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ANALYSIS ON THE DEVELOPMENT OF ENVIRONMENTAL DISCLOSURE PRACTICES BY SELECTED MALAYSIAN COMPANIES FROM 1999 TO 2002

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Issues on environmental accounting and reporting have grasped the attention of accounting researchers since the 1970s. Continuous researches indicate the significance of integrating environmental matters in accounting. However, these initiatives have yet to develop a harmonization acceptance on the voluntary exercise. This is evidenced by the mixed global practices, with countries such as Netherlands having made environmental reporting mandatory, while the US encourage the practices. And in many other parts of the world, including Malaysia, environmental reporting is still a voluntary exercise. This study looks at the trend of environmental information disclosed in the corporate annual reports by selected Malaysian companies for the year 1999 to 2002. The findings revealed that majority of the companies are improving their environmental disclosure practices from a non-disclosure to a more qualitative disclosure state. They even started to quantitatively disclose certain environmental items such as environmental management and product ecology information. The development also results many companies disclosing their environmental concerns in a separate section in their annual report.

Keywords: *Environmental Disclosure, Corporate Annual Reports*

Introduction

Environmental Reporting

Corporate environmental reporting is the process by which a corporation communicates information regarding the range of its environmental activities to a variety of stakeholders, including employees, local communities, shareholders, customers, government, and environmental groups (Lober 1997). The global attention on the issue has been evidenced by recent studies analyzing new aspects of environment energetically and innovatively (Lehman 1995, 1996; Gray et al. 1997, Tinker and Gray 2003). Nevertheless, this issue is still at the infancy level in Malaysia with currently no accounting or auditing standards devoted to reporting of environmental issues in the corporate annual report of companies. Environmental reporting in Malaysia is still a voluntary exercise. Nevertheless, the Malaysian Accounting Standard Board (MASB) has incorporated references to explicitly encourage greater disclosure of environment-related financial information. For instance, according to MASB 1 (year), paragraph 10 encourages companies to present additional information if they consider that it will assist the economic decisions of relevant users. Besides that, paragraph 15 stated that,

"…to provide additional disclosure when requirements in MASB Standards are insufficient to enable users to understand the impact of particular transactions or events on the enterprise's financial position and performance"

MASB 20 sets out the standard for provisions, contingent liabilities and contingent assets. Although the standard did not specify specific types of liability to be disclosed, it is seen that environmental liabilities could potentially be included. Furthermore, its appendix provides examples of circumstance, among others like contamination land, offshore oilfield (the decommissioning costs) and legal requirement to fit smoke filters.

Initiatives and Factors Influencing Environmental Reporting

Environmental reporting awards are one of the global initiatives designed in promoting and encouraging business organization to actively disclose and report their environmental issues. Among them are the 'Green Reporting Award' in Japan, the 'ACCA Award' in UK and the 'WWF Annual Environmental Award' in South Africa. Besides awards, pressures from various groups have also influenced the development of voluntary exercises. Responding to stakeholders demand and pressure is an impetus for current improvement in the environmental reporting (Lober 1997) as they are considered as the people with high influence power on the businesses. On the other hand, internal pressures from employees are due to their worries on the work environment and wanting to ensure that the company they are working for is doing the right thing environmentally. On the other hand, the top management is interested on the financial benefits that environmental strategy can offer to the business. A range of external groups including environmental organizations, government and public community are also increasingly demanding for extensive environmental reporting (Tilt 1994). Companies started to realize the demands can be fulfilled through the role of periodical reports such annual reports and environmental reports.

The initiatives to make environmental reporting mandatory by certain countries have also exerted pressures for environmental reporting. For example, Denmark regulated the matter in 1996 and Netherlands in 1999. In USA, companies that have more than 10 employees will have to report on specified toxic emissions to the US Environmental Protection Agency. Whilst, the UK government has hinted at the introduction of mandatory environmental reporting if it is unsatisfied with the level of voluntary reporting in the next few years (ACCA 2002). For the rest of the world following voluntary practices, environmental disclosures are encouraged through the voluntary local and international guidelines such as the Coalition for Environmentally Responsible Economics (CERES) principle, the Global Environmental Management Initiative (GEMI), the European Union Eco-Management and Audit Scheme and Global Reporting Initiative (GRI). These guidelines design and build acceptance of a common framework for reporting environmental information in sustaining corporate public accountability (ACCA 2002).

In the case of Malaysia, ACCA (2002) identified there are a number of driving forces for the Malaysian environmental reporting. Among them are, the introduction of the Malaysia Code on Corporate Governance in the Kuala Lumpur Stock Exchange's (KLSE) listing requirements in year 2001, NACRA Environmental Reporting Award in year 2000 and the most recently introduced Malaysian Environmental Reporting Award (MERA) in year 2002. These local initiatives form as another influence factor for Malaysian companies to response to environmental disclosure practices.

This study will add to the body of evidence on the increasing significance of environmental reporting through a sample of companies reporting on the environment. The objectives of this study are to provide additional insight into environmental disclosure practices in Malaysia by examining the nature and extent of environmental information in the corporate annual reports. In addition, the study seeks to explore the trend of environmental disclosure practices of the selected samples.

Objectives of the Study

The main objective of this study is to examine the Malaysian companies' environmental disclosure practices. The analysis will further highlight the change in the wave of environmental reporting throughout the years. Do companies report environmental information the same as the past years' reports or are there more and new areas of environmental matters being disclosed, particularly in the most common medium of communication which is the annual reports?

Literature Review

Over the past several years, there has been a series of literature in environmental reporting that indicates a gradual increase in the amount of environmental information disclosed. Some studies explore the practice of companies on disclosing environmental information (Gray et al., 1995 (a); Deegan & Gordon, 1996; KPMG, 1999; Jones, 2000; O'Donovan and Gibson, 2000; and ACCA, 2002) while others studied the association between environmental disclosures and various determinants such as companies' size (Choi 1998; Cowen et al., 1987; White, 1999), financial performance (Fry and Hock, 1976; Ingram and Frazier, 1983; Foo, et al., 1997; Higgs, 2000; and Teoh et al., 1998), and management motivation (Frost and Wilmshurst, 1996 and Wilmshurst and Frost, 2000).

Importance of Environmental Issues

Business corporations need to realize that they are part of the society, which creates and supports them. Dierks (1979) advocated that the 'quality of life' argument has been an important force in moulding society's expectations from businesses. Corporations are obliged to provide an account (or explanation) about their operations under the notion of accountability that requires communication of environmental information to relevant interest groups. The notion of accountability was used in many of Gray's work (such as Gray, 1983, Gray et. al, 1987, 1988 and 1991) as a concept to enhance and develop social relationships in relation to the 'rights for information'. It was argued that society has a right to know that the well-being of business do not cause any environmental degradation, exploitation or even destruction. These illuminate the communication role of accounting on corporate environmental concern of the economic players. In fact, the importance of environmental information has been agreed by the economy as Buritt et al. (2002) at the EMAN Conference in Cheltenham identified that more than 50% of companies in Australia, Germany and Japan rated the environment as their corporate priority.

The Commission of the European Communities (2001) highlighted that appropriate disclosures are the key factors in facilitating transparency of environmental information. Disclosures act as the appropriate means to implement the accountability task and subsequently providing more information- beyond the mandatory requirements. The important issue is for companies to provide 'true and fair' environmental information that describe the reality of corporate environmental performance.

Types of Environmental Disclosures

Previous literatures have evidenced various environmentally related items disclosed in corporate reports. Gibson and Guthrie (1995) found that 80% of their sample companies disclosed environmental policy as the most common form of environmental disclosure. Similarly, O'Dwyer (1997) found that the most popular categories of environmental disclosures were related to environmental policy statement and information on the environmental benefits of products and processes. In Malaysia, the most commonly included disclosure item found in the annual reports of the companies with Corporate Environmental Policy (CEP) is "environmental policies or company concern for the environment" (Noraini and Normahiran, 2002). However, Stagliano and Walden (1998) discovered that 87% of the firms reviewed disclosed pollution abatement information as their main environmental information. Despite the types of environmental information disclosed, it is interesting to note that majority of researches concluded that the environmentally disclosed items were of descriptive in nature (O'Donovan and Gibson, 2000; Noraini and Normahiran, 2002). This matter may raise questions of the level of corporate response towards environmental disclosures.

Environmental Reporting Practices

Previous studies also analyzed the corporate reasons for responding and not responding to environmental reporting, for example, Jackson, Milne and Owen (2000) studied on the reasons for not reporting individual categories of environmental information among the medium sized companies. It was found that the major reasons for all categories not being disclosed were due to the little demand from stakeholders. This leads to Jones' (2000) argument that the main reason environmental information is incorporated within the annual report is to increase stakeholders' awareness of the company's activities, performance, and interactions with the environment. It was hoped that stakeholders may use the information to assist their decision making process. On the different angle on reasons of reporting, Frost (1998) suggested that when disturbances such as industry and country of control are held constant, the level of public exposure is significant in the decision to report environmental information. Other reasons found in literature were improved economic and environmental performance (Hughes et. al., 2001), maintenance of shareholder support (Neu et al.1998 and Buysse and Verbeke, 2003), the desire to minimize costs and environmental legitimacy (Patten, 1992; Deegan and Gordon, 1996 and Deegan, 2002).

The methods of reporting among companies have grown over the years. Many means of reporting were relied upon in conveying environmental information to stakeholders. Among them are newsletter, press release, magazines and corporate booklets (Zeghal and Ahmed, 1990, and Thomas and Kenny, 1997). Nevertheless, annual report has been the primary means of corporate reporting and it is the fundamental source of environmental reporting (Neu et. al, 1998; Chua et al., 1994; Guthrie and Parker, 1989 and Wiseman, 1982). Addendum to that, public confidence level on annual reports is higher than other means of reporting due to auditing verifications. The usage of annual reports has grown over the years with in the beginning; environmental information was reported in one of the sections in the report and later as a separate section. Subsequently, the practice grew with the introduction of 'stand-alone' environmental reports (O'Donovan and Gibson, 1999 and Buhr, 2002). As discovered by CFO (1996), almost half of the Fortune 500 are compiling and issuing periodic environmental reports that are voluntary and essentially independent of the traditional annual report. KPMG (2002) evidenced a growth of reporting amongst the top 100 companies in eleven countries that produce corporate environmental report. It also discovered that the UK has taken the lead with 49% of top 100 companies producing separate environmental reports. Other major reporting companies are in the Netherlands, Finland and Germany, all exhibiting around 30–40% reporting rates. In addition, Milne, Owen & Tilt (2000) observed 55% of Australian and 42% of New Zealand companies issue a separate environmental report or plan to issue one in the next years. The growth on environmental reporting initiatives is yet to ensure its effectiveness in communication in meeting the demands of groups of stakeholders. Qualitative characteristics such as elements of understandability, reliability, faithful representation, relevant, a true and fair view and valid description need to be achieved (Solomon, 2000).

Nevertheless, the new wave of environmental reporting explains the growth of business response and awareness towards the importance of environmental information. The least that can be assumed on the growth of environmental disclosures is it indicates corporations' acceptance on environmental importance in their accounting and reporting approach (O'Donovan and Gibson, 2000).

Longitudinal Studies

Time series or longitudinal analyses describe more information on the developments of environmental disclosures. O'Donovan and Gibson (2000) carried out a 15-year longitudinal study on 41 companies across eight industry groups on environmental reporting practices in corporate annual reports. It focused on the overall quantity based environmental items on three categories; namely, descriptive, quantified and financial information. The study evidenced an increase in the number of companies reporting environmental information from a low point (27%) in 1986 to a high point of 94% in 1996. The increased trend was also consistent for the total environmental information disclosed (various categories of disclosures; descriptive, quantifiable and financial). Moneva and Liena (2000) determine the evolution of environmental reporting practices among companies operating in Spain during the period 1992-1994 on the basis of stakeholder theory. It was discovered that although there was an increase in both quantitative and financial reporting, but it was basically narrative in nature.

Whilst the studies mentioned above carried out longitudinal study on samples of companies, Guthrie and Parker (1989) and Deegan et al.(2002) focused on a case study of a company; BHP company for a number of years. It was evidenced that there was a trend in providing greater social and environmental information. Besides analyzing the trend, the studies also focused on the relationship between community concern and disclosures and it was discovered that the disclosures support legitimacy motives of the companies studied.

Research Methodology

Both primary and secondary resources are used in analyzing and answering the objectives of this research. The main objective of this study is to explore the development of environmental disclosure practices of Malaysian listed companies from year 1999 to 2002. Specifically, this study aims to further highlight the change in the wave of environmental reporting throughout the years in terms of types and volume of information disclosed by Malaysian companies in the corporate annual report.

This study was conducted to gather information about environmental practices in Malaysia. A total of twelve companies, which have disclosed their corporate environmental policies (CEPs) in the annual report (covering the accounting period ended 30 June 1999 and 31 December 1999) were selected to further explore the issues related to the development of environmental practices (Noraini and Normahiran, 2001). To this view, a non-generalized conclusion can be made on these companies' commitments towards disclosing environmentally related information in their corporate annual report to the public. In addition, it can be observed that the sample selection in this study has therefore been biased toward those firms that disclosed their CEPs in their corporate annual report for the year 1999 only.

Twelve companies selected for analysis in this study were categorized into five different sectors (based on classification of sectors by the Kuala Lumpur Stock Exchange). The sectors are plantation, infrastructure, construction, trading and services, and properties. These industries have previously been identified as environmentally sensitive (Deegan and Gordon, 1996; Wilmshurst and Frost, 2000).

As highlighted earlier, this study covers a period of four years from 1999 to 2002. The main justification for selecting these four years of study period was to allow for comparative study on the development of environmental reporting practices being made before and after the introductions of the Environmental Reporting Category in the National Annual Corporate Reports Award (NACRA) 2000. It is predicted that the introduction of environmental category will subsequently change the trend in the nature of environmental information disclosed in the corporate annual reports by Malaysian companies.

Data Analysis

Data of disclosure practices were collected through content analysis of the annual report. The use of annual reports as the main data source in this study was elicited by the following justifications:

- Annual report is the primary source of corporate environmental reporting (Wiseman, 1982; Chua et. al., 1994 and Christopher et. al., 1997, ACCA, 2002).
- In Malaysia, annual reports of listed companies are the most accessible source of information as they are electronically published.

Content analysis has been widely used in determining the extent and nature of reporting practices (Gray *et al*., 1995 (a); Guthrie and Parker, 1990; Wilmshurst and Frost, 2000). Holsti (1969) suggests that content analysis research must be supported by categories that reflect the research question, with a number of environmental related categories used by prior researchers (Tilt, 1994). In this regard, a checklist of environmentally relevant items disclosed in the annual report has been adopted from Tarna (1999). A total of six categories of items of information, which were considered essential for 'complete' environmental disclosure were selected for inclusion in the checklist. Table 1.1 provides a summary of information for the six categories of environmentally related items.

A quantitative scale is used for further analysis to evaluate the content of environmental disclosure. The purpose of this procedure was to objectively measure the information contained in the annual report and to provide a systematic numerical basis for comparing companies' disclosures across different firm characteristics. The presence or absence of the environmental information items in the disclosure is determined by assigning a score from one to four for each of the items. Environmental information that covers information other than financial information is grouped under qualitative information and a score of one '1' is assigned. In addition, this group also contains 'a long' description on the environmental performance of the companies for which 'long' being a description of more than one sentence. It also covers pictorial information such as graphs and photos of events. A score of two '2' is assigned to quantitative information which relates to disclosure of actual financial numbers used to describe the items of environmental information studied. General information, given a score of three '3' are 'a short' statement of either the company's intention, general statements of the company will, the company does' nature, and any general statement of a sentence of length. Finally, a score of four '4' is assigned if the item is not present in the disclosure.

Problems of subjectivity may occur in the process of grouping the environmental information into the first three scores. In this regard, the researchers have carefully devised a standard data gathering procedure in order to eliminate or at least to reduce the degree of subjectivity that would be involved. As such, the annual reports were reviewed at least twice. The scores for the first and second reviews were compared and if it was found that there are any inconsistencies between the two, the annual reports and the scores will be

Table 1.1: Summary Information of Environmental Categories Studied

Categories	Description
General Information	General information found in the annual report, which may increase the comprehensibility, relevance and credibility of the other information provided. Such information might include an overview of the reporting entity's operations, scope of environmentally related report, CEO statement communicating top management commitment, information on accounting policy and verification by independent third party of any environmentally related report issued.
Environmental Management	The purpose of the inclusion of this category in this study to integrate environmental issues into an organization's day-to-day operations. In addition, it is used to examine how the organization conducts environmental practices. These include environmental strategy, management tools, training and rewarding of personnel.
Operating ecology	Operating ecology refers to material and energy flows caused directly by corporate operations. This information can be used in external communications and reporting to demonstrate the environmental performance and commitment of an organization. Besides, this information may also assist internally in identifying savings potentials through more effective resources and energy use.
Product ecology	Product ecology is the major issue for financial service providers. It can be divided into two categories; environmental risk management and specific environmental products e.g. environmental trust fund etc.
Financial Management	Financial management reflects the economic component of corporate sustainability and shareholder interests. Financial aspects related to the environment are, for example, environmental costs and investments, risks and liabilities, asset impairments caused by environmental aspects, revenues related to environmental products or services, and savings through eco-efficiency.
Stakeholder Management	Stakeholder management means managing and balancing expectations deriving from the different values of a company's stakeholders. This would include communication of the company's environmental performance and external recognition (award) received. The benefits a company might expect to gain from stakeholder management include: increased employee support; greater public acceptance to corporate activity; reduced risks and liability as stakeholders provide early warning and better insight to the future in general (Schmidheiny and Zorraquin, 1996)

Source: Based on studies done by Tarna (1999) and Choi (1998).

analysed and re-considered until a consensus score was reached. This method of data gathering approach was found to be consistent with Milne and Adler (1999) views. They mentioned that there are no universal rules of thumb or universal minimum standards that can be adopted sensibly for the reliability of social and environmental disclosures content analysis.

A descriptive analysis using the Statistical Package for Social Science (SPSS) was used to find the extensiveness of the environmental information disclosed by the Malaysian listed companies in their corporate annual reports. Descriptive statistical analysis including frequency tabulation, means ranking and means analysis were applied.

Analysis and Discussion

Initially, there should be 48 annual reports (12 companies) to be analysed for the purposes of this study. However, only a total of 44 annual reports were available during the period of our study (July – September 2003). The 12 companies were from five different sectors, namely; construction, plantation, infrastructure, properties and trading services and 33.3% of the samples were under the plantation sector. This industry has previously been identified as one of the environmentally sensitive sector (Deegan and Gordon, 1996; Wilmshurst and Frost, 2000). Although the samples of this study are small, from the result of this study, it would seem that more Malaysian plantation companies are concerned with environmental issues in relation to their nature of operations. During the review of the Annual Reports, it was observed that the plantation companies exercise similar practices in their operations. Among them are zero burning policy, minimal cutting of slopes, meeting the international emission standards and fruit brunches applied to young palm as fertilizers.

From our study, it was noted that many companies disclosed their social, environmental and occupational, health and safety information in one of the sections in the annual reports. Table 1.2 provides the common sections for reporting environmental information in the corporate annual reports. It was discovered that the common section of reporting are chairman's statement and review of operation. However, some of them have a separate environmental section in the annual report; for example Kumpulan Guthrie Bhd. and Highland and Lowland Bhd. It is also encouraging to discover that many of the companies have made 'improvements' in their environmental reporting practices from year 2001. The companies reported the environmental issues in one of the sections in the annual Report prior to year 2001 but reported the issues in a separate section in year 2001 onwards. Puncak Niaga Bhd. stands out in this study as the only company with a separate report for environmental issues, which was inserted in the corporate annual report.

Level of Disclosures

As discussed in the previous section, each item of environmental information found in the annual reports is given a score of '1' or '2' or '3' or '4'. A frequency distribution was then used as a form of summarising the data. The level of environmental disclosure by the companies is presented in Table 1.3 below. It is being represented by the calculated percentage for each environmental items disclosed by companies over the study period (i.e. 1999 to 2002).

It was found that majority of the environmental items disclosed in the Annual Reports are qualitative and general in nature. All items except for general information on verification by independent 3rd party were disclosed qualitatively. A high percentage of companies reported 'long' description on their environmental matters, which also cover pictorial information such as graphs and photos of event (qualitative information). 63.6% of the

Table 1.2 Location of Environmental Disclosure

	YEAR			
Company	1999	2000	2001	2002
Kumpulan Guthrie Berhad	Separate Section	Separate Section	Separate Section	Separate Section
Guthrie Ropel Bhd	Review of Operations	Review of Operations	Separate Section	Separate Section
Highland & Lowland Bhd.	Chairman's statement	Separate section	Separate Section	NA
Golden Hope Plantation Bhd.	Review of Operations	Review of Operations	Separate Section	Separate Section
Island & Peninsular Bhd.	Review of Operations	NA	Review of Operations	Review of Operations
Land & General Bhd. Operations	Review of Operations	Review of Operations	Review of	NA
Sime UEP Properties Bhd.	Review of Operations	Review of Operations	Review of Operations	Review of Operations
Powertek Bhd.	Review of Operations	NA	Review of Operations	Review of Operations
Puncak Niaga Bhd.	Review of Operations	Chairman's Statement	Review of Operations	Separate Report
Petronas Gas Bhd. Report	CEO Report	CEO Report	CEO Report	CEO
Road Builder (M) Holdings Bhd.	Review of Operations	Review of Operations	Separate Section	Separate Section
Tenaga Nasional Bhd.	Chairman's Statement	Chairman's Statement	Chairman's Statement & Separate Section	Chairman's Statement & Separate Section

selected companies throughout the four-year period disclosed the environmental management items; i.e. on the company's strategy and comprehensive approach to environmental approach to environmental issues. This include their legal compliance, risk, opportunities and aim for sustainability. The least environmental item reported qualitatively (4.5%) is the general environmental information (CEO statement communicating top management commitment).

With respect to quantitative environmental disclosures, companies reported all categories except for general information and stakeholder management environmental information. The percentage of reporting this level of disclosure was very small (highest: 6.8% on environmental performance indicator and environmental products and services). Overall, the percentage was below 10% compared to the qualitative and general disclosures.

Table 1.3: Level of Environmental Disclosures By Item

	Percentage of Reporting			
Environmental Items Disclosed	Quality (score 1)	Quantity (score 2)	General (score 3)	Non (score 4)
General Information	**9.1**		**34.1**	**56.8**
General overview of the reporting entity	22.7		36.4	40.9
Scope of report	13.6		27.3	59.1
Information on reporting & acctg policy	34.1		6.8	59.1
CEO statement communicating top mgt commitment	4.5		11.4	84.1
Verification by indpt 3rd party (env report)			2.3	97.7
Environmental Management	**6.8**	**18.2**	**45.5**	**29.5**
Strategy – organisation's comprehensive approach to environmental issues- legal compliance/risk/opportunities/ aim for sustainability	61.4		11.4	27.3
Environmental management tools & organizations e.g. org structure, activities, procedures, ISO	63.6		20.5	15.9
Training of employees	20.5	2.3	4.5	72.7
Control, installations, facilities or processes described	18.2	4.5	15.9	61.4
Dept or offices for pollution control	22.7		15.9	61.4
Operating Ecology	**18.2**	**20.5**	**13.6**	**47.7**
Energy, paper, waste, water, transport (Environmental Performance Indicator)- i.e. total consumption of use of resources, emission or waste, savings	25	6.8	11.4	56.8
Recycling 15.9		9.1	75	
Conservation of natural resources	27.3	2.3	15.9	54.5
Product Ecology	**6.8**	**6.8**	**9.1**	**77.3**
Product-related risk management	15.9	4.5	4.5	75
Environmental products & services e.g. Funds, agreement	6.8	6.8	4.5	81.8

(Cont.) Table 1.3: Level of Environmental Disclosures by Item

Financial Management	**4.5**	**4.5**	**6.8**	**84.1**
Savings, Revenues, Costs, Investments, Financial risks, Assets impairments	4.5	4.5	6.8	84.1
Stakeholder Management	**5.0**		**31.8**	**43.2**
Target groups, e.g. employees OHS, customers, local communities	34.1		27.3	38.6
Communication methods – dialogue, env report, internet report	22.7		9.1	68.2
Rewards/awards received	22.7		9.1	68.2

The highest percentage of reporting environmental issues in general terms was 36.4%. Although all items were disclosed at this level, generally, the percentages were lower than the qualitative level of disclosures. This means that companies take more initiatives to communicate certain types of environmental information; ‘qualitative information’ rather than just ‘general information’. However, the percentages of non-disclosures were higher than the levels of disclosures for all items (more than 50%) except for environmental strategy and environmental management tools. Verification by independent third party under the general information was the item with the highest percentage (97.7%) of non-disclosure.

In summary, based on the percentages of the categories, the second category; the environmental management information was the most environmental information disclosed in the companies’ annual report from year 1999 to 2002.

Development of Environmental Disclosures Practices

Table 1.4 shows frequency tabulation for the items of environmental information disclosed by the selected companies in their annual reports. For each year a total of disclosure types and nature were counted to support the analysis of findings in the following sections.

In the year 1999, there were 32 ***qualitative*** environmental disclosures and a total of 33 ***general*** disclosures on environmental information, which covered the six categories. Only 2 ***quantitative*** disclosures were discovered; specifically on the operation ecology information of the reporting companies. However, the number of non-disclosures is at a very high peak, 162 cases. Compared to year 2000, there was a slight increase (from 32 to 35 cases) for ***qualitative*** disclosures and a sharp decrease (from 33 to 19 cases) for ***general*** information. These indicate that there is some improvement among companies as they disclosed more environmental information (from general to qualitative and a decrease in non-disclosures practices). However, the percentage of increment on ***qualitative*** disclosures is inconsistent with the decrease in value in the disclosure of ***general*** environmental information.

Table 1.4: Frequencies of Items of Disclosure by Companies

Year	Types	Qlty (Score 1)	Qnty (Score 2)	Gen (Score 3)	Non (Score 4)
1999	GENINFO	7	0	8	45
	ENVMGT	14	0	9	37
	OPECO	5	2	6	24
	PROECO	1	0	1	22
	FINMGT	0	0	0	12
	STKMGT	5	0	9	22
		32	**2**	**33**	**162**
2000	GENINFO	3	0	5	42
	ENVMGT	17	1	4	18
	OPECO	6	1	4	19
	PROECO	2	1	1	16
	FINMGT	1	0	0	9
	STKMGT	6	0	5	19
		35	**3**	**19**	**123**
2001	GENINFO	8	0	11	41
	ENVMGT	23	1	9	27
	OPECO	6	1	4	25
	PROECO	4	2	2	16
	FINMGT	1	1	1	9
	STKMGT	9	0	5	22
		51	**5**	**32**	**140**
2002	GENINFO	13	0	13	22
	ENVMGT	26	1	7	17
	OPECO	13	1	2	14
	PROECO	3	2	0	15
	FINMGT	0	1	2	7
	STKMGT	15	0	1	14
		70	**5**	**25**	**89**

There is an increase of 46% (from 35 to 51) of ***qualitative*** disclosures in the year 2001. The trend also applies to other level of disclosures; 67% increase on ***quantitative*** disclosures and 69% increase on ***general*** information. Although these trends indicate better environmental disclosure practices, the percentage for non-disclosures also increased (14%). Looking at the percentages for all level of disclosures, it can be said that the improvement in environmental disclosures exceeds the non-disclosures practices. Year 2002 had similar trend of environmental reporting practices with the year 2000. Better disclosure practices can be seen in this year, as the *non-disclosure* practices slope declined steep (64%).

In general, Figure 1.1 showed a gradual increase on ***qualitative*** information disclosed throughout the four-year period of study. There was a slight increase on ***quantitative*** disclosures from year 1999 to 2000 and the number maintained until the next year. A similar trend on disclosure practices can be seen for both ***general*** environmental disclosures and ***non-disclosures***.

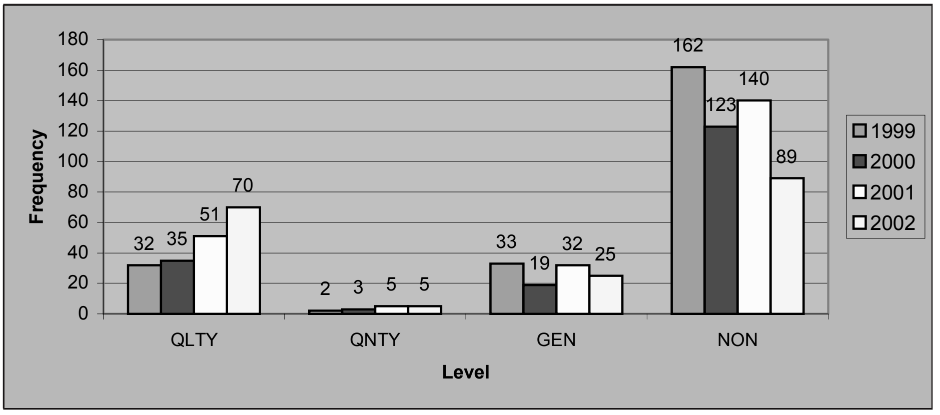

Figure 1.1 Level of Disclosures

Based on Figure 1.2, there was zero reporting on ***quantitative*** general environmental information for all the four-year period. A similar trend can be seen on both ***general*** and ***qualitative*** level of disclosures on this category of environmental information. There was a downward movement from year 1999 to 2000 for both levels; 7 to 3 for ***qualitative*** information and 8 to 5 for *general* information. More than 100% increase happened from year 2000 to year 2001 for the two levels of disclosures.

Over the four years of study period, all companies studied reported their environmental management information in *general* terms, *quantitatively* and *qualitatively*. Figure 1.3 indicates that there was a gradual increase in the *qualitative* level of disclosures from year 1999 to 2002 for environmental management information. On the other hand,

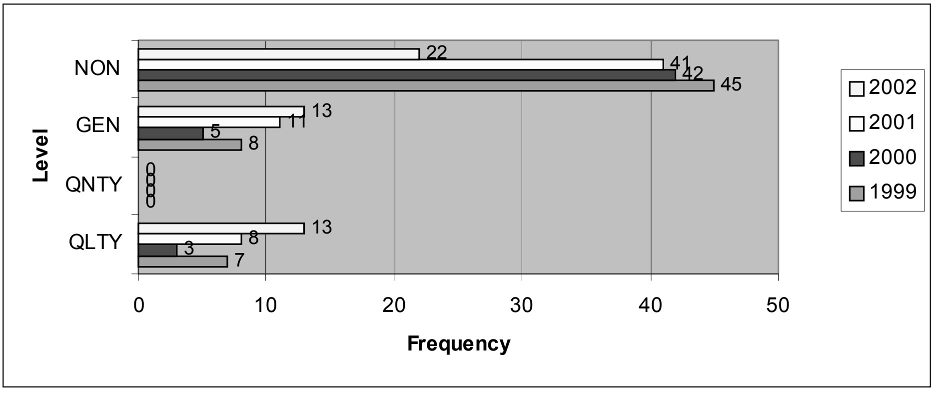

Figure 1.2: General Environmental Information Disclosures

quantitative disclosures for this category started in year 2000 with only one disclosure. The number remained the same until year 2002. There was a fluctuating trend of reporting environmental management information in *general* terms. It started with nine disclosures in 1999 and it dropped nearly 50% in year 2000. However, it improved back to the same number in year 2001, however, there was a slight decrease in 2002 (22%). For ***non-disclosure*** practices, the trend decreased 50% (37 disclosures to 18 disclosures) from year 1999 to 2000. In year 2001, it increased from 18 disclosures to 27 and dropped again by 37% the next year.

From the chart in Figure 1.3, the trend of disclosures for each level of disclosures could not be linked to one another. The number of ***qualitative*** environmental management information disclosed gradually increased from year 1999 to 2002 but the ***quantitative*** level maintain from year 2000 to 2002. However, the number of disclosures in ***general*** terms and ***non-disclosures*** fluctuates throughout the four years. And finally, not much discussion can be made on ***quantitative*** level of disclosure, as the number is very minimal.

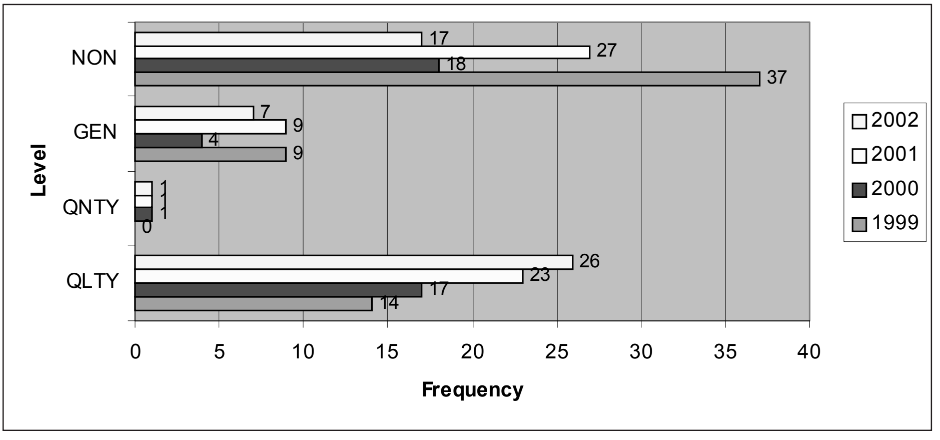

Figure 1.3: Environmental Management Information Disclosures

The trend analysis on operating ecology environmental information is shown in Figure 1.4. The items of environmental information under operating ecology are energy, paper, waste, water, transport (environmental performance indicator) such as total consumption of use of resources, emission or waste, savings, recycling, and conservation of natural resources. ***Qualitative*** information increased slightly from year 1999 to 2000, and is maintained in year 2001. The number doubled in year 2002 (6 disclosures to 13 disclosures). The disclosures of ***quantitative*** information throughout the years were very minimal, starting with two cases in year 1999 and decreased to only 1 disclosure from year 2000 to 2002. Operating ecology information disclosed in ***general*** terms decreased gradually over the years. Comparing this level of disclosure with the ***qualitative*** disclosure, it can be seen that there is a consistent improvement in reporting operating ecology information throughout the four years [‘short information’ – ***general*** terms with ‘long information’ – ***qualitative*** information (refer chapter 3)]. For example, when there is a decrease in ***general*** information from year 2001 to 2001, the ***qualitative*** information disclosed increased.

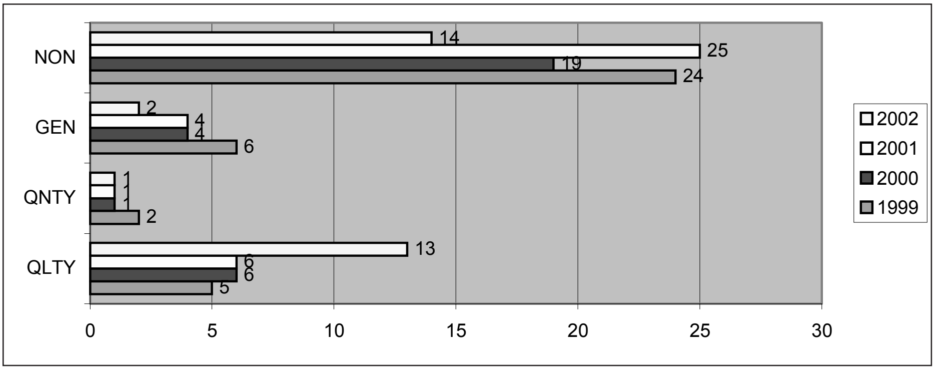

Figure 1.4: Operating Ecology Information Disclosures

Product ecology environmental disclosure practices are being plotted in Figure 1.5. In general, over the years, it can be observed that most of the companies did not disclose the related product ecology environmental information in their annual reports. As mentioned before, product ecology is divided into two categories; environmental risk management and specific environmental products e.g. environmental trust fund etc. Very minimal disclosures were done at the three level; ***qualitative***, ***quantitative*** and ***general*** disclosures. The highest disclosures in ***qualitative*** terms were in 2001 (4 companies). ***Quantitative*** information was zero in 1999 and gradually increased in 2000 and 2001 but remain at 2 disclosures in the next year. On the other hand, *general* product ecology information was disclosed in the first three years of study but 2002. Although ***non-disclosures*** on this information were high, the trend was declining, which indicates that the companies had improved their reporting practice over the years. However, this is not consistent with the pattern of disclosures from year 2001 to 2002.

A similar trend is seen for the financial management information (refer Figure 1.6). Minimal disclosures were found; one company disclosed ***qualitative*** information in year 2000 and 2001 only. Both ***quantitative*** disclosures and ***general*** disclosures started in

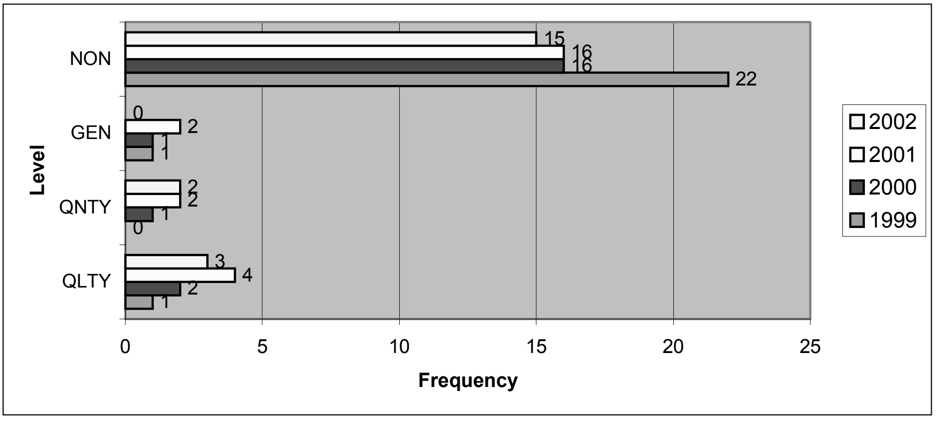

Figure 1.5: Operating Ecology Information Disclosures

year 2001 with one company reporting financial management information. The ***non-disclosures*** decreased gradually over the years (from 12 companies to 7 companies).

Figure 1.7 indicates that stakeholder management information was only reported in ***general*** terms and ***qualitative*** terms over the four years of study. Upwards movement can be observed for ***qualitative*** information and downwards movement for the ***general*** information. This means that companies tend to disclose 'longer' description of stakeholder management information year by year. Drastic development of environmental practices for this information can be seen from year 2001 to 2002 (67% increase for ***qualitative*** information and 80% decrease in ***general*** terms). This development is supported by the decrease in the ***non-disclosures*** reporting (12 companies in 1999 to 7 disclosures in 2002). This result is consistent with the study by Lober (1997) where it was found that companies provide more information for their stakeholders over the years.

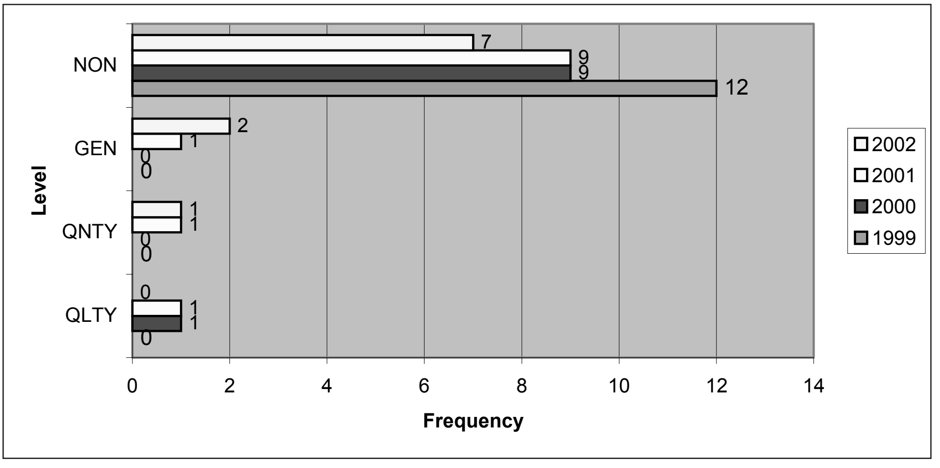

Figure 1.6 Financial Management Information Disclosures

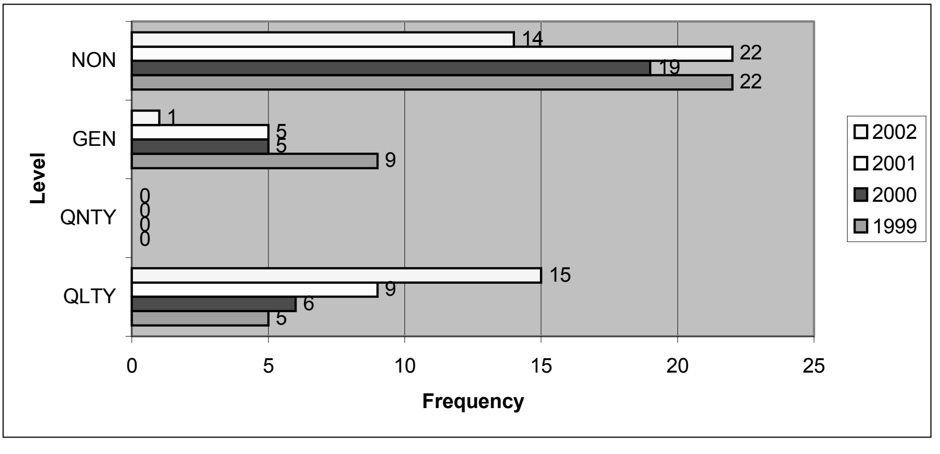

Figure 1.7 Stakeholder Management Information Disclosures

Level of Disclosure by Sector

Figure 1.8 illustrates graphically the result of cross-tabulation between the level of environmental information disclosure by the companies over the four-year period and by sector. It can be seen that in general, there is an improvement in the overall level of disclosure by companies in the five sectors studied, where all sectors have either ***qualitative*** or *general* disclosure of the environmentally related information. However, majority of the sectors has no ***quantitative*** disclosures in their annual reports except for the infrastructure and property sectors.

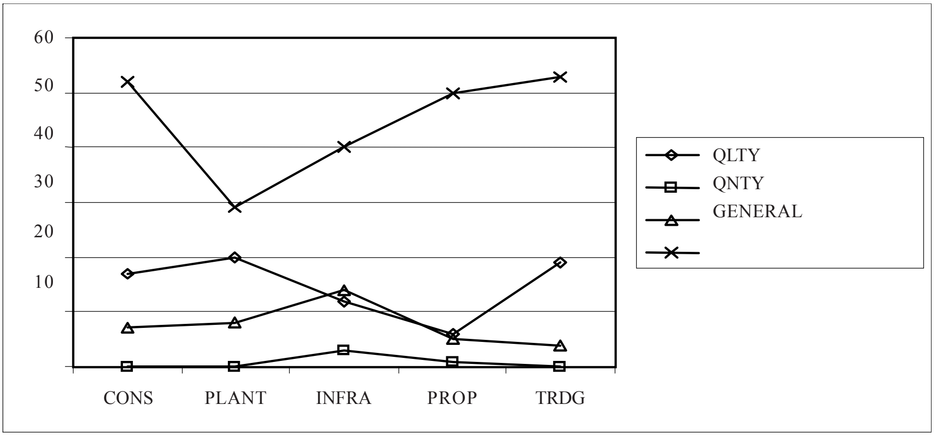

Figure 1.8: Environmental Disclosures by Sector

A comparison of the industry groupings uncovered some diverse disclosure practices. The pattern of disclosures in the Construction, Plantation and Trading & Services industries were similar. It was also revealed that plantation sector not only has the lowest number for non-disclosure of the environmental information but also has more frequent cases of ***qualitative*** disclosure of the information over the four-year period.

From the discussion above, it would seem that there is an improvement in the reporting practices of the twelve selected companies for many of the environmental items reviewed. There is a declining trend for non-disclosure of items under the general environmental information, product ecology information, and financial management information categories over the four-year period from 1999 to 2002. For these three categories of environmental issues, the general tendency is for more companies to do their disclosures qualitatively from year 2000 onwards. It is also encouraging to note that some companies are also disclosing product ecology information and financial management information quantitatively from year 2000 onwards, although the number is still small. This development could be due to the influence of the NACRA Environmental Reporting Award that was introduced in year 2000 and the ACCA Environmental Award for year 2002. For the remaining three categories of environmental items, i.e. environmental management information, operating ecology information, and stakeholder management information, there is a fluctuating pattern of non-disclosure over the 1999-2002 period but for the last two years (2001, 2002) there seem to be an improvement, i.e. there is a declining slope for non-disclosure practices. The improvement can also be seen from the pattern for general disclosure and qualitative disclosure practices for these three categories of environmental information. There is a declining pattern for general disclosure practice especially from year 2001 onwards but there is an increasing pattern for qualitative disclosure practices. These developments could indicate that the companies are moving from non-disclosure to more qualitative disclosure practices. Again, such developments may be due to the influence of the two awards mentioned above, apart from the increasing awareness of triple bottom-line reporting among these companies.

Conclusion and Future Research

Conclusion

The KPMG International Survey of Environmental Reporting for year 1999 showed that 35% of the largest companies worldwide communicate their environmental concerns in the annual report in an environmental section or health, safety, and environmental section. Our study has shown that half of the twelve selected Malaysian companies are following this practice especially since year 2001 onwards. Amongst the other half, the common location for reporting environmental matters are the chairman's statement and review of operations. This finding is consistent with that of Jones (2000).

Generally, the number of non-disclosure cases decreases over the four-year period for the following categories of items, *general environmental information* (45 cases in 1999 to 22 cases in 2002), *product ecology information* (from 22 cases in 1999 to 15 cases in 2002) and *financial management information* (12 cases in 1999 to 7 cases in 2002). For the remaining three categories of environmental information *(environmental management, operating ecology*, *and stakeholder management)*, a declining pattern can be seen for year 2001 to 2002 (27 to 17, 25 to 14, and 22 to 14, respectively). On the other hand, there appears to be an increasing number of companies reporting environmental matters qualitatively over the four-year period. This can be said to be an improvement in the reporting practice as the companies are disclosing more and more information on environmental issues. One of the influencing factors for the increase in disclosure level could be the award for environmental reporting such as the NACRA and the ACCA Environmental Report Awards.

This study also shows that for certain categories of items, the companies are beginning to report the items quantitatively. One company is found to disclose quantitative information for *environmental management* and *operating ecology* in the period 2000 to 2002, and *financial management* in year 2001 and 2002. There are two companies doing similar disclosures for *product ecology information* in year 2001 and 2002. A longitudinal study over a longer period is suggested to determine whether such practice is increasing among, not only these twelve companies, but also among other companies that has environmental reporting.

The twelve companies are listed on the Main Board of the KLSE under Construction, Plantation, Infrastructure, Properties and Trading and Services sectors. A review of the disclosure practice by sectors showed that the Plantation and Trading and Services Sectors have the highest number of items reported qualitatively. However, the Trading and Services sector also has the highest number of non-disclosure cases followed by the Construction sector. The Plantation sector has the lowest number of non-reporting cases.

It should be noted, however, that the sample for this study is too small for any inferential statistics. Thus, our findings cannot be said to represent the various sectors of industry represented by the companies nor of the population of companies listed on the Main Board of the KLSE. Our findings, at best, can only be a non-generalised conclusion on the companies' commitments towards disclosing environmentally related information in their corporate annual report to the public.

Further Research

Our literature review showed that there are still a small number of researches being done on environmental reporting in Malaysia. A lot more can and should be done to increase the body of knowledge on such practice by Malaysian companies, whether or not they are listed on the stock exchange. Thus, we suggest that a longitudinal study be done on all the listed companies, for a start, to determine the trend of reporting in the country. The study should be done continuously to keep track of the improvements in the reporting practice. The information would be useful to gauge the country's environmental reporting practice against other countries. Academicians and the accounting professional bodies could also carry research to determine the association between environmental reporting and company performance. If the findings turn out to be positive, than they could be used to motivate more companies to disclose environmental matters to the public. This study may be extended by analysing the influencing factors on the changes of environmental disclosure practices among Malaysian companies. Several areas may be investigated such as the influence of public opinion and public perceptions, relationship between companies' profits, share market prices and the impact of growth in the production of separate environmental reports.

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