Performance Indicators Disclosure in Sustainability Reports: Lessons from Large Mining Companies in Ghana

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Outline
1. Introduction
2. Literature
3. Research methods
4. Findings
5. Practical implications
Introduction

• Sustainability reporting (SR) increasingly gains attention
• Structure and Items of Performance Indicators (PIs) remain controversial
• Ghana is the country of voluntary preparation of SR as many other countries.
• Mining industry faces increasing challenges and restraints in complying with SR preparation
• Ghanaian mining industry face more pressures with regards to CSR to the society, in particular to the local communities
• In Ghana, the mining sector, important strategic industry in terms of GDP growth, tax revenues, employment and social amenities
• SRs in developing countries focused on structure and contents rather than extent of PIDs (e.g. Slater, 2008; Beloe et al., 2006; KPMG, 2008; Adams and Frost, 2008)

• Recent studies focus on environmental sensitive industries, (e.g. Clarkson et al., 2008; Alazzani and Wan-Hussin, 2013)
Little research has been carried out to assess current practices and performance of mining companies in Ghana. This paper initialises an examination of

• the extent,
• content and
• trend of PIs
• developments over the investigation period.

using content analysis which is a common technique in other studies (e.g. Barako et al., 2006).
Literature Review

• SR used to effectively communicate CSR activities with stakeholders

• SR must contain qualitative and quantitative information on the extent to which economic, environmental and social effectiveness and efficiency (Daub, 2007)
• World Business Council for Sustainable Development (WBCSD) treats SR as public reports to provide internal and external stakeholders with a picture of the corporate position and activities on EC, EN and SO dimensions (WBCSD, 2002).

• SR becomes a systematic means of managing sustainability issues and a communication instrument primarily aimed at influencing the public perception and enhancing a company’s corporate image (Hooghiemstra, 2000; Daub, 2007; Park and Brorson, 2005).
• Stakeholder theory - (Freeman, 1984)
  - SRs should disclose different indicators and parameters to meet the requirements of all stakeholders

• Legitimacy theory - (Suchman, 1995)
  - SR is viewed as strategy to build and maintain their legitimacy in the society
Initiatives guidelines (Duff, 2014)

- Un Global Compact,
- Extractive Industries transparency Initiative (EIT)
- Fundamental Principles for Mining Sector (Berlin Guidelines)
- International Organisation for Standardisation (ISO 26000 and ISO 14000)
- Accountability 1000 (AA1000)
- Environmental Excellence in Exploration (E3)
- Dow Jones Sustainability Group Index, and
- Global Reporting Initiative
Many studies of SRs are based on GRI performance indicators (e.g. Murguía and Böhling 2013; Kotilainen et al., 2015)

Founded in 1997 by the Coalition for Environmentally Responsible Economies (CERES) and the United Nations Environmental Programme (UNEP), is one of the network-based frameworks on voluntary basis (e.g., Joseph, 2012)
GRI

• to achieve transparency and credibility of information disclosure.
• suitable for MNEs that operate globally in less developed or even non-democratic countries.
• Comparability.
• It provides detailed guidance on “how to report” by defining overall goals, and “what to report” (Joseph, 2012).
• Globally accepted guideline of SR preparation.
• GRI framework - Strategy and Profile (SP), Management Approach (MA) and Performance Indicators (PI).
• G3.1 guidelines outline a list of 84 PIs comprising of
  • 9 economic indicators,
  • 30 environmental indicators, and
<table>
<thead>
<tr>
<th>Strategy and Profile</th>
<th>Management Approach</th>
<th>Performance Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Strategy and Analysis</td>
<td>1. Economic</td>
<td>EC1-EC9</td>
</tr>
<tr>
<td>2. Organisation Profile</td>
<td>2. Environmental</td>
<td>EN1-EN30</td>
</tr>
<tr>
<td></td>
<td>5. Society</td>
<td>SO1-SO10</td>
</tr>
<tr>
<td></td>
<td>6. Product Responsibility</td>
<td>PR1-PR9</td>
</tr>
</tbody>
</table>
Alazzani and Wan-Hussin (2013) evaluated the SRs of eight global large oil and gas companies using the GRI framework. Their findings confirm that the voluntary adoption of GRI has increased transparency, credibility and comparability in SRs.

Wiburn and Wiburn (2013) proved that the GRI can help MNEs create CSR strategies and help stakeholders evaluate the firms’ values effectively. Their findings confirm that the PIs reported in SRs are evidence of the levels of these firms’ compliance with CSR principles.

Lynch (2010) investigated SR practice in Australian state governments and found that the coverage of disclosure practices varied across different sectors and states during the period 2000-2008.

Roca and Searcy (2012) analyses 94 SRs in 2008 and shows that a total of 585 different indicators were used in the reports, with “31 of the 94 reports included indicators explicitly identified as GRI indicators”, evenly spreading along economic, environmental and social dimensions. More environmental indicators reported than did the economic and social indicators.
On the other hand, in the less developed world, 

- Kotilainen et al. (2015) comparatively examine CSR of mining companies in Kyrgyzstan and Tajikistan, and their analysis emphasised the importance of the national and local contexts in the implementation of the CSR activities. Mining companies adapt their CSR practices to the different sets of stakeholders. 

- In Bangladesh, Sobhani et al. (2012) examine the SR practice of the banking sector through annual reports and corporate websites. Social dimension disclosure received more attention than economic and environmental dimensions in the banking SRs. 

- In Greece, Skouloudis et al. (2010) assess the quality and inclusiveness of SRs at a country-level. Findings reveal inadequacy of SR in Greece, with lack of desired content and comprehensiveness.
Five important points can be summarised from reviewing the above studies:

1) SR using the GRI performance indicators indeed helps improve companies’ relationship with broad stakeholders and enhance their public reputation and image.
2) Transparency and creditability can only be achieved when the data recorded in SR is of good quality, and even better if engagement with stakeholders is ensured.
3) SRs following the GRI guidance are more useful for stakeholders/public than respective companies’ website information.
4) It is inconclusive whether the contents and extents of SR in developed countries are better than those in developing countries as they are to large extents, depending on national or local contexts.
5) Generalisation of results because of research biases.
Research Methods

Sample selection: 10 large scale MCGs are selected as the research sample, because:

1) Major MCGs have larger share of responsibility (Stratos, 2003; Daub, 2007).
2) They are subsidiaries of MNCs (Alazzani and Wan-Hussin, 2013).
3) Size effects are important when considering disclosure of environmental issues (e.g. Adams et al., 1998; Deegan and Gordon, 1996; Friedman and Miles, 2001; Duff, 2014).
4) Data coverage as from 2008 to 2012 because the adoption of IFRS in Ghana commenced in 2007 (Assenso-Okofo et al., 2011; Khalid et al., 2013).
5) The SR reports are collected mainly from the website of the companies by referring to other studies (Stratos, 2008; Slater, 2008; Roca and Searcy, 2012).
Analysis methods

- Content analysis was used - mature technique to make inferences objectively and identify specified characteristics of messages systematically (Holsti, 1969).

- GRI guidelines (3.1) used as coding structure (Bouten et al., 2011).

- To identify the PID, identified from SRs using GRI guidelines (Alazzani and Wan-Hussin, 2013).
Reliability  (Hayes and Krippendorff, 2007):

To achieve coding reliability, two measures adopted

• Inter-coder test was used.
• The use of Cronbach’s coefficient alpha.

The Cronbach’s coefficient alpha for the disclosure indexes are 0.81, 0.85, 0.80, 0.76, 0.85 and 0.85 for economic, environmental, human right, labour practices and decent work, product responsibility and society indicators over the five years respectively (higher than the accepted lower bound of 0.6).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECPDI</td>
<td>50</td>
<td>5.84</td>
<td>2.435788</td>
<td>2</td>
<td>9</td>
<td>-0.00035</td>
<td>1.6225</td>
</tr>
<tr>
<td>ENPDI</td>
<td>50</td>
<td>17.2</td>
<td>8.015292</td>
<td>4</td>
<td>30</td>
<td>-0.03175</td>
<td>1.7377</td>
</tr>
<tr>
<td>SOCPDI</td>
<td>50</td>
<td>16.94</td>
<td>8.072149</td>
<td>3</td>
<td>32</td>
<td>0.34340</td>
<td>2.4440</td>
</tr>
<tr>
<td>HRPDI</td>
<td>50</td>
<td>5.44</td>
<td>3.16331</td>
<td>0</td>
<td>11</td>
<td>-0.02701</td>
<td>2.0967</td>
</tr>
<tr>
<td>LAPDI</td>
<td>50</td>
<td>8.06</td>
<td>4.573259</td>
<td>1</td>
<td>15</td>
<td>0.08015</td>
<td>1.8015</td>
</tr>
<tr>
<td>PRPDI</td>
<td>50</td>
<td>3.82</td>
<td>2.670244</td>
<td>0</td>
<td>9</td>
<td>0.42223</td>
<td>2.5165</td>
</tr>
<tr>
<td>SOPDI</td>
<td>50</td>
<td>3.74</td>
<td>2.693984</td>
<td>0</td>
<td>9</td>
<td>0.47581</td>
<td>2.5049</td>
</tr>
<tr>
<td>CSPDI</td>
<td>50</td>
<td>39.36</td>
<td>17.54849</td>
<td>9</td>
<td>71</td>
<td>-0.08202</td>
<td>2.0932</td>
</tr>
</tbody>
</table>
### Table 2: Trend development of Sustainability Reporting in MCGs

<table>
<thead>
<tr>
<th>Year</th>
<th>ECPDI</th>
<th>ENPDI</th>
<th>SOCPDI</th>
<th>HRPDI</th>
<th>LAPDI</th>
<th>PRPDI</th>
<th>SOPDI</th>
<th>CSPDI (times compared to 2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>38</td>
<td>98</td>
<td>144</td>
<td>26</td>
<td>46</td>
<td>26</td>
<td>46</td>
<td>280 (1.00)</td>
</tr>
<tr>
<td>2009</td>
<td>51</td>
<td>180</td>
<td>213</td>
<td>48</td>
<td>73</td>
<td>35</td>
<td>57</td>
<td>444 (1.58)</td>
</tr>
<tr>
<td>2010</td>
<td>61</td>
<td>161</td>
<td>269</td>
<td>65</td>
<td>97</td>
<td>46</td>
<td>61</td>
<td>491 (1.75)</td>
</tr>
<tr>
<td>2011</td>
<td>67</td>
<td>204</td>
<td>267</td>
<td>68</td>
<td>98</td>
<td>39</td>
<td>62</td>
<td>538 (1.92)</td>
</tr>
<tr>
<td>2012</td>
<td>75</td>
<td>221</td>
<td>271</td>
<td>67</td>
<td>88</td>
<td>45</td>
<td>71</td>
<td>567 (2.02)</td>
</tr>
<tr>
<td>Actual disclosure</td>
<td>292</td>
<td>864</td>
<td>1164</td>
<td>274</td>
<td>402</td>
<td>191</td>
<td>297</td>
<td>2320</td>
</tr>
<tr>
<td>Expected disclosure</td>
<td>450</td>
<td>1500</td>
<td>2250</td>
<td>550</td>
<td>750</td>
<td>450</td>
<td>500</td>
<td>4200</td>
</tr>
<tr>
<td>Disclosure index</td>
<td>0.65</td>
<td>0.58</td>
<td>0.52</td>
<td>0.50</td>
<td>0.54</td>
<td>0.42</td>
<td>0.59</td>
<td>0.55</td>
</tr>
</tbody>
</table>
Findings

1. All dimensions of TBL PIs in SRs have passed critical threshold of 50%; EC PIs (65%), EN PIs (58%) and SO PIs (52%)
2. Economic PIs, the quantifiable items relating to the company’s financial position have received higher attention than indirect impacts
3. Environment disclosure - materials or energy consumption quantities rather than the measures of environmental protection and energy efficiency
4. Social disclosure dimension, the reporting rate ranging from high to low are

- Society Performance Indicators (59%),
- Labour Practices & Decent Work Performance Indicators (54%),
- Human Rights Performance Indicators (50%) and
- Product Responsibility Performance Indicators (42%), respectively

5. A steady and increasing rate in reporting Trend over the 5 years of the survey period across all dimensions has been observed, doubling in 2012 compared with the reporting index in 2008

6. MCGs are reluctant to disclose negative effect items
Policy implications

• The government can learn from the current state of SR disclosure in the sector in order to assess the possibilities for compulsory reporting requirements, regulations and policies.

• The Ghana Chamber of Mines can set up sector wide guideline to improve the quality of reporting and promote the reporting of those less disclosed items.

• For the individual company, our results provided an average benchmark which can be used to compare and contrast their own position to assess where they stand.
Limitations of the study

1. The current study has only identified the degree, trend and contents PIs for MCGs through CA from their online SRs.

2. The single data collection and analysis methods are limited to obtaining more meaningful research insights.

Future research could attempt using multiple sources of data (e.g. questionnaire, interview and focus group) and several analytical tools to explore more richly findings related to various perspectives such as:

- SR quality and company’s sustainability performance;
- corporate governance system and quality of SRs; and

Despite some of these limitations, the merit of this study is also obvious.
Thank you
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