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ENVIRONMENTAL ACCOUNTING PRACTICES OF
GOVERNMENT-LINKED COMPANIES (GLCs) AND
NON-GOVERNMENT-LINKED COMPANIES
(NON-GLCs): A COMPARATIVE STUDY

BY

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INTERNATIONAL ISLAMIC UNIVERSITY
MALAYSIA

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requirement for the degree of Master of Science in
Accounting

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ABSTRACT

This study empirically examined the quantity and quality of environmental disclosure of the Malaysian government-linked companies (GLCs) in environmentally sensitive and less sensitive industries, as well as non-government-linked companies (non-GLCs) in environmentally sensitive industries. The quantity of disclosure was measured using the 'sentence count' measurement. Meanwhile, a disclosure index developed using ACCA's MESRA scoresheet was used to evaluate the disclosure quality. Accordingly, a total of 66 annual reports were analyzed. The independent variables assessed in this study were environmental sensitivity of industry, ownership status and company size. The study also investigated the association between Environmental Management Accounting (EMA) and Environmental Reporting (ER). Additionally, the perceptions of management on the importance of EMA and the significance of environmental sensitivity in considering the development of EMA and ER were examined. Essentially, questionnaires (mail surveys) were sent to 154 companies. For the first analysis, the results show that there is no statistically difference in the level of environmental disclosure of GLCs in environmentally sensitive and less sensitive industries, as well as between GLCs and non-GLCs in environmentally sensitive industries (i.e. matched-pair analysis). Additionally, the quantity of disclosure was found to be associated with the size of company. The study also found that the quality of environmental disclosure of these 66 companies, as far as the ACCA's MESRA is concerned, was relatively low. With regards to the association between EMA and ER practices, the study was not able to test the hypothesis. Lastly, a majority of the respondents perceived EMA as importance in enhancing the environmental reporting practices of companies. However, the implementation of EMA is not significant to all companies as it depends on the sensitivity of industry.

ملخص البحث

اختبرت هذه الدراسة التطبيقية الافصاح البيئي بشكل كمي ونوعي في الشركات الماليزية ذات العلاقة الحكومية في الصناعات الحساسة والاقل حساسية من الناحية البيئية وكذلك الشركات غير ذات العلاقة الحكومية في الصناعات ذات الحساسية البيئية. ان الافصاح الكمي تم قياسه باستخدام مقياس 'sentence count'. على صعيد آخر تم تطوير قائمة الافصاح باستخدام MESRA SCORESHEET الخاصة برابطة المحاسبين القانونيين المعتمدين تم استخدامها لتقييم جودة الافصاح. المتغيرات المستقلة حددت بهذا الجزء من الدراسة بالصناعات الحساسة من الناحية البيئية و حالة الملكية و حجم الشركة. الدراسة ايضا تتحرى عن العلاقة بين محاسبة الادارة البيئية واعداد التقارير البيئية. بالاضافة الى انه تم اختبار ادراك الادارة بخصوص محاسبة الادارة البيئية واهمية حساسية البيئية في الاخذ بالاعتبار تطوير محاسبة الادارة البيئية واعداد التقارير البيئية. الاستقصاء اساسا تم عن طريق البريد وتم ارساله الى مئة واربعة وخمسين شركة. النتائج بالنسبة الى التحليل الاول لم تظهر اختلافات احصائية على مستوى الافصاح البيئي للشركات ذات العلاقة الحكومية الحساسة من الناحية البيئية والاقل حساسة من الناحية البيئية كذلك بين الشركات ذات العلاقة الحكومية وغير ذات العلاقة الحكومية في الصناعات الحساسة من الناحية البيئية. بالاضافة الى انه وجد ان الافصاح النوعي له علاقة بحجم الشركة. ان الدراسة وجدت ايضا ان جودة الافصاح البيئي لتلك السنة وستين شركة كما يقدرها رابطة المحاسبين القانونيين المعتمدين كان منخفض نسبيا. نتائج عامل الارتباط اظهرت ان هناك علاقة ذات دلالة احصائية بين المتغيرات. واخيرا, الاغلبية من المستجيبين ادركوا ان محاسبة الادارة البيئية مهمة جدا في تطوير ممارسة التقارير البيئية للشركات. مع هذا لقد ادركوا ان تنفيذ محاسبة الادارة البيئية ليس لها دلالة احصائية لكافة الشركات. بالاضافة الى ان الحساسية البيئية تلعب دورا هاما في تنفيذ محاسبة الادارة البيئية واعداد التقارير البيئية.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Science in Accounting.

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Norsyahida Mokhtar

Signature

Date

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I dedicate this dissertation to:
My beloved parents, Encik Mokhtar Ismail
and Puan Hamidah Alias.

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In the name of Allah the Most Gracious and the Most Merciful

Praise be only to Allah Al-Mighty for his bounty and blessing showers upon us, and peace upon prophet Muhammad, his family, his companions, and his followers until the end of the day.

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LIST OF ABBREVIATIONS

ACCA	The Association of Chartered Certified Accountants
3MP	Third Malaysia Plan
9MP	Ninth Malaysia Plan
Bhd	Berhad
BODs	Board of Directors
co.	Company
CSR	Corporate Social Responsibility
DOE	Department of Environment
e.g.	<i>(exempli gratia)</i> : for example
EA	Environmental Accounting
EIA	Environmental Impact Assessment
EMA	Environmental Management Accounting
EMS	Environmental Management System
EPA	Environmental Protection Agency
EQA	Environmental Quality Act
ER	Environmental Reporting
et al.	<i>(et alia)</i> : and others
FRS	Financial Reporting Standards
GLCs	Government-Linked Companies
GLICS	Government-Linked Investment Companies
GRI	Global Reporting Initiative
i.e.	<i>(id est)</i> that is
IFAC	International Federation of Accountants
IPO	Initial Public Offering
ISO	The International Organisation for Standardisation
KWSP	Kumpulan Wang Simpanan Pekerja
Ltd.	Limited (<i>company</i>)
MCCG	Malaysian Code on Corporate Governance
MESRA	Malaysia Environmental and Social Reporting Award
MIA	Malaysian Institute of Accountants
MICPA	Malaysian Institute of Certified Public Accountants
MIM	Malaysian Institute of Management
MASB	Malaysian Accounting Standard Board
NACRA	National Annual Corporate Report Awards
NEP	National Environmental Policy
no.	number
Non-GLCs	Non-Government-Linked Companies
PCG	Putrajaya Committee on High GLC Performance
PNB	Permodalan Nasional Berhad
PRPs	Potentially Responsible Parties
WWF	World Wildlife Fund

CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

Environmental issues are of great concern nowadays. Global warming and pollution are among the major threats to the quality of human life and the ecosystems. These threats affect the stability of world climate and cause depletion of the ozone layer. The instability of climate leads to the occurrence of natural disasters such as floods, acid rains and hurricanes. Meanwhile, ozone depletion harms human health by causing respiratory diseases, throat inflammations and chest pain¹.

It has been argued that modern economic activities or industrialisation are the major contributors to environmental degradation (Preston, Rey & Dierkes, 1978). The concept of ‘sustainable development’ has therefore been embarked in the business world, calling for companies to conduct their business activities in a more open and responsible manner towards the environment (The Association of Chartered Certified Accountants [ACCA], 2003).

In Malaysia, the government has taken several initiatives to promote sustainable or green development particularly in the enforcement of the Environmental Quality Act (EQA) 1974, the establishment of Department of Environment (DOE) and the introduction of the National Environmental Policy (NEP).

¹ <http://en.wikipedia.org/wiki/Pollution#Effects_on_human_health> accessed on 20 July 2007.

1.1 ENVIRONMENTAL INITIATIVES IN MALAYSIA

1.1.1 Overview of Malaysian Environmental Initiatives

Environmental issues in Malaysia are regulated under the Environmental Quality Act (EQA) 1974. In 1975, the government established the Department of Environment (DOE)² to address environmental issues. The intensity of the government in dealing with environmental issues can be seen through the twice-amended EQA, first in 1996 and later in 2001³.

In late 1990s, the Department of Statistics introduced a Compendium of Environmental Statistics that focuses on the environmental record based on Malaysian air, water, terrestrial and urban environments to assist the policy makers, as well as to improve the Malaysian environmental management⁴.

Another initiative of the Malaysian government can be seen through the Housing and Local Ministry which has introduced a recycling tax rebate (proposed under the Budget 2001) to encourage companies to recycle their waste. Accordingly, companies will be given a tax relief and exemption for machinery involved in the process of recycling⁵. In conjunction with the government's initiatives to promote green environment, the National Environmental Policy (NEP) was launched in 2002. The policy integrates the three aspects of sustainable development which are the economic, social and cultural development and environmental conservation⁶.

² Formerly known as Environmental Division.

³ <<http://www.nre.gov.my/opencms/opencms/NRE/BM/Services/Regulation/legislation.html>> accessed on 7 February 2007.

⁴ *Profile on sustainable development: Malaysia.*

<http://www.un.org/jsummit/html/prep_process/national_reports/malaysia_natl_assess.pdf> accessed on 17 July 2007.

⁵ *Incentives for firms which recycle product.* <<http://aplikasi.kpkt.gov.my/akhbar.nsf/7>> accessed on 16 February 2007.

⁶ <http://www.doe.gov.my/index.php?option=com_content&task=view&id=47&Itemid=93%E2%8C%A9=en> accessed on 23 January 2007.

Additionally, under the current Ninth Malaysia Plan (9MP) which runs from 2006 until 2010, environmental issues are further being stressed by the government (see Appendix 1). In fact, the issue of ‘sustainability’ has been formally endorsed since the Third Malaysia Plan (3MP) (1976-1980)⁷.

1.1.2 Government-Linked Companies (GLCs)

Government-linked companies (GLCs) are companies that have a primary commercial objective in which the Malaysian Government has a direct controlling stake to appoint the Board of Directors (BODs), senior management, as well as making major decisions for the companies. GLCs comprise companies that are:

- i) controlled by the State Governments and State-level agencies, or
- ii) directly controlled by the Malaysian Government such as Khazanah Malaysia, Bank Negara and other GLICs⁸, or
- iii) controlled by GLCs themselves, for instance UEM World Bhd and its subsidiaries, UEM Builders Bhd and Faber Group Bhd⁹ (Khazanah Nasional, 2007a, 2007b).

GLCs compose a significant part of the economic structure of Malaysia. They are the main providers of the core strategic utilities and services of Malaysia including water and sewerage, electricity, banking and financial services, and public transports. Additionally, GLCs make up for 34 percent of the market capitalisation of Bursa

⁷*Profile on sustainable development: Malaysia.*

<http://www.un.org/jsummit/html/prep_process/national_reports/malaysia_natl_assess.pdf> accessed on 17 July 2007.

⁸ 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), Khazanah Nasional Bhd (Khazanah), Kumpulan Wang Amanah Pencen (KWAP), Lembaga Tabung Angkatan Tentera (LTAT), Lembaga Tabung Haji (LTH), Menteri Kewangan Diperbadankan (MKD), Permodalan Nasional Bhd (PNB).

<<http://www.pcg.gov.my/FAQ.asp>> accessed on 19 June 2007.

⁹ <<http://www.khazanah.com.my/portfolio.htm>> accessed on 7 February 2007.

Malaysia. Further, these companies also play a significant role in the areas of industrial policy and development, as well as in international economic linkages (Putrajaya Committee on GLC High Performance [PCG], 2006).

The introduction of the ‘Silver Book’ (i.e. in July 2005) as one of the 10 initiatives¹⁰ included in the GLC Transformation Manual (PCG, 2006) shows that the government’s efforts in transforming GLCs, puts emphasis on a balance between economic performance and social contribution. The Book sets guidelines on how GLCs can proactively contribute to the society. Additionally, ‘environmental protection’ has been included as one of the seven (7) main areas of contributions to society. GLCs are encouraged to minimise the impact of their business activities (i.e. through the operations, products and services) on the environment (PCG, 2006). Given this and the fact that GLCs play a significant role in Malaysia’s development, the extent they promote sustainable development and accord to the government’s vision is indeed a topic worthy of study. This is precisely what the study attempts to examine.

1.1.3 Environmentally Sensitive Industries

Environmental sensitivity of industry plays an important role in determining the extent to which companies discharge their environmental responsibility. Primarily, companies in environmentally sensitive industries such as chemical, constructions, plantations, transportation, mining and resources, petroleum, and industrial products (Deegan & Gordon, 1996; Ahmad, Hassan & Mohammad, 2003; Nik Ahmad &

¹⁰ 10 initiatives are: enhance Board effectiveness; strengthen directors capabilities; enhance GLIC monitoring and management functions; improve the regulatory environment; clarify social obligations; review and revamp procurement; optimise capital management practices; manage and develop leaders and other human capital; intensify performance management practices; and enhance operational improvement. <http://www.pcg.gov.my/about_us_overview.asp> accessed on 19 June 2007.

Sulaiman, 2004) are having more pressure than those in the less sensitive industries (i.e. banking and consumer products) as their activities can cause a greater impact on the environment in the case of negligence (Deegan, Rankin & Tobin, 2002; Patten & Trompeter, 2003). Prior research found that companies in environmentally sensitive industries tend to disclose more on their environmental information via corporate annual reports as compared to companies in less environmentally sensitive industries (Deegan & Gordon, 1996; Frost & Wilmshurst, 2000; Raar, 2002). However, with regards to the association of the development of Environmental Management Accounting (EMA) with environmental disclosure practices, Frost and Wilmshurst (2000) found no conclusive evidence.

Combining all the above issues, the study therefore will focus on two (2) aspects: first, the environmental disclosure practices and second, the association between Environmental Management Accounting (EMA) and the environmental disclosure practices in Malaysian companies, especially in government-linked companies (GLCs).

1.2 OBJECTIVES OF THE STUDY

The first objective of the study is to examine the extent government-linked companies (GLCs) are reporting on their environmental information. Considering that the government has strongly emphasised social and environmental responsibility among GLCs through the introduction of the ‘Silver Book’ and other various “green” initiatives, it is interesting to examine whether the environmental disclosure practices of these companies reflect the government’s objective. More importantly, given that GLCs are affiliated to the government and are clearly “visible”, the main concern is

their “accountability” to the people. With regards to environmental issues, the study will focus on the quantity and quality of environmental disclosure of such companies.

In examining the quantity of environmental disclosure, the study will look at three (3) independent variables, i.e. environmental sensitivity of industry, ownership status and company size. A review of literature suggests these three variables are presumed to influence the environmental reporting practices of companies.

First, the study will compare the environmental disclosure practices of GLCs according to the environmental sensitivity of the industry. Essentially, disclosure practices of GLCs in environmentally sensitive and less environmentally sensitive industries will be examined from a legitimacy theory perspective. Legitimacy theory posits that companies will behave within the acceptable norms of the society in order to legitimise their business activities (Wilmshurst & Frost, 2000; Campbell, Craven & Shrive, 2003) or in simple words, it is “...a social construct based on cultural norms for corporate behaviour” (Nasi, J., Nasi, S., Phillips & Zyglidopoulos, 1997: 300).

The study will further investigate the extent of environmental disclosure of GLCs in environmentally sensitive industries with non-GLCs in the same industries. This is to identify whether the ownership status influences companies’ environmental disclosure practices. The selection of environmentally sensitive industries is driven by the fact that these industries have a greater responsibility towards the environment. The results of this comparison, hopefully, will give insight on the extent to which GLCs play their parts in achieving, as well as fulfilling the government’s vision on sustainable development.

As an extension to the above analysis, the study seeks to identify whether the quantity of reporting of these companies (i.e. GLCs and non-GLCs in the sensitive industries) is influenced by their size, will be determined by the amount of total asset.

In determining the quality of environmental reporting, a disclosure index is developed using the ACCA's MESRA scoresheet. Accordingly, the study will evaluate the quality according to the environmental sensitivity of industry (i.e. GLCs in the sensitive and less sensitive industries) as well as the ownership status (i.e. GLCs and non-GLCs in the sensitive industries).

Frost and Wilmshurst (2000: 349) argued that prior research has not examined the internal practices of companies in supporting their environmental reporting practices. Accordingly, the study attempts to look at this issue. Thus, the second objective of the study is to identify whether there is a link between companies' Environmental Reporting (ER) and its Environmental Management Accounting (EMA) development. Additionally, the study also examines the perceptions of management on three related issues (i.e. the association between ER and EMA, the importance of environmental sensitivity in the development of EMA and ER, and the significance of EMA implementation).

The analysis will look at the association (i.e. EMA with ER¹¹) from a social issue life cycle perspective. According to the theory, there are three (3) phases of social progress. First, the 'Policy' phase is where the company has no formal response to the environmental issue. Second, the 'Learning' phase is where the implementation of company's policy is determined by a specialist and third, the 'Commitment' phase is when the issue is incorporated into the company's business decision (Neu, Warsame & Pedwell, 1998). The results will enable the researcher to assess whether Malaysian companies have developed EMA. More importantly, if the companies have developed EMA, are the systems supporting ER? Furthermore, the results may enlighten the

¹¹ The association between EMA and ER signifies a similar meaning as the association between ER and the development of EMA. Therefore, these two sentences will be used interchangeably throughout the study.

management's perceptions on the EMA development and implementation as well as its association with ER practices.

Accordingly, there are two parts to the study. The first part focused on ER. In order to achieve the objectives on ER, several research questions have been developed as follows:

1. To what extent do
 - a) GLCs disclose their environmental information?
 - b) GLCs and non-GLCs in the sensitive industries disclose their environmental information?
2. What is the nature of environmental information disclosed by
 - a) GLCs in the sensitive industries as compared to GLCs in the less sensitive industries?
 - b) GLCs in the sensitive industries as compared to non-GLCs in the same industries?

The second part of the study focused on EMA. Specifically, two pertinent issues were examined as follows:

- i) the association between EMA and ER, i.e. are companies disclosing environmental information in having proper environmental accounting system in place?
- ii) the perception of management on the importance of EMA. Accordingly, three research questions have been formulated. First, what are the management's perceptions on the association between EMA and ER practices? Second, is there a link between environmental sensitivity of industry and the development of EMA and ER practices? Lastly, is there a need for EMA to be implemented in all companies?

1.3 MOTIVATION OF THE STUDY

To date, there has been no published study done in Malaysia that compares the environmental disclosure practices of public listed government-linked companies (GLCs) and non-government-linked companies (non-GLCs). Prior studies (e.g., Ahmad et al., 2003; Nik Ahmad & Sulaiman, 2004; Thompson & Zakaria, 2004) have largely focused on public listed companies with no specific concentration on GLCs.

Cormier and Gordon (2001) assessed the social and environmental disclosure of government-owned and privately-owned utilities companies in Canada. They found that government-owned companies disclosed more social and environmental information, and the disclosure amount was influenced by the size of companies. They further asserted that as the publicly-owned companies are politically supported by the government and are large, such companies disclosed more information to be seen as legitimate and thus reflecting its ‘accountability’ and ‘visibility.’ Given this, it is interesting to examine the environmental disclosure practices of GLCs and non-GLCs in the Malaysian context.

Essentially, the Malaysian government is increasingly emphasising companies’ environmental responsibilities¹². As may be recalled, the ‘Silver Book’ – the guideline by which GLCs have to abide, can be regarded as the impetus in the government’s effort 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 engage “environmental responsibility”. Additionally, given that the GLCs’ transformation is crucial to the development of Malaysia, and that their services and/or products are

¹² For example, through the introduction of the Environmental Quality Act (EQA) 1974 and National Environmental Policy (NEP).