

COMPARING ENVIRONMENTAL REPORTING PRACTICES OF PUBLIC-LISTED COMPANIES IN MALAYSIA IN 1999 AND 2003: AN INVESTIGATION OF QUANTITY AND QUALITY

BY

BAKHTIAR BIN ALRAZI

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

2005

COMPARING ENVIRONMENTAL REPORTING PRACTICES OF PUBLIC-LISTED COMPANIES IN MALAYSIA IN 1999 AND 2003: AN INVESTIGATION OF QUANTITY AND QUALITY

BY

BAKHTIAR BIN ALRAZI

A dissertation submitted in partial fulfilment of the requirement for the degree of Master of Science in Accounting

Kulliyyah of Economics and Management Sciences International Islamic University Malaysia

DECEMBER 2005

ABSTRACT

This study examines the trends in the environmental reporting practices of 110 companies listed on Bursa Malaysia in 1999 and 2003. Based on the content analysis of the annual reports, it is found that the number of reporting companies in the sample period increases from 48% to 62% whilst the mean of environmental sentences increases by nearly threefold. The study also assesses the comprehensiveness (i.e. quality) of disclosure using a 100-item index. This index is drawn based on a review of various scoring systems including the adjudication criteria used in the Association of Chartered Certified Accountants' Malaysian Environmental and Social Reporting Awards (ACCA's MESRA) and the National Annual Corporate Report Awards-Environmental Reporting (NACRA). Unlike the quantity of reporting, the quality of disclosure only increases very slightly (from 4% to about 7%). Additionally, the study also found that (1) more environmentally sensitive companies experienced significant increases in the quantity and quality of environmental disclosure, (2) larger companies in "all sample" and "more environmentally sensitive" group significantly increased the quantity of environmental information between the period, and (3) both environmental sensitivity and size do not influence the changes in the number of reporting companies. All these findings, to a certain extent, support social issue life cycle theory and legitimacy theory.

APPROVAL PAGE

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

Nik Nazli Nik Ahmad Supervisor

Maliah Sulaiman
Supervisor

I certify that I have 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 thesis for the degree of Master of Science in Accounting

Nazli Anum Mohd. Ghazali Examiner

This dissertation was submitted to the Department of Accounting and is accepted as a partial fulfillment of the requirements for the degree of Master of Science in Accounting

Shahul Hameed Mohamed Ibrahim Head, Department of Accounting

This dissertation was submitted to the Kulliyyah of Economics and Management Sciences and is accepted as partial fulfillment of the requirements for the degree of Master of Science in Accounting

Mansor Ibrahim Dean, Kulliyyah of Economics and Management Sciences

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 b	een previously or concurrently
submitted as a whole for any other degrees at IIUM or o	other institutions.
Bakhtiar bin Alrazi	
Signature	Date

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

DECLARATION OF COPYRIGHT AND AFFIRMATION OF FAIR USE OF UNPUBLISHED RESEARCH

Copyright © 2005 by Bakhtiar bin Alrazi. All rights reserved.

COMPARING ENVIRONMENTAL REPORTING PRACTICES OF PUBLIC-LISTED COMPANIES IN MALAYSIA IN 1999 AND 2003: AN INVESTIGATION OF QUANTITY AND QUALITY

No part of this unpublished research may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the copyright holder except as provided below.

- 1. Any material contained in or derived from this unpublished research may only be used by others in their writing with due acknowledgement.
- 2. IIUM or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purposes.
- 3. The IIUM library will have the right to make, store in a retrieval system and supply copies of this unpublished research if requested by other universities and research libraries.

Affirmed by Bakhtiar bin Alrazi.

Signature	Date

ACKNOWLEDGEMENTS

In the name of Allah, the Most Gracious and the Most Merciful. Praise be to Allah, Lord of the Universe and to His Messenger Muhammad P.B.U.H. The effort being presented here is not possible without a great assistance from a number of people. First of all, I owe very much to my supervisors, Associate Professor Dr. Nik Nazli Nik Ahmad and Professor Dr. Maliah Sulaiman who have relentlessly guided me through the whole process step by step with patience without much complaining. It was a great experience of being supervised by both of you! Secondly, my heart and mind goes to all the lecturers who have taught me during these years: Dr. Shahul Hameed Hj. Mohamed Ibrahim, Dr. Abdul Rahim Abdul Rahman, Dr. Hafiz-Majdi Abdul Rashid, Dr. Fatimah Abd. Hamid and the late Dr. Unvar Muthalib. Thank you a lot for teaching me to become a better person. For Dr. Unvar, may Allah place him among the residents of heaven. I also would like to thank my parents and family for being so supportive and understanding. Finally, appreciation is also accorded to all my friends who have been sharing priceless experience all these whiles. Only Allah could repay all your assistance and kindness.

TABLE OF CONTENTS

3.	4 Direction of Current Research
3.	5 Conclusion
	CR FOUR: DEVELOPMENT OF A DISCLOSURE INDEX
	0 Introduction.
	1 Scoring the Environmental Information
	2 Objective of the Disclosure Index
4.	3 Disclosure Items
	4.3.1 MERA, NACRA and GRI Guideline
	4.3.1.1 MERA
	4.3.1.2 NACRA
	4.3.1.3 Developments in the GRI Guideline
	4.3.2 Comprehensive Disclosure Items
	4.3.2.1 Corporate Context
	4.3.2.2 Corporate Commitment
	4.3.2.3 Environmental Policy
	4.3.2.4 Targets and Achievements
	4.3.2.5 Environmental Management System
	4.3.2.6 Environmental Impacts
	4.3.2.7 Performance Data
	4.3.2.8 Research and Development.
	4.3.2.9 Third Party Statement
	4.3.2.10 Compliance/non-compliance
	4.3.2.11 Financial data
	4.3.2.12 Stakeholder Engagement and Other
	Environmental Initiatives
	4.3.2.13 Awards
	4.3.2.14 Report Design
4.	4 Quantification Scheme.
	5 Conclusion.
1.	3 Conclusion
СНАРТЕ	R FIVE: THEORETICAL FRAMEWORK AND HYPOTHESES
CIII II I L	DEVELOPMENT
5	0 Introduction.
	1 Social Issue Life Cycle Theory
5.	5.1.1 Hypotheses Development
5	
3.	2 Legitimacy Theory
5	5.2.1 Hypotheses Development
3.	3 Conclusion
CHADTE	R SIX: SAMPLE SELECTION AND RESEARCH METHODS
	0 Introduction
	1 Sample Selection
6.	2 Content Analysis – Measurement of Dependent Variables
	6.2.1 Definition of Environmental Reporting
	6.2.2 Medium of Environmental Reporting
	6.2.3 Data Measurement and Capture
	6.2.3.1 Quantity of Reporting
	6.2.3.2 Quality of Reporting.

6.2.3.3 Differences between the Measurement for	
Quantity and Quality	
6.3 Validity of the Findings	
6.4 Corporate Characteristics – Independent Variables	
6.4.1 Environmental Sensitivity	
6.4.2 Size	
6.5 Statistical Tests.	
6.6 Conclusion.	
CHAPTER SEVEN: FINDINGS AND ANALYSIS	
7.0 Introduction.	
7.1 Findings of the Study.	
7.1.1 Changes in the Number of Reporting Companies	
7.1.2 Changes in the Quantity of Reporting	
7.1.2 Changes in the Quality of Reporting	
• • • • • • • • • • • • • • • • • • • •	
7.1.3.1 Corporate Context	
7.1.3.2 Corporate Commitment	
7.1.3.3 Environmental Policy	
7.1.3.4 Targets and Achievements	
7.1.3.5 Environmental Management System	
7.1.3.6 Environmental Impacts	
7.1.3.7 Performance Data	
7.1.3.8 Research and Development	
7.1.3.9 Compliance/non-compliance	
7.1.3.10 Financial data	
7.1.3.11 Stakeholder Engagement and Other	
Environmental Initiatives	
7.1.3.12 Awards	
7.1.3.13 Report Design.	
7.1.4 The Determinants of Changes in the Environmental	
Reporting	
7.1.4.1 Environmental Sensitivity	
· · · · · · · · · · · · · · · · · · ·	
7.1.4.2 Size.	
7.2 Analysis of the Findings	
7.2.1 Social Issue Life Cycle Theory	
7.2.2 Legitimacy Theory	
7.3 Conclusion.	
CHAPTER EIGHT: CONCLUSION AND LIMITATION	
8.0 Introduction.	
8.1 Summary of the Results	
8.2 Limitations of the Study and Future Research	
BIBLIOGRAPHY	
APPENDIX I.	
APPENDIX II.	
APPENDIX III	
A PPENDIX IV	

APPENDIX V	201
APPENDIX VI	
Figure 2.1 – Timeline of relevant environmental reporting recommendations	
and guidelines	17
with Paracritical	1 /

LIST OF TABLES

Table No 2.1	Environmental regulations enacted between 1999 and 2003	Page No 14
3.1	Previous studies on various environmental reporting dimensions	26-28
3.2	Summary of important Malaysian studies on environmental reporting	49-51
4.1	Summary of the scoring systems used in previous literature	68-69
4.2	Disclosure index	75-78
5.1	The stages in social issue life cycle theory	95
6.1	The number of sample companies in the study	106
6.2	Distribution of companies according to industrial sector	107
6.3	Modification to the definition of environmental information	110
6.4	Modification to the measurement of environmental information	114
6.5	Categorisation scheme for environmental information	115
6.6	Description of "evidence"	115
6.7	Description of "news type"	115
6.8	Statistical tests for hypotheses 1-3	122
6.9	Statistical tests for hypotheses 4-15	123
6.10	Summary of dependent and independent variables used in the study	124
7.1	Distribution of disclosing companies according to industrial classification	127
7.2	Descriptive statistics of interval variables – quantity and quality	128
7.3	Descriptive findings of the quantity of environmental reporting	130-131

7.4	Descriptive findings of the quality of environmental reporting	134-135
7.5	Descriptive statistics for changes in the quantity and quality and size	145
7.6	The relationship between environmental sensitivity and the changes in the number of reporting, quantity and quality of environmental information	146
7.7	The relationship between size and the changes in the number of reporting, quantity and quality of environmental information	147-148
7.8	Summary of the rejection of the null hypotheses	152

LIST OF ABBREVIATIONS

ACCA The Association of Chartered Certified Accountants

ASSC Accounting Standards Steering Committee BAT British American Tobacco (Malaysia) Bhd

BCSDM Business Council for Sustainable Development Malaysia

CA 1965 Companies Act 1965 (Act 125)
CAP Consumers' Association of Penang

CEO Chief Executive Officer

CEP Council on Economic Priorities

DOE Department of Environment, Malaysia

DS Disclosure Scores

DTT Deloitte Touche Tohmatsu
DWB Davis-Walling and Batterman
e.g. (exempligratia); for example

ENSEARCH Environmental Management and Research Association of Malaysia

EPSM Environmental Protection Society Malaysia EQA 1974 Environmental Quality Act 1974 (Act 127)

et al. (et alia): and others

FCCG Finance Committee on Corporate Governance

FMM Federation of Malaysian Manufacturers

FRS Financial Reporting Standards
GLC Government-linked companies
GRI Global Reporting Initiative
ibid. (ibidem): in the same place

ISEA Institute of Social and Ethical Accountability
ISO International Organization for Standardization

KLSE Kuala Lumpur Stock Exchange

MASB Malaysian Accounting Standards Board

MAST Media Agency Setting Theory

MCCG Malaysian Code on Corporate Governance MERA Malaysian Environmental Reporting Awards

MESRA Malaysian Environmental and Social Reporting Awards

MIA Malaysian Institute of Accountants

MICC The Malaysian Chamber of Commerce and Industry MICPA Malaysian Institute of Certified Public Accountants

MIM Malaysian Institute of Management

MNCs Multinational Corporations MNS Malaysian Nature Society

MSTE Ministry of Science, Technology and Environment

NACRA National Annual Corporate Report Awards

N/A not available n.d. no date

NGO Non-governmental Organization NSAs Non-sharī^cah approved Companies

P.B.U.H Peace Be Upon Him

R&D Research and Development SACs Sharī^cah-approved Companies

SAM Sahabat Alam Malaysia

SustainAbility-United Nations Environment Programme South East Asia SA-UNEP

SEA

Standard Industrial Classification SIC

Small Medium Industries SMI Yayasan Anak Warisan Alam YAWA

CHAPTER ONE INTRODUCTION

1.0 INTRODUCTION

The current research aims to provide empirical evidence on environmental reporting practices among companies listed on the Main Board of Bursa Malaysia. To achieve this, it analyses the annual reports of the largest 150 companies based on market capitalisation as at 31 December 2003. In order to provide a meaningful insight into the trend of reporting practices, a comparison between 1999 and 2003 annual reports is made and the present study is concerned with the changes (if any) in the number of reporting companies, as well as the quantity and quality of environmental disclosure.

In addition, the current research is also enriched with an analysis on the relationship between several corporate characteristics, i.e. environmental sensitivity and size, and the reporting behaviour. In so doing, it is hoped that the findings can fill the gap in the environmental reporting literature, particularly in the context of Malaysia. Moreover, by having a better understanding of the environmental reporting practices in Malaysia, necessary action could be taken so as to improve the current situation and hence emphasise the important role of environmental reporting among the Malaysian companies.

1.1 BACKGROUND OF THE STUDY

There has been a growing demand since the past three decades for companies to be more socially responsible in their operations (Roberts, 1991; Hackston and Milne, 1996; Matthews, 1997; Moneva and Llena, 2000; Wilmshurst and Frost,

2000). In fact, to survive in the future, financial success is no longer the only requisite. The concept of sustainable development, which refers to "the development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (Niskala and Pretes, 1995: 463), introduced in Brundtland Report in 1987 has really triggered many companies, if not all, to start integrating social and environmental considerations into their business decisions.

Environmental problems such as the greenhouse effect, open burning, indiscriminate land hill clearings, river pollutions, oil and chemical spills in the ocean, and the extinction of thousands of animal species have increased public awareness of and concern for the adverse impacts of business on our natural environment. Accordingly, there is an increasing pressure now for businesses to be good corporate citizens. In fact, they are not only accountable to shareholders for profit maximisation but also to consider other stakeholders as well. This includes the public at large.

Due to that, they have to demonstrate their concern for the environment. In a way, they have to make sure that their operations will not pollute the air, toxic waste will not flow into the river and any chemical substances will be properly treated. However, by just having an environmentally friendly system put in place is still not adequate. In fact, a company must publicly demonstrate such efforts by disseminating the information to the general public. This can be done through various means, ranging from formal medium including annual report and separate environmental report to informal brochures, press release and media coverage.

Environmental reporting is still a voluntary initiative in Malaysia. Nevertheless, there are signs of increasing environmental awareness in the recent years. These can be seen, at least, in four areas. Firstly, in terms of environmental regulation, Environmental Quality Act 1974 (Act 127), henceforth referred to as EQA 1974, has been amended in 1998 and further in 2001 to include prohibition of open burning (EQA, 1974). In addition, several new other legislations were also introduced.

Secondly, there are several reporting recommendations and guidelines, with direct and indirect reference to environmental information. These include the introduction of Financial Reporting Standards 101 and 137 (henceforth, FRS 101 and FRS 137) by Malaysian Accounting Standards Board (MASB) in 1999 and 2001 respectively, Malaysian Code on Corporate Governance (MCCG) in 2000, and Association of Chartered Certified Accountant's (ACCA) Environmental Reporting Guidelines in 2003.¹

In addition, to further encourage environmental reporting, two awards were introduced, (1) National Annual Corporate Report Awards (NACRA) which has included a category on environmental reporting since 2000, and (2) Malaysian Environmental Reporting Awards (MERA) by ACCA since 2002. During MERA's launching, the former Minister of Science, Technology and Environment expressed the possibility of making environmental reporting mandatory if there is a continuous reluctance among Malaysian companies to report on environmental information (Thompson and Zarina, 2004).

After three successful years of organising the event, it is now being replaced by Malaysian Social and Environmental Reporting Award (MESRA), with the integration of social disclosure in the award. At this juncture, the Malaysian government through its Deputy Minister in the Prime Minister's Department Datuk M. Kayveas has again made a promising statement with regard to the possibility of mandatory reporting.²

¹ FRS 101 and 137 were formerly known as MASB 1 and MASB 20 when they were first introduced. However, with effect from January 1, 2005, all MASB standards are renamed as Financial Reporting Standards (FRS). "MASB Unveils New Name for Accounting Standards," Malaysian Accounting Standards Board, http://www.masb.org.my/masbmr_pr_detail.asp?prid=2912204-171339 (accessed 29 December 2004).

² "Corporate Reporting on Environs Likely by 2007," *The Star*, 29 October, 2004, via The Star Online, http://thestar.com.my/services/printerfriendly.asp?file=/2004/10/29/business/.

Speaking after the launch of MESRA in October 2004, he was hinted at the possibility of reporting requirements on local companies around 2007.

Finally, there have also been continuous campaigns by Malaysian Department of Environment (DOE) as well as various non-governmental organisations (NGOs) such as Sahabat Alam Malaysia (SAM), Malaysian Nature Society (MNS), Yayasan Anak Warisan Alam (YAWA), Business Council for Sustainable Development Malaysia (BCSDM), Environmental Protection Society Malaysia (EPSM) and Consumers' Association of Penang (CAP). Therefore, these constitute anecdotal evidences on the increasing concern on the environment that may enhance the environmental reporting practices among the Malaysian companies.

1.2 MOTIVATION FOR THE STUDY

The main motivation for the study stems from the increased importance of environmental reporting. The importance, according to Jaggi and Zhao (1996), can be described in at least two areas. The first area draws upon the notion that companies do not exist in a vacuum, but are part of a society that creates and supports them. As such, they have a social contract to be fulfilled. In essence, the fact that we are living in a world with limited natural resources has led the society to demand that businesses assume greater responsibility for their use of these resources.

Meanwhile, the second argument relates to the quality of life. With all the environmental problems surrounding our world, society nowadays perceive a business as a villain and, therefore, should be held responsible for these problems. Thus, companies are being constantly argued to have a responsibility to contribute to a

cleaner and healthier environment that should improve the quality of life (Jaggi and Zhao, 1996).

In addition, even with various environmental reporting studies, it is interesting to find that it has remained a complex field to be understood (Gray, Kouhny and Lavers, 1995a). The fact that it is still a voluntary practice in majority parts of the world raises a fundamental question on the reasons for companies embarking on environmental reporting. In essence, there is no single theory that is able to explain the practices.

In Malaysia, most of the previous studies on environmental reporting are predominantly cross sectional. This is despite the importance of longitudinal studies or comparative year studies especially in improving the robustness of the findings (Zauwiyah, Salleh and Junaini, 2003; Thompson and Zarina, 2004). As a result, findings from the previous studies are fragmented and incomparable. In relation to this, since they are mostly cross-sectional, factors that might influence the changes in the environmental reporting practices over a longer time period is relatively underdeveloped.

However, the efforts by ACCA (2002b, 2004) should not be undermined. While ACCA (2002b) had studied the environmental reporting practices among the Malaysian companies in 1999, 2000, and 2001, ACCA (2004) has extended that study for the years 2002 and 2003 with the inclusion of social reporting. However, an indepth comparison between the findings from these two studies and other environmental reporting studies in Malaysia (for example, Romlah, Takiah and Jusoh, 2002; Nik Nazli and Maliah, 2004) has revealed inconsistent finding especially with regards to the number of reporting companies. This might be the result of differences

in how these different studies define environmental reporting. As such, a separate thorough study may be warranted to fill the gap.

Finally, there is still lack of studies that look at the quality of reporting. Except for Romlah et al. (2002), other studies had focused on the quantity of reporting (see, for example, Teoh and Thong, 1981; Andrew, Gul, Guthrie and Teoh, 1989; Hairul Azlan, Maliah and Nik Nazli, 2004; Nik Nazli and Maliah, 2004). Meanwhile, ACCA (2002b, 2004) only provide qualitative description of the environmental reporting in Malaysia, which according to Jones and Alabaster (1999) can be very subjective. They further contend that a quantified approach such as the use of disclosure index is more precise, accurate and more effective.

1.3 OBJECTIVES OF THE STUDY

Thus, the current researcher formulates two broad research questions:

Research question 1: Is there any significant change in the number of companies reporting environmental information, as well as the quantity and quality of such reported information between 1999 and 2003?

Research question 2: Do environmental sensitivity and size of the corporation affect the changes in the reporting behaviour?

In essence, the present study examines the environmental reporting practices among Malaysian companies in 1999 and 2003. Specifically, it intends,

- To assess whether there is a significant change in the number of reporting companies,
- ii. To identify whether there are significant changes in the quantity and quality of the environmental disclosure, and

iii. To evaluate whether environmentally sensitive and larger companies significantly change their reporting behaviour as compared to their counterparts.

1.4 CONTRIBUTION

The contribution of this study can be seen from three aspects. The first aspect deals with the contribution towards the body of knowledge. The current research enhances the existing literature with the discussion on the recent developments in the environmental awareness in a developing country, Malaysia. Furthermore, since it examines the data of 1999 and 2003, any trend in the reporting practices can be clearly observed. In doing so, it offers the discussion on the applicability of social issue life cycle theory and legitimacy theory.

In addition to that, the current research improves the previous environmental reporting studies in Malaysia with regards to the research methodology and findings. Specifically, the disclosure index developed as the measurement of quality in this research is derived after reviewing various literatures including the adjudication criteria used to select the winners of NACRA and MERA.

The second aspect concerns with the contribution towards the environmental reporting practices. Since the disclosure index is relatively comprehensive, it assists the practitioners to understand the relevant issues to be addressed in the environmental report so as to improve transparency and accountability. Finally, in conjunction with the intention of the government to make environmental reporting mandatory, this will provide evidence on the level of readiness among the Malaysian companies to implement environmental reporting. Subsequently, any standards or reporting