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EXTENT OF SUSTAINABILITY ASSURANCE IN SOUTH AFRICAN MINING COMPANIES

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ABSTRACT

This paper examined whether selected South African mining companies obtain sustainability report assurance and whether the sustainability reports are internally or externally assured. The methodological approach is a combination of qualitative and quantitative analysis of assurance elements in sustainability reports. Findings indicate that a considerable number of mining companies are complying with the requirements of the King III assurance requirement; however, there is still room for improvement mostly in the external assurance requirement. The study finds that the lack of external assurance from some firms may stem from apparent optional nature of sustainability guidelines. Major finding from the t-test of difference in mean-assurance levels indicate that, whilst it is commendable that companies are responding to assurance requirement, however it took approximately four years for all the sampled companies to adjust toward a significant response to King III requirement for assurance of sustainability reports. Hence the paper recommends amongst others, that policy makers should allow ample time when initiating new sustainability guidelines and/or policies to enable firms to adjust. External assurance of sustainability reports should be made obligatory and that assurance work should be made to rest in the hands of qualified experts, such as the chartered accountants, to instil greater compliance and desired credibility in sustainability reports. It is also recommended that future studies may look into the extent of independence and objectivity of external assurers of sustainability in the mining firms.

Key words: sustainability accounting, sustainability assurance, sustainability reporting, mining companies

1. INTRODUCTION

Sustainability reporting provides a useful tool to navigate social and environmental conflicts that subsist between the society and mining companies (Lins, Althof and Meek, 2008). As an essential accountability tool, mining companies have the opportunity to demonstrate in their sustainability reports a wide range of their environment, social and governance practices (Lins et al., 2008). according to Global Reporting Initiative (GRI), sustainability reporting refers to "the practice of measuring, disclosing and being accountable to internal and external stakeholders for organisation performance towards the goal of sustainable development" (GRI, 2011, p.3).

Sustainability reporting is significant to corporates given its potential to increase the image, reputation and profitability of the business (de Leaniz & del Bosque, 2013). Hence, Kalkstein (2013) suggests that if companies develop their sustainability reports accurately, it could enhance productivity and efficiency through process optimisation.

Whilst sustainability reporting is vital for companies' image and for internal and external stakeholders, the assurance of sustainability reports is very essential (Jones et al, 2015) to enhance the credibility of reports. This then brings the concept of sustainability reporting assurance. Sustainability reporting assurance is a certification process that increases the trustworthiness, accuracy and robustness of the disclosed information (GRI, 2013). According to KPMG (2011), sustainability reporting assurance ensures transparent communication of non-financial sustainability data and the assurance serves as a mechanism for reducing the risks of probable deceptive information (KPMG, 2011). Accordingly, assurance of sustainability reporting is pertinent as it enhances the reliability and credibility of corporate information that is vital for decisionmaking (KPMG, 2011) and therefore improves the transparency and trust in corporate information disclosure (Dando & Swift, 2003). Accordingly, this paper is inclined on the following objectives: to examine how mining firms are complying with the requirement to obtain assurance reports and to determine whose services the mining companies employ to obtain assurance (internal or external).

The paper is organized as follows: the section after the introduction reviews the related literature. Following this is the methodology, data presentation and the analysis. The last section presents the discussion, conclusion recommendations.

2. RELATED LITERATURE

Companies in many countries are progressively adhering to publication of separate sustainability reports (Kolk, & Perego, 2010; Simnet et al 2009), yet in some countries, companies merge the financial reports to the sustainability elements to produce integrated reports (Atkins & Maroun, 2015). However it is prepared (singly or integrative), the sustainability element (in some instances) receive independent assurance either from independent auditors or from private consultants. Whilst using diverse methodologies, extant research has sought to understand the factors that warrant companies' initiatives to secure sustainability disclosure assurance and the selection of certification supplier (auditors or private consultants) (Kolk, & Perego, 2010; Simnet et al 2009). Most of the findings bolster the contention that organizations trying to upgrade the validity of their reports and enhance their corporate repute will probably have their sustainability reports assured, notwithstanding the choice of the assurance provider. It has also been found that companies located in countries with shareholder orientation are more prone to hiring professional auditors to provide sustainability assurance (Simnet et al 2009; Kolk, & Perego, 2010). Notwithstanding though, it is believed that assurance of sustainability disclosure may be dependent on corporate profitability and size (Sierra et al, 2013) and that sustainability assurance service is currently being controlled by major four auditing firms (Sierra et al, 2013) for the apparent reason that shareholders tend to rely more on the certification of professional auditors (Kolk, & Perego, 2010).

External sustainability accountability pressures, firm's resource endowment and competences propel the embrace of sustainability assurance (Perego & Kolk, 2012). Differing qualities of certification guidelines and kind of assurance suppliers contribute to shape the nature of sustainability assurance opinions (Gürtürk & Hahn, 2015; Junior et al, 2014; Perego & Kolk, 2012; Perego, 2009). There is apparent disproportion of momentum amongst firms' practice of sustainability assurance initiatives in the developmental phases of sustainability assurance initiatives (Peters & Romi, 2014; Perego & Kolk, 2012). There are doubts about the independence of assurors given apparent degree of management intervention in the sustainability assurance process and there are disparities between assurance opinions by auditors and assurance opinions from consultants (O'Dwyer & Owen, 2005). Accordingly, non-auditors assurance

suppliers affect the quality of assurance opinion (Perego, 2009). The publication of assurance opinion has been found to influence user's assessment of the credibility of sustainability reports and users prefer assurance opinions issued by professional auditors (Hodge et al, 2009). Research on the demand side of sustainability assurance has also shed light on why firms are keen to obtain assurance statements; external institutions such as the regulators and/or socially responsible investment indices contribute to influence the commitment of firms to obtain assurance (Wong & Millington, 2014). The King III code of corporate governance in South Africa recommends assurance statement as a vital component of sustainability repots. This has shaped the adoption of sustainability assurance by companies quoted in the Johannesburg Stock Exchange (JSE) since the JSE requires its companies to apply the King III assurance recommendations (Ackers & Eccles, 2015; JSE 2014c); accordingly, this paper provides an evaluation of how South African mining firms have progressed towards the King III sustainability assurance recommendation. This assessment provides companies, regulators, researchers, the academia and users of sustainability information further insight about the response rate between the time of issuing sustainability pronouncements and the time of response by companies.

3. METHODOLOGY

The study focused on South African mining companies that are listed in the Johannesburg Stock Exchange (JSE) Socially Responsible Investing (SRI) Index. The population was drawn from the list of mining companies that are listed in the JSE SRI Index. The reason for this is that the companies in the SRI index are required to obtain assurance on their sustainability disclosures. As at the time of this study in 2014, there were a total of 15 mining companies that qualified for the 2014 JSE SRI Index (JSE, 2014a; JSE 2014b) and since this number was not too large, and the data is publicly available, all the 15 companies were examined, which is 100% of the population.

4 DATA ANALYSIS

A mixed approach of qualitative and quantitative was used in the analysis of data. The qualitative data analysis is suitable for this study as it addresses what the study seeks to achieve. Techniques such as narrative, interpretation, confirmation and presentation of tables and graphs are applied in different stages of the analysis. Additionally, a quantitative approach is also applied since the interpreted qualitative information is assigned numerical values and placed in tables under different years. Doing this thus displays apparent differences between years in the values assigned to the phenomenon being in-

terpreted (sustainability assurance). Given the differences in values between the years, the researcher thus applies a t-test differential analysis to evaluate possible significant difference in the mean values assigned to the external assurance levels between two different years.

In an attempt to assign values to levels of sustainability assurance compliance, a dichotomous aggregate (Vreeland, 2006) measure of compliance approach was applied - that is a coding arrangement where the authour assigns a number/percentage to indicate compliance or non-compliance to the required compliance items (Vreeland, 2006). According to Vreeland (2006), this measure allows the authour to accommodate partial compliance. The scores were assigned in compliance with Killick (1995) who used the dichotomous aggregate approach in which he assigned 80% as full compliance and 20% as partial or non-compliance. Following this scoring therefore, the compliance scoring to sustainability assurance requirement was as follows:

Assurance was sub-divided into two (on a total 5 point scale): Independent external assurance: 4 (or 80%); and self- assurance: 1 (or 20%); total = 5 (100%).

The values indicated above were assigned to companies according to whether they employed an external assurer or used internal assurer (self-assurance). Given that the interest is on external assurance, score (4) was assigned to companies that used external assurers thus indicating a better credibility on sustainability reports. Accordingly Table 4.1 presents a comparative Analysis of external assurance of sustainability report by 15 mining companies in the JSE SRI index whose names are not disclosed for commercial confidence.

Data Presentation

Table 4.1: Comparative Analysis of External Assurance of Sustainability Report by Companies (in no sequential order) 2008-2013

| Companies | 2008 External. Assurance | 2010 External. Assurance | 2011 External. Assurance | 2012 External. Assurance | 2013 External. Assurance | Total Company Performance |
|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|
| Α | 4 | 4 | 4 | 4 | 4 | 20 |
| В | 0 | 0 | 4 | 4 | 4 | 12 |
| С | 4 | 4 | 4 | 4 | 4 | 20 |
| D | 4 | 0 | 4 | 4 | 4 | 16 |
| E | 0 | 0 | 0 | 0 | 4 | 4 |
| F | 4 | 4 | 0 | 4 | 4 | 16 |
| G | 0 | 4 | 0 | 4 | 4 | 12 |
| Н | 4 | 4 | 0 | 4 | 4 | 16 |
| I | 4 | 4 | 4 | 4 | 4 | 20 |
| J | 4 | 4 | 4 | 4 | 4 | 20 |
| K | 4 | 4 | 4 | 4 | 4 | 20 |
| L | 4 | 4 | 4 | 4 | 4 | 20 |
| М | 4 | 4 | 0 | 4 | 4 | 16 |
| N | 0 | 4 | 4 | 0 | 4 | 12 |
| 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Yearly total performance | 40 | 44 | 36 | 48 | 60 | 228 |

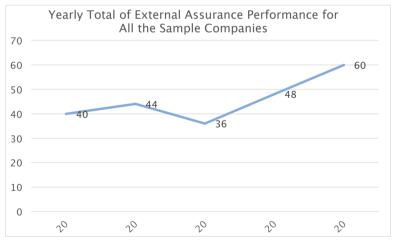
Table 4.1 provides a comparative analysis of how companies obtained external assurances over the years. As strict listing requirements in JSE reinforced over the years, requiring companies to obtain independent assurance of sustainability report for companies listed in the SRI index, some companies were consistent in obtaining independent opinion. An interesting observation though, in 2011 when King III was already in effect, most companies backslide. In 2011 most companies did not have an independent opinion as compared to other years. However, in 2012 there was an improvement as most companies obtained external audit opinion and 2013 with all companies complying with the G3 guide, King III and JSE SRI listing requirements.

Figures 4.1 & 4.2 show a graphical representation of the progression performance of external sustainability assurance of all companies sampled yearly. Figure 4.3 represents total sustainability assurance performance per company 2008 – 2013.

Figure 4.1 Yearly Total of External Sustainability Assurance Performance for All the Sample Companies

From the graph above one can visualise a progression in sustainability assurance between 2008 and 2013. Figure 4.2 below also shows this progression.





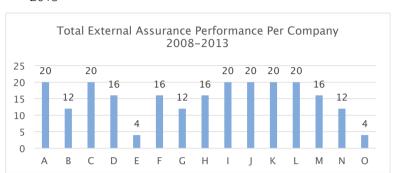


Figure 4.3 Total Sustainability Assurance Performance per Company 2008 - 2013

Figure 4.3 shows the total sustainability assurance per company for each year. It is clear that companies with a 20 score maintained a steady compliance in terms of obtaining external assurance opinion. However, as can be seen from the graph above, many of the mining companies score below 20, and this indicates that many companies are still using internal assurance and are yet to reach the level of external assurance to enhance credibility of sustainability reports. The preceding results therefore show that some companies have strived toward a yearly compliance with external assurance, but many companies are yet to reach yearly compliance with external assurance.

T-test of Difference in Means Before and After the King III Requirement for External Assurance of Sustainability Reports

A visual observation from the above data, table and figures indicates that mining companies appear to perform better in obtaining external assurance year by year from 2009, when the King III initiated the requirement for external assurance and which became operational in 2010. Given the observable difference in years regarding external assurance, the following tables (Table 4.2 – Table 4.5) present a t-test of difference in mean external assurance compliance levels between 2008 before the King III pronouncement and 2010 when external assurance become operational.

Table 4.2 t-Test: Paired Two Sample for Means

| Mean Difference Between 2008 and 2010 level of External Assurance of Sustainability Reports | | | | |
|---|------------------|------------------|--|--|
| | 2008 Ext. Assur. | 2010 Ext. Assur. | | |
| Mean | 2.666666667 | 2.933333333 | | |
| Variance | 3.80952381 | 3.352380952 | | |
| Observations | 15 | 15 | | |
| Hypothesised Mean Difference | 0 | | | |
| Df | 14 | | | |
| t Stat | -0.564076075 | | | |
| P(T<=t) one-tail | 0.290813418 | | | |
| t Critical one-tail | 1.761310136 | | | |
| P(T<=t) two-tail | 0.581626837 | _ | | |
| t Critical two-tail | 2.144786688 | | | |

Tested at 5% significance level; the above result in Table 4.2 indicates that there is no significant difference between 2008 and 2010. The P-Values of 0.29 and 0.58 indicate that this result is not significant at any acceptable level because these values are greater than 5%. This may mean that mining firms were still learning and adjusting to the requirements for external assurance.

Table 4.3 t-Test: Paired Two Sample for Means

| Mean Difference Between 2008 and 2011 level of External Assurance of Sustainability Reports | | | | |
|---|------------------|------------------|--|--|
| | 2008 Ext. Assur. | 2011 Ext. Assur. | | |
| Mean | 2.666666667 | 2.4 | | |
| Variance | 3.80952381 | 4.114285714 | | |
| Observations | 15 | 15 | | |
| Hypothesised Mean Difference | 0 | | | |
| Df | 14 | | | |
| t Stat | 0.434958836 | | | |
| P(T<=t) one-tail | 0.335111164 | | | |
| t Critical one-tail | 1.761310136 | | | |
| P(T<=t) two-tail | 0.670222328 | | | |
| t Critical two-tail | 2.144786688 | | | |

Tested at 5% significance level, the above table 4.3 shows that there is no significant difference between 2008 and 2011 level of external assurance. The P-Value of 0.33 and 0.67 indicate that this result is not significant at any acceptable level because these values are greater than 5%. This means companies were still learning and adjusting to the new requirement by King III.

Table 4.4 t-Test: Paired Two Sample for Means

| Mean Difference Between 2008 and 2012 level of External Assurance of Sustainability Reports | | | | |
|---|------------------|------------------|--|--|
| | 2008 Ext. Assur. | 2012 Ext. Assur. | | |
| Mean | 2.666666667 | 3.2 | | |
| Variance | 3.80952381 | 2.742857143 | | |
| Observations | 15 | 15 | | |
| Hypothesised Mean Difference | 0 | | | |
| Df | 14 | | | |
| t Stat | -1.467598771 | | | |
| P(T<=t) one-tail | 0.082158949 | | | |
| t Critical one-tail | 1.761310136 | | | |
| P(T<=t) two-tail | 0.164317898 | _ | | |
| t Critical two-tail | 2.144786688 | | | |

Tested at 5% significance level; the above result in Table 4.4 indicates that there is no significant difference between 2008 and 2010. The P-Values of 0.089 and 0.164 indicate that this result is not significant at any acceptable level because these values are greater than 5%. This may mean that mining firms were still learning and adjusting to the requirements for external assurance.

Table 4.5 t-Test: Paired Two Sample for Means

| Mean Difference Between 2008 and 2013 level of External Assurance of Sustainability Reports | | | | |
|---|------------------|-----------------|--|--|
| | 2008 Ext. Assur. | 2013 Ext. Assur | | |
| Mean | 2.666666667 | 4 | | |
| Variance | 3.80952381 | 0 | | |
| Observations | 15 | 15 | | |
| Hypothesised Mean Difference | 0 | | | |
| Df | 14 | | | |
| t Stat | -2.645751311 | | | |
| P(T<=t) one-tail | 0.009593811 | | | |
| t Critical one-tail | 1.761310136 | | | |
| P(T<=t) two-tail | 0.019187621 | | | |
| t Critical two-tail | 2.144786688 | | | |

Tested at 5% significance level, the T-test of difference in Table 4.5 gives a 0.01% probability, which is less than 5%. This therefore shows that there is a significance difference in external assurance between 2008 and 2013, with the mean difference of 2013 being higher than 2008. This means it took 4 years for

companies to learn and adjust to new sustainability reporting requirements, hence in 2013 companies responded more in obtaining external assurance.

5. DISCUSSION OF FINDINGS

The study intended to investigate the extent to which mining firms comply with the assurance requirement of sustainability reports. Secondary data were used in this study. The major source of secondary data for analysis is the published sustainability reports of the mining companies. The data collected is the assurance content and type from the sustainability reports of mining companies from 2008- 2013. A dichotomous aggregate measure of compliance approach was applied; that is a coding arrangement where a number/percentage to indicate compliance and non-compliance to required compliance items (Vreeland, 2006).

With regards to objective one which seeks to determine whether mining companies obtain assurance of their sustainability reports, it was found that, over the years from 2010 to 2012, some companies obtained assurance and some did not. However, in 2013 all mining companies' reports showed that they obtained assurance of their sustainability reports. This could be contributed to the pressure from stakeholders who demand credibility of the reports. The credibility of sustainable reports is a concerning issue presently and also, who assures that the sustainability reports are credible.

Related studies confirm that there is still a concern in terms of credibility of sustainability reports. Empirical evidence reveals that sustainability reports in some mining companies appear misleading (Böhling & Murguía, 2014). For example, sustainability reporting ambiguity was highlighted in previous studies, which includes *inter alia*, in Tanzanian, Australian and South African mining firms (Emel et al., 2012; Loussikian, 2014; Maubane et al., 2014).

The second objective looks into whether examined mining companies employ the services of external assurers. The importance of external assurance is that it ensures the company's sustainability information provided is accurate, and reliable; thereby supporting the credibility of information used in decision-making.

The study found that in 2008, before the new King III report, a considerable number of mining companies did not have assurance statements in their sustainability reports, neither by their internal audit committees, nor by independent or external assurors. This simply means that their reports were not assured.

In 2010, the year in which King III was made effective, almost all mining companies had self-assurance statements in their reports. Self-assurance

meant companies used internal services for the assurance of their reports. This means companies responded to the King requirements. However, not all companies employed the services of external assurors. In 2011 there was a decrease in sustainability assurance, internally and externally. It could be that companies were still uncertain or adjusting to the new requirement by King III. In 2012 companies improved as their internal and external assurance were done in their sustainability reports. There were fewer companies though that still lacked internal and external assurance.

The year 2013 showed a significant improvement as all sustainability reports studied were compliant to the King III requirements. It took companies four years to comply. This means companies needed time to adjust and implement the new requirements. It is important to note that it takes companies time to adjust to new regulations. Policy makers and other authorities should give companies time whenever new legislation or a new regulation is proclaimed.

6. CONCLUSION AND RECOMMENDATIONS

This study examined the extent of sustainability reporting assurance compliance in selected South African mining companies. The study focused on the 15 South African mining companies that are listed in the Socially Responsible Index (SRI) of the Johannesburg Stock Exchange (JSE). It made use of secondary archival data from the sustainability reports of the mining companies. The analysis method was a mix of qualitative and quantitative. In order to address the aim of this study as reflected in the title, two objectives were stated: to examine how mining firms are complying with the requirement to obtain assurance reports; and to determine whose services the mining companies employ to obtain assurance reports (internal or external). Answers to the above objectives were supported by the data retrieved from the companies' sustainability reports and from the review of related literature. Findings from the data analysis provided answers to the first and second objectives. All the mining companies studied are making use of self-assurance, but a few of the mining companies are also obtaining independent external assurance on their sustainability reports. This thus shows that although the mining firms are obtaining sustainability assurance, they need to improve upon the independence of assurance opinion by engaging the services of independent external assurers (external auditors) to add credibility to their assurance report.

The South African King III code plays a significant role in mining companies' response to sustainability challenges. The majority of the JSE SRI listed mining companies' integrated reports contained sustainability reports. Select-

ed companies did not have sustainability reports and did not conduct either internal or external assurances in 2008 and after 2010. With time, companies were slowly adopting the new requirements and in 2013 all companies had their sustainability report assured internally and externally.

However, it took companies time to adjust to the new requirement of obtaining independent opinion from external assurors. The time it took companies to comply, should be taken into consideration when policy makers change regulations. The implication therefore is that policy makers and the JSE should provide enough time for companies to learn, adjust and adopt the new sustainability reporting requirements. Time is important for any regulation to enable companies to comply. Another concern is in regards to the extent of independence and objectivity of external assurors. Hence, some previous researchers have scrutinized sustainability assurance reports of mining companies to ascertain the degree of credibility (Fonseca, 2010).

Given the findings that it took the mining firms up to five years to respond fully to the requirement of assurance, the paper recommends that policy makers should consider time lag in proposing new environmental and sustainability policies, this will enable firms to prepare and properly adjust themselves to accommodate new sustainability regulations. It is also recommended that future studies may look into the extent of independence and objectivity of external assurers in sustainability assurance in South African mining firms.

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OPSEG OSIGURANJA ODRŽIVOG RAZVOJA U JUŽNOAFRIČKIM RUDARSKIM TVRTKAMA

SAŽETAK RADA:

Ovaj rad istražuje u kojem opsegu odabrane južnoafričke rudarske tvrtke imaju osigurano Izvješće o održivom razvoju te vrednuju li se putem vanjskog ili internog vrednovanja.

Metodološki pristup kombinacija je kvalitativne i kvantitativne analize elemenata osiguranja u izvješćima o održivom razvoju. Nalazi pokazuju da je značajan dio rudarskih tvrtki u skladu s zahtjevima King III osiguranja. Međutim, postoji prostora za napredak posebice u zahtjevima vanjskog osiguranja i vrednovanja. Studija je pokazala pomanjkanje vanjskog osiguranja od strane određenih tvrtki te otklon od smjernica održivog razvoja. Nalazi pokazuju da, iako je pozitivno da tvrtke odgovaraju zahtjevima osiguranja održivog razvoja potrebno je otprilike četiri godine da se iste usklade sa zahtjevima King III osiguranja izvještaja o održivosti. Stoga se preporuča da, između ostalog, donositelji odluka pri izradi smjernica i/ili politika održivog razvoja osiguraju tvrtkama dovoljno vremena za prilagodbu. Vanjsko vrednovanje izvještaja o održivosti trebalo bi biti obvezno te vođeno od strane kvalificiranih stručnjaka, primjerice ovlaštenih računovođa kako bi se osigurala bolja usklađenost i vjerodostojnost izvještaja o održivosti. Preporuča se da buduće studije prouče opseg nezavisnosti i objektivnosti vanjskih prosuditelja izvještaja o održivom razvoju u rudarskim tvrtkama.

Ključne riječi: računovodstvo održivog razvoja, osiguranje održivog razvoja, izvješćivanje o održivom razvoju, rudarske tvrtke,