INTEGRATED REPORTING IN THE SOUTH AFRICAN MINING SECTOR

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Abstract

A string of corporate scandals coupled with recent environmental disasters and persistent socio-economic problems has confirmed that traditional financial reporting models are flawed. What is needed is high quality integrated reports dealing with financial and non-financial metrics that communicate clearly the ability of organisations to create and sustain value in the short-, medium- and long-term. This is especially true in the South African mining sector, given its high social and environmental impact, as well as the significant contribution that the sector makes to the South African economy. Accordingly, this paper uses an interpretive text analysis to explore how recent corporate governance developments have impacted the level and extent of integration of environmental, social and ethical-related disclosures in the annual or integrated reports of a sample of mining companies in South Africa. In doing so, the paper contributes to the general body of corporate governance research that has largely neglected African markets and simultaneously offers one of the first formal accounts of the impact of the integrated reporting project on mining houses on the Continent's largest economy.

Keywords: Environmental Disclosures, Ethical Disclosures, Integrated Reporting, Mining Companies, Social Disclosure, South Africa

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1. Introduction

Financial reporting alone is not sufficient for evaluating the ability of organisations to create and sustain value in the short, medium - and long-run (Institute of Directors in Southern Africa [IOD], 2009; Solomon, 2010). A growing awareness of significant social, political and environmental pressures facing modern organisations has provided an international impetus for more holistic reporting (see Mathews, 2004; Solomon and Solomon, 2006; de Villiers and van Staden, 2010; Marx and van Dyk, 2011). In particular, the integration of financial and non-financial information is of paramount importance if modern organisations are to inculcate principles of stakeholder accountability and sustainable business practice in their day-to-day operations in any meaningful way (Integrated Reporting Committee of South Africa [IRC], 2011; Solomon and Maroun, 2012). South African corporates are no exception.

The impact of high unemployment, drought, AIDS and economic inequality has forced South African companies to pay attention to the disclosure of environmental, social and governance (ESG) information in their annual reports (King, 2012). The events at Marikana[2], where several mineworkers lost their lives in industrial unrest due to, inter alia, the need for improved working conditions and wages (Stone, 2013; King, 2012), has made ESG information all the more relevant.

With the introduction of 'triple bottom line reporting' under King-II in 2002, ESG disclosures have become a generally accepted part of local corporate governance parlance (IOD, 2009; Solomon, 2010; Marx and van Dyk, 2011). The sustainability reporting movement has not, however, been a complete success. ESG information is frequently disconnected from the financial performance and strategy of the organisation, making it difficult for

[2] Marikana is in the North West Province in South Africa.

users to draw a link between the value-generating potential of the business and the non-financial information provided in annual reports. Consequently, the scope of these reports to communicate how organisations create and sustain value in the short-, medium- and long-term has been limited (IRC, 2011). This has left stakeholders demanding 'forward looking information' that integrates various financial and non-financial metrics to allow them to 'more effectively assess the total economic value of an organisation' (IRC, 2011, p. 1). In response, King-III (IOD, 2009) and the IRC (2011) have called for more integrated reporting that clearly demonstrates the interconnections between financial, economic, social and environmental information and the link between non-financial metrics and the strategy of the organisation and its ability to function as a going concern (King, 2012). The Johannesburg Securities Exchange (JSE) has followed suit, requiring listed companies to comply with King-III and produce an integrated report or provide reasons for not doing so (JSE, 2013).

This shift in reporting mind-set necessitates formal academic enquiry. Sustainability reporting, including general views on corporate social responsibility, in the public and private sector in South Africa has been well documented (Mitchell and Hill, 2010; Marx and van Dyk, 2011). What has not been addressed is the extent to which the requirements of King-III and the IRC have impacted sustainability-related disclosures and the integration of this information in annual/integrated reports, despite South Africa being the first to require listed companies to prepare these reports (Solomon and Maroun, 2012). To this end, this paper provides an initial exploratory account of how the integrated reporting project has altered the level of social, environmental and ethics-related (SEE) disclosures in the primary reports prepared by a sample of South African mining companies from 2008 to 2012. The mining industry is specifically focused on because it contributes materially to the country's gross domestic product, employment and international capital inflows (Chamber of Mines, 2013; PwC, 2012) as well as the absence of direct academic research on corporate reporting in the South African mining sector (McChlery et al, 2013).

The traditionally high environmental and social impact of the industry (de Villiers and Barnard, 2000) makes it useful for studying sustainability reporting, using an interpretive research technique to explore emerging trends and themes in the integrated reports prepared by some of the country's largest listed companies. By identifying trends in SEE disclosures, this research should also be of interest to practitioners who are currently grappling with the preparation of integrated reports in South Africa and those abroad seeking to replicate the country's integrated reporting movement. On a final note, in the interest of retaining focuses on the integrated reports - as the primary means of stakeholder communication - this paper does not deal with the ESG/SEE disclosures found in complementary publications.

The remainder of this paper is organised as follows. Section 2 provides a brief theoretical context for integrated reporting. This is followed by a discussion of various ESG reporting initiatives that inform the development of a SEE disclosure coding system used to analyse the annual/integrated reports of certain mining companies primarily listed on the JSE from 2008 to 2012. Section 3 discusses the coding process and interpretive text analysis procedures employed in more detail. Section 4 presents the findings and Section 5 concludes, identifies areas for future research and notes inherent limitations of this study.

2. Background and literature review

2.1. South African codes of corporate governance

South Africa's first code on corporate governance (King-I) represented part of a conceptual model based on a mix of codes of best practice and Company Law to regulate the relationship between shareholders, directors and corporations (IOD, 1994; Rossouw et al, 2002; West, 2006). King-I, in addition to financial and regulatory aspects of corporate governance, advocated a more holistic outlook on firm leadership which stressed the importance of financial and ethical dimensions of the corporate governance landscape (IOD, 1994). Inspired heavily by the Cadbury Report in the UK, King-I advoated the responsibility of a unitry board (supported by suitable committees) to maintain an effective system of internal controls in the interest of shareholders (IOD, 1994; Solomon, 2010). The code was not in response to any one particular corporate failure. It took cognisance of the need to align South African business practice with international governance standards, particularly in the first years following political emancipation (Vaughn and Ryan, 2006; Diamond and Price, 2012). The focus was on high quality financial reporting and on the principles of transparency, accountability and ethical, all-inclusive, business (IOD, 1994; Rossouw et al, 2002; Hamann et al, 2005).

The subsequent evolution of shareholder-centric frameworks of accountability to a broader stakeholder-orientated model of corporate governance taking place in the UK had a direct impact on South Africa corporate governance. The same was true of a growing awareness of the importance of non-financial disclosures (Solomon, 2010; King, 2012). Being a developing economy heavily dependent on foreign capital and eager to demonstrate its legitimacy as an international market participant, South Africa was quick to refine its existing governance principles (IOD, 2002; Rossouw et al, 2002). In 2002, King-II proposed a move from a narrow view on firms'

performance to more inclusive, 'triple-bottom-line' reporting. Changes concerned, for example, the role and function of the board of directors and company officers, information technology, risk- management and social, health and environmental reporting. In particular, the need for sound audit services was dealt with to ensure the reliability of annual reports (IOD, 2002; Rossouw et al, 2002; Puttick and van Esch, 2003; Diamond and Price, 2012)[3]. King-II continued with a principles-based approach and, being strongly influenced by codes of governance in the UK, stressed the importance of stakeholder engagement (West, 2006; Solomon, 2010). Revisions to King-I were also mindful of corporate failures, both domestic and abroad, as well as an increase in the volume and complexity of economic transactions (IOD, 2002; West, 2006).

Although King-II placed considerable emphasis on the disclosure of non-financial information, the 'incremental changes towards sustainability [were] not sufficient'. A change was needed 'in the way companies and directors act and organise themselves' (IOD, 2009). The global financial crisis, persistent socio-economic inequality, resource constraints, climate change and mounting allegations of corruption in the public sector, required a fundamental shift in existing corporate reporting frameworks (King, 2012; Solomon and Maroun, 2012). This culminated in the introduction of principles of integrated reporting in King-III (IOD, 2009) and the world's first specific discussion paper on issue (IRC, 2011).

Reports based largely on financial information (in which social, environmental and ethical disclosures are merely complementary) do not provide 'sufficient insight to enable stakeholders to form a comprehensive picture of [an] organisation's performance and of its ability to create and sustain value' over time (IRC, 2011, p. 1). As a result, the integrated reporting initiative driven by King-III and the IRC placed a renewed emphasis on holistic, concise and balanced reporting. The objective is the provision of clearly integrated information about an organisation's strategy, risks and opportunities and how this relates to the social, environmental, economic and financial challenges facing the firm (IRC, 2011; Solomon and Maroun, 2012).

2.2. The relevance of ESG disclosures

South Africa can be dated to the emergence of King-I and King-II (Solomon, 2010; Marx and van Dyk, 2011), sustainability reporting has evolved gradually over the last four decades, becoming more popular during the 1990's. Today, there is a vast body of literature which examines sustainability reporting, including ESG disclosure. While the aim of this research is not to provide a detailed review of this literature, what is relevant is the use of different theoretical perspectives to make a case for high quality ESG disclosures in corporate reports. For this purpose, we examine broadly a positivist and institutional account of ESG reporting.

Per agency theory, a divergence between the interests of managers and shareholders results in information asymmetries requiring a system of checks and balances to mitigate residual losses (Jensen and Meckling, 1976). In this context, effective corporate reporting, including the disclosure of non-financial information, is simply part and agency-construct of the corporate governance paradigm (Hill and Jones, 1992; de Villiers and van Staden, 2010; Solomon, 2010). Therefore, as a means of lowering the probability of non-compliance with laws and regulations, reducing risk, and demonstrating responsible citizenship, ESG disclosure can reduce the costs of adverse selection and moral hazard and, as such, is of value to shareholders (Solomon and Solomon, 2006; de Villiers and van Staden, 2010). Lo and Sheu (2007), for example, find a statistically significant relationship between corporate sustainability, sales growth and firm value. De Klerk and de Villiers (2012) reach a comparable conclusion in a South African setting. Using a modified Ohlson model, they find that, for 100 of the country's largest companies, sustainability reporting (specifically ethical, economic, environmental and social-related disclosures) is positively correlated with share price. Although the academic literature does not reach a definitive conclusion on the value-relevance of sustainability reporting (see Bowrin, 2013) the general consensus is that companies, seeking superior returns for shareholders, are motivated to provide high quality sustainability reporting as advocated by prominent codes on corporate governance.

The proliferation of sustainability reporting can also be interpreted in terms of the evolution of shareholder-centric models of corporate governance (Jensen and Meckling, 1976) to broader stakeholder frameworks that recognise the importance of holistic reporting to diverse users of annual reports in conformance with societal expectations (Solomon, 2010). From this perspective, corporate reporting is about more than just the communication of information for economic decision-making (McCann et al, 2003). For modern organisations, effective sustainability reporting becomes a powerful source of legitimacy in the eyes of stakeholder groups and is critical for their ability to operate as going concerns (see Meyer and Rowan, 1977; Suchman, 1995; Wilmshurst and Frost, 2000). In the context of climate change, scarce natural resources and on-going financial turmoil, sound sustainability reporting becomes an important source of information that can facilitate internal decision making, service the

[3] While King-II had a more 'inclusive' approach than King-I, it continued to stress the importance of the shareholder, capital and generation of reasonable returns (West, 2006; Diamond and Price, 2012).

disclosure expectations of stakeholders and become an important source of institutional legitimacy (de Villiers and Barnard, 2000; Burritt and Schaltegger, 2010; Momin and Parker, 2013). The emphasis placed on social, environmental and ethical disclosure in King-III and the South African integrated reporting project is no exception.

Both King-III (2009) and the IRC (2012) acknowledge the business case for effective non-financial disclosure. Particularly in the context of the current financial crisis, high quality integrated reports have the potential to provide decision useful information to users of corporate reports (PwC, 2009). Concurrently, they can assist in addressing information asymmetry and the need for transparent stakeholder engagement (King, 2012). Legitimacy is, however, equally relevant as summarised in the foreword to the discussion paper on integrated reporting which clearly states that, 'if effectively embraced', the shift in reporting mindset has 'the ability to improve strategic decision-making, improve performance and enhance reputation among stakeholders' (IRC, 2011, p. 2).

For the South African mining industry in particular, sound socio-environmental disclosure becomes key for signalling how organisations are aligning their own business models with growing concerns about climate change, pollution, scarce natural resources and loss of biodiversity (see Jones and Solomon, 2013). Due to the fact that the sector is one of the largest employers in South Africa, how the mining houses manage their employees, contribute to economic upliftment and communicate this information to stakeholders is critical for their credibility (Chamber of Mines, 2013). This is especially true given the country's history of economic inequality, as well as the recent tragedy at Marikana where several workers lost their lives during a week of industrial unrest (King, 2012; Chamber of Mines, 2013; Stone 2013).

In this light, the shift from preparing a separate sustainability report to a single primary report that integrates financial and non-financial information (IOD, 2009; IRC, 2011) offers companies an opportunity to 'embed' ESG disclosures into 'their primary reporting mechanism', whether for the purpose of demonstrating conformance with societal expectations or the ability of organisations to create and sustain value in the short-, medium- and long-term (IOD, 2009; IRC, 2011; Solomon and Maroun, 2012, p. 7). As such, there is a reasonable expectation that the integrated reporting project has led, not only to an increase in the level of ESG disclosures in companies' primary reports, but that these issues are being discussed in more sections of the report in an effort at integration of ESG matters with more traditional financial reporting.

2.3. SEE disclosure coding instrument

King-III explicitly states that sustainability includes environmental, social and governance considerations (Marx and van Dyk, 2011; King, 2012). Nevertheless, the conceptual model adopted by the King Code means that it stops short of providing a detailed framework for ESG disclosures. Consequently, several ESG reporting initiatives – together with King-III - inform the content of annual/integrated reports in South Africa (KPMG, 2012; Sustainability South Africa, 2013). Table 1 lists the most common codes or guidelines developed by either international institutions or multi-stakeholder frameworks.

Table 1. International/multi-stakeholder frameworks

Framework/guidelines
United Nations Global Compact Principles (UNGCP)
Organisation for Economic Co-operation and Development's Guidelines for Multi-national Enterprises (OECD MNE)
United Nations Principles for Responsible Investment (UNPRI)
Global Reporting Initiative's G3 Reporting Guidelines (GRI G3)
International Standardisation Organisation (ISO) - ISO 26000: Social Responsibility (ISO 26 000)
The Coalition for Environmentally Responsible Economies' Principles (CERES)
Social Accountability International - SA 8000 (SA 8000)
AccountAbility Principles Standard - AA 1000APS (AA 1000 APS)
GHG – WRI/WBCD
The Carbon Disclosure Project (CDP)
The Prince of Wales Accounting for Sustainability Project
Institute of Directors in Southern Africa's Sustainable Development Forum
The Security Exchange Commission (SEC) Guideline on climate change disclosure

(KPMG, 2012; Sustainability South Africa, 2013)

These guidelines are voluntary ones designed to promote comprehensive ESG disclosures. Of these the Global Reporting Initiative's G3 Guideline is the most commonly applied and is generally accepted as being the most comprehensive and credible ESG disclosure framework (IOD, 2009; KPMG, 2012). In addition, it has become a broad standard or benchmark for sustainability reporting applied by numerous companies and has been incorporated into various other frameworks (CERES, 2010).

The JSE has also developed criteria to assess best ESG reporting practice. The JSE Social Responsible Index (SRI) was launched in May 2004 and was developed to measure the 'triple bottom line' performance of listed companies (JSE, 2004). These criteria take into account the South African context, although they are essentially based on a framework promoted by the UN Principles for Responsible Investment (UNPRI) (Included in Table 1). For the mining industry in particular, the Broad-based Socio-economic Empowerment Charter for the South African Mining Industry (the Mining Charter) is also relevant. Although not providing prescriptive ESG disclosure requirements, the Mining Charter (revised in 2010) creates a framework for the transformation[4] of the mining industry and includes various targets that should be achieved by mining companies within a certain timeframe (The Mining Charter, 2010).

In summary, the requirement to produce integrated reports mindful of the importance of non-financial information in King-III has led to the use of several codes of best disclosure practice by South African corporates (Sustainability South Africa, 2013). The most widely used by South African mining companies include the: GRI G3 (with specific reference to the Mining Sector Supplement) and the Carbon Disclosure Project (CDP) complemented by guidance provided by King-III and the Mining Charter. Each of these, as well as the remaining codes in Table 1, are specifically taken into account when developing an ESG coding matrix for analysing the content of annual or integrated reports of the mining companies (as discussed in Section 3).

3. Method

A sample of mining companies which consistently published annual or integrated reports was selected for testing. The research concentrated specifically on the SEE disclosures in the annual or integrated reports of these companies from 2008 to 2012. The longitudinal data collection was designed to provide the researchers with an overview of the SEE disclosures pre- and post-King-III and the publication of the country's first sets of integrated reports.

Of the total of 56 mining companies listed on the JSE on 1 January 2013, 17 were not primarily listed on the local exchange and a further 17 had not released their 2012 reports at the time of carrying out the research[5]. Six companies were not listed during each of the five years under review and one company was no longer actively trading. Consequently, 75 annual or integrated reports of 15 companies were analysed.

An interpretive text analysis was used to examine each of their annual/integrated reports in line with the recommendations of Merkl-Davies et al (2011) and Solomon and Maroun (2012). Following a social constructivist approach, the researchers constitute the primary measurement and data collection 'instrument', interpretively analysing corporate reports. The aim is not to follow a rigid *quasi* scientific approach using formal coding of the reports to count words, headings and figures. Instead, a more flexible technique is employed to disaggregate the information contained in the annual or integrated reports and analyse the extent to which SEE disclosures have been incorporated in each of these sections (Merkl-Davies et al, 2011). While this does detract from the validity and reliability of the findings in a positivist sense (Leedy and Ormrod, 2001), the method is more suited to studying smaller sample sizes in instances where the absence of detailed prior research and archival data frustrates the development of objective codes or sophisticated economic models that are common in mainstream corporate governance studies (Merkl-Davies et al, 2011; O'Dwyer et al, 2011). The interpretive approach is also more suitable for responding to general research questions dealing with subjectively constructed corporate reports[6].

Data collection and analysis occurred simultaneously. Each of the reports was perused to obtain a sense of its content and structure (Leedy and Ormrod, 2001). A basic report outline was then developed to 'map' the main sections of the reports and give a general sense of the type of SEE disclosures included under each section. At this stage, initial codes for describing the various sections of the annual/integrated reports (axial codes) were

[4] 'Transformation' refers to the process of addressing the economic injustices of Apartheid by promoting population groups historically disadvantages by the Nationalist Government pre 1994.

[5] Only companies with a primary listing on the JSE would be bound by its listing requirements which include complying King-III (and hence the need to prepare an integrated report) or providing reasons for not doing so (JSE, 2013).

[6] In addition to the practical limitations of using a more scientific approach for examining SEE disclosures, the researchers wanted to avoid a type of epistemological 'mismatch'. Employing a more positivist technique bounded by economic rationality, objectivity and a theoretically possible 'optimal' level of disclosure would be inconsistent with socially constructed ESG frameworks that explicitly refer to the need for professional judgement and contextual awareness when preparing the sustainability or integrated reports.

established by the lead researcher and are presented in Table 4 (Appendix).

The ESG disclosure frameworks discussed in Section 2.3 and summarised in Table 1 informed the development of content codes used for analysing the disclosures included in the reports. Due to its broad scope, as well as widespread use in local and international markets, the content codes were derived mainly from the GRI G3. The final coding instrument also took into account the guidelines specifically listed by Sustainability South Africa (2013) and Marx and van Dyk (2011) as relevant for local companies seeking to prepare high quality sustainability reports (These are also included in Table 2 above). Any duplicated disclosures were eliminated. To ensure ease of application, closely related SEE disclosures were aggregated, yielding a summarised list of classes of disclosures per Table 5 (Appendix).

The axial and content codes were subsequently refined by the lead researcher after several readings of the annual/integrated reports requiring a continuous process of coding, reflection on data analysis and recoding during the initial phase of the study[7] (see Table 4 and Table 5 respectively). Finalisation of the content and axial codes also involved consultation and review with the support researchers. As a validity check, the axial codes were examined by the co-authors and contrast with similar prior studies (see Marx and van Dyk, 2011; Solomon and Maroun, 2012) to ensure completeness and their consistency with the relevant literature. In this way, although the largely predetermined development of axial and content codes limited the exploratory potential of the study, it ensured more consistent data analysis (Leedy and Ormrod, 2001). It also allowed the coding instrument to be calibrated by one of the support researchers who re-analysed the first two companies coded by the lead researcher and included in the final set of results[8].

The result was a simple matrix prepared for each company which disaggregated the annual/integrated reports into common sections and recorded the frequency of SEE disclosures per section. This varied from company to company, reflecting the differences in the extent to which SEE disclosures had been integrated in the various reports. Two simple measures were used to depict this: (1) the cumulative change in the frequency of SEE disclosures per coded section of the annual/integrated reports over the five year period under review (CCOT) and (2) the ratio of the changes in SEE disclosures over the number of sections in the reports (CCOT/N) (adapted from Solomon and Maroun, 2012). This was complemented by an interpretive analysis of the text contained in the integrated reports to highlight emerging themes or trends. Again, the aim was not to code scientifically each of the reports. Instead relevant SEE disclosures were analysed by the researchers to identify trends and themes in the annual/integrated reports used to complement the disclosure and integration measures discussed above (adapted from Solomon and Maroun, 2012). Findings are summarised below.

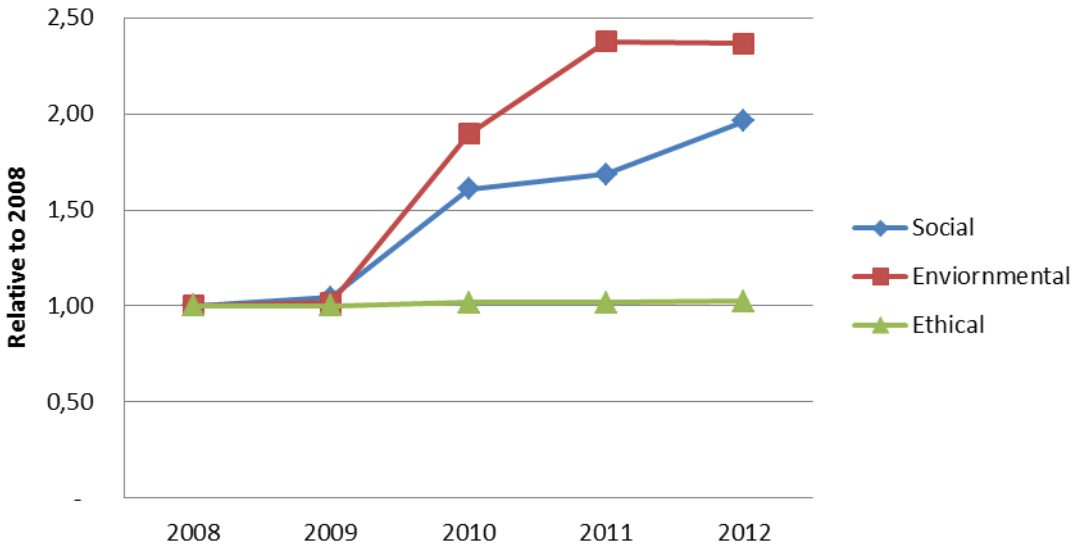
4. Findings and discussion

The interpretive analysis of the annual/integrated reports revealed an increase in the level of SEE disclosures over the five years under review as highlighted by Figure 1:

[7] Most notably codes for SEE disclosures in the Income Statement, Balance Sheet, Cash Flow Statement, Statement of Changes in Equity and notes to the financial statements were merged into a single 'financial statement code'.

[8] To ensure consistent application of the coding instrument, the lead researcher coded each annual/integrated report. Coded reports were frequently reviewed by one of the support researchers to confirm the accuracy and logic of the coding process.

Figure 1. Changes in SEE Disclosure (2008-Indexed)



The emphasis on SEE disclosure varied from company to company, reflecting the subjective and context-specific nature of corporate reporting. On average, however, most companies provided additional SEE disclosures in more sections of their reports over time, reflecting an increase in the level integration as highlighted in Table 3 where the cumulative change in SEE disclosure is positive in all but four coded sections.

Table 3. Changes in see disclosures from 2008 to 2012

AXIAL CODE	SECTION DETAILS	SOCIAL DISCLOSURES		ENVIRONMENTAL DISCLOSURES		ETHICAL DISCLOSURES	
		CCOT	CCOT/N	CCOT	CCOT/N	CCOT	CCOT/N
BEE	Transformation and Mining Charter scorecard/gap analysis	-15	-0.71	1	0.05	0	-
CER	Chief executive officer's review	58	2.76	21	1.00	5	0.24
CGR	Corporate governance review including remuneration report	36	1.71	0	-	19	0.90
CRSUM	Corporate responsibility summary	-15	-0.71	13	0.62	-1	-0.05
CS	Chairman's statement (or equivalent)	19	0.90	0	-	6	0.29
DR	Director's report (in financial statements)	5	0.24	37	1.76	5	0.24
FR	Financial review	3	0.14	3	0.14	0	-
HCR	Human capital review	-16	-0.76	5	0.24	0	-
IGO	Group overview; products; vision and values; scope; industry or market outlook	35	1.67	13	0.62	2	0.10
KPI	Key Performance Indicators	26	1.24	11	0.52	4	0.19
NFS	Financial statements (including notes)	-2	-0.10	-6	-0.29	0	-
NKP	Non-financial Key Performance Indicators	29	1.38	21	1.00	0	-
OR	Operational review	253	12.05	0	-	0	-
RM	Risk-management	25	1.19	108	5.14	0	-
SAF	Salient features	24	1.14	5	0.24	1	0.05

AXIAL CODE	SECTION DETAILS	SOCIAL DISCLOSURES		ENVIRONMENTAL DISCLOSURES		ETHICAL DISCLOSURES	
SED	Social and environmental disclosures	25	1.19	7	0.33	1	0.05
SOP	Social performance	39	1.86	1	0.05	2	0.10
SR	Sustainability review (or CSR review or equivalent)	49	2.33	32	1.52	2	0.10
SS	Strategy statements, Strategic Profile, Strategic risk summary	38	1.81	9	0.43	2	0.10
SSUM	Safety summary and health summary	-8	-0.38	12	0.57	0	-
STAK	Stakeholder disclosures	29	1.38	1	0.05	2	0.10
TOTAL		637	30.33	294	14.00	50	2.38

4.1. Social disclosures

The increase in disclosure was most pronounced for social issues, including, *inter alia*, labour relations, employee health, transformation and occupational safety (CCOT = 637). This is consistent with the significant social impact of the mining sector (Chamber of Mines, 2012; PwC, 2012). In South Africa, high levels of unemployment and a widening gap between the quality of life of the majority of South Africans, on the one hand, and a wealthy minority on the other, exists (De Villiers & Van Staden, 2006). Compounding this is a legacy of economic inequality (Rossouw et al, 2002; West, 2006); poor levels of public health and education (Jansen, 2012); and persistent gender and race discrimination (The Mining Charter, 2010; Hammond et al, 2012). Together with the public scrutiny directed at the mining houses (Chamber of Mines, 2013) it comes as no surprise that annual and integrated reports contained considerable social disclosures and that King-III and the integrated reporting initiative have led to these disclosures being included in more sections of the integrated reports (CCOT/N=30.33).

To some extent, social disclosures would be driven by regulatory requirements and codes of best practice that predate King-III and the integrated reporting project (Marx and van Dyk, 2011; Solomon and Maroun, 2012). The stakeholder model of governance and accountability entrenched by King-III and the IRC appear, however, to have had an important impact with the most significant increase in disclosure (and CCOT/N) occurring during the 2010/2011 reporting period (Figure 1). Consequently, the relatively high CCOT and CCOT/N measures provide evidence in support of the view that the mining industry is acutely aware of its social responsibilities and is making a reasonable effort at integrating social metrics in more recent corporate reports.

The most common examples of more integrated social disclosure involve HIV/Aids, transformation and labour relations (such as number of strikes, staff turnover, safety statistics and absenteeism). Although these issues featured in all of the annual reports under review, the 2011 and 2012 reporting period showed signs of the financial impact of occupational health, worker safety and transformation being more closely integrated with non-financial information. For example, on the impact of HIV and occupational health, Company 1 draws connections between worker health, business risk and operational statistics:

> 'HIV and pulmonary tuberculosis infection are the primary health risks facing our employees, both of which are of epidemic proportions in Southern Africa [sic]. The major occupational health risk associated with [the company's] activities is noise-induced hearing loss (NIHL). During the year the Group lost the equivalent of 4.3% of man shifts each day through illness, down slightly on FY2011 but a worrying increase on 2008 levels (3.4%). In FY2012, 63 NIHL cases were diagnosed (FY2011: 57)' (2012, p.65).

The quantification of social metrics was also apparent when it came to disclosure on transformation and poverty alleviation. Importantly, there is evidence of targets being set and of companies' performance being evaluated against these targets ($CTOT_{RM}$ = 25; $CTOT_{KPI}$ = 26). For example, Company 7 refers to the 'key milestones' being 'reached' and, similar to the previous example, provides quantitative information on the total spent on different projects and the number of individuals that have been assisted:

> 'We believe sustainable transformation is achievable. In the past six years, [the Company] has reached several key milestones, including: (1) One of the largest black empowered groups

> on the JSE by direct shareholding (almost 53% in black hands) with a demographically representative executive committee responsible for day-to-day management; (2) Over R21 billion spent with black suppliers since listing in 2006; (3) Cumulative expenditure on training since 2006 close to R1 billion; (4) Since 2006, enrolled almost 2 900 young people in [the Company's] learnerships; (5) Over R142 million spent on socio-economic initiatives since 2006; (6) Our employee share scheme paid out over R1 billion to non-management participating employees when it vested after five years in December 2011. A new scheme was introduced in 2012' (Company 7, 2012).

Occupational health, worker safety and transformation have featured consistently in the SEE disclosures pre King-III. In addition to an increase in the quality of disclosure, however, the 2012/2011 reporting period is characterised by a generally higher level of integration. Most notably, the Chief Executive Officer Review (CER), Chairman's Statement (CS) and Directors' Report (DR) – which have traditionally concentrated on discussing financial performance – showed signs of integration of social and financial information. Particularly interesting was the $CTOT_{KPI}$ of 26 (CCOT/N=1.24). In several reports under review, social issues (particularly worker safety, occupational health and transformation) are being identified as key business risks and, in many cases, part of the value or mission statement of the reporting entity. For example, Company 21 included the following in its key performance targets for the 2012 financial year as part of the corporate strategy and overview section of the integrated report:

> We [aim to] comply with industry targets to: (1) Reduce noise-induced hearing loss (NIHL) to less than 10% (from baseline) per individual by 2013.(2) Maintain prevalence of HIV below industry norm: Internal targets: 80% VCT,>70% retention on treatment programme, reduce indirect costs by 5% from baseline….[In response the company has introduced] community health project to create HIV awareness and encourage HIV testing in communities surrounding our business units. We aim to create an environment that has no stigma against people living with HIV/Aids (2012, p. 78).

Other sections of the 2011/2012 reports recorded increases in the quantity and extent of integration of SEE disclosures. The most significant increase was in the operational review sections of the reports ($CCOT_{OR}$ = 253). A greater awareness of the importance of SEE-issues was confirmed by the fact that risk management (RM) and direct stakeholder communications (STAK) followed a similar trend with positive CCOT and CCOT/N scores. The only sections with a material negative score were human capital review (HCR), corporate responsibility summary (CRSUM) and BEE scorecards (BEE). This appeared to be the result of information being reallocated to different sections of the report, including the more 'traditional' sustainability sections such as the corporate governance (CGR) and sustainability review (SR) which reported increases in level and extent of integration of SEE disclosures.

Overall, what the CCOT of 637 and CTOT/N score of 30.33 suggest is that core social matters are no longer the domain of only the sustainability sections (or equivalent) of corporate reports. This change can be attributed to a culture of compliance with King-III and the JSE Listing Requirements or genuine philanthropy on the part of the companies under review (Solomon and Maroun, 2012). The need for improved corporate transparency; reduced risk and the associated positive impact on firm value are also drivers of enhanced social reporting. Organisational legitimacy is another.

An important theme emerging from an interpretive analysis of the 2012 integrated reports was the relationship between ESG disclosure and corporate credibility. The focus is not only on neutral reporting of relevant statistics but on demonstrating how corporate values align with generally accepted views on the importance of a safe working environment, equality, freedom, fairness and responsible business practice. For example, Company 3 clearly links its human resource policies with the growing expectation that organisations support the economic development of their staff and those adversely affected by the country's pre-1994 economic policies as stressed by codes of best practice (IOD, 2009; King, 2012):

> 'Policies and procedures on people management issues are established at corporate level and apply at our operations. These seek to ensure the continuous development of **our employees**, in line with business demands, while at the same time offering **career progression opportunities** with particular emphasis on **historically disadvantaged South Africans** within our South African operations' (Company 3, 2012, p. 17, emphasis added)

Terms such as 'our employees', 'career progression' and 'historically disadvantaged' are important for demonstrating how an organisation responds to the financial interests of stakeholders (in this case, mine workers). The disclosure also highlights how dealing with the social imperative of improving the lives of workers (many of whom would have been affected directly or indirectly by Apartheid) can give rise to a sense of moral legitimacy as the formal structure of the organisation (its policies and

procedures) takes cognisance of the company's generally accepted social responsibilities. Similarly, Company 11 refers to the importance of sustainable labour practice appealing to societal expectations for safe working conditions characterised by a sense of organisational justice, fairness and equality:

> 'If we are to create sustainable value for shareholders and society we need our people to be healthy, safe, motivated and equipped with the requisite skills; this requires a work environment informed by **mutual trust** and **respect**' (Company 11, 2012, p. 49, emphasis added)

These examples should not be interpreted as implying that the current state of integrated reporting in South Africa is perfect. To at least some extent, the CCOT of 637 can be attributed to a considerable amount of repetition. Similar to the findings of Solomon and Maroun (2012), the research also found only limited instances where these matters are fully integrated with the risk management strategies of the organisation and a definitive link between financial and non-financial metrics was established. This is evidenced by the fact that the CCOT for the financial statement and financial review sections of the integrated reports showed only a marginal change. There is also no assurance that the disclosures in the annual and integrated reports reflect substantial changes in the way in which corporates do business. King-III and the IRC have not replaced the need to generate returns for shareholders. They are also not a balance to 100 years of capitalist business models and the economic injustices of the country's past as evidenced by the integrated reports that gave little warning of the tragedies at Marikina where several workers lost their lives in violent strike action.

4.2. Environmental disclosures

The CCOT of 294 and Figure 1 indicate a general increase in the level of environmental disclosures over the period under review. The score was less than the change in social disclosures, possibly due to the fact that the environmental disclosure requirements in the ESG frameworks in Section 2.2 were less extensive than social disclosures and narrower in scope. The lower score can also be attributed to existing regulation and environmental best practices that have been in place for several years as explained by Company 9 (2010, p. 81) and Company 15 (2012, p. 79) which described compliance with environmental standards as integral to their sustainability over the last several years. Nevertheless, the findings lend weight to the possibility of more holistic governance standards resulting in a heightened awareness of the need for detailed environmental disclosure (IOD, 2009; IRC, 2011). This is especially true as the impact of limited resources, habitat destruction and global warming become better understood and a focal point for various regulatory bodies.

For example, Company 13's key performance indicators relating to sustainability development included the 'number of monetary fines or sanctions related to non-compliance with environment legislation' and 'number of environmental incidents' as important metrics (2012, p. 17). Several companies also include details on their environmental impact and attempted to complement predominantly qualitative disclosure with key measures. For example:

> 'Total CO2 emissions for FY2012 amounted to 3.7 million tonnes as against 4.0 million tonnes in FY2011. This decrease was largely related to reduced production. The bulk of emissions (3.3 million tonnes) were indirect emissions associated with Eskom usage. Direct emissions arose from burning fossil fuels such as coal, diesel, petrol and industrial fuels (Company 1, 2012, p. 67)

> 'In 2012, our Group Technical Services (GTS) function started scoping activities for the development of a Group-wide water strategy. This is being supported by a newly formed, world-class team of water experts at Group-level headed by a new Group Head of Water Management to ensure we address heightened levels of scrutiny from national water regulators and other stakeholders in an early and proactive way…In August 2012, the [respective authorities] lifted its suspension of activities at [certain opertions]…the Ministry of the Environment, Science and Technology – approved the continued dilution and discharge of excess water within existing legal limits, pending the completion of our two new water treatment plants by 31 December 2012. It is estimated that the 24-day suspension resulted in lost production of 15,000 ounces – less than 10% of the mine's quarterly production (Company 19, 2012, p.69).

As with the social disclosures, there was evidence of greater integration. Environmental disclosures in more traditional sections of the reports increased ($CCOT_{SR}$=32; $CCOT_{CRSUM}$=13) but this was complemented by additional disclosure in most of the other sections of the reports with the exception of the financial statements ($CCOT_{TOTAL}$ = 294; CCOT/N = 14). The most notable increase in disclosure was in the risk-management section ($CCOT_{RM}$=108) and chief executive reports ($CCOT_{CER}$=21; $CCOT_{DR}$=37), suggesting that South African mining houses are becoming more aware of their environmental impact and the need to communicate effectively the environmental issues to stakeholders. In line with the recommendations of the IRC, there was also evidence

of companies incorporating environmental issues into their strategic assessments and key performance indicators ($CCOT_{KPI}$=11; $CCOT_{SS}$ = 9) implying a focus on environmental concerns at the highest levels in the organisations. As with the social disclosures discussed above, these changes also point to the importance of organisational legitimacy.

Mining is generally accepted as having a high environmental impact, with the result that detailed commentary on environmental risk-management is becoming a key element in credible integrated reporting and sustainable business practice. In an institutional sense, an integrated report without environmental commentary backed by relevant statistics on, *inter alia*, water usage, CO_2 emissions and environmental rehabilitation is becoming unimaginable (see KPMG, 2012; Sustainability Reporting Guidelines, 2012). Every integrated report, therefore, included extensive disclosure on environmental issues featuring in multiple sections of the reports, most notably the organisational values and mission sections. For example, dealing with corporate strategy and operational policies:

> 'In line with our strategy of meeting and exceeding legislative compliance, we are implementing appropriate **environmental management systems** at all operations. These will also ensure environmental management is addressed in **a formal, systematic approach'** (Company 5, 2011, p. 14, emphasis added).
> 'The Group has established environmental specialist teams that work closely with operations and are involved in due diligence exercises undertaken in connection with acquisitions, and the development of strategic resources' (Company 3, 2012 p.18).

> '[Our] mission is safeguarding the health and safety of our employees, and **caring for the environment** in which we operate' (Company 1, 2012, p.4, emphasis added)

Similar to social disclosures, the aim is to demonstrate an alignment of the organisations' values and operations with the generally accepted need for environmental responsibility (see IOD, 2009; Jones and Solomon, 2013). Part of this process includes the communication of a formal system in place to manage environmental risks with clear reference to teams of experts designed to demonstrate a sincere commitment to environmental sustainability. As global warming and the impact of mining on the natural world become more widely discussed, the need to manage the image of the company as environmentally aware is becoming more important for ensuring continued support from stakeholders (see De Villiers and Barnard, 2000).

There is, however, no guarantee that additional disclosure amounts to genuine environmental awareness or equates to effective integrated reporting in every instance. In almost all reports reviewed, environmental disclosures were repetitive (see also Solomon and Maroun, 2012). There was also no clear link between environmental management, risk management, operational impact and financial effect, as envisaged by King-III and the IRC, in *every* report under review. That environmental impact was not consistently identified as one of the top three risk areas in the 2012/2011 integrated reports also challenges the extent to which an increase in environmental disclosure (Figure 1) is an indicator of meaningful communication and management of the environmental impact of mining houses. It is, therefore, possible that the integration of environmental information in the annual/integrated reports is more a response to societal expectations than an indicator of significant change in existing business models (see Solomon et al, 2013).

4.3. Ethics disclosures

Unlike environmental and social issues which were dispersed throughout most of the integrated reports, ethical issues (such as corporate social responsibility, transparency, accountability), were primarily addressed in the sections of the reports dealing with the companies' vision, mission and governance structures (CCOT/N =2.38). The specific information presented varied from entity to entity although all companies under review dealt with the issue of compliance with King-III and/or included a relatively superficial statement on the need for corporate accountability and responsible business practice:

> [The company] is committed to achieving high standards of business integrity and endorses the ethical values of responsibility, accountability, fairness and transparency across all its activities (Company 5, 2012, p. 167).

> In line with principles set out in the King III Report [the company] endeavours to maintain its position as a good corporate citizen through accountability, fairness, sound ethical values and transparency (Company 2, 2012, p. 6).

This particular set of disclosure had the lowest CCOT score (CTOT = 50) and was the least integrated (CCOT/N = 2.38). This is not to imply that South African mining houses are unethical but the low disclosure scores do reflect the largely 'boiler plate-type' commentary (King, 2012) that was found in all integrated reports. Very few companies identified corporate ethics as a key business risk and none viewed it as one of the top three risks, despite the culture of ethics being central to responsible and sustainable business practice. This went hand-in-hand with limited quantifiable 'evidence' being presented in the reports barring standard disclosures such as the

number of board meetings and the attendance of individual directors at these meetings.

5. Conclusion

This research finds that King-III and the integrated reporting project have gone hand-in-hand with an increase in the level of SEE disclosures and the extent to which these disclosures are integrated in corporate reports. An increase in disclosure was most pronounced for social and environmental issues although a marginal increase in ethics-based disclosure was also noted. The level of integration followed a similar trend.

Overall, these results suggest that the mining houses are aware of the importance of SEE disclosures and the need to integrate these effectively with financial and risk metrics (as recommended by the IRC and King-III). Interpretive text analysis also revealed the relevance of organisational legitimacy. For the mining sector in particular, high social and environmental impact means that effective disclosure of how these companies deal with issues such as HIV/Aids, ground water contamination, CO_2 emissions and occupational safety are important for signalling an alignment between organisational values and the belief sets of various stakeholder groups championing social and environmental responsibility.

These findings should not be construed as implying that SEE disclosures are perfectly in line with the recommendations of King-III and integrated reporting initiatives. In all of the integrated reports reviewed, there is a considerable amount of repetition. When it came to ethics-based disclosures in particular, most of the integrated reports included only 'boiler plate commentary' (King, 2012) which offered little insight into the long-term sustainability of the firms. Further, while most organisations provided details on issues such as water usage, emissions and safety statistics, they stopped short of providing an extensive quantitative analysis of the effect of SEE issues on the performance and value of the respective operations. More also needs to be done on demonstrating how social or environmental metrics form part of the organisation's strategy and the link between this and the risk management and operational policies in place.

These shortcomings are to be expected. As explained by the IRC (2011, p. 4), integrated reporting is a 'journey'. Many companies will require several years to refine their reports and underlying reporting systems before fully integrated reports are available. Time is needed for active stakeholder engagement and the evolution of corporate reporting from a function of the accounting department to a truly integrated exercise that draws on the expertise of multiple parts of the organisation. More critical inferences are, however, also possible. In line with the arguments of Solomon et al (2013) and Mathews (2004), there is no guarantee that every organisation will see integrated reporting as a meaningful platform for stakeholder dialogue. As long as a disconnect between the interests of managers and stakeholders continues to characterise modern capitalist systems, integrated reporting may become just another example of how clever preparers use reports, statistics, rhetoric and imagery to manage impressions and mislead stakeholders.

On a final note, this research is not without limitations. Being one of the first academic papers on integrated reporting in South Africa (Solomon and Maroun, 2012), it is fairly descriptive and focuses only on the SEE disclosures in the South African mining sector for a limited period of five years. The technique used to measure changes in the level and integration of these disclosures is not statistically rigorous. In addition, there was no effort to objectively assess the quality of the additional disclosures and the relevance of including SEE issues in multiple sections of corporate reports. Consequently, future research using a combination of detailed interviews and case studies is needed to provide a more detailed account of stakeholders' views on the usefulness of the most recent integrated reports including areas for improvement. As part of this process, researchers should not shy away from critically analysing integrated reporting. For example: how power dynamics in organisations; the use of professional judgement; and the possibility of impression management and decoupling detracting from *bona fide* integrated reporting in the best interests of stakeholders is likely to be an important dimension of the integrated reporting project.

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Appendix

The appendix includes the final axial (Table 4) and content codes (Table 5) used for coding the annual and integrated reports.

Table 4. Axial Codes

Code	Description
BEE	Transformation and Mining Charter scorecard/gap analysis
CS	Chairman's statement (letter or equivalent)
CBS[9]	Consolidated balance sheet/consolidated income statement
CER	Chief executive officer's review
DR	Director's report (in financial statements)
CGR	Corporate governance review (including remuneration report)
CRSUM	Corporate responsibility summary
EP	Environmental performance
FR	Financial review (at start of report)
HCR	Human capital review/people summary
IGO	Introductory group overview, our products, vision & values, scope, industry/market outlook
KPP	Key performance indicators
NKP	Non-financial key performance Indicators
NFS[8]	Financial statements and notes to the annual consolidated financial statements; profit & loss account/ consolidated statement of comprehensive income
OR	Operational review – general and by subsidiary
RM	Risk-management
SAF	Salient features
SS	Strategy statements, strategic profile, strategic risk summary
SR	Sustainability review (or CSR review or equivalent)
SSUM	Safety summary and health summary
SOP	Social performance

Table 5. Content Codes[10]

The following summarises the content codes used for analysing the annual/integrated reports. In the interest of brevity, only the main content code headings have been presented.

Social	Code symbol	Standard/guideline[11]
Labour/employment matters	**Ë**	GRI G3, SRI, SM, King III
Safety issues	**Ş**	GRI G3, SRI, SM, MC
Employee health issues	**H**	GRI G3, MC, SM, SRI
Employee development	**Đ**	GRI G3, MC, SM
Employee transformation	**Ť**	GRI G3, MC, SRI, SM

[9] 'CBS' and 'NFS' were combined in Table 3 (shown as NFS).
[10] As discussed in Section 2 the GRI's guidelines provide comprehensive ESG disclosure recommendations (KPMG 2012) and, therefore, was the prominent framework in the coding instrument
[11] In the interest of brevity, only main content codes are presented.

Human rights	**ђ**	GRI G3, SM
Compliance	**ç**	GRI G3, SM,MC, ISO
Community development	**Ђ**	GRI G3, SRI, MC, SM
General social matters	**Ю**	GRI G3, AA1000, King III, SRI, SM
Environmental		
Compliance	**çė**	GRI G3, SRI, SM, ISO
Energy	**Ę**	GRI G3, SM
Emissions/air pollution	**Ā**	GRI G3, CDP
Water	**Ŵ**	GRI G3, SM
Waste	**Ш**	GRI G3, SM
Rehabilitation	**ф**	GRI G3, SM
Initiatives	**ï**	SRI, SM,MC
Transportation	**τ**	GRI G3, SM
General environmental issues	**Юė**	GRI G3, SRI, MC, SM
Ethical		
Integrity/ business integrity	≈	King III, SM, AA
Accountability	∂	AA1000, King III, SM
Transparency/openness	∫	King III, SM, AA
Responsibility/responsible employer	◊	King III, SM
Anti-bribery and corruption	**@**	King III, SRI, SM
Ethical standards/corporate citizenship	**Ω**	King III, SM
Abbreviations: standards and guidelines		
AA	AccountAbility Principles Standard	
CDP	The Carbon Disclosure Project	
MC	The Mining Carter	
GRI G3	Global Reporting Initiative's G3 Reporting Guidelines	
King III	King Report on Governance for South Africa–2009	
SM	Solomon and Maroun (2012)	
SRI	JSE Social Responsibility Index	