User Preference for Information Contained in the Environmental Reporting in Sri Lanka

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ABSTRACT

As a response to the mounting public pressure for companies to be accountable for their environmental performance, they have increased the volume and the scope of their environmental reporting in the recent past. However, two interconnected problems have still been visible. First, there is no commonly accepted reporting framework for environmental reporting in Sri Lanka. Thus, companies tend to report on their own. Second, most of environmental reports appear to prepare without giving due attention on the users’ needs. This study aims to investigate users’ preferences which, if included in environmental reports, enrich the perceived decision usefulness. More specifically, it examines the user preferences on environment reporting of the companies listed in the Colombo Stock Exchange (CSE) in Sri Lanka. For this purpose, the study borrowed the conceptual framework for financial reporting developed by the International Accounting Standards Board that discusses two fundamental (i.e., relevance and faithful representation) and four enhancing (i.e., comparability, verifiability, timeliness, understandability) qualitative characteristics fulfilling the information needs of the users.

The study followed survey method and an online questionnaire has been created allowing the investors in the CSE to respond. 48 usable questionnaires were received. The descriptive and inferential statistics were used to analyze the responses of the users.
The results show that the users who read environmental reports prefer quick and convenient reading techniques. Further, they do not read reports that are perceived to be irrelevant or faithfully not represented. Furthermore, the users need such reports to be shown in a balanced manner containing both positive and negative information, and to be provided with future oriented information identifying significant environmental issues and demonstrating top management’s commitment for those issues.

It can be concluded that users prefer information that possesses two fundamental qualitative characteristics to be presented in a convenient, readily accessible and balanced manner. Companies shall recognize such users' preferences in future environmental reporting while policy makers and regulatory bodies shall ensure the decision usefulness of environmental reporting by put in place appropriate disclosure standards and regulations. The study, however, conducted with a smaller sample, limiting the generalizability of the findings. Future research may be conducted using a large sample and with more user groups.

**Keywords:** User preference, Environmental reporting, Qualitative characteristics, Financial reporting framework, Sri Lanka

**Introduction**

As a response to the mounting public pressure for companies to be accountable for their environmental performance, they have increased the volume and scope of their environmental reporting (Jira & Toffel, 2013; Marquis & Toffel, 2014). Nevertheless, the number of environmental reports produced by companies appears to have increased without giving due regard to the users' needs (Laud & Schepers, 2009). De Villiers & Van Staden (2008) stated that given the lack of meaningful stakeholder engagement by companies, most appear to have undertaken on environmental reporting without enquiring the users' requirements. Hence, the stakeholders are not influenced by the content in the environmental reports to match their needs, and thus this approach is likely to damage the perceived relevance of the reports (Marquis & Toffel, 2014).
The purpose of Corporate Environment Reporting (CER), like any other form of reporting, is to provide information useful to a wide range of users for making decisions (GRI, 2013). However, it is doubtful on the ability of current environmental reporting practices to meet users' decision making needs. Questions can be raised whether the environmental information provided by companies meets users' needs or whether the companies even aware of the needs of users (Hwang, Khoo & Wong, 2013; Said, Sulaiman, Ahmad & Senik, 2013).

First, most companies' environmental performance measurement systems are incomplete and fallible, given their reliance on manual or simple spreadsheet software that cannot guarantee the accuracy and completeness of the reports produced (Ernst & Young, 2013). Moreover, there are visible disconnections between the environmental reporting practice and the actual environmental performance given that the companies with a poor environmental performances appear to report more positive and good performance records for legitimations purposes (Leavoy, 2010).

Second, most companies present their environmental reports in different formats and types, using a range of media including paper and electronic making it more difficult for readers to compare the reports. With the intention to cater for diverse stakeholder groups, many companies have expanded their reports by simply 'dumping' verbose, un-prioritized and meaningless information into them, an approach that has damaged the clarity of the reports (Morris & Chapman, 2010).

Third, various environmental reporting guidelines and frameworks have been introduced that do not go together with each other (KPMG, CFCGIA, GRI & UNEP, 2013) making it difficult to compare among companies. Additionally, despite the development of assurance standards and growing need of independent third party assurance of environmental reports, the assurance statements in environmental reports differentiate significantly with regard to the scope of operations, titles, objectives, description of the procedures employed and the conclusion (Furmann, Ott, Looks & Gunther, 2013).
Finally, even with the advancements in information technology that can enable a company to accommodate their environmental reports to suit the unique needs of different stakeholders, most companies have failed to employ their online capabilities to serve this purpose (Radley, Yeldar & GRI, 2011). For instance, KPMG (2011) found that although technological advancement have made more frequent reporting at a low cost possible, most companies have not used their online capabilities to produce more timely reports. Further, internet as a medium of environmental reporting and with the growth of CER, no efforts have been made to standardize online reporting practices (Laud & Schepers, 2009).

The aim of this study, therefore, is to understand the information preference of users in environmental reporting within the context of a developing country. More specifically, this study focuses on analyzing four research questions as follows:

RQ1: Do users read environmental reports?
RQ2: If not, why they do not read environmental reports?
RQ3: What are the techniques they use to read environmental reports?
RQ4: What are the qualitative characteristics they prefer in the environmental reports?

Findings of the study are expected to be useful for all the stakeholders, particularly the listed companies in Sri Lanka in reporting their environmental concerns in order to enhance the decision usefulness of the users. Moreover, the findings are expected to contribute to the existing literature on environmental reporting particularly in a developing country context. Although environmental reporting has attracted much attention in the recent years in the developed world there is a dearth of literature available in the developing countries including Sri Lanka.

The rest of the paper is structured as follows. The next section provides the theoretical basis for the study, identifies research gaps and develops expectations. The section that follows discusses the research method, population and sample, and the analytical methods adopted in the study. The analysis and the discussion are presented in the penultimate section. The final section provides the conclusions.
Theoretical Underpinnings

Although a large number of the research has been conducted to examine the patterns of environmental reporting, only a few studies have carried out to identify the users' information needs (De Villiers & Van Staden, 2010). European Commission (2011) employs a questionnaire to determine users' need, where they found that financial stakeholders do not read or even need environmental reports. However, there are several studies which identified that financial stakeholders use environmental information in making investment decisions, confirming that they actually need such information (Chan & Milne, 1999; Rikhardsson & Holm, 2005). For instance, De Villiers and Van Staden (2010b) investigated the preferences of individual shareholders and found that 97 per cent of the respondents required companies to provide a description of their major environmental risks and impacts; 94 per cent required the disclosure of a company's environmental policy; 81 per cent required a disclosure of actual performance against environmental targets; 80 per cent required disclosure of environmental costs by category; 78 per cent required a disclosure of measurable targets based on environmental policy; and 75 per cent required an independent audit of environmental disclosures.

Nevertheless, De Villiers and Van Staden's (2010b) study focused only on individual shareholders thus ignoring the needs of the voiceless non-financial stakeholders. Moreover, this study did not examine whether the shareholders actually read environmental reports, how they read the reports, and those who did not read them, the reasons for not doing so. From the previous studies, it is evident that the Sri Lankan firms inadequately know about users' environmental information needs. In particular, there is a gap in understanding of whether users read environmental reports; how they read the reports; reasons for not reading reports; their preferences as to what an environmental report should contain; how the information should be reported; and where.

The main objective of accounting as well as environmental reporting with no exception is to provide information that is useful to users for making decisions.
(FASB, 2010; IASB, 2010; GRI, 2013). Providing environmental information without knowing about the users' needs may question the usefulness of the information as users' needs could not be satisfied by doing so. Also, it does not worth the cost that is incurred in producing environmental information if the reports do not meet the users' information needs.

This study follows decision usefulness theory. Even though this theory was initially introduced for financial information the modern day external reporting has broadened its scope to other aspects of external reporting such as corporate governance reports, environmental reporting, CSR reporting, risk management reports and other non-financial reporting. This suggests that all these aspects of reporting should include decision useful characteristics. Hence, decision usefulness theory is adopted in this study to evaluate the decision usefulness of CER. The notion of decision usefulness theory demonstrates that the primary purpose of accounting is to provide information to allow informed judgments and decisions by users of the information (AAA, 1966). Other theories that are typically used in CER, such as legitimacy, stakeholder and accountability theories, do not take users' perspective into account (De Villiers and Van Staden, 2010b), and thus are inappropriate to examine the research questions set in this study. Those theories can only be used to explain, for example, why companies undertake environmental reporting rather than how environmental information could be decision useful.

According to the financial reporting framework, which is compatible with the notion of the decision-usefulness theory, accounting information must possess the two fundamental qualitative characteristics, namely relevance and faithful representation, in order to be useful them in decision making (FASB, 2010; FASB, 2008; IASB, 2010; IASB, 2008). This view therefore suggests that those who do not perceive accounting information to be either relevant or faithfully represented they will not read that information. The financial reporting framework also suggests that understandability, comparability, timeliness and verifiability are the characteristics that enhance the decision usefulness of accounting information (FASB, 2010; FASB, 2008; IASB, 2010; IASB, 2008). The
enhancing characteristics, on the other hand, either individually or collectively, cannot make disclosed information useful if the information is irrelevant or not faithfully represented. Thus, it is expected that users refer information which contains more fundamental characteristics than enhancing qualitative characteristics. Moreover, the decision-usefulness theory claims that users' perceptions of decision usefulness of accounting information are constrained by the cost, according to which the information can be useful and yet costly to access (AAA, 1966). The cost in accessing the accounting information does not necessarily mean the monetary expenses, but in the form of time required and the difficulties faced when accessing the information (FASB, 2008). This suggests that users are expected to prefer accessing accounting information in a fast and convenient manner.

Based on the review of literature and the notions of the decision usefulness theory, following expectations have been developed for interpreting the results of this study.

Expectation 1 – Users are expected to prefer accessing CER information in a fast and convenient way.
Expectation 2 – Users who do not perceive CER reports to be either relevant or faithfully represented will not read the reports.
Expectation 3 – Users are expected to prefer CER information that has more fundamental qualitative characteristics than enhancing qualitative characteristics.

Method

This study employed survey method to examine the users' view on environmental reporting. An online questionnaire has been designed to collect data, and was analyzed using both descriptive and inferential statistics. A similar approach has been used in the extant literature, for example, Solomon & Solomon (2006), KPMG & Sustainability (2008), European Commission (2011) and Miller (2012).
Population and sample

The population consists of users of environmental reports produced by companies listed on the Colombo Stock Exchange (CSE). The questionnaires were distributed among a sample of 100 investors who have invested in top 30 listed companies in the CSE based on the market capitalization.

Data collection

The questionnaire consists of 9 closed-ended questions to maximize the response rate. The questions in this questionnaire were taken from a prior research carried out in South Africa by Kamala et al. (2016) with minor changes to some questions and to the format of the questionnaire in order to match with the Sri Lankan context. There are three sections in the questionnaire. The first section comprised of data concerning demographic characteristics such as age, gender, occupation, share market investment and experience in terms of number of years in the share market. This information was considered appropriate to verify the suitability of the respondents to participate in the survey. The second section dealt with questions involving whether environmental reports are read, what are the reading techniques used and the reasons why potential users may not have read the reports. The third section emphasized on users' preferences on the qualitative characteristics that should be included in the environmental reports. The e-mails that provide the link to the online questionnaire were sent out during October, 2017 with a deadline of one month for the completion and the submission of the questionnaire.

Data analysis

Analytical strategies have been employed, initially to obtain an overall idea about the respondents through their demographic characteristics. Then descriptive and inferential statistics were employed to analyze the responses of the users.
Findings and Discussion

The analysis of data and discussion of the results of the survey are presented in the following sub-sections.

Response rate and analysis of demographic characteristics

From the 100 respondents, only 48 questionnaires were able to use in the analysis, resulting a response rate of 48 per cent. This rate is on par with Tilt (1994) (46.8 per cent) while it conforms to Fowler’s (1988) recommendations that a response rate should be at least 20 percent to provide reliable statistics about a population. Of the sample, 79 per cent were male whereas 21 per cent were female. All the respondents were above 25 years of old. Majority of the respondents were managers and senior officials (46.2 per cent) followed by professionals (28.8 per cent). Most of the respondents have 5 to 10 years' experience in the share market and have invested more than SLR. 0.5M in the share market.

Whether users read environmental reports

Users were asked whether they have read an environmental report by way of a yes/no question. The responses for this question is reported in Table 1. As per Table 1, 67 per cent of the respondents expressed that they had read an environmental report, whereas 33 per cent expressed otherwise. According to a similar study done in South Africa, the results were found that 83 per cent of the respondents have read environmental reports while 17 per cent have not read a CER report, indicating a low CER usage in Sri Lanka (Kamala et al., 2016).
Table 1: Extent to which users had read environmental reports

<table>
<thead>
<tr>
<th>Total number of respondents</th>
<th>Percentage responding &quot;yes&quot;</th>
<th>Percentage responding &quot;no&quot;</th>
<th>Binominal exact sig. (2-Tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>67%</td>
<td>33%</td>
<td>0.029*</td>
</tr>
</tbody>
</table>

*Statistically significant difference (p<0.05) at 95% confidence level

How users read environmental reports

To understand how users read environmental reports, the respondents were asked to indicate how often they use five reading techniques, i.e., scanning (to locate specific information); skimming (rapid reading of headings, topic sentence to get the main idea); exploratory reading (to get a fairly accurate picture of the entire report); study reading (to maximize understanding of the main ideas); and critical reading (questioning, analyzing, and evaluating the text). A five-point Likert scale was used with weightages of one for 'never', two for 'rarely', three for 'sometimes', four for 'often', and five for 'almost always'. Hence, the closer the mean was to five, the more often a reading technique was used by the users. For more clarity, the percentages of those who indicated that they had used the five reading techniques either often or almost always were added up together, and expresses as “percentage that used the technique often” in the third column of Table 2. Therefore, those who indicated that they had used a reading technique 'sometimes' or 'rarely' are reported as 'never'. Because having used the technique as the word 'sometimes' and 'rarely' suggest less frequent to almost non-usage of a technique. This approach is justified because it ensures that only those who frequently use a reading technique are reported as such, and it has also been used in prior studies (See De Villiers & Van Staden, 2010b).
Table 2: How often various reading techniques were employed

<table>
<thead>
<tr>
<th>Number</th>
<th>Reading Technique</th>
<th>Percentage that used the technique</th>
<th>Users Mean n=32</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scanning – (to locate specific information)</td>
<td>55%</td>
<td>3.59</td>
<td>0.867</td>
</tr>
<tr>
<td>2</td>
<td>Skimming – (rapid reading of headings, topics to get the main idea)</td>
<td>50%</td>
<td>3.47</td>
<td>1.167</td>
</tr>
<tr>
<td>3</td>
<td>Exploratory reading – (to get a fairly accurate picture of the entire report)</td>
<td>26%</td>
<td>2.83</td>
<td>1.262</td>
</tr>
<tr>
<td>4</td>
<td>Study reading - (to maximize understanding of the main ideas)</td>
<td>12%</td>
<td>1.94</td>
<td>1.014</td>
</tr>
<tr>
<td>5</td>
<td>Critical reading – (Questioning, analyzing and evaluating the text)</td>
<td>3%</td>
<td>1.67</td>
<td>0.994</td>
</tr>
</tbody>
</table>

Scale: 1=never; 5=almost always

As shown in Table 2, most users (55 per cent) indicate that they used the scanning reading technique, followed by skimming (50 per cent), and then exploratory reading (26 per cent). The least used reading techniques were study reading (12 per cent) followed by critical reading (3 per cent). The standard deviation of critical reading and scanning is below 1 while this value is more than 1 for other reading techniques. The users' preference of scanning, skimming and exploratory reading as opposed to study reading and critical reading point out that users' preference to quick and convenient reading which suggests a need of summarized information such as what is contained in executive summaries, fact sheets of key indicators, tables, charts, graphs, scorecards, GRI index tables, dashboards and pictures. Similar to these findings, Kamala et al., (2016) have also witnessed the same results where scanning reading techniques (77 per cent), skimming (74 per cent) and exploratory reading (65 per cent) techniques were the most employed reading techniques while critical reading (43 per cent)
and study reading (34 per cent) were the least used reading techniques. These findings are also compatible with cost constraints as suggested in decision usefulness theory, and confirm the first expectation, i.e., users are expected to prefer accessing environmental information as fast and as conveniently as possible, as opposed to time-consuming and even inconvenient ways of doing so.

**Reasons why some users do not read environmental reports**

The potential users who never had read an environmental report (hereafter referred to as non-readers) were asked to tick various statements, i.e., environmental reports are not relevant, environmental reports are not faithfully represented, environmental reports are not understandable, environmental reports are not comparable, in order to understand the reasons as to why they did not read any environmental report of a listed company. Figure 1 shows the percentage of the responses.

![Figure 1: Reasons for why potential users do not read environmental reports](image)

- Environmental Reports are not Faithful Represented
- Environmental Reports are not Relevant
- Environmental Reports are not Understandable
- Environmental Reports are not Comparable

As Figure 1 shows, the most significant statement that could explain why non-readers did not read environmental reports was that the reports were not believed to be faithfully represented. The second most identified reason was that the reports were not believed to be relevant. The least identified statements
that could explain why environmental reports were not read were that neither they were perceived to be understandable nor comparable. The above findings are in consistent with expectation two, i.e., those who did not perceive accounting reports to be either relevant or faithfully represented will not read them. However according to prior literature (Kamala et al., 2016), users' perception that the environmental reports are not reliable and not verifiable were the most notable reasons for not reading environmental reports while the least significant reasons were the perception of CER are not relevant and are not comparable.

**Information which an environmental report should contain and how it should be presented**

All the respondents were asked to rate the importance of 26 statements about what a company's environmental reports should do or be. A five-point Likert scale was used with weightage of one for 'not important at all', two for 'slightly important', three for 'fairly important', four for 'very important', and five for 'extremely important'. Hence, the closer the mean to five more important the statement was to the users. For more clarity, the percentages of those who perceived each of the 26 statements as either very important or extremely important were added up together, and reported as 'percentage that perceive statement to be important' in the fourth column of Table 4. Therefore, those who perceived the statements to be fairly important were reported as perceiving the statements not to be important, as the words 'fairly important' suggest neutrality in perception of the importance of the statements. This approach is justified to ensure that only those who perceived the statements to be important with certainty were reported as such, and it has also been used in prior studies (See De Villiers & Van Staden, 2010b).

As shown in Table 3, the top five statements perceived by respondents to be either “very important' or 'extremely important' relates to the fundamental qualitative characteristics of decision useful information, namely relevance and faithful representation. Out of the top ten statements ranked according to the percentage of respondents that perceived them either as 'very important' or
'extremely important', six statements relate to the fundamental (primary) qualitative characteristics while only four statements relate to the qualitative characteristics that enhance the decision-usefulness of environmental information. Out of the six statements, three relate to faithful representation while other three relate to relevance. Out of the four statements, three relates to comparability and the other relates to understandability.

Another interesting observation that can be made from Table 3 is that five bottom ranked statements relate to the qualitative characteristics that enhance the decision-usefulness of environmental information. The results of this section are consistent with a study done in South Africa in 2016 (Kamala et al., 2016), in which they have found that out of the total 28 questions, top six questions relates to fundamental qualitative characteristics while the bottom four out of five statements were related to enhancing qualitative characteristics in decision usefulness. The above results are compatible with the decision-usefulness theory's assertion contained in the financial reporting framework, i.e., relevance and reliability are the two fundamental qualities that make accounting information useful for decision-making (FASB, 2010; FASB, 2008; IASB, 2010; IASB, 2008). The results, therefore, confirm the third expectation, i.e., users are expected to prefer the environmental information that has more fundamental qualitative characteristics than enhancing qualitative characteristics.
Table 3: Users’ and non-users’ perceptions of what a company’s environmental report should do/be

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Related qualitative characteristic</th>
<th>Percent that perceive statement to be important</th>
<th>Rank</th>
<th>Users and non-users Mean n=48</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disclose both negative and positive aspects in a balanced manner</td>
<td>Faithful Representation</td>
<td>85%</td>
<td>1</td>
<td>4.19</td>
<td>0.891</td>
</tr>
<tr>
<td>2</td>
<td>Be specific and contain accurate information</td>
<td>Faithful Representation</td>
<td>81%</td>
<td>2</td>
<td>4.19</td>
<td>0.891</td>
</tr>
<tr>
<td>3</td>
<td>Identify and describe significant environmental issues</td>
<td>Relevance</td>
<td>79%</td>
<td>3</td>
<td>4.17</td>
<td>0.724</td>
</tr>
<tr>
<td>4</td>
<td>Provide future oriented information</td>
<td>Relevance</td>
<td>77%</td>
<td>4</td>
<td>4.13</td>
<td>0.761</td>
</tr>
<tr>
<td>5</td>
<td>Demonstrate top management commitment to environmental issues</td>
<td>Faithful Representation</td>
<td>77%</td>
<td>5</td>
<td>4.08</td>
<td>0.942</td>
</tr>
<tr>
<td>6</td>
<td>Compare quantitative outputs/impacts against best practice/industry standards</td>
<td>Comparability</td>
<td>73%</td>
<td>6</td>
<td>3.96</td>
<td>0.922</td>
</tr>
<tr>
<td>7</td>
<td>Provide quantitative/monetary disclosure of significant environmental impacts</td>
<td>Comparability</td>
<td>69%</td>
<td>7</td>
<td>3.9</td>
<td>0.778</td>
</tr>
<tr>
<td>8</td>
<td>Provide future targets</td>
<td>Comparability</td>
<td>69%</td>
<td>8</td>
<td>3.85</td>
<td>0.922</td>
</tr>
<tr>
<td>9</td>
<td>Identify and address key stakeholders and their concerns</td>
<td>Relevance</td>
<td>65%</td>
<td>9</td>
<td>3.79</td>
<td>0.898</td>
</tr>
<tr>
<td>10</td>
<td>Allow for quick reading of key indicators</td>
<td>Understandability</td>
<td>65%</td>
<td>10</td>
<td>3.73</td>
<td>0.893</td>
</tr>
<tr>
<td>11</td>
<td>Demonstrate integration of environmental issues into core business processes</td>
<td>Faithful Representation</td>
<td>63%</td>
<td>11</td>
<td>3.73</td>
<td>0.792</td>
</tr>
<tr>
<td></td>
<td>Statement</td>
<td>Measure</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Show trends (environmental performance over time)</td>
<td>Cooperability</td>
<td>63%</td>
<td>12</td>
<td>3.73</td>
<td>0.893</td>
</tr>
<tr>
<td>13</td>
<td>Adhere to well established international reporting guidelines</td>
<td>Faithful</td>
<td>63%</td>
<td>13</td>
<td>3.69</td>
<td>0.854</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Representation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Describe an organization's structures that deal with environmental matters</td>
<td>Faithful</td>
<td>60%</td>
<td>14</td>
<td>3.63</td>
<td>0.937</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Representation</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>15</td>
<td>Be produced at least annually</td>
<td>Timeliness</td>
<td>58%</td>
<td>15</td>
<td>3.52</td>
<td>1.072</td>
</tr>
<tr>
<td>16</td>
<td>Be produced on a real time basis</td>
<td>Timeliness</td>
<td>56%</td>
<td>16</td>
<td>3.52</td>
<td>0.899</td>
</tr>
<tr>
<td>17</td>
<td>Be interactive with the company</td>
<td>Understandability</td>
<td>54%</td>
<td>17</td>
<td>3.48</td>
<td>1.072</td>
</tr>
<tr>
<td>18</td>
<td>Describe the environment management systems</td>
<td>Verifiability</td>
<td>48%</td>
<td>18</td>
<td>3.47</td>
<td>0.71</td>
</tr>
<tr>
<td>19</td>
<td>Include verification statement from an independent party</td>
<td>Faithful</td>
<td>48%</td>
<td>19</td>
<td>3.42</td>
<td>0.895</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Representation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Indicate whether environmental management systems have been certified</td>
<td>Faithful</td>
<td>48%</td>
<td>20</td>
<td>3.35</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Representation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>The reports should provide contacts to feedback</td>
<td>Faithful</td>
<td>48%</td>
<td>21</td>
<td>3.35</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Representation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Include interpretation and benchmarks of environmental performance</td>
<td>Understandability</td>
<td>44%</td>
<td>22</td>
<td>3.35</td>
<td>0.956</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Scale</th>
<th>Preference</th>
<th>Importance</th>
<th>Convenience</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Indicate whether internal auditing covered environmental systems/ procedures</td>
<td>42%</td>
<td>23</td>
<td>3.19</td>
<td>1.024</td>
</tr>
<tr>
<td>24</td>
<td>Enhances readability using multiple languages, pictures, charts and explanations</td>
<td>40%</td>
<td>24</td>
<td>3.15</td>
<td>1.091</td>
</tr>
<tr>
<td>25</td>
<td>Enhances accessibility of information using navigation tools</td>
<td>40%</td>
<td>25</td>
<td>3.1</td>
<td>1.115</td>
</tr>
<tr>
<td>26</td>
<td>Be readily accessible via multiple (printed hard copies and soft copies via internet)</td>
<td>31%</td>
<td>26</td>
<td>3.04</td>
<td>1.031</td>
</tr>
</tbody>
</table>

Scale: 1=not important at all; 5=extremely important

Conclusion

The purpose of this study was to examine the environmental information needs of the users of environmental reports. In order to achieve this aim, three expectations following the notions of the decision usefulness theory were developed and a survey was conducted to investigate users' needs. As per the results of this study, majority (67 per cent) of respondents had read environmental reports while only 33 per cent had not. In examining the ways in which environmental reports were read, the results showed that the most preferred reading techniques were scanning, skimming and exploratory reading, as against study reading and critical reading. The preference for these quick and convenient reading techniques suggests that the users need summarized information presented in a manner of executive summaries, fact sheets of key indicators, tables, charts, graphs, scorecards, GRI index tables, dashboards, and pictures. According to expectation one, the results confirm that users prefer accessing information in a fast and convenient manner as opposed to time consuming and inconvenient methods.

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Examining the reasons as to why some potential users had not read environmental reports, the results of this study revealed that the most important reason was that the users perceive that the environmental reports were not faithfully represented. Since faithful representation is one of the fundamental qualitative characteristics that decision useful information must possess, the results of this study confirm expectation two, that is those who do not perceive accounting information to be either relevant or faithfully represented will not read the reports.

Considering the users' preferences as to which information should be comprised in environmental reports and what are the preferred qualitative characteristics should be included, the results of this study discovered that the top five most important environmental information attributes were all related to the two fundamental qualitative characteristics of decision useful information while the bottom five of the least important attributes were related to the enhancing characteristics of decision useful information. The above mentioned results confirm expectation three that users are expected to prefer the environmental information that has more fundamental characteristics than enhancing qualitative characteristics. These findings suggest that users need the environmental reports to contain both negative and positive aspects in a balanced manner, be specific and accurate providing future oriented information, to identify significant environmental issues, and to demonstrate how the top management's commitment for environmental issues.

In sum, given that relevance and faithful representation are the two fundamental qualitative characteristics that decision useful accounting information must possess, and as revealed in this study that users extremely need information that has these two qualitative characteristics, it can be concluded that users need decision useful environmental information provided in a convenient and readily accessible manner. Companies shall recognize such users' preferences in future environmental reporting while policy makers and regulatory bodies shall ensure the decision usefulness of environmental reporting by put in place appropriate disclosure standards and regulations. The study, however, conducted with a smaller sample, limiting the generalizability of the findings. Future research may be conducted using a large sample and with more user groups.
References


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