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## THE IMPACT OF CORPORATE GOVERNANCE ELEMENTS ON ENVIRONMENTAL REPORTING: THE CASE OF PUBLIC LISTED COMPANIES IN MALAYSIA

### Mohd Rashdan Sallehuddin

School of Distance Education Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia. Email: rashdans@hotmail.com

### ABSTRACT

The paper aims to examine the impact of the relationship between the elements of corporate governance and environmental reporting of public listed companies in Malaysia. This study adopts a cross sectional analysis by examining the 2010 annual reports of 254 public listed companies and using content analysis as the method to measure the extent of environmental reporting and compared with various corporate governance measures. *Regression analysis was used to examine the relationship between Corporate* Environmental Reporting (CER) and independent variables of Corporate Governance (CG) namely independent non-executive directors, audit committee composition, female director, duality, managerial and government ownership. Analysis found a significant relationship between the extents of environmental reporting with government ownership. In contrast, the extent of CER is insignificant with relation of independent non-executive directors, audit committee composition, female director, duality and managerial ownership. The results could be useful to provide evidence to regulatory bodies to look further and to identify the elements of corporate governance that will enhance the CER.

**Keywords:** corporate governance, corporate environmental reporting, annual reports, public-listed companies, Bursa Malaysia.

### INTRODUCTION

Numerous research on environmental disclosure has been performed in the context of developed countries such as United States, United Kingdom, Western European countries and Australia (Pahuja, 2009; Reverte, 2009; Brammer & Pavelin, 2008). There is also an increasing focus on environmental reporting of companies in developing countries and the focus is on the stimulation of the reporting of information and environmental responsibility (Mirfazli, 2008). According to Deegan (2006), environmental reporting has been defined as providing information in relation to the environmental implications of the firms' operations. The reporting on environmental performance not only assists firms to gain stakeholder support but also helps firms to determine possible risks involved and reduce the impact of the operations on environment (Rao, Tilt & Lester, 2012). Moreover, companies' accountability in entertaining its stakeholders should not limit the eligible party to investors only but should be extended to other groups of stakeholders as well. Extending transparent disclosure to other stakeholders would develop and enhance corporate image and reputation, improve accountability to shareholders, provide more accurate risk assessments and improve share price (Healy & Palepu, 2001).

Nevertheless, certain developing countries seem to lack environmental awareness. As a result, these companies were required to be more transparent in their environmental reporting. One approach for these companies to improve their performance is by showing their responsibility toward the environment. The increasing pressure on companies to be responsible to the society has influenced them to operate in an environmentally responsible manner. As various stakeholders demand greater reporting on environmental impact and performance, a large number of companies have started reporting these issues. Moreover, the development of corporate environmental reporting had been influenced by pressures from business communities, government and non-governmental organizations (NGOs) (Haigh and Jones, 2006).

The importance of corporate governance has been highlighted all over the world and it has become a very crucial element in the corporate sector. Basically, the corporate governance is the process and structure used to direct and manage the business and affairs of the company towards enhancing business prosperity and corporate accountability with the ultimate objective of realizing long term shareholder value whilst taking into account the

interest of other stakeholder (FCCG, 1999). Today, investors are increasingly focusing their investment decisions on companies' corporate governance track records and they are willing to pay more for shares of well-governed companies rather than poorly governed companies. According to Monks and Minow (2008), the focus of corporate governance is looking at the interaction between employee, Board of Directors, Chief Executive Officer, shareholders and stakeholders in supervising the operations of the company. Therefore, the corporate governance is designed for effective and efficient operation of corporations on behalf of stakeholders to monitor the managers (John & Senbet, 1998). Moreover, the corporate governance is the need for adequate monitoring mechanisms to be established to protect shareholders from managers' conflict of interest and to provide early warnings system to overcome weaknesses or problem encounter by the firm (Fama & Jensen, 1983). Therefore, different corporate governance mechanisms have been proposed in the literature that could play an important role in the organizations in terms of monitoring the managers' performance and matters regarding the transparency of environmental reporting.

The main objective of this study is to investigate whether the attributes of corporate governance is significant in explaining the environmental reporting among public-listed companies in Malaysia. Due to this development, it seems that corporate governance and reporting, specifically environmental concern are intertwined where the firm's governance structure could influence the nature of its reporting practices. Thus, it is expected that companies which comply with corporate governance practices would have higher tendency to be more environmentally responsible. Aspect of corporate governance had been well studied but only recently extended to consider the linkages between governance mechanisms and non-financial reporting. A few studies had considered elements of corporate governance that tend to have positive CSR activities but only a limited amount of research has been undertaken to examine the effectiveness of governance mechanisms on reporting, in particular environmental issues. Thus, this study will look at the specific characteristics of the corporate governance of the company in relation to the environmental reporting that the companies have undertaken.

### LITERATURE REVIEW

### **Environmental Reporting in Malaysia**

Studies on environmental reporting practices in Malaysia are still in the early stages compared to countries such as United States and United Kingdom (Yusoff & Lehman, 2009). Malaysian environmental information disclosed is very general, qualitative in nature and the type of disclosures varied widely (Nik Ahmad & Sulaiman, 2002). There are few reasons why companies report environmental information. The increasing pressure on companies to be responsible to the society has influenced them to operate in an environmentally responsible manner (Pahuja, 2009). Ahmad, Hassan and Mohammad (2003) indicated that the decision to report environmental issues in the annual report is a strategy to mitigate the political and contracting costs potentially associated with the firms. Study by Jaafar and Buniamin (2004) showed that building good corporate image is one of the important factors that influence companies to report environmental information. As various stakeholders demand greater reporting of environmental impact and performance, a large number of companies all over the world have started reporting these issues.

The public is informed of companies' environmental activities through various sources, such as corporate annual reports. Annual report has been the primary means of corporate reporting and it is the fundamental source of environmental reporting (Yusoff, Yatim & Nasir, 2004). The usage of annual reports has grown over the years when initially environmental information was reported in one of the sections in the report and subsequently reported as a separate section (Buhr, 2002). Almost 35% of the environmental reports were released by the world's largest corporations, according to the survey by KPMG (Kolk, 2000). This trend shows remarkable growth as prior to this, none of the firms revealed details on environmental reporting to the public.

Since 1999, there has been an increase in the trend among companies listed on the Main Board of Bursa Malaysia engage in the social and environmental reporting (ACCA, 2004). A survey conducted by Association of Chartered Certified Accountant (ACCA) found that there is an increase in terms of percentage to indicate the company's engagement in environmental reporting from 5.4 % in 1999 to 10% in 2003 (ACCA, 2004). However, the overall depth and breadth of reporting varied across the different sectors. There are three main factors influencing companies

to engage in environmental reporting, i.e. a desire to enhance and maintain reputation, enhance shareholder value and stakeholder awareness (ACCA, 2004). As a developing country, Malaysia faces several issues of social and environmental problems. Business related activities have been blamed for the deterioration of rivers, forest reserves and public places. The rapid increase in the number of motor vehicles; urbanization and industrial growth have all contributed to the deterioration in air as well as water quality (Malaysia Environment Quality Report, 2008). Over the last 15 years, Malaysians have displayed significant awareness of the importance of environment protection particularly following high-profile cases like flash floods in Kuala Lumpur recently, 1993 Highland Tower collapse and 1997 widespread haze. As a result, Malaysian companies were assumed to be partly responsible for the increased pollution and the associated loss of natural habitat and deterioration of the eco-system.

Previous studies in Malaysia examined the amount and the type of voluntary environmental reporting of 138 Construction and Industrial Product companies on the (then) Kuala Lumpur Stock Exchange (Nik Ahmad & Sulaiman, 2002). The study used content analysis and the results from the studies show 38 companies (27.54%) in their annual reports included the environmental reports and 100 (72.46%) companies did not have any environmental information. Nevertheless, the level of reporting was still low and predominantly qualitative in nature with an emphasis on 'good news' reporting. Nik Ahmad and Sulaiman (2002) empirically examined the reasons public-listed companies in Malaysia disclosed environmental reporting in their annual reports. From the study, six variables were employed to explain the voluntary presentation of environmental information namely: company size, financial leverage, profitability, effective tax rates, sensitive industry membership and auditor types. The result suggested that the firm's size, profitability, effective tax and sensitive industry influenced the voluntary reporting while firms' financial leverage and auditor is negatively related.

Meanwhile, Buniamin *et al.* (2008) had revealed the link between the practice of environmental reporting and corporate governance structure. This study covers 243 companies from Main Board of Bursa Malaysia that published their annual reports for the year ended 31 December 2005. The measurement of the environmental information was totally based on the number of sentences being used in the annual reports. The results show that only 28% of the companies report on environment information. Furthermore,

Alrazi, Sulaiman and Nik Ahmad (2009) had studied on a longitudinal examination of environmental reporting practices in Malaysia. The study was based on the content analysis of the annual reports of 96 Malaysian companies in 1999, 2003 and 2006 and it was found that the number of companies reporting on the environment has increased from 47% in 1999 to 60% in 2003 and further increased to 67% in 2006. Finally, Sallehuddin and Fadzil (2013) investigated the disclosures and factors influencing corporate environmental responsibility in the annual reports of Shariah-compliant companies listed in the Main Market of Bursa Malaysia. The study revealed that the level of environmental reporting was different across the sectors in Bursa Malaysia and it was relatively low.

### **Corporate Governance in Malaysia**

The development of corporate governance in Malaysia started in 1998 with the establishment of the High Level Finance Committee on Corporate Governance (FCCG), the incorporation of the Malaysian Institute of Corporate Governance (MICG), reformation and enforcement of legal requirement (The Malaysian Code of Corporate Governance) and lastly, the forming of the Minority Watchdog Shareholders Group (MSWG) to identify and address weaknesses highlighted by the Asian financial crisis (Buniamin et al., 2008). This process involved various authorities such as Bank Negara Malaysia, Securities Commission and Bursa Malaysia. Among the number of reforms introduced by the authorities included checking corporate abuse by controlling shareholders in relation to related party transactions, taking steps to achieve greater transparency of ownership and introducing measures to enhance and raise standards of disclosure and protect creditors (Wan Yusoff, 2010).

Thus, in order to achieve better corporate governance, substantial reforms have also been introduced particularly the amendments to the Securities Industries Act 1983 by the Securities Commission and listing rules of Bursa Malaysia (Liew, 2006). Finally, amendment was made in 2007 on the Malaysian Code of Corporate Governance (MCCG). The code detailed prescriptions for companies to follow that included recommendations that the board should be made up of a balance of executive and independent directors (Buniamin et al., 2008). The objective of the code is to ensure the effectiveness of the board of directors in maintaining accurate facts in their disclosure and therefore helping investors make more informed investment decisions (Bliss & Balachandran, 2003).

Since the implementation of MCCG, the Malaysian corporate governance has progressed steadily and ongoing basis (Wan Yusoff, 2010). The success of Malaysian corporate governance reforms was reflected in a survey conducted by PricewaterhouseCoopers (PwC) and Kuala Lumpur Stock Exchange (KLSE) in 2002. The survey concluded that Malaysian corporate governance standards have improved since the issue of the MCCG in 2000. Another recent survey shows that the Malaysian corporate governance score was 77.3%, which is higher than several other Asian countries and comparable to other developed countries such as Australia, Singapore and Hong Kong (McGee, 2008).

### The Corporate Governance on Environmental Reporting

Proper reporting of environmental disclosure is now gaining significant interest in the business community and being discussed in the accounting profession and authorities (Rezae, Szendi & Aggarwal, 1999). Although the importance of corporate governance and the potential influences on companies to engage in environmental reporting appears to be important, the study in Malaysia particularly among public-listed compliant companies is still lacking. There were a few previous studies that examined the relationship between corporate governance and company disclosure (Ho & Wong, 2001; Cheng & Courtenay, 2006; Haniffa & Cooke, 2002; Gul & Leung, 2004; Leung & Horwitz, 2004; Buniamin *et al.*, 2008).

This study takes into consideration the economic aspects of the determinants of corporate environmental disclosure represented in the company's specific characteristics that include company size and industry profile. There are a number of studies that examined the company characteristics that would influence the corporate environmental disclosure (Hackston & Milne, 1996; Bewley & Li, 2000; Brammer & Pavelin, 2008; Jinfeng & Huifeng, 2009; Joshi & Gao, 2009; Pahuja, 2009; Huang & Kung, 2010; Salma, 2010). Among the dominant factors of a company's characteristics identified by the researchers include firm size, profitability, leverage, industry type, auditor types and listing age. These studies reported that company specific characteristics have important impact on corporate environmental disclosure. For the purpose of this study, the company characteristics among public-listed companies in Bursa Malaysia were examined (such as company size and industry profile).

### HYPOTHESES DEVELOPMENT

### Corporate Environmental Reporting and Independent Nonexecutives Directors

Haniffa and Cooke (2005) argue that since independent directors are suppose to represent the interests of other stakeholders hence they will have more influence on environmental reporting. Thus, the independent non-executive directors should act through monitoring the top management performance and protecting shareholders' right and interests which usually involves the maximization of shareholder profits and value. In Malaysia, public listed companies' boards with independent non-executive directors are expected to disclose environmental information to reduce the agency costs and assure shareholders that they are acting in their interests. According to Cheng and Courtenay (2006), independent and non-executive directors show a relationships with disclosures where the firms dominated by a majority of independent directors have a greater level of disclosure. As supported by Eng and Mark (2003), it is anticipated that by having greater independent directors sitting on the board would contribute large disclosure of the information. Similar results were found in a study by Chen and Jaggi (2000) that showed the inclusion of independent non-executive directors on corporate boards improves the comprehensive and quality of disclosure. Therefore, it is hypothesized that environmental reporting is more likely to increase with an increase in the proportion of independent non-executive directors on the board.

H1: There is a positive relationship between independent nonexecutive directors and environmental reporting.

# Corporate Environmental Reporting and Audit Committee Composition

The emergence of audit committee was a result of financial scandals occurred in recent years which pushed relevant regulators in different countries to enhance the corporate governance in order to regain the confidence of the users that has been shredded during scandals (Martinez & Fuentes, 2007). Audit committee roles is to provide a review of the company's processes for producing financial data and its internal control, thus its existence would provided high quality financial reporting (Said, Zainuddin & Haron, 2009). Carcello and Neal (2000) found evidence that the composition of audit committee has an impact on reporting and supported by Bliss and Balachandran (2003) stated the existence of an audit committee was significant and positively related to the extent of reporting. Thus, it is hypothesized that:

H2: There is a positive relationship between audit committee composition and environmental reporting.

### **Corporate Environmental Reporting and Female Director**

Women are assumed to exhibit important characteristics necessary for good governance due to their meticulous work, risk avoidance trait, skilled in accounting and finance as well as good decision makers (IIhaamie & Barrett, 2013). Based on the agency theory, women directors behave differently from their male counterparts and their presence changes board behavior as they provide better monitoring and advisory services. Abdullah, Ismail and Nachum (2013) found a positive and significant relationship between the presence of women directors and firms' accounting performance as measured by ROA. It is support by Huse and Solberg (2006) that women are more committed and involved, prepared, diligent and ultimately create a good atmosphere in the boardroom. Hence it is expected that female director on the company will increase the environmental reporting.

H3: There is a positive relationship between female director and environmental reporting.

### **Corporate Environmental Reporting and CEO Duality**

The combination of CEO and board chairman positions in the firms reflects the leadership and issues of governance. Based on the agency theory, the combination of functions can significantly impair the board's monitoring, disciplining and compensating of senior managers (Molz, 1988). From the Malaysian perspective, role duality is not particularly common among listed companies but the potential impact on reporting should be worthy of testing (Hannifa & Cooke, 2002). The new Malaysian Code of Corporate Governance did not encourage the practice of CEO duality and as the best

practice both roles should be clearly separated to ensure proper checks and balances among the top management of the firms.

Current empirical analysis yields mixed results on the impact of role duality on reporting. Sandha, Mukaila and Garba (2003) and Bhagat and Black (2002) all argue that firms are more valuable when the CEO and board chairman positions are separate. The global trend shows that there should be separation of duties of CEO and chairman which a feature widely recognized as good corporate governance structure (Okike, 2002). Meanwhile, Ramdani and Witteloostuijn (2009) find that duality influences firm performance only for firms with average performance and not for firms performing below or above par. Finally, Haniffa and Hudaib (2006) find that a firm with duality seems to be less effective. Thus, it is hypothesize that:

H4: There is a negative relationship between CEO duality and environmental reporting.

# Corporate Environmental Reporting and Managerial Ownership

Managerial ownership is defined as proportion of ordinary shares held by CEO and executive directors and include their deemed interest (Eng & Mark, 2003). Their study showed that managerial ownership was significantly negative related to corporate disclosure among public listed companies in Malaysia. Furthermore, Said, Zainuddin and Haron (2009) found that managerial ownership was negatively correlated with the level of CSR reporting. Moreover, based on the agency theory that principal and agent problem between managers and shareholders arises when managers had little equity in the firms. Previous studies had showed the increase in management ownership will reduce the agency problem. On the other hand, an increase in managerial ownership leads to decrease agency cost and consequently the information reported monitoring managers would be reduced.

H5: There is a negative relationship between managerial ownership and environmental reporting.

# Corporate Environmental Reporting and Government Ownership

Government interventions would generate the necessities for firms to report additional information. The sovereign nature of the government as a trusted body plays a strong part in the Malaysian corporate sector especially when partial government ownership creates a direct controlling stake. A few studies have been conducted to observe the relationship between government ownership and the extent of reporting. Said, Zainuddin and Haron (2009) found that government ownership are positively correlated with the level of CSR reporting while Eng and Mak (2003) found that the level of reporting is higher in government-linked companies (GLCs) than non-GLCs. Furthermore, Mohd Ghazali (2007) found that the public-listed companies in Malaysia in which the government is a substantial shareholder was found to report more significantly on the CSR information in their annual reports. Thus, it is expected that a company in which government had a substantial shareholdings will lead to greater reporting on the company information. The hypothesis is as follows:

H6: There is a positive relationship between government ownership and environmental reporting.

### RESEARCH METHODOLOGY

### Sampling Method

The samples were drawn from the annual reports of public-listed firms in the year 2010, while the distribution of companies was based to Bursa Malaysia's industry classification. Out of 735, only 254 companies were selected as the final sample. According to Sekaran (2003), when population is between 700 and 749, the sample size should be 254. The samples selected from each industry accounted for approximately 35 % of the population in each sector. The value of 35 % was derived after the overall sample size (n=254) was divided by the total population (n=735). Since listed companies are categorized differently according to industry type, and the number of companies for each industry was not the same, stratified random sampling was utilized in this research. Social and Management Research Journal

### **Control Variables**

As noted in the study, firm specific characteristics may also affect the extent of environmental disclosure in the annual report and it used two control variables such as industry and firm's size (total assets). Previous researchers conclude that company industry or sectors are the main predictors in terms of the amount of environmental reporting (De Villiers & Staden, 2006; Herbohn, 2005; Deegan & Blomquist, 2006). Environmentally sensitive industry such as oil and gas, coal, paper, chemical and metal normally disclose more environmental information (Halme and Huse, 1997). The dummy variables for industry classification were used.

Firm's size has been found as a significant explanatory variable and associated with the level of corporate reporting in several previous studies (Chau & Gray, 2002; Aljifri & Hussainey, 2007; Hossain & Hammami, 2009). Thus, firm sizes have a significant positive relationship with the amount of disclosure and it is predicted that larger firms will disclose more on environmental information (Haniffa & Cooke; 2005). The measures of firm size are used in this study is based on total assets.

### **Regression Analysis**

Based on the discussion of dependent and independent variables, the following regression model is developed:

 $CER = \beta 0 + \beta 1INED + \beta 2ADTC + \beta 3FDIR + \beta 4DUAL + \beta 5MGO + \beta 6GOW + \beta 7IP + \beta 8CZ + \varepsilon \text{ where;}$ 

CER	= Corporate Environmental Reporting
β1INED	= Independent Non-Executive Directors
β2ADTC	= Audit Committee Composition
β3FDIR	= Female Director
β4DUAL	= Duality
β5MGO	= Managerial Ownership
β6GOW	= Government Ownership
β7ΙΡ	= Industry Profile
β8CZ	= Company Size
3	= error terms

### FINDINGS

### **Descriptive Statistics Analysis**

Table 1 shows the descriptive statistics analysis of the dependent variables of corporate environmental reporting and continuous variables. The descriptive statistics includes minimum, maximum, mean and standard deviation for the corporate environmental reporting percentage. The result for the mean of corporate environmental reporting percentage is 0.2198 which are generally low. The maximum ratio for Independent Non-Executive Directors (INED) is 0.85 and the minimum is 0.22. The mean of the proportion of independent non-executive directors to total directors on the board is 0.44, which indicates that the number of independent non-executive directors sitting on the board of the companies is about average. It is noted that, the average level for the Audit Committee composition (ADTC) variable is 0.45 or 45.0% which is moderate composition. However, the average level of Female Director (FDIR) is 0.10 which indicates that only 10.0% of the directorship of public-listed companies in Malaysia is held by female while another 90.0% is held by male. However, the average level of duality (DUAL) is 0.11 which indicates that only 11.0% of the publiclisted companies had the CEO duality while the remaining shows that the CEO and board chairman post are separated. Furthermore, ownership by managerial or executive directors (MGO) is much less with the maximum ownership at 85.0 % and an average of only 14.0 %. Finally, the statistics also showed that maximum ownership by the government (GOW) is 92.0% and average only 6.0%.

	Ν	Min.	Max.	Mean	Std. Deviation
CER	254	0.00	4.01	.2198	0.54
INED	254	0.22	0.85	0.44	0.11
ADTC	254	0.20	0.75	0.45	0.10
FDIR	254	0.00	0.50	0.10	0.12
DUAL	254	0.00	1.00	0.11	0.31
MGO	254	0.00	0.85	0.14	0.17
GOW	254	0.00	0.92	0.06	0.15

Table 1: Summary of Statistics of Continuous Variables

Valid N (listwise)

### **Correlation Analysis**

As can be seen in Table 2, corporate environmental reporting (CER) has a significant positive relationship with Audit Committee (ADTC), Managerial Ownership (MGO) and Government Ownership (GOW). In contrast, the other variables of Independent Non-Executives Directors (INED), Female Director (FDIR), Duality (DUAL) do not significantly influence the level of CER. The correlations coefficient reported in the Table 2 suggest that the multicolinearity is not serious for the independent variables. The Pearson correlations between independent variables in this study were range between 0.011 to 0.505 which is not exceeding 0.80 or 0.90.

	CER	INED	ADTC	FDIR	DUAL	MGO	GOW	IP	CZ
CER	1	075	166**	0.47	102	159*	.501*	.060	.616*
INED		1	.423**	018	.056	.48	014	97	.058
ADTC			1	009	.102	.079	156	169**	158*
FDIR				1	002	.072	016	.047	.011
DUAL					1	.027	081	.032	051
MGO						1	211**	.008	162**
GOW							1	.114	.505*
IP								1	.015
CZ									1

### Table 2: Correlations Analysis

## The Test of Regression Coefficients

Variable	Unstandardized Coefficients		ndardized pefficients	t	Sig.
	В	Std. Error	Beta		
Constant	0.319	0.133		2.401	0.017
INED	-0.143	0.002	-0.095	-1.792	0.074
ADTC	-5.680	0.003	-0.001	-0.021	0.983
FDIR	-0.002	0.002	-0.050	-1.043	0.298
DUAL MGO GOW CZ	-0.091 0.000 0.009 5.109	0.083 0.001 0.002 0.000	-0.052 -0.020 0.238 0.496	-1.092 -0.399 4.215 8.840	0.276 0.690 0.000 0.000
IP	-0.091	0.083	-0.052	-1.092	0.276

Table 3: The Result of Regressions Analysis

a. Dependent Variable: Corporate Environmental Reporting

From the regression equation above, it can be concluded that CER is positively related with Government Ownership. However, CER is negatively related with Independent Non-Executive Directors, Audit Committee, Female Director, Duality and Managerial Ownership.

### **Result of Hypotheses Testing**

# Corporate environmental reporting and independent non-executives directors

Based on the regression analysis, Independent Non-Executive Directors have a significant negative relationship with CER by public-listed companies with Bursa Malaysia. The significant value is equal to 0.074 which is more than the threshold standard indicates that a  $\rho$  value should be  $\leq 0.05$  to be significant. Hence, H1 is rejected. The explanation on the insignificant result in relation to the appointments of independent non-executive directors to the board may be due to the fact that independent non-executive directors appointed to the board are not independent as they may have some connection with the management. When the public-listed companies are very closely held and mostly are family controlled, it is difficult for the independent non-executive directors to influence the management to disclose information. This results supported by the empirical studies such as Gul and Leung (2004), Eng and Mak (2003) and Haniffa and Cooke (2002).

### Corporate environmental reporting and audit committee

Based on the regression analysis, the audit committee has an insignificant relationship with CER by public-listed companies listed with Bursa Malaysia. The significant value is equal to 0.983, which is more than the threshold standard indicates that a  $\rho$  value should be  $\leq 0.05$  to be significant. Thus, H2 is rejected. This result reflected that the presence of the audit committee does not enhance the environmental disclosures in public-listed companies in Malaysia. The result is consistent with previous studies done by Forker (1992) and Mohd Nasir and Abdullah (2004).

### Corporate environmental reporting and female director

Based on the regression analysis, female director have no significant influence on the CER of public-listed companies in Bursa Malaysia. The significant value is equal to 0.298 which is more than the threshold standard indicates that a  $\rho$  value should be  $\leq 0.05$  to be significant. Thus, H3 is rejected. This is reflected that the female directors were under-represented on corporate boards in most public-listed companies in Malaysia and it showed a slow progress in board diversity in Malaysia. Additionally, most of the women's commitment appears to be focused on their families and they prefer not to work long hours in the office. The result is consistent with previous studies done by Yasser (2012) and Matlala (2011).

### Corporate environmental reporting and duality

The duality has no significant influence on the CER disclosure of publiclisted companies in Bursa Malaysia. The significant value is equal to 0.276 which is more than the threshold standard indicates that a  $\rho$  value should be  $\leq 0.05$  to be significant. Thus, H4 is accepted. The result showed that the separation of CEO and board chairman positions would help firms to be more valuable. This implies that the duality role is influential in inducing firm to report more information on environmental concern. The companies with CEO duality would disclose less information in their annual reports because they may withhold information from the shareholders. The result is consistent with previous studies done by Barako et al. (2006), Cheng and Courtenay (2004) and Ho and Wong (2001).

### Corporate environmental reporting and managerial ownership

The result in this study shows no significant influence on the CER of publiclisted companies in Bursa Malaysia. The significance value is equal to 0.690 which is more than the threshold standard indicates that a  $\rho$  value should be  $\leq 0.05$  to be significant. Thus, H5 is accepted. The negative signs for the proportion of shares held by executive directors imply that companies with a higher proportion of shares held by executive directors disclose less environmental information in their annual reports. Meanwhile, the firms with less executive directors' shareholding have a tendency to provide more environmental information in annual reports. The result is consistent with the previous studies done by Hossain et al. (1994) and Leung and Horwitz (2004).

### Corporate environmental reporting and government ownership

Based on the regression analysis, the government ownership on the public-listed companies in Bursa Malaysia has a significant, positive relationship with the CER. The significant value is less than the threshold standard indicates that a  $\rho$  value should be  $\leq 0.05$  to be significant. Since the result shows the significance value is equal to 0.000, the relationship is in the positive direction and H6 is accepted. It showed that the higher the government ownership in a company the higher the level of reporting will be. It is due to government intervention which would generate pressure for firms to disclose extra information because they were trusted by the public. The result is consistent with the previous studies done by Said, Zainuddin and Haron (2009), Mohd Ghazali (2007) and Eng and Mak (2003).

### CONCLUSIONS

Major findings in this study both support and contradict the proportion of environmental reporting by public-listed companies in Malaysia. This study analyses the specific characteristics of the corporate governance of the company in relation to the reporting of activities to corporate environmental protection measures that the company has undertaken. The results based on the full regression models showed that only one variable was associated with the extent of reporting namely government ownership. Government ownership is positively and significantly correlated with the level of environmental reporting. It implies that the higher the government shareholding in a company the higher the level of environmental reporting will be. Furthermore, government influences may generate pressures for companies to report additional information because the government is trusted by the public. In contrast, the result seems to contradict the agency theory which suggests that independent non-executives directors can play a more independent role in influencing disclosures because their influence and power and the audit committee on the board is less influential in inducing the companies to report more information on environmental issues. The role of female directors is not likely to have major influences on the company's environmental reporting. The findings showed that only 10 % of the total director positions in public-listed companies in Malaysia are occupied by females. Meanwhile, findings showed the duality role does not give an impact to the environmental reporting among public-listed companies. Finally, the lower managerial ownership in the firms by the executive director would increase environmental reporting.

However, the awareness on environmental reporting is still low and there is lack of intention to disclose in the annual reports as proven from the study. As a result, it could hinder the contribution to the progress and development of national economic. Moreover, it has been mentioned in government's aim in achieving Vision 2020 that the government and private sector's involvement in CER can help in the sustainability of development in the country. For policy makers, this study would create awareness of the importance of CER programmes and educates people about CER best practices. These programmes could promote better understanding among the public on the importance of CER and how it could benefit the community as a whole and eliminate misconceptions that may arise in implementing CER.

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