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Environmental Reporting Practices of Malaysian Government Linked Companies (GLCs)

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ABSTRACT

The main objective of the study is to examine the extent Malaysian government-linked companies (GLCs) report on the environment. The government has strongly emphasised social and environmental responsibility amongst GLCs through the introduction of the 'Silver Book' and other "green" initiatives. Given this and the fact that GLCs are affiliated to the government and clearly "visible", the primary concern is their "accountability" to the people. More importantly, the extent these GLCs promote sustainable development and accord with the government's vision is indeed a topic worthy of study. The results show that albeit the "visibility" and "accountability" aspects attached to GLCs, the level of environmental disclosure was rather low. Additionally, almost 30 percent of the companies did not report on the environment. In the matched-pair analysis (matching with the non-GLCs), the study found that there is no statistical difference in the level of environmental disclosure of GLCs and non-GLCs in environmentally sensitive industries. Further, the study found no significant difference in the level of environmental disclosure between GLCs in environmentally sensitive industries and less sensitive industries. The nature of the disclosure was also consistent between both categories of industries where most of the environmental information disclosed was in the declarative form.

Keywords: Environmental Reporting (ER), Government-linked Companies (GLCs), Malaysia, environmentally sensitive industries

INTRODUCTION

The concept of 'sustainable development', introduced some decades ago to ensure that companies conduct their business activities in a more open and responsible manner towards the environment (ACCA, 2003) has made us more aware of the

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importance of being environmentally responsible. Thus, the public is increasingly becoming more concerned about environmental issues. In Malaysia, for example, toxic waste dumping, illegal logging, open burning and indiscriminate land clearing that confront the public with ever regular frequency have led to serious questioning of the role of business enterprises in society. More importantly, stakeholders are demanding that companies be accountable for the impact of their activities on the environment. A study by de Villiers and van Staden (2010) found that more than 80 per cent of the shareholders surveyed in the UK, US and Australia wanted environmental information to be disclosed in the annual report. This is primarly because stakeholders are increasingly concerned about the long-term social and financial effects that environmental problems could give rise to.

In Malaysia, the government has been proactive in ensuring that organizations are environmentally responsible. In the context of government linked companies (GLCs), the government's introduction of the 'Silver Book' in July 2005 is one good example. The 'Silver Book', one of the 10 initiatives included in the government-linked companies (GLCs) Transformation Manual, emphasizes the need for GLCs to strike a balance between economic performance and social contributions. The 'Silver Book' – the guideline by which GLCs have to abide, can be regarded as the impetus in the government's efforts in encouraging GLCs to balance their economic performance with social contribution. Whilst the Book did not specifically mention environmental issues, the inclusion of 'environmental protection' (as one of the areas that GLCs can contribute to society) may reflect the government's effort in encouraging GLCs to be environmentally responsible. Most importantly, one of the 7 categories listed under 'social contribution' pertains to the environment. Thus, given the increasing public awareness on environmental matters and the introduction of the 'Silver Book', one would expect GLCs to be more accountable and transparent in reporting environmental matters. Accordingly, the extent they promote sustainable development and align with the government's vision is indeed an interesting issue to examine. This is precisely what the study attempted to do. More specifically, the study examined, if indeed, the "Silver Book" has any impact on environmental reporting of GLCs. More importantly, it was indicated that the results of the transformation program should be observable at the end of 2006. Using content analysis, the 2006 annual reports were examined to determine the extent GLCs were reporting on the environment. To study the influence of a document like the "Silver Book" it is most appropriate to use the annual reports of the year after the document was introduced. In our case, the 2006 annual reports would be relevant. This is to avoid any other factors that may have an impact on environmental disclosure. For example, if one were to use the annual reports of 2007 and beyond, there is a possibility that the Corporate Social Responsibility

(CSR) framework issued by Bursa Malaysia in 2007 may influence environmental reporting to some extent.

The primary research question of interest in the study is the extent GLCs report on the environment just after the issuance of the 'Silver Book'. Both the quantity and quality of disclosure will be examined. Additionally, we also examined if the type of industry (i.e. environmentally sensitive or less environmentally sensitive industry) has any association with the level of reporting. The choice of environmentally sensitive industries is driven by the fact that the activities of such companies would have a greater impact on the environment. Given this, one would expect such companies to have a greater responsibility towards the environment, thus disclosing more. We have *not* used the term "non-environmentally" sensitive as we believe activities of organizations do impact on the environment, it is just a matter of degree. Finally, again focusing only on the environmentally sensitive industries and using a matched-pair analysis (using size as the basis), we compared environmental reporting (ER) practices of GLCs and non-GLCs. Accordingly, the two research questions of interest are:

RQ1: To what extent are GLCs disclosing environmental information in their annual report? Is there a relationship between environmental sensitivity and ER?

RQ2: Is there a difference in environmental disclosure between GLCs and non-GLCs in environmentally sensitive industries?

This study is important for two main reasons. First, it is indeed interesting to examine if GLCs have actually embarked on environmental reporting even before the government made Corporate Social Responsibility Reporting (CSRR) mandatory[1]. Subsequently, the results of this study can be compared with studies examining environmental disclosure of GLCs *after* the CSR reporting framework issued by Bursa Malaysia in 2007. Second, mainstream ER research, particularly in Malaysia, has largely focused on public listed companies with no specific concentration on GLCs (e.g. Ahmad *et al*., 2003; Nik Ahmad and Sulaiman, 2004; Jaffar, 2006; Manaf *et al*., 2006; Alrazi *et al*., 2009; Buniamin, 2010). Given that GLCs' services and/or products are largely consumed by the public, the companies' performance may have a significant impact on the nation and its people. Consequently, it is expected that GLCs' ER practices to be consistent with the government's "*green*" vision. Thus, the study aims to provide an insight on

[1] In 2007, Bursa Malaysia issued the Corporate Social Responsibility (CSR) framework, thus making CSRR (including ER) mandatory for all listed companies.

whether GLCs are disclosing environmental information as these companies are, arguably, more "visible" to the public. More importantly, GLCs should be seen as the champions of ER even before such reporting was made mandatory.

The remainder of the paper is structured as follows. Section 2 discusses the literature review while section 3 focuses on legitimacy theory. The research method is explained in section 4 and the findings are discussed in section 5. Section 6 concludes.

LITERATURE REVIEW

Stakeholders often use environmental disclosure of companies to measure their commitment towards the environment (Perry and Teng, 1999). In line with this, companies often use the annual report as the most common reporting mechanism to convey environmental information to stakeholders (Neu *et al*., 1998). This is not surprising given that the annual report is the primary source for stakeholders to look at companies' performance (Neu *et al*., 1998; Milne and Pattern, 2002). More importantly, good environmental disclosure is one that clearly acknowledges and explains the environmental impacts of an organisation's operations and products, as well as presenting ways on how the organisation will address such issues (ACCA, 2003).

In Malaysia, the level of environmental reporting practices is still at its infancy. Although the number of companies providing environmental disclosure is increasing, the level is rather low (ACCA, 2004). Ahmad *et al*. (2003), Nik Ahmad and Sulaiman (2004), Alrazi *et al*. (2009) and Buniamin (2010) found that most of the environmental information disclosed was declarative in nature. More importantly, a study conducted by CSR Asia (commissioned by Bursa Malaysia) examining the CSR reporting of Malaysian PLCs for the financial year 2006-2007 found that among the four CSR dimensions, environment was the least information disclosed (Bursa Malaysia, 2007). Similarly ACCA (2002, 2004) in its report, "The State of Corporate Environmental Reporting in Malaysia" stated that the level of environmental disclosure among Malaysian companies was low. However, it appeared that ER was on an increasing trend. Accordingly, the launching of the Malaysia Environmental Reporting Awards (MERA, and currently known as MaSRA[2]) by ACCA in 2002, endorsed by the Malaysian Department of Environment (DOE) indicates the intensity of the government to promote environmental reporting amongst companies in Malaysia.

2 ACCA Malaysia Sustainability Reporting Awards.

The importance of environmental disclosure may also be discerned from the financial reporting standards. FRS 101 and FRS 137 made some reference to environmental reporting. FRS 101 on 'Presentation of Financial Statement' states that the entities, particularly in industries in which environmental factors are significant may present 'environmental reports. Interestingly, biological assets have also been included as one of the items in the Balance Sheet. Meanwhile, FRS 137 on 'Provisions, Contingent Liabilities and Contingent Assets', provides the accounting and disclosure requirements for all provisions, contingent liabilities and contingent assets. Although the standard defines contingent liability, no rigid detail of types of liability was offered. However, based on the definition, there is an indication to include environmental contingent liabilities in a company's financial statement.

Environmental Sensitivity

Companies in environmentally sensitive industries such as chemical, construction, plantation, transportation, mining and resources, petroleum, and industrial products (Wilmshurst and Frost, 2000; Deegan *et al*., 2002; Ahmad et. al, 2003; Campbell *et al*., 2003; Jaffar, 2006; Manaf *et al*., 2006) have more pressure to disclose environmental information than those in the less sensitive industries (i.e. banking and consumer products). As indicated elsewhere in the paper, the primary reason for this is because activities of companies in environmentally sensitive industries tend to have a greater impact on the environment (Deegan *et al*., 2002; Patten and Trompeter, 2003). More importantly, prior research found that companies in environmentally sensitive industries tend to disclose more on their environmental information in corporate annual reports as compared to companies in less environmentally sensitive industries (Deegan and Gordon, 1996; Frost and Wilmshurst, 2000; Raar, 2002; Buniamin, 2010). Whether the same can be said for GLCs in Malaysia is indeed an interesting issue to pursue. Additionally and more importantly, given that prior studies conducted in Malaysia have largely focused on public listed companies (PLCs), a study on GLCs is timely.

Ownership Status

Government-linked companies (GLCs) are companies that have a primary commercial objective in which the Malaysian Government has a direct controlling stake. Thus, the government has the right to appoint the Board of Directors (BODs), senior management, as well as making major decisions for the companies. GLCs compose a significant part of the economic structure of Malaysia. These companies are the main providers of the core strategic utilities and services in Malaysia including water and sewerage, electricity, banking and financial services, and public transport. Essentially, GLCs comprise companies that are:

- controlled by the State Governments and State-level agencies, or
- directly controlled by the Malaysian Government such as Khazanah Malaysia, Bank Negara and other GLICs[3], or
- controlled by GLCs themselves, for instance UEM World Bhd and its subsidiaries, UEM Builders Bhd and Faber Group Bhd[4] (Khazanah Nasional, 2007a, 2007b).

In Canada, Cormier and Gordon's (2001) study comparing environmental disclosure practices of publicly-owned and privately-owned companies found that it is the public companies that disclosed more social and environmental information than private companies. They argued that since publicly-owned companies are politically supported by the government, such companies tend to disclose more environmental and social information in order to be seen as 'legitimate'. In line with this argument, we would expect Malaysian GLCs to disclose more environmental information than non-GLCs. Thus, we contend that ownership status may influence the level of environmental reporting.

Disclosure Quality

Does the quantity of disclosure reflect the quality? This question has indeed drawn a lot of attention amongst researchers. Gamble *et al*. (1995), Stagliano and Walden (1998), Cormier *et al*. (2005), Cardio-Jimenez *et al*. (2008), Brammer and Parvelin (2008) and Alrazi *et al*. (2009) examined the quality of environmental information disclosed by companies. Gamble *et al*. (1995) found that companies in the environmentally sensitive industries (i.e. petroleum, steel works, and hazardous waste management industries) provided the highest quality of environmental disclosure. Additionally, it was generally revealed that public pressure is positively associated with the quality of environmental disclosure. Consistent with Gamble *et al*. (1995), Brammer and Parvelin (2008) found that the quality of information is

[3] Government-linked investment companies (GLICs) are the Federal Government linked investment companies that allocate some or all of their funds to GLC investments. Currently, there are seven GLICs: Employees Provident Fund (EPF), KhazanahNasionalBhd (Khazanah), Kumpulan Wang AmanahPencen (KWAP), LembagaTabungAngkatanTentera (LTAT), LembagaTabung Haji (LTH), MenteriKewanganDiperbadankan (MKD), PermodalanNasionalBhd (PNB). <http://www.pcg.gov.my/FAQ.asp> accessed on 19 June 2007.

[4] <http://www.khazanah.com.my/portfolio.htm> accessed on 7 February 2007.

influenced by the environmental sensitivity of the industry. Specifically, companies in the environmentally sensitive industries had better quality of environmental disclosure than those in the less sensitive industries. Alrazi *et al*. (2009) measured the quality of environmental disclosure of Malaysian public listed companies in 1999, 2003 and 2006. Parallel to increased public concern on the environment, the study found that the quality of environmental disclosure of companies in the sensitive industries increased significantly from 1999 to 2006.

Prior studies examining ER focused on both the quantity and quality of disclosure (e.g. Alrazi *et al*., 2009; Buniamin, 2010). Consistent with prior studies, the present study will also investigate both the quantity and quality of disclosure of GLCs. On the quality of ER, a disclosure index is, perhaps, the most common method used (e.g. Gamble *et al*., 1995; Cormier *et al*., 2005). The Association of Chartered Certified Accountants (ACCA) Malaysia, through its publication of 'Sustainability Reporting Guidelines for Malaysian Companies', has indeed provided the key indicators in measuring the quality of environmental disclosure. The Guidelines highlight the main components of a good sustainability report (see Appendix 2) which includes both qualitative and quantitative measures. The components, to name a few, are the corporate environmental commitments, key environmental-related impacts of the business activities and environmental compliance of the companies. In brief, the guidelines encourage companies to be 'transparent' in relation to reporting their environmental activities/performance. Given that the ACCA guidelines has been used as the basis for the Malaysian environmental reporting award, the ACCA guidelines will be used to assess the quality of environmental disclosure in this study.

LEGITIMACY THEORY

Legitimacy theory has been widely used in prior literature to explain environmental disclosure practices of companies (e.g., Guthrie and Parker, 1989; Gray *et al*., 1995a; Deegan and Gordon, 1996; Wilmshurst and Frost, 2000; Frost and Wilmshurst, 2000; O'Donovan, 2002; Deegan *et al*., 2002; Milne and Patten, 2002; Campbell *et al*., 2003; Nik Ahmad and Sulaiman, 2004). The theory posits that companies will behave in accordance to the acceptable norms and values of the public (Wilmshurst and Frost, 2000; Campbell *et al*., 2003). O'Donovan (2002, p. 345) described legitimacy theory as,

> *…the greater the likelihood of adverse shifts in the social perceptions of how an organization is acting, the greater the desirability on the part of the organization to attempt to manage these shifts in social perceptions*.

There are at least three (3) reasons why companies react to legitimacy threats. First, they want to *attain* legitimacy, second, they want to *maintain* their legitimacy and third, they want to repair or *regain* their lost or threatened legitimacy. Additionally, the companies' efforts or strategies of legitimating depend on the purpose of their response against such threats (Suchman, 1995; O'Donovan, 2002). Companies often react to the legitimacy threat by disclosing more of their environmental information to show their commitment towards the environment (Deegan *et al*., 2002), and the corporate annual report is the most common reporting mechanism used by companies to convey their environmental information to stakeholders (Neu *et al*., 1998). Ferreira (2004), however, argued that the act of reporting environmental information in the corporate annual report is merely a public relations exercise. Consequently, environmental disclosure is actually a means for companies to obtain 'legitimacy status.' O'Donovan (2002) further supported the claim by stating that environmental disclosure is intended to alter the bad public perception towards the companies. Guthrie and Parker (1989) and Buhr (1998) found that there was an increase in environmental disclosure when the industry in which they were focusing on for their study became a major public concern, particularly after the occurrence of substantial negative environmental issues resulted from 'ungreen' business activities. These results are coherent with Patten and Trompeter's (2003) argument that companies use environmental disclosure to reduce exposure to potential regulatory costs.

Environmentally sensitive industries such as chemical, mining and petroleum experience more pressure from the public as well as the government to behave in an environmentally responsible manner. This primarily stems from the fact that their activities have a greater impact on the environment. Accordingly, prior studies have largely examined the reaction of such industries against those pressures (e.g., Deegan and Gordon, 1996; Buhr, 1998; Neu *et al*., 1998; Deegan *et al*., 2002). The argument is based on the theory of 'legitimacy' in which companies agree to operate within certain boundaries and norms of the society in order to stay legitimate, or as a corporate survival strategy (Campbell *et al*., 2003; Deegan *et al*., 2002; Wilmshurst and Frost, 2000; O'Donovan, 2002). Prior studies that examined this issue, however, found mixed results. Guthrie and Parker (1989), Deegan and Gordon (1996), Frost and Wilmshurst (2000), Wilmshurst and Frost (2000) and O'Donovan (2002) found that the environmental sensitivity of particular industries influenced the companies' environmental disclosure. Gray *et al*., (1995a), Campbell *et al*. (2003), and Nik Ahmad and Sulaiman (2004) on the other hand, found limited support for legitimacy theory with respect to the environmental disclosure practices of companies in the environmentally sensitive industries. Accordingly, the following hypothesis was developed:

> *H1:* *The level of environmental disclosure of government-linked companies (GLCs) in environmentally sensitive industries is greater than those in less environmentally sensitive industries*.

Subsequently, two sub-hypotheses focusing on both the quantity and quality of disclosure were formulated.

> *H1a:* *The quantity of environmental disclosure of government-linked companies (GLCs) in environmentally sensitive industries is greater than those in less environmentally sensitive industries*.

> *H1b:* *The quality of environmental disclosure of government-linked companies (GLCs) in environmentally sensitive industries is greater than those in less environmentally sensitive industries*.

Ownership status is said to influence the amount of a company's voluntary disclosure (Cormier and Gordon, 2001). Further, there have been suggestions that publicly-owned companies disclose more social and environmental information as a way to mirror their accountability and visibility aspects. Government-linked companies (GLCs) are companies that are directly linked to the government and thus, are expected to carry out their activities in a way that fulfil the government's vision. Furthermore, GLCs are actually part of the efforts of the government to drive development and stimulate the economy, and their performance will greatly impact the productivity and wellbeing of Malaysians. Therefore, as environmental issues have been emphasized by the government since the Third Malaysia Plan (3MP), it is expected that GLCs are keen to respond to these issues as GLCs have a greater responsibility towards the government and other stakeholders. Additionally, given the "visibility" of GLCs and the important fact that these companies are affiliated with the government, one would expect such companies to act strictly in accordance with the policies of the government. Thus, with the inclusion of 'environmental protection' in the Silver Book (as one of the main areas of GLCs' contributions to society), as well as various initiatives of the government to promote "environmental responsibility", GLCs should exhibit greater accountability on environmental matters. Accordingly, one would expect greater transparency and a higher level of environmental disclosure from GLCs. Thus, the following hypothesis was developed.

H2: *The level of environmental disclosure of government-linked companies (GLCs) in environmentally sensitive industries is greater than non-government-linked companies (non-GLCs) in the same industries*.

Similarly, the following two sub-hypotheses were formulated.

H2a: *The quantity of environmental disclosure of government-linked companies (GLCs) in environmentally sensitive industries is greater than non-government-linked companies (non-GLCs) in the same industries*.

H2b: *The quality of environmental disclosure of government-linked companies (GLCs) in environmentally sensitive industries is greater than non-government-linked companies (non-GLCs) in the same industries*.

RESEARCH METHOD

A content analysis was undertaken on annual reports of 47 GLCs; comprising 19 GLCs in environmentally sensitive industries and 28 companies in the less sensitive industries. Consistent with Deegan and Gordon (1996), Frost and Wilmshurst (2000), Ahmad *et al*. (2003) and Nik Ahmad and Sulaiman (2004), Jaffar (2006) and Manaf *et al*. (2006) the industries we regard as environmentally sensitive are the construction, industrial products, property, mining, and plantation industries.

Quantity of Disclosure

In line with Gray *et al*.'s (1995b, p. 84) suggestion that "*sentences are to be preferred if one is seeking to infer meaning",* the study employed **'sentence count'** as the measurement to determine the level of environmental disclosure. A checklist (see Appendix I) was constructed using the original checklist used by Gray *et al*. (1995b) and Hackston and Milne (1996). Consistent with prior studies, environmental disclosure of companies was categorised into several parts/themes to enable us to identify the extent and nature of information disclosed (see Ahmad *et al*., 2003; Nik Ahmad and Sulaiman, 2004; Thompson and Zakaria, 2004). The parts/themes are as follows:

- Evidence: monetary, non-monetary and declarative.
- Type of disclosure: good, bad and neutral.

- Environmental sub-themes: environmental audit and environmental policy
- Location of disclosure: chairman's letter, mission statement, director's report, operations review and other. "Other" section includes all section in the corporate annual report except the four (4) sections examined.

Quality of Disclosure

To examine the quality of reporting, a disclosure index was developed using the Environmental Reporting Score sheet of ACCA Malaysia Environmental and Social Reporting Awards (MESRA, 2006, currently known as MaSRA) (see Appendix 3). The ACCA award classifies disclosure into three categories; completeness, credibility and communication. For the purpose of this study, the last is excluded as it is believed that "communication" has no bearing on the issue of "quality". Thus, only completeness and credibility were measured. For each item in the "completeness" and "credibility" categories, a score of "1" was given if the company disclosed such information and "0" if there was no evidence found. Accordingly, a total score of 32 was allocated for "completeness" and 38 for "credibility," making the total score to 70. The total score for "completeness" and "credibility" obtained by companies in a particular group was further converted to a percentage. This percentage represents the proportion of disclosure made by companies (categorised by sensitivity of industry and ownership status) in relation to the possible total score. For example, if there are 18 companies in the environmentally sensitive group and these companies disclosed all the items in these categories then the possible total score (i.e. the denominator) will be 1,260 (i.e. 18*70). With regard to the "completeness" and "credibility" categories, the possible total score is 576 (18*32) and 684 (18*38), respectively. Thus, if the 18 companies only attained a total score of, say, 500 (the total sum of "completeness" and "credibility" scores), converting this to a percentage will give 39.7 per cent (i.e. 500/1260). This figure will represent the overall 'quality' level of environmental disclosure of the 18 companies in comparison to the 'best practice' (as stipulated in the MaSRA scoresheet).

To compare the extent of environmental disclosure between GLCs and non-GLCs, a matched-pair analysis was undertaken. As there were 19 GLCs in environmentally sensitive industries listed on the Main Board of Bursa Malaysia (as at March 2007), 19 non-GLCs in the same industries were sampled. We used total assets as the proxy for company size. Altogether, forty-seven (47) annual reports of GLCs and 19 non-GLCs (i.e. for the matched-pair analysis) for the year 2006 were retrieved from the Bursa Malaysia's website (www.bursamalaysia.com).

RESULTS

GLCs

Quantity of disclosure

As shown in Table 1, of the 47 annual reports investigated, 34 (72.3%) GLCs disclosed at least one sentence of environmental information in their annual report. Thirteen (27.7%) GLCs, however, did not provide any environmental disclosure. Of the 34 that disclosed environmental information, 16 were from the environmentally sensitive industries while the remaining 18 were from the non-environmentally sensitive industries. Three GLCs (15.8%) in the environmentally sensitive industries did not disclose any environmental information in their annual report. Out of the 28 GLCs in the non-environmentally sensitive industries, 18 (64.3%) made some form of environmental disclosures. These results appear promising. However, what is most alarming is the fact that there are still GLCs in environmentally sensitive industries that did not disclose their environmental information (albeit the fact that their activities are more likely to be more visible since they are affiliated to the government!)

Table 1 Disclosers and non-disclosers of environmental information by sensitivity of industry

	Sensitive industries		Less sensitive industries		Total	%
	Total	**%**	**Total**	**%**		
Disclosing GLCs	16	84.2	18	64.3	34	72.3
Non-disclosing GLCs	3	15.8	10	35.7	13	27.7
Total	**19**	**100**	**28**	**100**	**47**	**100**

Table 2 summarises the environmental disclosure practices of the 34 disclosing GLCs (i.e. 16 companies in the environmentally sensitive industries and 18 in less sensitive industries) according to the characteristics/themes of environmental disclosure. Looking at the overall picture (i.e. all GLCs), the majority of environmental disclosures were reported in the declarative form (558 sentences or 98.6%). This appears to be consistent with the results of prior studies (e.g. Hackston and Milne, 1996; Nik Ahmad and Sulaiman, 2004; Alrazi *et al*., 2009; Buniamin, 2010). Consistent with the findings of prior research done by Nik Ahmad and Sulaiman (2004), Alrazi *et al*. (2009) and Buniamin (2010), the level of monetary and non-monetary (i.e. physical) environmental information disclosed was rather

Table 2 Descriptive statistics for environmental disclosure of GLCs by sensitivity of industry

Characteristic	Sensitive industries			Less sensitive industries			Total disclosing companies (n=34)	Total no. of disclosed sentences
	Disclosing companies (n=16)	No. of disclosed sentences		Disclosing companies (n=18)	No. of disclosed sentences			
	Total	Total	%	Total	Total	%		
Evidence:								
Monetary	1	2	0.6	2	2	0.8	3	4
Non-monetary	-	-	-	1	4	1.6	1	4
Declarative	16	321	99.4	18	237	97.6	34	558
Total		323	100		243	100		566
News Type:								
Good	13	131	40.6	14	98	40.3	27	229
Bad	-	-	-	-	-	-	-	-
Neutral	15	192	59.4	17	145	59.7	32	337
Total		323	100		243	100		566
Location in report:								
Chairman's letter	7	12	3.7	9	25	10.3	16	37
Mission statement	2	2	0.6	2	2	0.8	4	4
Director's report	-	-	-	1	1	0.4	1	1
Operations Review	10	77	23.8	8	52	21.4	18	129
Other	15	232	71.8	16	163	67.1	31	395
		323	100		243	100		566
Environmental Sub-themes:								
Environmental Audit	2	2	0.6	1	2	0.8	3	4
Environmental Policy	4	23	7.1	1	5	2.1	5	28

low. There were only 8 sentences pertaining to this. Three (3) companies disclosed monetary environmental information. This primarily focused on the companies' contributions/donations. One company included non-monetary environmental information in its annual report on quality of air emission (in g/Nm^3), and the raw material waste per output (in percentage).

None of the companies reported or disclosed bad news in their annual reports. This somewhat supports the theory of legitimacy where companies tend to disclose positive news in their annual report (Deegan and Gordon, 1996) to legitimate their activities (Deegan *et al*., 2002). In addition, the corporate annual report is generally used by companies as a public relations exercise (Ferreira, 2004). More importantly, a company is more likely to respond to the public with regards to their environmental performance once the public starts to voice out their concern (Wilmshurst and Frost, 2000). One way of responding to such matters is through the corporate annual report. Given this, companies are less motivated to disclose any negative information that may jeopardise their 'legitimacy status.'

As far as "location" where environmental information was generally included, GLCs tended to either put the information in the "Operations Review" (18 GLCs) or the Chairman's Letter" (16 GLCs). Thirty one GLCs (31) disclosed their environmental information in the "Other" category (395 sentences or 69.8%). As may be recalled, the "Other" category was a "catchall" category comprising Company Profile, Statement of Internal Control, Corporate Diary, Corporate Social Responsibility, Environment, Health and Safety, and Notes to Financial Statement. Given this, the high number (at 31) may not reflect much. Tenaga Nasional Berhad disclosed their environmental information in the Statement of Environment, Petronas Gas Berhad reported such information in the Health, Safety and Environmental (HSE) Policy, and Malayan Banking Berhad provided their environmental information in the Corporate Social Responsibility (CSR) section. Only one company; Golden Hope Plantation Bhd, reported its environmental information in the Notes to the Financial Statements. In note 34 under Significant Events, it stated,

> *…taking cognizance of Government's move towards migrating to renewable energy supply; the increased demand for palm oil and the effects of the Kyoto Protocol, the Project forms the basis to enable Golden Hope, through Rubiatec, to position itself as a leader in the production of sustainable energy (2006: 186).*

In terms of the environmental sub-themes, 5 companies disclosed their environmental policy. Thus, it appears that most of the companies did not provide a specific environmental policy. Although three companies disclosed some form of environmental audit information, such information was relatively general in nature. For example, SIME UEP Properties Berhad stated,

> *For continuous improvement, the Company conducts internal audits, an important feature in all management system standards and protocol for Quality, Environment, Safety and Health [QESH] (2006: 56).*

Further, UEM Builders reported,

> *During the year in review, an initial audit was successfully conducted on our Penang Bridge Widening and Electrified Double Track Projects (2006: 75).*

Tenaga Nasional Berhad, perhaps, disclosed clearer information pertaining to its environmental audit,

> *Annual Environmental Management Audits or EMS based on MS ISO 14001 are conducted at all power stations by TNB Generation Division auditors (GRMU). The EMS reassessment audit is conducted once per year by SIRIM QAS International (2006: 146).*

The results were further analysed to examine the difference between environmentally sensitive and less sensitive industries. Companies in the environmentally sensitive industries disclosed relatively more environmental information (323 sentences) than companies in the less sensitive industries (243 sentences). This is consistent with prior expectations. However, a t-test undertaken to examine if the difference was statistically different, found no support for H1a. Thus, it appears that environmental sensitivity does not seem to have any relationship with ER, at least for the sample in this study.

Quality of disclosure

As may be recalled, the quality of GLCs' environmental disclosures was measured using a disclosure index based on the ACCA's environmental reporting award criteria. Table 3 summarises the findings of the analysis. A majority of GLCs (21 out of 34 companies) did not disclose any information regarding the direct and indirect impact of their activities on the environment. In addition, there was very little information reported pertaining to product/service stewardship. Additionally, out of the 34 GLCs, there were only 20 GLCs (8 of which are in the sensitive industries) that disclosed the details on the management's commitment towards environmental responsibility. Such information was disclosed in the CEO/

Table 3 Environmental disclosure index score of GLCs tabulated by sensitivity of industry

Report Characteristics	**Disclosure Score Sensitive (n=16)**			**Disclosure Score Less Sensitive (n=18)**		
	No. of co.	**%***	**Score**	**No. of co.**	**%**	**Score**
COMPLETENESS (A)						
1. Corporate context (profile)	16	62^	77.5°	18	73	81.1
2. Key (direct and indirect) environmental impacts of business	6	11	13.8	5	11	12.2
3. Detail and clarity of management commitment towards responsible business practices	7	15	23.4	10	13	18.1
4. Inclusion of environmental targets and objectives	5	9	11.3	1	1	1.1
5. Information on product or service stewardship	6	10	15.6	8	16	22.2
6. Suppliers procurement policies	0	0	0	0	0	0
7. Scope of the environmental report	8	24	30.0	14	36	40.0
8. The report audience	5	5	15.6	10	12	33.3
9. Linkages between environmental reporting and sustainability issues	7	7	43.8	7	7	38.9
TOTAL (A)		143	27.9**		169	29.3
CREDIBILITY (B)						
10. Headline achievements in current period with regards to environmental initiatives	6	6	37.5	4	4	22.2
11. Governance structure	4	4	6.3	1	1	1.4
12. Contact person in charge on environmental issues	1	2	4.2	0	0	0
13. Environmental management systems (EMS)	4	7	21.9	1	2	5.6
14. Environmental contingency planning and risk assessment	2	2	6.3	2	4	11.1
15. Internal audit/Environmental audit	0	0	0	1	1	5.5

Table 3 (Cont'd)

16.	Compliances/non-compliance record with environmental legislation	3	3	4.7	4	4	5.5
17.	Environmental performance	0	0	0	1	2	2.7
18.	Conventional finance related data	0	0	0	0	0	0
19.	Environmental financial statements and full cost accounting	0	0	0	0	0	0
20.	Application of guidance and/or standards	5	5	15.6	6	7	19.4
21.	Stakeholder engagement	0	0	0	0	0	0
22.	Use of stakeholder feedback	0	0	0	0	0	0
23.	Third party statement	0	0	0	0	0	0
	TOTAL (B)		29	4.8		25	3.7
	TOTAL (A + B)		**172**	**15.4**		**194**	**15.4**

* Percentage is obtained by taking the total score obtained by all 16 disclosing companies and dividing this with the possible score of that element. For example, 62/80 = 77.5%

** **27.9% is obtained by taking total (A)** [143] divided by 512 (accumulated score for 'completeness'). 512 is the total score if each company disclosed all the items in the 'completeness' element.

MD's Statement. Perhaps another surprising finding was that there appears to be more GLCs in the less sensitive industries that have a specific environmental report section in their corporate annual report, as compared to GLCs in the sensitive industries. Apparently, based on the percentage of "Linkages between environmental reporting and sustainability issues", GLCs in the sensitive industries were more aware of the current sustainability issues. Furthermore, in terms of report audience, there were only fifteen GLCs that indicated who the reports were prepared for.

For the "credibility" characteristic, a majority of GLCs failed to disclose any information on most of the report characteristics, such as the governance structure, environmental management systems, stakeholder engagement, use of stakeholder feedback, third party statement, company's environmental performance and environmental financial statements. Both the environmentally sensitive and non-environmentally sensitive industries only managed to disclose less than five per cent of the items on the score sheet. Thus, it appears that GLCs were still lacking in providing environmental information. This is expected given the large number of companies that reported their environmental information in the declarative form. Hence, although some of the companies appeared to disclose a substantial amount of environmental information, in terms of quality, the information disclosed is far behind the requirements of the ACCA Reporting Guidelines. Interestingly, there is no significant difference ($p>0.05$) in the quality of disclosure between both types of industry. Therefore, H1b cannot be supported. Thus, environmental sensitivity did not influence the quality of GLCs' environmental disclosure.

Between GLCs and Non-GLCs

Quantity

In the matched-pair analysis (refer Table 4) 15 out of 19 non-GLCs in the sensitive industries disclosed their environmental information. As may be recalled, 16 GLCs in the sensitive industries disclosed at least one sentence of environmental information in their corporate annual report. The nature of environmental information disclosed by both GLCs and non-GLCs was largely "neutral" and "good". Additionally environmental information disclosed tended to be declarative in nature. Further, it was in the "Other" section that both categories of companies seemed to report on the environment.

It is rather interesting to note that two of the non-GLCs, reported on "bad" news, such as public complaints, penalties for not complying with legislation and the bad impact of the product/services to the environment. Additionally, only one non-GLC

Table 4 Total amount of environmental disclosure by industry: Matched-pair analysis

GLCs			Non-GLCs		
Company	**Disclosing companies**	**Total sentences disclosed**	**Company**	**Disclosing companies**	**Total sentences disclosed**
Plantation			**Plantation**		
Boustead Holdings Bhd	✓	6	KL Kepong Bhd	✓	21
Golden Hope Plantations Bhd	✓	71	Kulim Bhd	✓	64
Guthrie Ropel Bhd	✓	3	TSH ResoucesBhd	✓	2
Highlands and Lowlands Bhd	✓	9	Batu Kawan Bhd	✓	2
Kumpulan Guthrie Bhd	✓	46	IOI Corporation Bhd	✓	50
Mentakab Rubber Co (M) Bhd	✓	2	Multi Vest Resources Bhd	✓	2
TH Plantations Bhd	✓	6	Rimbunan Sawit Bhd	×	-
Total	7	143	Total	6	141
Property			**Property**		
Boustead Properties Bhd	×	-	E and O Property Development Bhd	×	-
Island and Peninsular Bhd	✓	6	Sunway City Bhd	✓	4
Negara Properties (M) Bhd	✓	10	Menang Corporation Bhd	×	-
Petaling Garden Bhd	×	-	WCT Land Bhd	✓	2
SIME UEP Properties Bhd	✓	16	IOI Properties Bhd	✓	1
Total	3	32	Total	3	7

Table 4 (Cont'd)

Construction			**Construction**		
Malaysian Resources Corporation Bhd	✓	18	Sunway Holdings Incorporated Bhd	✓	6
UEM Builders Bhd	✓	7	Gamuda Bhd	✓	12
UEM World Bhd	✓	23	IJM Corporation Bhd	✓	52
Total	3	48	Total	3	70
Industrial Product			**Industrial Product**		
Cement Industries of Malaysia Bhd	✓	13	YTL Cement	✓	4
Chemical Company of Malaysia Bhd	✓	17	Ancom Bhd	×	-
Pertronas Gas Bhd	✓	70	Shell Refining Company Bhd	✓	84
UAC Bhd	×	-	Industrial Concrete Products Bhd	✓	5
Total	3	100	Total	3	93
TOTAL	**16**	**323**	**TOTAL**	**15**	**311**

✓ Discloser × Non-discloser

disclosed its environmental policy and information on environmental audit, while, four GLCs reported their environmental-related policy and two GLCs disclosed a one-sentence environmental audit information. One cannot help but wonder if this is the result of the government's transformation manual and the "Silver Book."

It can be observed that GLCs disclosed slightly more sentences (323 sentences) on environmental-related information than non-GLCs (311 sentences). However, the non-GLCs (i.e. Shell Refining Company Bhd) disclosed the highest amount of environmental information (84 sentences). Further, there is no significant difference between the total number of sentences disclosed by both categories of companies except in the property and construction industries. GLCs in the property industry reported more environmental information. On the contrary, in the construction industry, the non-GLCs had 22 more sentences than the GLCs. Overall, the statistical test showed no significant difference in the level of environmental disclosure between both types of companies. Thus, H2a (that there is a difference in the quantity of environmental disclosure between GLCs and non-GLCs) cannot be supported.

Quality

Parallel to the findings of the earlier analysis, none of the companies reported any information regarding the suppliers' procurement policies, conventional finance related data, environmental financial statements and full cost accounting, stakeholder engagements, the use of stakeholder feedbacks and third party statements (refer Table 5). Moreover, most of the companies failed to report the key direct and indirect environmental impacts of their business. This finding, however, is predictable since in the quantity analysis, the study found a huge proportion of good and neutral types of information disclosed by both companies. Perhaps, legitimacy theory provides a better explanation as companies may not want to jeopardise their 'legitimacy' status by disclosing negative impacts of their business upon the environment.

For the "completeness" characteristic, GLCs managed to disclose a slightly higher number (27.9 per cent or a score of 143) of proposed items than non-GLCs (26.4 per cent or a score of 127) The 'Information on product and or service stewardship' and 'who are the report audience' were the elements of "completeness" in which non-GLCs disclosure surpassed GLCs.

Meanwhile, for "credibility," both types of companies scored below 30. This represents less than five per cent of the total score. However, in terms of overall scores, GLCs are still better. They obtained a score of 172 or disclosed 15.4 per cent of the items, which is approximately two per cent more than the non-GLCs. Accordingly, these low figures indicate a similar conclusion as in the earlier analysis

Table 5 Environmental disclosure index score of GLCs tabulated by sensitivity of industry

Report Characteristics No. of co.	Disclosure Score GLCs (n=19)			Disclosure Score Non-GLCs (n=19)		
	Score	%	No. of co.	Score	%	
COMPLETENESS (A)						
1. Corporate context (profile)	16	62	77.5	15	53	70.1
2. Key (direct and indirect) environmental impacts of business	6	11	13.8	4	8	10.7
3. Detail and clarity of management commitment towards responsible business practices	7	15	23.4	8	13	21.7
4. Inclusion of environmental targets and objectives	5	9	11.3	4	6	8.0
5. Information on product or service stewardship	6	10	15.6	7	13	21.7
6. Suppliers procurement policies	0	0	0	0	0	0
7. Scope of the environmental report	8	24	30.0	8	20	26.7
8. The report audience	5	5	15.6	5	8	26.7
9. Linkages between environmental reporting and sustainability issues	7	7	43.8	6	6	40
TOTAL (A)		143	27.9		127	26.4
CREDIBILITY (B)						
10. Headline achievements in current period with regards to environmental initiatives	6	6	37.5	2	2	13.3
11. Governance structure	4	4	6.3	1	1	1.7
12. Contact person in charge on environmental issues	1	2	4.2	0	0	0
13. Environmental management systems (EMS)	4	7	21.9	0	0	0
14. Environmental contingency planning and risk assessment	2	2	6.3	4	4	13.3
15. Internal audit/Environmental audit	0	0	0	0	0	0

Table 5 (Cont'd)

16.	Compliances/non-compliance record with environmental legislation	3	3	4.7	2	7	11.7
17.	Environmental performance	0	0	0	1	2	3.3
18.	Conventional finance related data	0	0	0	0	0	0
19.	Environmental financial statements and full cost accounting	0	0	0	0	0	0
20.	Application of guidance and/or standards	5	5	15.6	4	4	13.3
21.	Stakeholder engagement	0	0	0	0	0	0
22.	Use of stakeholder feedback	0	0	0	0	0	0
23.	Third party statement	0	0	0	0	0	0
	TOTAL (B)		29	4.8		20	3.5
	TOTAL (A + B)		**172**	**15.4**		**147**	**14.0**

where the quality of disclosure is low, even though some of the companies were able to provide a huge quantity of environmental disclosure in their annual reports.

With regards to testing H2b, although GLCs in the environmentally sensitive industries offer better quality of environmental disclosure than non-GLCs in the same industries, the results from the t-test suggested no significant difference ($p>0.05$) in the quality ER between the two groups of companies. Thus, H2b (that there is a difference in the quality of environmental disclosure between GLCs and non-GLCs) is not supported.

CONCLUSION

This study focused on environmental reporting. More specifically, the study examined the quantity and quality of environmental disclosure of GLCs and subsequently compared ER between GLCs and non-GLCs in environmentally sensitive industries. It is observed that although GLCs in the sensitive industries disclosed more environmental information than less sensitive industries, the results were not statistically different. Apparently, the nature of the disclosure was also consistent between both types of industries. It appears that most of the environmental information disclosed was in the declarative form. This is consistent with the results of prior studies (e.g. Hackston and Milne, 1996; Nik Ahmad and Sulaiman, 2004; Sumiani *et al*., 2007; Alrazi *et al*., 2009; Buniamin, 2010). Thus, sensitivity of industries does not influence the amount of environmental disclosure of GLCs. Further, the results provide no support for legitimacy theory that companies, particularly, in the sensitive industries are expected to disclose more environmental information to legitimize their business activities. Similar results were evident in prior studies undertaken by Hackston and Milne (1996) and Nik Ahmad and Sulaiman (2004). In the matched-pair analysis, the study found that there is no difference in the level of environmental reporting between GLCs and non-GLCs in the environmentally sensitive industries. Thus, ownership status (i.e. whether a company is a GLC or otherwise) does not influence the amount of environmental disclosure. However, the statistically insignificant results may well be due to the small sample size, particularly in the matched-pair analysis. More importantly, the quantity of environmental disclosure for *both* GLCs and non-GLCs in the environmentally sensitive industries is still low.

In terms of the quality of reporting and on the basis of the ACCA Environmental Reporting Guidelines, companies failed to produce good environmental reports as most of the environmental information reported was generally in the declarative form. This may well provide some support for legitimacy theory. Thus, Ferreira's (2004) contention that companies provide environmental disclosure merely as a public relations exercise may have some truth. Accordingly, the question that may arise is whether using environmental disclosure as a public relations exercise would indicate that a company has discharged its "accountability" satisfactorily.

Given the results of our study, the Malaysian government's efforts in mandating corporate social responsibility reporting (CSR) for public listed companies (thus, indirectly, reporting on the environment) in 2007 is indeed a step in the right direction. This is because only by mandating environmental disclosure can companies' awareness on environmental issues be accelerated. Criado-Jimenez *et al*. (2008) found that compliance with mandatory environmental reporting is associated with increase in the volume and quality of environmental disclosure. In the current state, the collaboration between professional bodies and the government in promoting environmental reporting, for example, the endorsement of Department of Environment (DOE) and Ministry of Natural Resources and Environment in the ACCA MESRA, should be commended. However, low environmental disclosure among Malaysian companies gives indication for a more active role to be played by both the government and accounting professional bodies in promoting environmental reporting.

The consideration of including Environmental Accounting (EA) as one of the subjects to be taught in universities should be explored by institutions of higher learning. At present, accounting students are merely exposed to environmental costs (i.e. types of environmental costs and how to measure environmental costs) through a chapter in the Management Accounting subject. Indeed, EA covers a broad area, such as environmental audits and environmental accounting procedures. Environmental costs merely forms an introduction to EA. Therefore, there is a need for formulating a new syllabus specifically on EA. The syllabus should cover the core elements of EA (i.e. ER as well as Environmental Management Accounting). EA should be a core subject and not one that is integrated with the subject on Corporate Social Responsibility. Only then would issues pertaining to the environment being put at the fore front of the accounting curriculum. Additionally, and more importantly, companies need to be educated that environmental performance and economic performance is, indeed, possible.

Finally, the results obtained here should be interpreted in light of certain limitations. First, it looked only at the corporate annual reports of the sampled companies. Some of the companies might have disclosed their environmental information in the stand-alone report, brochures or other reporting mechanism. Second, in the matched-pair analysis, the study only focused on the environmental disclosure of GLCs and non-GLCs in the sensitive industries. Future research may wish to include GLCs and non-GLCs in the less sensitive industries (matched-pair analysis) as well. Third, the selection of corporate annual reports for the year 2006 did not truly capture the entire outcomes of the GLC Transformation Program, for example, the effectiveness of the 'Silver Book' in encouraging companies engaging sustainable development. This is because, the results of the transformation program, particularly on the ten (10) initiatives, are targeted to be observable starting from the year 2007. Even so, early developments on the effectiveness of the program are expected to be observable at the end of Phase 2 (that is at the end of 2006).

REFERENCES

Ahmad, Z., Hassan, S. and Mohammad, J. (2003). Determinants of Environmental Reporting in Malaysia. *International Journal of Business Studies,* **11(1)**, 69-90.

Alrazi, B., Sulaiman, M. and Nik Ahmad, N. N. (2009). A Longitudinal Examination of Environmental Reporting Practices in Malaysia. *Gadjah Mada International Journal of Business,* **11(1)**, 37-72.

Brammer S. and Pavelin, S. (2008). Factors influencing the quality of corporate environmental disclosure. *Business Strategy and the Environment*, **17(2)**, 120-136.

Buniamin, S. (2010). The Quantity and Quality of Environmental Reporting in Annual Report of Public Listed Companies in Malaysia. *Issues in Social and Environmental Accounting,* **4(2)**, 115-135.

Bursa Malaysia (2007). *Corporate Social Responsibility in Malaysian PLCs: 2007 Status Report: An Executive Summary.*

Campbell, D., Craven, B. and Shrives, P. (2003). Voluntary social reporting in three FTSE sectors: a comment on perception and legitimacy. *Accounting, Auditing and Accountability Journal,* **16(4)**, 558-581.

Cormier D., Magnan M. and van Velthoven, B. (2005). Environmental disclosure quality in large German companies: economic incentives, public pressures or institutional conditions?. *European Accounting Review*, **14(1)**, 3-39.

Cormier, D. and Gordon, I. M. (2001). An examination of social and environmental reporting strategies. *Accounting, Auditing and Accountability Journal,* **14(5)**, 587-616.

Cormier, D. and Magnan, M. (2003). Environmental reporting management: a continental European perspective. *Journal of Accounting and Public Policy*, **22**, 43-62.

Criado-Jimenez, I., Fernandez-Chulian, M., Husillos-Carques, F. J. and Larrinaga-Gonzalez, C. (2008). Compliance with mandatory environmental reporting in financial statements: The case of Spain (2001–2003). *Journal of Business Ethics,* **79**, 245–262.

De Villiers, C.J. and Van Staden, C.J. (2010). Shareholders' requirements for corporate environmental disclosures: a cross country comparison. *British Accounting Review*, **42 (4)**, 227-240.

Deegan, C. and Gordon, B. (1996). A study of the environmental disclosure practices of Australian Corporations. *Accounting and Business Research,* **26(3)**, 187-199.

Deegan, C., Rankin, M. and Tobin, J. (2002). An examination of corporate social and environmental disclosures of BHP from 1983-1997: A test of legitimacy theory. *Accounting, Auditing and Accountability Journal,* **15(3)**, 312-343.

Ferreira, C. (2004). Environmental accounting: the Portuguese case. *Management of Environmental Quality: An International Journal,* **15(6)**, 561-573.

Frost, G. R. and Wilmshurst, T. D. (2000). The adoption of environment-related management accounting: an analysis of corporate environmental sensitivity. *Accounting Forum,* **24(4)**, 344-361.

Gamble, G., Hsu, K., Kite, D. and Radtke, R. (1995). Environmental disclosures in annual reports and 10K's: an examination, *Accounting Horizons*, **9(3)**, 34-54.

Gray, R., Kouhy, R. and Lavers, S. (1995a). Constructing a research database of social and environmental reporting by UK companies. *Accounting, Auditing and Accountability Journal,* **8(2)**, 78-101.

Gray, R., Kouhy, R. and Lavers, S. (1995b). Constructing a Research Database of Social and Environmental Reporting by UK Companies. *Accounting, Auditing and Accountability Journal,* **8(2)**, 78-101.

Guthrie, J. and Parker, L. D. (1989). 'Corporate social responsibility: A rebuttal of legitimacy theory'. *Accounting and Business Research,* **19(6)**, 343-352.

Hackston, D. and Milne, M. J. (1996). 'Some determinants of social and environmental disclosures in New Zealand companies'. *Accounting, Auditing and Accountability Journal,* **9(1)**, 77-108.

Jaffar, R. (2006). The Environmental Reporting Practice of 'Environmentally Problematic Companies' in Malaysia. *The International Journal of Accounting, Governance and Society*, **1**, 37-47.

Khazanah Nasional (2007a). <http://www.khazanah.com.my/faq.htm#ques8> accessed on February 3, 2007.

Khazanah Nasional (2007b). <http://www.khazanah.com.my/portfolio.htm> accessed on February 7, 2007.

Manaf, A. N. A., Atan. R. and Mohamed, N. (2006). *Environmentally Sensitive Companies Social Responsibility And Reporting: A Study Of Malaysian Companies.* A paper presented at the 5th Australasian Conference on Social and Environmental Accounting Research, 22 - 24 November: Sydney.

Milne, M. J. and Pattern, D. M. (2002). Securing organizational legitimacy: An experimental decision case examining the impact of environmental disclosures. *Accounting, Auditing and Accountability Journal,* **15(3)**, 372-405.

Milne, M.J. and Adler, R. W. (1998). *Exploring the Reliability of Social and Environmental Disclosure Content Analysis*. A paper presented at the Second Asian Pacific Interdisciplinary Research in Accounting Conference, Osaka City University.

Neu, D., Warsame, H. and Pedwell, K. (1998). Managing public impressions: Environmental disclosures in annual report. *Accounting Organizations and Society,* **23(3)**, 265-282.

Nik Ahmad, N. N. and Sulaiman, M. (2004). Environmental disclosures in Malaysian Annual Reports: A Legitimacy Theory Perspective. *International Journal of Commerce and Management,* **14(1)**, 44-58.

O'Donovan, G. (2002). Environmental disclosures in the annual report: Extending the applicability and predictive power of legitimacy theory. *Accounting, Auditing and Accountability Journal,* **15(3)**, 344-371.

Patten, D. M. and Trompeter, G. (2003). Corporate responses to political costs: an examination of the relation between environmental disclosure and earnings management. *Journal of Accounting and Public Policy,* **22**, 83-94.

Perry, M. and Teng T. S. (1999). An overview of trends related to environmental reporting in Singapore. *Environmental Management and Health,* **10(5)**, 310-320.

Raar, J. (2002). Environmental initiatives: towards triple-bottom line reporting. Corporate Communication: An International Journal, **7(3)**, 169-183.

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *The Academy of Management Review,* **20(3)**, 571-610.

Sumiani, Y., Haslinda, Y. and Lehman, G. (2007). Environmental Reporting in a Developing Country: A Case Study on Status and Implementation in Malaysia. *Journal of Cleaner Production*, **15**, 895-901.

The Association of Chartered Certified Accountants (ACCA) (2003). *Environmental Reporting Guidelines for Malaysian Companies*. ACCA Publication.

The Association of Chartered Certified Accountants (ACCA) (2004). *The State of Corporate Environmental and Social Reporting in Malaysia*. ACCA Publication.

Thompson, P. and Zakaria Z. (2004). Corporate social responsibility in Malaysia. *The Journal of Corporate Citizenship,* **13**, 125-136.

Wilmshurst, T. D. and Frost, G. R. (2000). Corporate environmental reporting: A test of legitimacy theory. *Accounting, Auditing and Accountability Journal,* **13(1)**, 10-26.

APPENDIX 1

Checklist for Environmental Disclosure

1. Environmental Pollution
   - pollution control in the conduct of the business operations; capital, operating and research and development expenditures for pollution abatement;
   - statements indicating that the company's operations are non-polluting or that they are in compliance with pollution laws and regulations;
   - statements indicating that pollution from operations has been or will be reduced;
   - prevention or repair of damage to the environment resulting from processing or natural resources, e.g. land reclamation or reforestation;
   - conservation of natural resources, e.g. recycling glass, metals, oil, water and paper;
   - using recycled materials;
   - efficiently using materials resources in the manufacturing process;
   - supporting anti-litter campaigns;
   - receiving an award/certification relating to the company's environmental programmes or policies;
   - preventing waste.

2. Aesthetics
   - designing facilities harmonious with the environment;
   - contributions in terms of cash or art/sculptures to beautify the environment;
   - restoring historical buildings/structures.

3. Environmental Other
   - undertaking environmental impact studies to monitor the company's impact on the environment;
   - wildlife conservation;
   - protection of the environment, e.g. pest control;
   - landscaping;

- public amenity provision;
- environmental education (schools, sponsorship).

4. Energy
    - energy saving and conservation;
    - use/development/exploration of new sources, efficiency, insulation, etc.; except in so far as it is part of the business (e.g. oil exploration companies).

APPENDIX 2

Main Components of a Good Sustainability Report

Components	Descriptions
CEO statement	A statement from the CEO or the chairman of the board of directors helps to demonstrate the degree of commitment to, and support for, corporate accountability. Statements should refer to the organisation's policies and should also make reference to achievements and low points of the year, issues and challenges that lie ahead for the company and its future sustainability strategy.
Organisational profile	An overview of the organisation in terms of its size, structure and spread of activities, as represented, for example, by turnover and number of operational sites and employees and the markets and market segments served. The key interactions with the physical environment with regard to the companies' products/services and operations should also be included. Any related health and safety information can also be included in this section.
Scope	A number of report 'boundaries' should be stated to better inform the report user. For example: ● What part of the organisation is included - all the sites or just headquarters? Global or national operations? Are subsidiaries and joint ventures included? ● What is the scope of content - social, environmental and/or economic? ● What period of time does the report cover?
Key impacts	All businesses have an impact on society and the environment, but the extent of this impact depends on many factors, including the size, sector and location of the business. The significant impacts should be clearly explained so that readers can understand the burden of the business. Disclosures under this heading will be strongly influenced by the feedback obtained from organisational stakeholders as to what they consider to be main impacts and the areas on which they request performance disclosures.

Governance	The 2002 GRI Sustainability Reporting Guidelines have a 'Governance and Management Systems' section that should help organisations address this important sustainability issue in future reports. Issues that should be addressed include the governance structure (such as committees and their responsibilities) and the organisational structure of individuals responsible for day-to-day implementation of strategy and policy.
Sustainability-related policies	A public commitment to pursue particular goals and objectives in terms of managing, measuring and reporting environmental, social and/or economic performance against specific targets.
Management systems and procedures	The provision of reliable performance information is impossible without adequate information systems having been established in the first instance. This section typically describes the following: ● the environmental management system in place, including staff contact details and members of the board who are responsible for environmental management training programmes and related educational activities for staff, any external accreditation achieved (e.g., ISO 14000/ EMS) and key managerial responsibilities for the various aspects of the system. ● any other management system in place related to sustainability issues.
Stakeholder engagement	All reporters should state whom their report is intended for, together with disclosing who the company's stakeholders are in general. Reports should describe their stakeholder consultation/ dialogue processes and explain how any stakeholder feedback has been used. This includes explaining how stakeholders are involved in the reporting process.
Performance and compliance	Detailed performance data form the central feature of the best reports. Such data comprehensively illustrate success (or failure) in making progress towards achieving the stated targets. This section can include information on physical data, prosecutions and complaints, and financial data. Stakeholder feedback is an excellent pointer as to which specific performance indicators will be of most interest to external parties.

Targets and achievements	Target setting helps to demonstrate an organisation's commitment to continually improve its performance. Feedback on achievements for previously-set targets can demonstrate the positive strides the company has made towards its overall objectives. A comprehensive set of targets should cover all key environmental, social and economic issues faced.
External assurance	Without independent assurance, most organisations have realised that their report will have little standing with any external audience. Verification statements cover systems compliance issues and provide assurance as to the completeness of the report. The best verification statements also report on the acceptability performance and offer recommendations for systems improvement and reporting practice. Factors the verifier should bear in mind include: ● remit and scope ● indication of site visits and site-specific testing ● interpretation of data/performance reported ● identification of any data/information omitted that could/should have been included ● independent comment on corporate targets set and impacts identified ● shortcomings and recommendations. A number of different professional people can be external verifiers, and verification statements that are found today in sustainability reports have been written by a variety of people, including accountants, consultants and opinion leaders in this field. It should be noted that reporting organisations could also audit their data and work using internal auditors. Disclosing the results of these internal audits is to be encouraged.

APPENDIX 3

Disclosure Index

	Report characteristic	Score	Total score
COMPLETENESS (A)			
1.01	Corporate context (profile):		
	● Major products/and or services	1	
	● Financial performance	1	
	● Geographical location(s)	1	5
	● Employment information	1	
	● Organisational profile	1	
1.02	Key (direct and indirect) environmental impacts of business considered and explained		
	● Materials	1	
	● Energy	1	
	● Water	1	5
	● Biodiversity	1	
	● Emissions/Effluents/Waste	1	
1.03	Detail and clarity of management commitment towards responsible business practices within		
	● Environmental/Sustainability Vision	1	
	● Environmental/Sustainability Strategy/Mission	1	4
	● Environmental/Sustainability Related Policies	1	
	● Chairman/CEO/MD's Statement	1	
1.04	Inclusion of environmental targets and objectives for each key direct and indirect environmental impact of business identified in point 1.02		
	● Materials	1	
	● Energy	1	
	● Water	1	5
	● Biodiversity	1	
	● Emissions/Effluents/Waste	1	
1.05	Information on product or service stewardship		
	● Design	1	
	● Life Cycle Assessment (LCA)	1	4
	● Disposal policies	1	
	● Environmental impact of product	1	

1.06	Suppliers procurement policies	1	1
1.07	Scope of the report (environmental-related report; eg: CSR section		
	• Purpose of the report	1	
	• Boundaries of report:		
	– holding company/HQ	1	5
	– all subsidiaries/branches	1	
	• Reporting period and frequency	1	
	• Reporting process	1	
1.08	Who are the report audience:		
	• Shareholders	1	2
	• Other major stakeholders	1	
1.09	Linkages between environmental reporting and sustainability issues	1	1
	Total (A)		**32**
CREDIBILITY (B)			
2.01	Headline achievements in current period with regards to environmental initiatives	1	1
2.02	Governance structure		
	• Named board member responsible for environmental issues	1	
	• Committees and their responsibilities	1	4
	• Individuals responsible for day to day implementation of strategy and policy	1	
	• Explanation on the structure and process	1	
2.03	Contact person in charge on environmental issues		
	• Name	1	
	• Details for the person	1	3
	• Accessibility	1	
2.04	Environmental Management System		
	• Processes and procedures	1	2
	• Integration into the business process	1	
2.05	Environmental contingency planning and environmental risk assessment		
	• Systems in place	1	2
	• Management procedures	1	

2.06	Internal audit on environmental matters		
	• Processes	1	1
2.07	Compliances/non-compliance record with environmental legislation		
	• Complying with environmental legislation	1	
	• Prosecutions and complaints	1	
	• Financial data – fines	1	4
	• Procedures in place to prevent negative incidents from recurring	1	
2.08	Environmental Performance Environmental impact data (progress report) showing		
	• Absolute (total), normalized (per unit) terms	1	
	• Comparative data with trends over time and within sector	1	4
	• Appropriate cross linkages between elements	1	
	• Unfavourable results against target sets	1	
2.09	Conventional finance related data		
	• Environmental investments and purpose of investments	1	2
	• Contingent liabilities	1	
2.10	Environmental financial statements and full cost accounting	2	2
2.11	Application of environmental guidance and/or standards		
	• GRI/ACCA Reporting Guidelines/other reporting guidelines	1	2
	• ISO accreditation/certification	1	
2.12	Stakeholder engagement		
	• Basis of identification and selection of major stakeholders	1	
	• Description of stakeholder consultation/dialogue process	1	
	• Type of information generated by stakeholders consultations	1	4
	• Involvement of stakeholders in developing the report	1	
2.13	Use of stakeholder feedback		
	• Influencing decision making on company policy or operations	1	2
	• For use of performance benchmark	1	

2.14	Third party statement		
	• Remit and scope	1	
	• Interpretation of data/performance reported	1	
	• Any data/information omitted that should have been included and why	1	5
	• Independent comment on corporate targets set and impacts identified	1	
	• Shortcomings and recommendations	1	
	Total (B)		**38**
	TOTAL (A+B)		**70**