere legitimization. Due to the importance accorded to sustainable development by the JSE, there has been an observable upward trend from 2004 to 2011 in the number of firms that have been filing for listing in the JSE SRI, as well as, the number that have qualified to be listed in the SRI (number of constituents). This trend is represented in Table 1 and Figure 1 below.

Table 1. JSE Socially Responsible Investing Index Results 2004-2011

	No Assessed	No of constituents
2004	74	51
2005	58	49
2006	62	58
2007	72	57
2008	105	61
2009	109	67
2010	106	74
2011	109	74

Source: Compiled from Sustainability SA, 2012, p. 1; Word Federation of Stock Exchanges, 2009, p.24; Johannesburg Stock Exchange, 2012

Figure 1. JSE Socially Responsible Investing Index Results 2004-2011



This trend suggests that the JSE's SRI is driving corporate response to sustainable development and thus demonstrates the functional influence that a stock exchange may have over firms if sustainable development is integrated into stock exchange listing requirements. The trend of responses from firms desiring to be listed in the SRI also suggests that firms' sustainable development initiatives need to be motivated to assist them in 'walking the talk' in sustainable development. This is important as stock exchanges are pivotal in attracting corporate investment funds; therefore firms may not have a dissenting choice if sustainable development compliance could enhance their ability to remain credible in order to attract investors. The following section presents an examination of sustainable development assurance compliance by firms in the JSE.

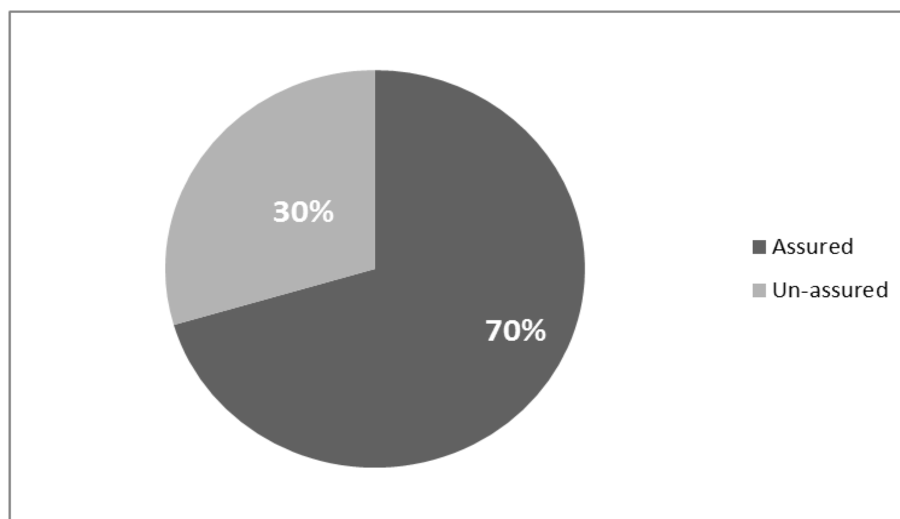
8 Method and Results

In order to enhance veracity in corporate sustainable development claims, the GRI and King III require that firms' sustainable development reports be externally assured by independent auditors (GRI, 2011; King III Report, 2009; KPMG, 2009). Therefore, this section examines the assurance compliance of JSE companies. Data is collected from the 2011 sustainability report. The first set of data was from twenty-two of the best SRI performers for 2011. This was of primary interest to ascertain whether their listing in the SRI would place them above the non-SRI companies with regard to assurance compliance. Consequently, having selected the twenty-two best SRI firms, it was necessary also to select an equal number of firms from the non-SRI group. Thus twenty-two companies were selected from the non-SRI group of companies in the JSE. The total number of firms examined was thus forty-four.

To address the objective of this paper it was apposite to ascertain whether the selected forty-four companies had obtained independent external assurance of their sustainable development disclosures. To this effect the sustainable development reports and/or integrated reports were examined. In those companies which had implemented integrated reporting, the sustainable development reports were integrated with the financial and governance reports. For these companies with integrated reports, the independent external assurance statements (limited or reasonable opinion) are placed next to the usual external auditors' financial audit opinion. This order of arrangement in the two separate opinions seems to connote the seriousness with which the companies treat sustainable development reports. On the other hand, the companies that have not implemented integrated reporting prepared the sustainable development report separately from the main financial report. These companies included their independent external assurance statement (limited or reasonable opinion) in the sustainable development report.

Overall examination (see Figure 2) shows that thirty (seventy per cent) of selected firms obtained independent external assurance opinions on their sustainable development disclosures whilst thirteen (thirty per cent) did not. The companies that did not obtain external assurance were explicit in explaining obstacles limiting external assurance and stated that efforts were under way to hire the services of external auditors in subsequent sustainable development reports.

Figure 2. Percentages of Sampled Firms with or without Independent External Assurance on Sustainable Development Reports



Furthermore, given that the GRI has outlined the characteristics that may enhance the quality of the independent external report and hence the reliability of the company's sustainability disclosure, the paper also looked closely at the independent external opinions with a view to gaining a prima facie impression of whether the reports contain the GRI characteristics. To summarise these impressions, the GRI list of characteristics of a quality independent external sustainability development assurance opinion is first presented below. According to GRI (2011, p.1) the external assurance reports should:

1. be conducted by groups or individuals external to the reporting organization, who are demonstrably competent in the subject matter and assurance practices;
2. utilize groups or individuals who are not unduly limited by their relationship with the organization or its stakeholders to reach and publish an independent and impartial conclusion on the report;
3. be implemented in a manner that is systematic, documented, evidence-based, and characterized by defined procedures;
4. assess whether the report provides a reasonable and balanced presentation of performance, taking into consideration the veracity of report data and the overall selection of content;
5. assess the extent to which the report preparer has applied the GRI Reporting Framework (including the Reporting Principles); and
6. result in an opinion or set of conclusions that is publicly available in written form, and a statement from the assurance provider on their relationship to the report preparer. GRI (2011, p.1)

The summary of the prima facie impression gathered from the external assurance reports of the selected firms shows that:

1. The assurance reports published in the sustainability reports and/or integrated reports of the JSE firms were supplied by members of the Big Four independent audit firms in South Africa and by other externally recognised assurance providers.
2. As global audit and assurance firms, the assurance providers displayed a posture of detachment from the firms and have displayed some measure of impartial assurance reports; this is evident from one of

the JSE company's (Vodacom Group Ltd) honest disclosure that:

Ernst & Young visited Vodacom as part of providing assurance for the Vodafone Group Sustainability Report. They reviewed the integration of sustainability into our businesses, the systems and processes supporting data quality and stakeholder engagement, but provided no assurance to us. We aim to achieve full assurance by March 2013(Vodacom, 2011, p. 3).

This is an indication of impartiality and independence on the part of the external assurance firms and also a sign of veracious disclosure from the reporting firms.

3. The assurance reports are systematically documented and have signs of evidence-based reporting as the assurance reports make reference to observed data from the companies' environmental, social and/or governance issues examined.

4. The assurance reports contain the wording, or wording synonymous with, 'reasonableness and balanced presentation.'

5. The assurance reports refer to compliance with GRI and/or King III.

6. All the assurance reports are presented in the form of publicly available opinion (reasonable, limited or both) as they are included either in separate sustainability reports or in the integrated reports – both publicly available for scrutiny.

It was also deemed necessary to ascertain whether there is difference between the external assurance commitment of SRI and non-SRI firms. To this effect, a chi-square contingency table (presented in Table 2 below) was used to analyse the possibility of difference in the assurance compliance of SRI listed firms and non-SRI listed firms. The essence is to ascertain whether there is a general commitment to disclosure from the both the SRI and non-SRI firms in the Johannesburg Stock Exchange (JSE).

H0: There is a difference between the assurance compliance rate of SRI listed and non-SRI listed firms in the JSE

Table 2. Chi-square contingency table

	Assured	Un-assured	Total
SRI Listed	15	7	22
SRI Unlisted	16	6	22
Total	31	13	44

Table 3. Chi Square Analysis

Expected Frequency:	$X^2 = \Sigma(fo - f e)^2 /fe$
• 31 X 22/44 = 15.5 • 13 X 22/44 = 3.25 • 31 X 22/44 = 15.5 • 13 X 22/44 = 3.25	15 – 15.5 = 0.25/15.5 =0.016 16 – 3.25 = 162.56/3.25 = 50 7 – 15.5 = 72.25/15.5 =4.66 6 – 3.25 = 2.75/3.25 =0.846
	X^2 calculated = 55.52
Degrees of Freedom: (C – 1) (R – 1) = 1 Chosen Significance Level: 0.05	

From the chi-square distribution table, chi-square critical at 0.05 significance level and at 1 degree of freedom is 3.84. Therefore since the chi-square calculated is 55.52; the null hypothesis is rejected and, hence, there is no difference between the assurance compliance of SRI listed firms and non-SRI firms.

This result shows that the independent external assurance of sustainable development disclosure in the JSE is not unique to SRI listed firms; the non-SRI firms in the JSE are equally making similar efforts towards assuring their sustainable development reports by independent external assurers as they strive toward meeting the requirements for JSE SRI listing, as well as, the growing sustainable development pressure from responsible investors (JSE SRI 2011). Thus, the JSE's SRI plays a functional role in channelling the efforts of South African firms towards a sustainable environment. Such sustainable development implication is discussed in the following section.

9 Implication for Corporate Sustainable Development Engagement

Ariely (2010) argues strongly in support of the popular aphorism "what you measure is what you get." Taking this further may imply that the verification by independent external assurers of corporate sustainability claims might have the propensity to impel corporations in the Johannesburg Stock Exchange to optimise their scores on sustainable development. In the same vein, given that the requirement for admittance to the Socially Responsible Index of the Johannesburg Stock Exchange is dependent on the extent of corporate sustainable development initiatives, this also suggests that firms in the JSE are galvanised to strive toward sustainable development initiatives in order to be recognised. Again, given that recognition as a responsible firm in the JSE is published in the public

domain, it comes with implicit legitimacy and competitive advantage for firms that are recognised; and this again acts as a booster to corporate goodwill. Thus Ariely (2010, p.1) rightly said "if we want to change what they care about, we should change what we measure." The Johannesburg Stock Exchange is influencing a change in what firms traditionally cared about – bottom line (profit) – towards a new set of performance measures – sustainable development, and firms are not dissenting as they must comply to be able to raise business capital. Hence, there is a gradual shift in the philosophy of what the firms measure to align with what society wants the firms to measure and care about – sustainable development.

The preceding sections indicate the growing adherence of JSE firms in obtaining independent external assurance of their sustainable development reports. The emerging inclination of JSE firms to be recognised as socially responsible (SRI) – depicted in Figure 1 – is one catalyst that spurs the firms' motivation to obtain external assurance of sustainable development reports. And since external assurance comes with verification of disclosures as affirmed by the external assurers, the JSE firms' sustainable development and/or integrated reports show evidence that the firms are becoming committed to practical social and environmental issues. This tends to balance the sustainable development triangle of economic, social and environmental development.

Consequently, the Socially Responsible Index (SRI) of the JSE, apart from providing information to socially responsible investors, it is important to note, has also contributed in boosting the sustainable development initiatives of the JSE companies. On the other hand, the JSE is been spurred towards sustainable development by the emerging green economic policies of the South African government toward green economic development. The conspicuous impact of the JSE's Socially Responsible Index on the JSE firms is evident from the examination of the sampled firms' sustainable and/or integrated reports. These reports have practical information and data upon which the independent external assurers relied in order to offer assurance opinions; this point is also averred by the independent external assurers who are mainly the Big Four audit firms in South Africa. The practical sustainability initiative information common amongst the sampled firms includes *inter alia* data on carbon emission. Many of the firms have comparable data from previous years to demonstrate the extent of yearly progressive reduction in carbon emission. And these data are in the public domain for further verification. This complies with the GRI requirement for quality independent external assurance. There is also practical data on energy efficiency amongst the sampled firms. Additionally, the sampled firms have data on waste reduction, health and safety and black economic empowerment.

In the course of this study it was found that one of the indices (aside from environmental issues) against which firms in the JSE are rated for inclusion in the Socially Responsible Index is the extent of corporate compliance with black-based economic empowerment (BBEE) which aligns with one of the millennium development goals of poverty eradication (UN, 2010). BBEE is an integrated socio-economic transformation in South Africa that seeks to accommodate black people in participating, managing, owning and controlling the economy of South Africa (dti, 2007). It is anticipated that if the BBEE is effectively applied, it would contribute toward decreasing income inequality and therefore assist in poverty alleviation. Through the SRI initiative of the JSE it is apparent that firms in the JSE are taking this social and economic policy (BBEE) seriously and are complying in order to receive recognition. In this way, therefore, it can be said that corporations in the JSE are supporting poverty alleviation through pragmatic implementation of BBEE policy and, as poverty alleviation is one of the key millennium development goals, firms in the JSE are therefore operating in support of sustainable development via the motivational influence of the SRI.

The JSE is thus driving firms (both local and multinational in South Africa) to comply with the BBEE requirement. This is also evident in the sustainable and/or integrated reports of firms which present their BBEE compliance, and with some firms also having comparable data for past years to show the extent of yearly BBEE improvement. Consequently, the growing trend in the JSE's SRI (JSE, 2012) seems to suggest that the JSE is balancing its capitalist creation with the global need to ensure the survival of present and future generations. This means that other stock exchanges in emerging and developing markets may emulate the sustainable stance of the JSE. If stock exchanges in emerging and developing economies could initiate a socially and/or sustainability responsible index, such countries may experience a boost in moving toward actualisation of the ideals of sustainable development. Consequently, a somewhat paradoxical yet positive evolution in the capitalist empire – the stock exchange – is apparent in a sharp leap from capitalist hegemony towards humanism, socialism, and environmentalism; thus suggesting that businesses possess the capacity to achieve a sustainable environment. External assurance of sustainable development reports may therefore be said to be functional in moving towards sustainable development.

Table 1 and Figure 1 indicate an upward trend in the number of firms that vie for and are listed in the annual JSR SRI. This upward trend indicates the extent of the sustainable development stance evolving amongst the firms. Although sustainable development and relevant assurance interest may abound amongst the firms, there are also hindrances that limit firms' commitment to sustainable development initiatives

and assurance. An examination of the sustainable development reports revealed that some firms were honest and mentioned that the issue of sustainable development is still a new concept which they are struggling to situate within their corporate strategic agenda. Such declarations come with some implicit connotations of lack of awareness regarding the integration of sustainable development in business (for some firms). Corporate sustainable development engagement is also being limited by apparent measurement and data collection problems associated with lack of enabling measurement tools (Green Biz and Enrst & Young 2012). According to Green Biz and Enrst & Young (2012, p. 10) these problems include the use of outdated tools such as spread sheets, emails and phone calls in collecting and documenting sustainable development data. These are archaic tools when compared to modern methods of processing financial data.

In light of the above problems, this paper suggests that the governments in countries with developing and emerging markets should, through the departments for environment, strengthen sustainable development awareness education programmes for firms to provide further education on the integration of sustainable development in business strategy and, where possible, with no cost implications for firms. The Global Reporting Initiative and the UN Environmental Programme (UNEP) may assist firms in emerging and developing nations by offering free training to businesses on the practical integration of sustainable development. This awareness and/or training should not just be left in the hands of sustainability consultants who have capitalised on the exigency for sustainable development to convert sustainable development awareness into another genre of business venture with ensuing profit inclination demeaning the importance of the sustainable development campaign. Although sustainable development seems a ubiquitous concept, insights from this research suggest that many firms lack the practical awareness of how to become deeply involved with sustainable development. There is also an urgent need for software designers to develop more software tools that may assist firms in meeting the challenges of measuring and reporting on issues associated with carbon, energy, water and waste handling and other sustainable development related practices.

10 Conclusion

This paper has examined the extent to which firms in the JSE comply with the requirement of obtaining independent external assurance opinions on their sustainable development reports. Since it is practically impossible for stakeholders to embark on an individual assessment of the reliability of corporate sustainable development disclosures, independent external assurance, as recommended by the GRI and the South African King III report, is the means whereby the public may ascertain the extent of the credibility of corporate sustainable development reports.

The firms studied comprised of two groups: the twenty-two best performing firms in the 2011 Socially Responsible Index (SRI) of the Johannesburg Stock Exchange (JSE) and twenty-two firms from the non-SRI firms. Findings indicate that seventy per cent of the sampled firms obtained external independent assurance reports for the 2011 sustainable development reports whilst thirty per cent could not obtain external assurance reports. It was also deemed necessary to ascertain whether there is difference between the external assurance commitment of SRI and non-SRI firms; a chi-square analysis shows an equal likelihood of assurance effort from the SRI and non-SRI firms. This indicates that, on a general level, firms in the JSE are striving towards ensuring the credibility of their sustainable development reports. This level of compliance stems from the fact that the JSE firms are striving to meet the sustainable development requirements to be listed in the SRI and is also due to the fact that JSE firms are striving toward meeting the sustainability demands of responsible investors. It is noteworthy that within the non-assured thirty per cent group some firms actually hired the services of the Big Four firms for external assurance and were honest enough to declare that their sustainability reports could not receive an independent assurance opinion as they did not meet the verification requirements to warrant an external assurance opinion from the assurers.

The study discovered that the Johannesburg Stock Exchange's Socially Responsible Index is motivating firms towards sustainable development initiatives as they strive to meet verifiable environmental management practices such as carbon reduction, energy efficiency, waste reduction, water efficiency, health and safety and social engagements including, *inter alia,* the black-based economic empowerment (BBEE) – geared toward the reduction of income inequality and poverty alleviation amongst the black population – HIV/AIDS programmes and various education assistance programmes for the indigent population. These environmental and social engagements therefore contribute toward actualising the millennium development goals and thus toward achieving sustainable development ideals. The implication is that the organised stock exchanges, although traditionally created to service capitalism, may foster corporate sustainable development initiatives in emerging and developing nations by integrating sustainability principles as part of listing requirements in the stock exchanges. With the progress in corporate sustainable development initiatives in the JSE firms, it does seem that companies may not exhibit dissenting behaviour with regard to sustainable development if stock exchanges decide to elevate sustainable development to an appreciable level of importance. Other stock

exchanges in emerging and developing economies are therefore encouraged to replicate the Johannesburg Stock Exchange's SRI as this may likely spur environmental and sustainable development initiatives amongst firms in these nations. Such collective effort from stock exchanges and firms would contribute positively toward alleviating social, environmental and climate change problems and thus toward achieving desired sustainable economic development. This paper thus offers an agenda for further research to study the role of global stock exchanges in fostering sustainable development.

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