

**DETERMINANTS OF ENVIRONMENTAL REPORTING IN
MALAYSIA FOR INDUSTRIAL PRODUCT SECTOR**

NURUL HUDA YAHYA

**MASTER OF SCIENCE (INTERNATIONAL ACCOUNTING)
UNIVERSITI UTARA MALAYSIA
JULY 2015**

**DETERMINANTS OF ENVIRONMENTAL REPORTING IN MALAYSIA FOR
INDUSTRIAL PRODUCT SECTOR**

By

NURUL HUDA BINTI YAHYA

Research Paper Submitted to

**Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia**

In Fulfillment of the Requirement for the Master of Sciences (International Accounting)



Othman Yeop Abdullah
Graduate School of Business

Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PENYELIDIKAN
(*Certification of Research Paper*)

Saya, mengaku bertandatangan, memperakukan bahawa
(I, the undersigned, certified that)

NURUL HUDA BINTI YAHYA (810572)

Calon untuk Ijazah Sarjana
(Candidate for the degree of)
MASTER OF SCIENCE (INTERNATIONAL ACCOUNTING)

telah mengemukakan kertas penyelidikan yang bertajuk
(has presented his/her research paper of the following title)

DETERMINANTS OF ENVIRONMENTAL REPORTING IN MALAYSIA FOR INDUSTRIAL PRODUCT SECTOR

Seperti yang tercatat di muka surat tajuk dan kulit kertas penyelidikan
(as it appears on the title page and front cover of the research paper)

Bahawa kertas penyelidikan tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.

(that the research paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the research paper).

Nama Penyelia : DR. ROHAIDA ABDUL LATIF
(Name of Supervisor)

Robins

Tarikh : 02 JULY 2015
(Date)

PERMISSION TO USE

In presenting this dissertation/project paper in partial fulfillment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this dissertation/project paper in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Dean of Othman Yeop Abdullah Graduate School of Business where I did my dissertation/project paper. It is understood that any copying or publication or use of this dissertation/project paper parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my dissertation/project paper.

Request for permission to copy or to make other use of materials in this dissertation/project paper in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

ABSTRACT

Following the new Malaysian Code on Corporate Governance (MCCG) 2012, the Malaysian government hopes to encourage companies, specifically the Public Listed Companies to adhere to the new code of conduct. The Adherence to the MCCG guidelines works together with the Listing Requirements by Bursa Malaysia that call for disclosure on environmental as part of the Corporate Social Responsible Report in the companies' annual report.

Thus, this study is motivated to examine the determinants that are associated to promote the environmental reporting disclosure practices of corporations in Malaysia. In particular, this study aims to examine two influential factors that affect environmental reporting disclosures which are corporate governance characteristics (i.e., board size, board independence, board diversity – religion and board diversity – gender) and corporate characteristics (i.e., company size, profitability, and free cash flow).

The study uses a total of 100 samples from the industrial product corporations listed on Bursa Malaysia for the year 2013. The study employs OLS and Tobit regression inclusive of robust regression for both models. The results indicate that board diversity of religion (Muslim directors); company size; profitability; and free cash flow have positive significant influence on environmental reporting disclosure practices. In summary, the study concludes that for the industrial product sector, the initiative for companies to disclose environmental reporting is much influenced by companies that have Muslim directors, with large amount of assets, with higher profitability and a large amount of extra cash. All in all, the companies are able to comply to any government's initiative towards a sustainability economy, provided the company applies the Taqwa paradigm as the foundation for good governance and the company is secured financially.

Keywords: environmental reporting, industrial product, Tagwa paradigm

ABSTRAK

Berikutan pembaharuan bagi Kod Tadbir Urus Korporat Malaysia (MCCG) 2012, kerajaan Malaysia berharap untuk menggalakkan syarikat-syarikat, khususnya syarikat awam yang tersenarai di Bursa Malaysia bagi mematuhi kod baru tersebut. Pematuhan terhadap MCCG 2012 ini adalah kesinambungan dengan Keperluan Penyenaraian oleh Bursa Malaysia yang memerlukan pendedahan terhadap alam sekitar. Laporan alam sekitar ini adalah sebahagian daripada Laporan Tanggungjawab Sosial Korporat yang perlu dinyatakan di dalam laporan tahunan syarikat.

Oleh itu, keperluan laporan alam sekitar ini merupakan motivasi bagi kajian ini untuk mengkaji penentu yang menggalakkan pelaporan alam sekitar syarikat di Malaysia. Khususnya, kajian ini bertujuan untuk mengkaji dua faktor yang mempengaruhi tindakan pelaporan alam sekitar iaitu ciri-ciri tadbir urus korporat (iaitu, saiz papan, papan kemerdekaan, kepelbagaian lembaga - lembaga agama dan kepelbagaian - jantina) dan ciri-ciri korporat (iaitu, saiz syarikat, keuntungan dan aliran tunai bebas).

Kajian ini menggunakan sejumlah 100 sampel syarikat produk industri yang disenaraikan di Bursa Malaysia bagi tahun 2013. Kajian ini menggunakan OLS dan regresi Tobit termasuk regresi teguh untuk kedua-dua model. Hasil kajian menunjukkan bahawa kepelbagaian lembaga pengarah (pengarah Muslim); saiz syarikat; keuntungan; dan aliran tunai bebas mempunyai pengaruh yang signifikan terhadap amalan pendedahan laporan alam sekitar. Secara ringkasnya, kajian ini menyimpulkan bahawa bagi sektor produk perindustrian, inisiatif bagi syarikat-syarikat untuk mendedahkan laporan alam sekitar banyak dipengaruhi oleh syarikat-syarikat yang mempunyai pengarah yang beragama Islam, jumlah aset yang tinggi, tahap keberuntungan yang tinggi dan jumlah wang tunai tambahan yang banyak. Secara keseluruhannya, syarikat-syarikat dapat mematuhi sebarang inisiatif kerajaan untuk membentuk ekonomi yang mapan, jika syarikat tersebut menerapkan paradigma Taqwa pada setiap pengarah syarikat dan mempunyai kedudukan kewangan yang kukuh.

Katakunci: laporan alam sekitar, produk industri, paradigma Taqwa

ACKNOWLEDGEMENTS

Alhamdulillah, I thank Allah SWT for his blessing, power and guidance that were given to me throughout the journey for this Research Paper. I am filled with huge appreciation for my support groups of my family, lecturers, colleagues, friends and family.

I would like to express my gratitude to my supervisor, Dr. Rohaida Abdul Latif for her knowledgeable supervision. I appreciate for her patience, kindness and astounding ideas in helping me to complete this research paper.

I would like to express a very special gratitude to my beloved husband, Bakti Hasan Basri, for his love and patience throughout this writing adventure. Thank you to my four lovely musketeers (Idrees, Iqbal, Ismah, and Ikhwan) for their love and support. I also would like to thank my parents; Yahya Emat and Suriati Md Yunus for their du'a and loving support.

Last but not least, best regards and thanks to everyone who participated directly or indirectly in completing this research paper.

TABLE OF CONTENTS

PERMISSION TO USE	iii
ABSTRACT	iv
ABSTRAK	v
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF ABBREVIATIONS	xii
TEXT OF THESIS	
CHAPTER 1: INTRODUCTION	
1.1 Background of Study	1
1.2 Problem Statement	3
1.3 Research Question	7
1.4 Research Objective	7
1.5 Significance of the study	8
1.6 Scope and limitations of the study	8
1.7 Organization of the research paper	8
CHAPTER 2: LITERATURE REVIEW	
2.1 Introduction	9
2.2 Environmental Reporting (ER)	9
2.3 Development of ER	10
2.3.1 Voluntary ER	11
2.3.2 Mandatory ER	15

2.4	Environment Reporting in Malaysia	17
2.5	Theoretical Foundation	20
2.6	Determinants of ER Disclosures	22
2.6.1	Corporate Governance Characteristics	23
2.6.1.1	Board Size	23
2.6.1.2	Board Independence	25
2.6.1.3	Board Diversity-Religion	26
2.6.1.4	Board Diversity-Gender	28
2.6.2	Corporate Characteristics	29
2.6.2.1	Company Size	30
2.6.2.2	Profitability	31
2.6.2.3	Free Cash Flow	31
2.7	Chapter summary	32
CHAPTER 3: METHODOLOGY		
3.1	Introduction	33
3.2	Theoretical Framework	33
3.2.1	Determinants	35
3.3	Hypotheses Development	37
3.3.1	Board Size	38
3.3.2	Board Independence	38
3.3.3	Board Diversity-Religion	38
3.3.4	Board Diversity-Gender	39
3.3.5	Company Size	39
3.3.6	Profitability	40
3.3.7	Free Cash flow	40
3.4	Research Design	41
3.4.1	Sample and Data Collection	41

3.4.2 Content Analysis	42
3.4.3 Definition and Measurement of Variables	42
3.5 Data Analysis	47
3.5.1 Descriptive Statistics Analysis	48
3.5.2 Preliminary Data Analysis	48
3.6 Chapter Summary	51
CHAPTER 4: RESULTS AND DISCUSSION	
4.1 Introduction	53
4.2 Descriptive Statistics Analysis	53
4.3 Preliminary Analysis	55
4.4 Regression Analysis	58
4.4.1 OLS Regression Analysis	59
4.4.2 Tobit Regression Analysis	62
4.5 Discussion of hypotheses testing	65
4.6 Chapter Summary	68
CHAPTER 5: CONCLUSION AND RECOMMENDATION	
5.1 Introduction	70
5.2 Summary of key findings	70
5.3 Limitations and Recommendations for future research	73
REFERENCES	76

LIST OF TABLES

Table 3.1	Environmental Reporting Index	44
Table 3.2	Disclosure Score for the Environmental Reporting Index	44
Table 3.3	Measurement of variables	47
Table 4.1	Descriptive Statistics of Variables for the Sample Companies (N = 100)	54
Table 4.2	Data cleaning taken from annual report	55
Table 4.3	Data cleaning taken from DataStream	56
Table 4.4	Test for multicollinearity – VIF	57
Table 4.5	Test for multicollinearity - Correlation Analysis (Pearson's Correlation Matrix)	58
Table 4.6	OLS Regression Results (Standard Error)	60
Table 4.7	OLS with Robust Standard Error (OLS-Robust) Regression Results	62
Table 4.8	Tobit Regression Results	64
Table 4.9	Tobit with Robust Standard Error (Tobit-Robust) Regression Results	65

LIST OF FIGURES

Figure 3.1 Research Framework

37

LIST OF ABBREVIATIONS

ACCA	: Association of Chartered Certified Accountants
BFEMALE	: Female directors
BIND	: Board Independence
BM	: Bursa Malaysia
BMUSLIM	: Muslim board members
BOD	: Board of Directors
BSIZE	: Board Size
CER	: Corporate Environmental Responsibility
CG	: Corporate Governance
CSIZE	: Company Size
CSR	: Corporate Social Responsibility
CSRR	: Corporate Social Responsibility Report
DTTI	: Deloitte Touché Tohmatsu International
EBITDA	: Earnings Before Taxes, Depreciation and Amortisation
EBITDAPERS	: Earnings Before Taxes, Depreciation and Amortisation Per Share
EQA	: Environmental Quality Act
ER	: Environmental Reporting
ERI	: Environmental Reporting Index
ERSCORE	: Environmental Reporting Score
ESG	: Environmental, Social Governance
FCF	: Free Cash Flow
FRS	: Financial Reporting Standard
FTSE	: Financial Times Stock Exchange
GRI	: Global Reporting Initiative
IAS	: International Accounting Standards
IFRB	: International Financial Reporting Board
IFRSB	: International Financial Reporting Standard Board
MASB	: Malaysian Accounting Standards Board
MCCG	: Malaysian Code on Corporate Governance

MTBV	: Market to book value
OLS	: Ordinary Least Square
PLCs	: Public Listed Companies
PROFIT	: Profitability
ROA	: Return on Assets
SMEs	: Small and Medium Enterprises
STATA	: Statistics of Analysis Data
UK	: United Kingdom
VIF	: Variance Inflated Factor
WWF	: World Wide Fund for Nature

CHAPTER 1: INTRODUCTION

1.1 Background of Study

Environmental issues have been one of the topics being discussed by governments, legislators and environmentalists worldwide. Such issues have harmful effects of human activity on the biophysical environment. Issues may include climate change, pollution, environmental degradation, and resource depletion such as air, water and soil. This leads to the destruction of ecosystems and the extinction of wildlife. Efforts to counteract such issues include environmental protection and environmental resources management.

Environmentalists had established campaigns and activities for protection of endangered species and protection of any ecologically valuable natural areas. For example, the World Wide Fund for Nature (WWF) has organised Earth Hour, a movement in uniting people to protect the environment through awareness campaign. The first campaign, which was held in Sydney, Australia in 2007, encourages people worldwide to switch off the non-essential lights for one hour as a symbol of their commitment to the planet (environment) (Celebrating Earth Hour, 2014). Also, there was another environmental campaign being launched by WWF-Malaysia and Nestle (Malaysia), for the conservation of the Setiu Wetlands in Terengganu in 2014. The human activities causing environmental degradation are usually the economic activities from corporate entities in achieving their interests (profit). These economic activities were usually executed without regard to the environment, health and socioeconomic impact on the people. As a result, the world requires an act of sustainability to prevent or reduce the effect of environmental degradation.

The contents of
the thesis is for
internal user
only

REFERENCES

Cormier,D., & Gordon, I.M. (2001). An examination of social and environmental reporting strategies. *Accounting, Auditing & Accountability Journal*, 14(5), 587 - 617.

(CCM), C. C. (2013). *Best Business Practice Circular 5/2013: Corporate Responsibility: Guidance to Disclosure and Reporting*. Retrieved from Companies Comission of Malaysia (CCM): <http://www.ccm.com.my>

Celebrating Earth Hour. (2014). Retrieved 2015, from Earth Hour: <http://www.earthhour.org/celebrating-earth-hour>

ACCA. (2015). Retrieved 2015, from ACCA: www.accaglobal.com

Abdul Rahman, A., & Bukair A.A. (2013). The Influence of the Shariah Supervision Board on Corporate Social Responsibility Disclosure by Islamic Banks of Gulf Co-Operation Council Countries. *Asian Journal of Business and Accounting*, 6(2), 65 - 104.

Abdul Razak, S.E., & Mustapha, M. (2013). Corporate Social Responsibility and Board Structure: Evidence from Malaysia. *Jurnal Teknologi*, 64 (3), 73 - 80.

Abdullah, S. (2014). The causes of gender diversity in Malaysian large firms. *Journal of Management & Governance*, 18(4), 1137 - 1159.

Abdullah, S.N., & Ku Ismail, K.N.I. (2013). Gender, ethnic and age diversity of the Boards of Large Malaysian Firms and Performance. *Jurnal Pengurusan*, 38, 27 - 40.

Ahmad, N.S.M., & Ishwerf, A.I. . (2014). Forces and obstacles for corporate environmental disclosures (CED) in Libya: Perspective of stakeholders. *Review of Integrative Business and Economics Research*, 3(1), 65 - 79.

Akbas,H.E., & Canikli,S. (2014). Corporate environmental disclosures in a developing country: an investigation on Turkish listed companies. *International Journal of Economics and Finance*, 6(2), 50 - 61.

Akpan, E.O., & Amran, N.A. (2014). Board characteristics and company performance: Evidence from Nigeria. *Journal of Finance and Accounting*, 2(3), 81 - 89.

Alarussi, A. H. (2009). Internet financial and environmental disclosures by Malaysian companies. *Issues in Social and Environmental Accounting*, 3(1), 3 - 25.

Alikhani, R., & Maranjory, M. (2013). An investigation on the relationship between social and environmental information disclosure levelan firms performance in Iran. *International Research Journal of Applied and Basic Sciences*, 5 (1), 125 - 128.

Al-Mubarakpuri, S. S.-R. (2003). *Tafsir Ibn Kathir*. Riyadh: Maktaba Darussalam.

Al-Quran. (n.d.).

Alrazi, B., Sulaiman, M., & Nik Ahmad, N.N. (2009). A longitudinal examination of environmental reporting practices in Malaysia. *Gadjah Mada International Journal of Business*, 11 (1), 37 - 72.

Altarawneh, G. (2015). Current trends in the reporting of environmental information in the annual report of major industrial and mineral companies in Jordan. *European Journal of Business and Management*, 7(8), 120 - 126.

Arshad, R., Abdul Fatah, M.M., & Othman, R. (2014). Board Composition, Islamic Corporate Social Responsibility and Corporate Reputation of Islamic Banks. *Proceedings of World Business and Economics Research Conference* (pp. 1 - 17). Auckland, New Zealand: Accounting Research Institute, Ministry of Education, Malaysia and Universiti Teknologi MARA.

Association of Chartered Certified Accountants. (May, 2015). *Accountants Today*. Retrieved from Malaysian Institute of Accountancy web site: <http://www.mia.org.my/at/at/2009/02/17.pdf>

Ayuso, S., & Argandona, A. (2007). *Responsible corporate governance: Towards a stakeholder board of directors?* Barcelona, Spain: IESE Business School, University of Navarra.

Bahari, Z., & Yusuf, M. Y. (2014). Corporate Social Responsibility in Islamic Banking Institutions in Aceh: Analysis of criteria and perception. *Journal of Educational and Social Research*, 4(2), 390 - 408.

Barbu, E. M., Dumontier, P., Feleagă, N., & Feleagă, L. (2014). Mandatory Environmental Disclosures by Companies Complying with IASs/IFRSs: The Cases of France, Germany, and the UK. *The International Journal of Accounting*, 231-247.

Barnhart, S.W., Marr, W. M., & Rosenstein, S. (1994). Firm performance and board composition: Some new evidence. *Managerial and Decision Economics*, 329-340.

Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on Corporate Social Responsibility and firm reputation. *Journal of Business Ethics*, 97, 207 - 221.

Bhattacharyya, A. (2014). Factors Associated with the Social and Environmental Reporting of Australian Companies. *Australian Accounting Business and Finance Journal*, 25 - 50.

Bowen, H. (2013). *Social responsibilities of the businessman*. USA: The University of Iowa Press.

Brisker, E.R., Colak, C., & Peterson, D.R. (2013). Changes in cash holdings around the S & P 500 additions. *Journal of Banking & Finance*, 37, 1787 - 1807.

Buniamin, S. (2010). The quantity and quality of environmental reporting in annual report of public listed companies in Malaysia. *Issues in Social & Environmental Accounting*, 4(2), 115 - 135.

Buniamin, S., Alrazi, B., Johari, N. H., & Abd Rahman, N. R. (2011). Corporate governance practices and environmental reporting of companies in Malaysia: Findings possibilities of double thumbs up. *Jurnal Pengurusan*, 55 -71.

Bursa Malaysia Securities Berhad. (n.d.). *Bursa Malaysia Securities Berhad*. Retrieved January, 2014, from Bursa Malaysia Securities Berhad Web site:

http://www.bursamalaysia.com/website/Bm>Listed_Companies/Company_Announcements/ANnual_Reports/Index.Jsp

Bursac, Z., Gauss, C.H., Williams, D.K., & Hosmer, D.W. (2008). Purposeful selection of variables in logistic regression. *Source Code for Biology and Medicine*, 3(17), 1 - 8.

Carpenter, V.L., & Feroz, E.H. (2001). Institutional theory and accounting rule choice: an analysis of four US state governments' decisions to adopt generally accepted accounting principles. *Accounting, Organization and Society*, 26 (7-8), 565 - 596.

Chatterjee, S., Hadi, A. S. & Price, B. (2000). *Regression Analysis by Example, 3rd Edition*. New York: John Wiley & Sons.

Coakes, S. J., Steed, L., & Ong, C. (2010). *SPSS: Analysis without anguish. Version 17.0 for Windows*. Queensland: John Wiley & Sons Australia, Inc.

Cooper, D.R., & Schindler, P.S. (2006). *Business Research Methods*. Boston: The McGraw-Hill Inc.

Corkery, J.F., & Taylor, M. (2012). The gender gap: A quote for women on the board. *Corporate Governance eJournal*, <http://epublications.bond.edu.au/cgej/27>.

Cormier, D., & Magnan, M. (1999). Corporate environmental disclosure strategies: determinants, costs and benefits. *Journal of Accounting, Auditing and Finance*, 429 - 451.

Dainelli, F., & Bini, L., & Giunta, F. (2013). Signalling strategies in annual reports: Evidence from the disclosure of performance indicators. *Advances in Accounting, incorporating Advances in International Accounting*, 29, 267 - 277.

Darus, F., Yusoff, H., & Mohd Azahari, N.K. (2013). Environmental disclosure of Islamic Financial Institutions (IFIs): Preliminary evidence from Malaysia. *Journal of Energy Technologies and Policy*, 3(11), 433 - 439.

Deegan, C. (2002). Introduction to the legitimising effect of social and environmental disclosure - A theoritecal foundation . *Accounting, Auditing and Accountability Journal*, 15 (3), 282 - 311.

Deegan, C., & Gordon, B. (1996). A study of the environmental disclosures practices of Australian corporations. *Accounting and Business Research*, 187 - 199.

Deloitte Touche Tohmatsu International. (1993). *Coming Clean - Corporate Environmental Reporting, Opening Up for Sustainable Development*. London: Deloitte Touche Tohmatsu International.

Dittmar, A., & Mahrt-Smith, J. (2007). Corporate governance and the value of cash holdings. *Journal of Financial Economics*, 83, 599 - 634.

Doupnik, T., & Perera, H. (2015). *International Accounting*. South Carolina, USA: Mc-Graw Hill.

Dusuki, A.W. (2008). What does Islam say about Corporate Social Responsibility? *Review of Islamic Economics*, 12(1), 5 - 28.

Elijido-Ten, E. (2007). Appying stakeholder theory to analyze corporate environmental performance: Evidence from Australian listed companies. *Asian Review of Accounting*, 15 (2), 164 - 184.

Elsakit, O.M., & Worthington, A.C. (2014). The Impact of Corporate Characteristics and Corporate Governance on Corporate Social and Environmental Disclosure: A Literature Review. *International Journal of Business and Management*, 9(9), 1 -15.

Florackis, C. (2008). Agency costs and corporate governance mechanisms: evidence for UK firms. *International Journal of Managerial Finance*, 4(1), 37 - 59.

Fong, L. F. (03 October, 2012). *Nation*. Retrieved from The Star Online: <http://www.thestar.com.my/News/Nation/2012/10/03/PM-Hire-more-women/>

Frias-Aceituno, J.V., Rodriguez-Ariza, L., & Garcia-Sanchez, I.M. (2012). The role of the board in the dissemination of integrated corporate social responsibility. *Corporate Social Responsibility and Environmental Management*, 20, 219 - 233.

Galani, D., Gravas, E., & Stavropoulos, A. (2011). The Relation Between Firm Size and Environmental Disclosure. *International Conference on Applied Economics* (pp. 179 - 186). Egnatias: Department of Applied Informatics, University of Macedonia.

Gantyowati, E., & Nugraheni, R.L. (2014). The impact of financial distress status and corporate governance structures on the level of voluntary disclosures within annual report of firms (case study of non-financial firms in Indonesia over the period of 2009 - 2011). *Journal of Modern Accounting and Auditing* , 10(4), 389 - 403.

Gitman, L.J., & Zutter, C.J. (2014). *Principles of Managerial Finance*. Pearson Education.

Gray, R., Kouhy, R., & Lavers, S. (1995). Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing & Accountability Journal*, 47 - 77. <http://dx.doi.org/10.1108/09513579510146996>.

Gray, R., Collison, D., & Bebbington, J. (1997). *Financial Reporting Today: Current trends and emerging issues*. Dundee, UK: Accountancy Books.

Gujarati, D.N. (2004). *Basic Econometrics, Fourth Edition*. The McGraw-Hill Companies.

Guo, P. (2005). Corporate Environmental Reporting and Disclosure in China. *Corporate Social Responsibility ASIA*, 1 -71.

Hair Jr., J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. . (2010). *Multivariate analysis data analysis* . New Jersey: Prentice Hall Inc.

Handajani, L., Subroto, B., Sutrisno, T., & Saraswati, E. (2014). Does board diversity matter on corporate social disclosure? An Indonesian evidence. *Journal of Economics and Sustainable Development*, 5(9), 8 - 16.

Haniffa, R.M., & Cooke, T.E. (2002). Culture, corporate governance and disclosure in Malaysian Corporations. *ABACUS*, 38(3), 317 - 349.

Hassan, S., & Christopher, T. (2005). Corporate governance statement disclosure of Malaysian banks and the role of Islam. *Asian Review of Accounting*, 13(2), 36 - 50.

Holland, L., & Foo, Y.B. (2003). Differences in environmental reporting in the UK and US: the legal and regulatory context. *The British Accounting Review*, 35, 1 - 18.

Hoogiemstra, R. (2000). Corporate communication and impression management - new perspectives why companies engage in corporate social reporting. *Journal of Business Ethics*, 27, 55 - 68.

Hossain, M., Perera, M.H.B., & Rahman, A.R. (1995). Valuntary disclosure in the annual reports of New Zealand companies. *Journal of International Financial Management & Accounting*, 6(1), 69 - 87.

Htay, S.N.N., Ab.Rashid, H.M., Adnan, M.A., & Meera, A.K.M. (2012). Impact of corporate governance on social and environmental information disclosure of Malaysian listed banks: Panel data analysis. *Asian Journal of Finance Accounting*, 4(1), 1 - 24.

Ibrahim, A.H., & Hanefah, M.M. (2014). Board diversity and Corporates Social and Responsibility in Jordan. *3rd International Conference on Management, Economics and Finance (ICMEF 2014) Proceeding*. Kuala Terengganu, Malaysia.

Ioannou, I., & Serafim, G. (2014). *The consequences of mandatory corporate sustainability reporting: evidence from four countries*. Boston: Harvard Business School Research Unit.

Ionel-Alin, I., Emil, P.I., & Maria,I. N. (2012). Environmental Reporting and Good Practice of Corporate Governance: Petroleum Industry Case Study. *Procedia Economics and Finance*, 3, 961 - 967.

Jaafar, R., & Buniamin, S. (2004). Environmental reporting in Malaysia: Perspective of the management. *Malaysian Accounting Review*, 3(1), 43 - 60.

Jamali, D., Hallal, M., & Abdallah, H. (2010). Corporate governance and corporate social responsibility: evidence from the healthcare centre. *Corporate Governance*, 590-602.

Janggu, T., Darus, F., Mohamed Zain, M., & Sawani, Y. (2014). Does good corporate governance lead to better sustainability reporting? an analysis using structural equation modeling. *Procedia - Social & Behavioral Sciences* (pp. 138-145. doi:10.1016/j.sbspro.2014.06.020). Shah Alam: Elsevier Ltd.

Jensen, M. (1986). Agency costs of free cash flow and corporate finance takeovers. *American Economic Review*, 76, 323 - 329.

Jensen, M.C., & Meckling, W.H. (1976). Theoery of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305 - 360.

Jensen, M.C., & Ruback, R. (1983). The market for corporate control: The scientific evidence. *Journal of Financial Economics*, 11, 5 - 50.

Joshi, P. L., Suwaidan, M. S., Kumar, R. (2011). Determinants of environmental disclosures by Indian industrial listed companies: empirical study. *International Journal of Accounting and Finance*, 109-130.

Judge, E. (1 November, 2003). The Times. *Women on board: Help or hindrance?*, p. 21.

Kerjcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607 - 610.

Khatun, K.M., & Alautiyat, H. (2012). Corporate Social Responsibility: An Islamic perspective. *International Journal of Business and Technopreneurship*, 2(3), 415 - 433.

Ku Ismail, K. N. I., & Ibrahim, A. H. (2009). Social and environmental disclosure in the annual reports of Jordanian companies. *Issues in Social and Environmental Accounting*, 198-210.

Kwong, E., Kent, P., & Marshall, B. (1997). Social responsibility and environmental disclosures: evidence from Australian chemical companies. *Accountability and performance*, 21 - 39.

Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, 31 (2), 246 - 271.

Lindblom, C.K. (1993). The implications of organisational legitimacy for corporate social performance and disclosure. *Critical Perspectives on Accounting Conference*. New York.

Liu,S., Lu, J.C., Kolpin, D., & Meeker,W. (1997). *Analysis of Environmental Data with Censored Observations*. Lincoln: USGS Staff -- Published Research. Paper 71.

Makori, D. M. (October 2013). Environmental Accounting and Firm Profitability: An Empirical Analysis of Selected Firms Listed in Bombay Stock of Exchange, India. *International Journal of Humanities and Social Sciences*, 3(18), 248 - 256.

Margaretha, F., & Isnaini, R. (2014). Board diversity and gender composition on corporate social responsibility and firm reputation in Indonesia. *Jurnal Manajemen dan Kewirausahaan*, 16(1), 1 - 8.

McDonald, J.F., & Moffitt, R.A. (1980). The Uses of Tobit Analysis. *The Review of Economics and Statistics*, 62 (2), 318 - 321.

Miller, T., & Triana, M.D.C. (2009). Demographic diversity in the boardroom: Mediators of board diversity - Firm performance relationship. *Journal of Management Studies*, 46 (5), 755 - 786.

Milne, M.J., & Adler, R.W. (1999). Exploring the reliability of social and environmental disclosure content analysis. *Accounting, Auditing and Accountability Journal*, 12(2), 237 - 256.

Mokhtar, N., & Sulaiman, M. (2012). Environmental reporting practices of Malaysian government linked companies (GLCs). *International Journal of Economics and Management*, 6(2), 241 - 277.

Mustafa, N.H., Abdul Latif, R., & Taliyang, S.M. (2011). Expropriation of minority shareholders' rights: Evidence from Malaysia. *International Journal of Business and Social Science*, 2(13), 215 - 220.

Muttakin, M.B., & Subramaniam, N. (2015). Firm ownership and board characteristics: do they matter for corporate social responsibility disclosure of Indian companies? *Sustainability Accounting, Management and Policy Journal*, 6 (2), 1 - 45.

Nathans, L.L., Oswald, F.L., & Nimon,K. (2012). Interpreting multiple linear regression: A guidebook of variable importance. *Practical Assessment, Research and Evaluation*, 17(9), 1 - 19.

Neuendorf, K. (2002). *The content analysis guidebook*. London: Sage Publication Inc.

Nik Ahmad, N.N., & Sulaiman, M. (2014). Environmental disclosure in Malaysian annual reports: A legitimacy theory perspective. *International Journal of Commerce & Management*, 14(1), 44 - 58.

Nobes, C. (2014). The development of national and transnational regulation on the scope of consolidation. *Accounting, Auditing & Accountability Journal*, 27 (6), 995-1025.

Ong, T.S., Teh, B.H., & Ang, Y.W. (2014). The Impact of Environmental Improvements on the Financial Performance of Leading Companies Listed in Bursa Malaysia. *International Journal of Trade, Economics and Finance*, 5(5), 386 - 391.

Opler, T., & Titman, S. (1993). The Determinants of Leveraged Buyout Activity: Free Cash Flow vs. Financial Distress Costs. *The Journal of Finance*, 1985- 1999.

Othman, R., & Ameer, R. (2010). Environmental disclosures of palm oil plantation companies in Malaysia: A tool for stakeholder engagement. *Corporate Social Responsibility and Environmental Management*, 52 - 62.

Paino, H., Bahari, A.B., & Bakar, R.A. (2011). Shariah, social responsibilities and corporate governance of the Islamic banks in Malaysia. *European Journal of Social Sciences*, 23(3), 382 - 390.

Peter, G.F., & Romi, A.M. (2015). The association between sustainability governance characteristics and the assurance of corporate social responsibility. *Auditing: A Journal of Practice & Theory*, 34(1), 163 - 198.

Platonova, E. (2013). Corporate Social Responsibility from an Islamic moral economy perspective: A literature survey. *Afro Eurasian Studies*, 2 (1&2), 272 - 292.

Pramanik, A.K., Shil, N.C., & Das, B. (2008). Corporate Environmental Reporting: An Emerging Issues in the Corporate World. *International Journal of Business and Management*, 146 -154.

Rao, K.K., Tilt, C.A., & Lester, L.H. (2012). Corporate Governance and environmental reporting: An Australian study. *Corporate Governance: The International Journal of Business in Society*, 12(2), 143 - 163.

Salehuddin, M.R., & Fadzil, F.H. (2013). Factors influencing corporate environmental responsibility disclosures: A case of Shariah-compliant companies listed in the main market of Bursa Malaysia. *Malaysian Management Review*, 48(1), 1 - 26.

Schaltegger, S., Muller, K., & Hinrichsen, H. (1996). *Corporate Environmental Accounting*. Chichester, UK: John Wiley & Sons.

Securities Commission Malaysia. (n.d.). *Securities Commission Malaysia*. Retrieved 2015, from Securities Commission Malaysia Web site: <http://www.sc.com.my/malaysian-code-on-corporate-governance-2012/>

Setyorini, C.T., & Ishak, Z. (2012). Corporate Social and Environmental Disclosure: A Positive Accounting Theory View Point. *International Journal of Business and Social Science*, 3 (9), 152 - 164.

Shearer, T. (2002). Ethics and accountability:from the for-itself to the for-the-other . *Accounting Organisations*, 541 - 573.

Smith, M., Yahya, K., & Amiruddin, A.M. (2007). Environmental disclosure and performance reporting in Malaysia. *Asian Review of Accounting*, 15 (2), 185-199.

Sulaiman,M., Abdullah,N., & Fatima, A.H. (2014). Determinants of environmental reporting in Malaysia. *International Journal of Economics, Management and Accounting*, 22(1), 63 - 90.

Sumiani, Y., Haslinda, Y., & Lehman, G. (2007). Environmental reporting in a developing country: a case study on status and implementation in Malaysia. *Journal of Cleaner Production*, 15, 895 - 901.

Suttipun, M., & Stanton, P. (2012). Determinants of environmental disclosure in Thai corporate annual reports. *International Journal of Accounting and Financial Reporting*, 99 -115.

Thompson, P. Z. (2004). Corporatesocial responsibility reporting in Malaysia. *Journal of Corporate Citizenship*, 13, 125 - 136.

Thompson, P., & Zakaria, Z. (2004). Corporatesocial responsibility reporting in Malaysia. *Journal of Corporate Citizenship*, 13, 125 - 136.

Ullah, M.H., Hussain, M. M., & Yakub, K.M. . (2014). Environmental Disclosure Practices in Annual Report of Listed Textile Industries in Bangladesh. *Global Journal of Management and Business Research: Accounting and Auditing*, 14(1).

Wan Abdullah, W.M.T., Buniamin, S., & Mohd Ghazali, M.H. (2012). The effect of board and ownership structure on environmental reporting: A case of the top 100 MCG index companies. *OIDA International Journal of Sustainable Development*, 4(7), 71 - 80.

Wan Jusoh, W.N.H., Ibrahim, U., & Napiah, M.M.D. (2015). An Islamic perspective on corporate social responsibility of Islamic Banks. *Mediterranean Journal of Social Sciences*, 6(2), 308 - 315.

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

Wiseman, J. (1982). An evaluation of environmental disclosures made in corporate annual reports. *Accounting, Organisations and Society*, 7(1), 53 - 63.

Yusoff, H., & Darus, F. (2014). Mitigation of Climate Change and Prevention of Pollution Activities: Environmental Disclosure Practices in Islamic Financial Institutions. *Procedia - Science and Behavioural Sciences*, 145, 195 - 203.

Yusoff, H., Darus, F., Fauzi, H., & Purwanto, Y. (2013). Exploring the envrionmental reporting practices of Islamic Banks: A case of Malaysia and Indonesia. *Journal of Energy Technologies and Policy*, 3(11), 440 - 444.

Zahra, S. A., & Pearce II, J. A. (1989). Boards of Directors and Corporate Financial Performance: A Review and Inetgrative Model. *Journal of Management*, 291-334. doi: 10.1177/014920638901500208.

Zainal, D., Zulkifli, N., & Saleh, Z. (2013). Corporate board diversity in Malaysia: A longitudinal analysis of gender and nationality diversity. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3(1), 136 - 148.

Zubaidah, Z.Z., Nurmala, M.K., & Kamaruzaman, J. (2009). Board structure and corporate performance in Malaysia. *International Journal of Economics and Finance*, 1(1), 150 - 164.