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The Influence of Board Characteristics on Sustainability Reporting in Selected Malaysian Sensitive and Non-sensitive Industries

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Abstract

This study seeks to investigate the influence of board characteristics on the sustainability reporting of selected industries listed on Bursa Malaysia. The board of directors is claimed to be the most important person and aspects of corporate governance systems that may influence the company's decision to disclose more or less their sustainability reporting to the society. This study makes a contribution to research in this area as it highlights whether governance mechanisms are related to an increase the level of sustainability reporting in the annual reports. A sample of 70 listed companies was drawn from the Bursa Malaysia using systematic random sampling method. Data were collected from annual reports from 2012 and 2013. Analysis shows that only two variables influence the level of sustainability reporting, namely board size and proportion of independence of directors, Dual leadership and type of industry insignificantly influence the level of sustainability reporting disclosure. This study also found that sustainability reporting is likely to be influenced by profitability and firm growth.

Keywords *Sustainability reporting, Corporate governance, Malaysia, Sensitive industry*

1. Introduction

There is an increasing trend for organizations in Malaysia and throughout the world to provide the information relation to social and environmental activities. Nearly, 93% of the world's 250 largest companies issue sustainability reports (KPMG, 2013). Reporting rates are high in developed countries such as France, Germany, Japan, the United Kingdom and the United States. Research on social and environmental reporting continues to garner interest and a research stream, has emerged, investigating the effect of firm-specific characteristics on social and environmental reporting (Adam et al., 1998; Hackston and Milne, 1996; Hanifa and Cooke, 2005; Reverte, 2009). Among firm-specific characteristics, board composition is considered most important, because the board of directors is integral to a corporate governance framework. Based on the above proposition, many studies have provided empirical evidence on the effect of the board composition on voluntary disclosures (Gul and Leung, 2005; Eng and Mak, 2003; Lim et al., 2007; Samaha et al., 2012) and only a few studies have attempted to empirically test links between corporate governance and social and environmental disclosure (Said et al., 2009; Hanifa and Cooke, 2005; Esa et al., 2012; Ntim and Soobarayen, 2013; Hahn and Kuhnen, 2013). These studies provided mix results. The question remains whether board characteristics influence sustainability reporting. Most studies have indicated that corporate governance variables do affect companies' disclosure behavior, whether mandatory or voluntary, and thus enhance the overall disclosure level of the firms.

Therefore, the objective of this study is to examine the influence of board characteristics on the sustainability reporting.

Previous research considering corporate social responsibility reporting focused on environmental and social disclosure. The concept of sustainability reporting involves not only environmental and social disclosure but also economic disclosure. This study is a continuance of previous studies about corporate social responsibility. However, only a few studies have investigated the relationship between board characteristics and sustainability reporting (Mohamed et al., 2014; Sobhani et al., 2012), and even fewer are specifically from the Malaysian perspective. This study attempts to fill this gap by providing a preliminary investigation into the relationship between some measures of board characteristics and the level of sustainability reporting by selected types of sensitive and non-sensitive industries. This study focuses only on certain sensitive industries, namely construction, plantations, and properties as well as services. This research is expected to be useful for companies to not only take responsibility the environment but also maintain their sustainability practices, since it may contribute to their financial performance. This study demonstrates that agency theory and legitimacy theory provide an appropriate framework to explain the sustainability reporting in the context of Malaysian environment.

This study makes several important contributions. It is the first study to empirically test the association between boards characteristics and sustainability reporting in Malaysia for both sensitive and non-sensitive industries, thus contributing to the body of knowledge on the link between corporate governance and sustainability reporting in developing countries since most studies have originated from developed countries (Adam et al., 1998; Gray et al., 1995; De Villiers and Van Staden, 2010; Wilmshurst and Frost, 2000; Tilt, 1995). The board of directors is claimed to be the most important person and aspects of corporate governance systems that may influence the company's decision to disclose more or less their sustainability reporting to the society. Hence, this study makes a contribution to research in this area as it highlights whether governance mechanisms are related to an increase the level of sustainability reporting in the annual reports. This study incorporates both sensitive and non-sensitive industries as one of the subject of interest of the study since the previous studies focus only to the sensitive industries. In addition, this study also is different from a previous study by Mohamed et al. (2014), as the measurement of sustainability reporting of the study is more detailed, based on economic, environmental, and social disclosure indexes as proposed by Sobhani et al. (2012). Previous studies only measured sustainability reporting in terms of whether it was published or not.

The remaining part of the paper proceed as follows. The next section reviews the extant sustainability disclosure literature, with a special focus on studies in Malaysia. Section 3 discusses the theoretical framework and develops the research hypothesis. Section 4 details the research method and sample selection procedure. Analysis and results of the study are discussed in section 5. The final section presents the implications of the study, highlights limitations, and suggests some opportunities for further research.

2. Literature Review

This study adopts the definition of sustainability reporting given by GR1 (2004) as 'a vehicle to assess the economic, environmental and social impact of the organization's operations, products and services, and its overall contribution to sustainable development'. There is

limited research on CSR, social and environmental accounting, and sustainability reporting in Malaysian perspective although the same studies have been widely debated over the last decades. According to Wallage (2000), sustainability reporting is a paradigm shift not only in terms of disclosure but also as an element of the communication process between companies and their stakeholders. It provides an opportunity to stakeholders to identify whether their concerns have been taken into account (Sawani et al., 2010).

Empirical studies on CSR disclosure practice in Malaysia include Teoh and Thong (1984), Adrew et al. (1989), Thomson and Zakaria (2004), Haniffa and Cooke (2005), Mohd Ghazali (2007), Amran and Devi (2008), Said et al. (2009), Salleh et al. (2010), Abdullah et al. (2011) and Mohamad Ghazali (2012). These study show that despite a low level of CSR activities, increase interest was nonetheless given to CSR disclosure's in Malaysia over time. Increased documentation in prior studies ranges from 26% of CSR disclosures in the 1980s (Teoh and Thong, 1984) to more than 90% in the last decade (Said et al., 2009). For instance, Esa and Mohd Ghazali (2012) recently examined the CSR disclosures in the annual report of 27 GLCs in Malaysia before (2005) and after (2007) the introduction of Silver Book, which was introduced in 2006. The study shows a significant increase in CSR disclosures by GLCs following the introduction of the Silver Book. Other studies by Jaafar et al. (2003), Nik Nazli and Maliah (2004), Mohamad Zain and Janggu (2006), Janggu et al. (2007); Sumiani et al. (2007) have focused the environmental disclosure only, where the extent of environmental disclosures of most companies is however, very low. Not many studies specifically focus on sustainability reporting (Sawani et al., 2010; Joseph et al., 2014). Results from a study by Sawani et al., (2010) provide evidence that most information relating to sustainability disclosure has been integrated into annual reports with no assurance statement due to low levels of awareness and the absence of legislative pressures to commission the practice. The study indicates that companies applied selective reporting on issues relating to monetary contribution predominantly due to minority shareholders' insistence on a better return on their investment. Joseph et al., (2014) contributed to the growing literature on the extent of sustainability website reporting by focusing on the Malaysian public sector environment. None of the prior studies, however, examined the relationship between sustainability reporting and board characteristics. This suggests that boards may contribute to the legitimacy claims of firms by promoting broader voluntary disclosures to include sustainability reporting (Adams et al. (2010). This provides an opportunity for the current research to further explore on these areas.

3. Theoretical Framework and Hypothesis Development

Agency theory, the dominant theoretical framework in corporate governance literature, suggests that the monitoring role of the boards influence firm disclose information to reduce agency cost and information asymmetry (Brennan and Solomon, 2008; Hilman and Dalziel, 2003; Hendry, 2005; Dalton et al., 2003; Roberts et al., 2005). In response to monitoring mechanisms and to reduce agency costs, manager tend to improve the quality of disclosures. In addition, managers benefit from an information advantage and may trade information in efficient markets to enhance firm value.

Sustainability disclosure is a response to pressure exerted upon firms to conduct their activities in a way acceptable to society (Aguilera, 2005). Among theories explaining sustainability disclosures, the legitimacy theory has been found to be the most successful (Islam and Deegan, 2008; Reverte, 2009). Legitimacy theory conceives that a contract exists between the firm and society and firms seek legitimacy by complying with social expectation (Deegan, 2002). Thus, managers are motivated to disclose more information to support their claims to legitimacy. However, not many Malaysian companies disclose details in their sustainability reporting. This may be due to reputation risk exposure. In contrast, as mentioned by Friedman and Miles (2001), the reputation risk could increase the quantity and quality of CSR reporting because it "should make companies more aware of the need to manage a wide range of environmental, social and ethical risks and to show externally that they are doing so". In distinguishing between legitimacy and reputation, it is also useful to consider whether or not, and if so to what extent, adhering to social and environmental norms are crucial to legitimacy (Bebbington et al., 2008).

Besides, agency theory has a financial stakeholder perspective and is unable to provide a comprehensive theoretical explanation on sustainability disclosures beyond agency relationship (Reverte, 2009). Whereas, legitimacy theory is likely to suggest that sustainability disclosures are a prerequisite for a firm's claim on legitimacy and provides a wider explanation for firm to disclose sustainability related information (Hahn and Kuhnen, 2013). Although legitimacy theory provides a strong explanation to report sustainability information, the concept of legitimacy is considered problematic because societal expectations are evolving and ambiguous (Ashforth and Gibbs, 1990) and the identification the principal to whom the agent is accountable is challenging (Woodward et al., 1996). Therefore, this study applies both theories to provide a broader and complementary perspective on the link between corporate governance attributes and sustainability disclosures with the Malaysian environment. In order to test whether the board characteristics influence sustainability reporting, a series of hypotheses are developed for three important board characteristics: board size, board independence, and dual leadership. Another important variable to be tested in this study is type of industry. Even though previous studies provided mixed results, most indicated that corporate governance variables and type of industry do affect companies' disclosure behavior. Hypothesis development is discussed in the next section.

Board size and sustainability reporting

Many prior studies relate board size to disclosure. Board size, which is the number of directors on the board, plays an important role in monitoring the board's performance. To mitigate agency problems and costs, a board of directors is appointed to monitor the actions of managers (Jensen and Meckling, 1976; Aguilera and Jackson, 2003), thus improving the quality of disclosures. The literature offers arguments for and against larger board size in enhancing corporate performance and transparency. Those who argue against larger boards maintain that small board size improves firm value and makes them more likely to function effectively (Jensen, 1993; Lakhal, 2005; Villers et al., 2009). On the other hand, larger boards offer more expertise and increased monitoring capacity (Belkhir, 2009). Previous studies have found a positive relationship between board size and voluntary disclosures (Lim et al., 2007; Laksamana, 2008. Several studies have examined the relationship between board size and corporate social responsibility disclosures (Said et al., 2009; Esa and Mohd Ghazali, 2012; Roa et al., 2012). Studies by Roa et al., (2009), Ntim and Soobarayen (2013) and Esa and Mohd

Ghazali (2012) documented that a significant positive relationship between the extent of CSR disclosures and board size. Consistent to the agency theory and (Dalton et al, 1999; Bonb, 2004), we hypothesize that there should be a positive relation between size of the board and sustainability reporting in Malaysia, as follows:

HI. There is a positive relationship between board size and sustainability reporting.

Board independence and sustainability reporting

Board independence is the most important aspect and debated of corporate governance issued faced by corporations. An independent board is one of the effective mechanisms in monitoring the accounting process (Klein, 2012). Many previous studies highlight the important of independence directors in corporate disclosure behavior in both mandatory and voluntary (Chen and Jaggi, 2000; Eng and Mak, 2003; Ho and Wong, 2001; Cahaya et al., 2009; Shan, 2009). Proponents of the agency theory suggest that independent directors in boards will mitigate agency problems and improving the quality of board monitoring (Barako et at., 2006). However, the finding of the previous studies on the association between proportion of independence directors and disclosures are mixed results. Other studies found a positive association between independence directors and voluntary disclosures (Cheng and Courteney, 2006; Shan, 2009; Donelly and Mulcahy, 2008). In contrast, studies by (Ho and Wong, 2001; Haniffa and Cooke, 2002; Boesso and Kumar, 2007) found no association between board independence and voluntary disclosure. However, Eng and Mak (2003) and Barako et al. (2006) reported a negative relationship between board independence and voluntary disclosure. This is consistent to the agency theory, as the more external directors that companies have, the more effective they monitor managers. This is further supported by De Villiers et al. (2009), boards with more independent directors force managers to take decisions in favor of environmental activity, and they found that firms with strong environmental performance have more independence directors. Any consequences involving in sustainability reporting will reflect a badly on the company. A study in Malaysia by Said et al. (2009) found no evidence for a significant association between board independence and CSR disclosures. In contrast, a study by Haniffa and Cooke (2005) found a negative association between boards independence and CSR disclosure while study by Barako and Brown (2008) found that a positive relationship between board independence and CSR disclosures. Although there is no consensus in studies examining the relationship between board independence and sustainability reporting, consistent with the theory, the following is hypothesized:

H2. There is positive relationship between board independence and sustainability reporting.

CEO duality and sustainability reporting

The combination of CEO and chairman positions reflects leadership and governance issues. Agency theorists argue that CEO duality comprises board functions and board independence, and proposes a dual leadership structure separating the functions of

chairman and CEO. Thus, a dual leadership structure improves board independence and monitoring, thus influence managers to disclose more information may consequently result in enhancing quality of reporting. MCCG (2000) also recommends a separation of roles between chairman and the CEO to avoid the considerable concentration of power where the same person performs both roles. Separation between the position of the CEO and the chairman is hoped to provide essential checks and balances over management's performance, thus reduce agency costs. The proponents of agency theory holds that the separation of the two roles is crucial for the monitoring of the effectiveness of the board over management. The separation of the two roles not only reduces the CEO power but improves the board monitoring and capabilities of corporate management (Cerbioni and Parbonetti, 2007; Haat et al., 2008; Gul and Leung, 2004). In other words, the monitoring capability of the board increases with the separation of the chairperson and the CEO positions (Jensen, 1993). This suggests that CEO duality reduces a board's ability to effectively and soundly control top management, which could then result in a lower level of disclosure. Forker (1992) and Gui and Leung (2004) reported a negative relationship between CEO duality and voluntary disclosure, while Chan and Gray (2010) found a positive relationship. Studies by Haniffa and Cooke (2002) and Barako et al. (2006) found that there has no evidence of an association between dual leadership and voluntary disclosures. In addition to that, studies by Said et al. (2009) and Ntim and Soobarayen (2013) also found either no association or a negative association between dual leadership and CSR disclosures. In the most common argument based on agency theory, the separation of the chair and CEO roles increases the board's independence from management and thus leads to better monitoring and oversight, thus influence managers to disclose more information about company activities to the society in sustainability reporting. Based on the empirical evidence and above arguments, the following hypothesis is proposed:

H3. There is a negative relationship between CEO duality and sustainability reporting.

Type of industry and sustainability reporting

Studies have found that industry is an important determinant of corporate disclosures (Haniffa and Cooke, 2005; Barako et al., 2006; Lim et al., 2007; Branco and Rodrigues, 2008; Hackston and Milne, 1996; Ho and Wong, 2001; Elsayed and Hoque, 2010). Using legitimacy theory, it is argued that type of industry can influence political visibility and drives disclosure in order to minimize pressure and criticism from society (Patten, 1991). More sensitive industries are considered to be those with more risk of being criticized in corporate social responsibility matters because their activities have the perception of higher risk (Reverte, 2009). The 'sensitivity' of industries is a consistent theme with legitimacy theory. Studies by Hackston & Milne (1996) and Faisal et al., (2012) provide evidence that high profile industries disclose significantly more social and environmental information than low profile industries. Other studies by (Patten, 1991; Adamet al., 1998) mentioned that companies with more environmental impact have been found to disclose more environmental information than others. Likewise, companies with higher public visibility are more likely to disclose CSR information than others (Clarke and Gibson-Sweet, 1999). Thus, companies with more environmental impact are subject to greater pressures with respect to environmental concerns than others. It is consistent with the previous study by Deegan (2002) notes that legitimacy theory is widely used to explain social and environmental reporting. Therefore,

this study predicts that firms in sensitive industries would disclose more in their sustainability reporting than firms in non-sensitive industries. Based on legitimacy theory, it is hypothesized:

H4. Firms in sensitive industries will provide more sustainability reporting than firms in non-sensitive industries.

4. Research Method

The sample of this study comprises of sensitive and non-sensitive industries which were listed on Bursa Malaysia in both 2012 and 2013. These years were chosen because they were the most recent data available at the start of the study. Initially, s systematic sampling method was applied to identify the number of companies, with 32 companies representing the sensitive sector including construction, plantation, and properties. 38 companies are from non-sensitive industries. These industries are termed "sensitive industries", as their activities are more exposed to higher risk of having a negative impact on the environment (Braco and Rodrigues, 2008). Deegan and Gordon (1996) described the sensitive industries as those perceived as more environmentally damaging than those which operate in environmentally non-sensitive industries. This study only selected 20% of the population of each sector. The Table 1 provides information on the sample profile. Furthermore, the study aims at determining whether there has been an increase in the level of sustainability reporting disclosure after the introduction of the new Malaysian code corporate governance as launched in 2012.

Content analysis was applied to determine the amount of disclosure in the annual reports. Content analysis is a standard methodology in the social sciences for studying the content of communication. Prior studies have used a similar type of research instrument for content analysis. However, the items of the instrument varied from one researcher to another. Sohbani et al. (2009) conducted a study on CSR with 30 items of disclosures. Haniffa and Hudaib (2004) used a research instrument with 79 items while Haron et al. (2006) considered 99 items of disclosure for content analysis. However, this study uses only 57 items from the disclosure index, as proposed by Sobhani et al. (2012), covering potential economic, environmental, and social issues.

Table 1 Sample Selection

Sensitive sector	2012	2013
Construction	8	8
Plantation	8	8
Properties	16	16
Sub total	32	32
Non-sensitive sector	2012	2013
Services	38	38
Total	70	70

The summary of operationalization of the dependent, independent and control variables are provided in Table 2. The dependent variable, sustainability reporting is measure based on the disclosure index proposed by Sobhani et al. (2012). The independent variables of this study were board size (Lim et al., 2007; Said et al., 2009; Ntim and Soobarayen, 2013; Esa et al., 2012), board independence (Eng and Mak, 2003; Haniffa and Cooke, 2005, Chau and Gray, 2010, Barako and Brown, 2008), dual leadership (Forker,1992; Chau and Gray, 2010; Haniff and Cooke, 2002; Brako et al., 2006), industry (Haniffa and Cooke, 2005; Branco and Rodrigues, 2008; Elsayed and Hoque, 2010; Sobhani et al., 2012).

Table 2 Description of variables

Dependent variable	**Operationalization**	**References**
Sustainability reporting (SR)	Economic disclosure (14 items)	Sobhani et al. (2012)
	Environmental disclosure (15 items)	Sobhani et al. (2012)
	Social disclosure (28 item)	Sobhani et al. (2012)
Independent variables	**Operationalization**	**References**
Board Size (Bsize)	Natural log of number of directors	Lim et al. (2009), Esa et al. (2012)
Board Independence (Bindep)	Proportion of independent director	Eng and Mak (2013), Barako and Brown (2008)
CEO duality (CEOd)	Chairman and CEO roles are combined =1	Chau and Gray (2010), Brako et al. (2006)
	Chairman and CEO roles are separate = 0	
Industry (IND)	Sensitive sectors = 1	Sobhani et al. (2012), Elsayed and Hoque (2010)
	Non-sensitive sectors = 0	
Control variables	**Operationalization**	**References**
Firm profitability (FPRO)	Net income/assets	Said et at. (2009), Roa et el. (2011)
Firm size (Fsize)	Natural log of total assets	Haniffa and Cooke (2002)
Firm growth (FGRW)	Market value of shares/book value of equity	Gula and Leung (2004), Boesso and Kumar (2007)

Consistent with prior studies, this study also controls some of other variables which related to firm characteristics which are likely to affect the disclosure of sustainability reporting. The study used three control variables, firm profitability, firm size and firm growth. By controlling these variables, it will enhance the relationship between board characteristics and sustainability reporting. Previous studies have found that the relationship between firm profitability and CSR produces mixed results (Ho and Wong, 2001; Zhang, 2012; Said et al., 2009; Lim et al., 2007). In Malaysia, it has also been found that the relationship between social involvement and profitability is not significant (Mohamad Zain, 1999; Mohamad and Ahmad, 2001).

Most of the previous studies investigated that the effect of the firm size as indicated by firm's assets and paid-up capital on CSR (Janggu et al., 2007). Some studies suggested a positive correlation between firm size and social disclosure (Ho and Wong, 2001; Haniffa

and Cooke, 2002; Brammer and Pavelin, 2008). In Malaysia, the findings are mixed. Zauwiyah et al. (2003) concluded that there is no association between environment disclosure and companies' size, while Mohamad and Ahmad (2001) found that firm size is not significant.

This study also includes firm growth as another control variable. Previous studies (Chau and Gray, 2010; Gul and Leung, 2004; Boesso and Kumar, 2007; Eng and Mak, 2003) noted that firm growth is associated with voluntary disclosures and sustainability related disclosures; however, their findings are mixed.

To determine the factors influencing sustainability reporting disclosure, a multiple regression model employing four independent variables and three control variables was carried out. The model is as follows:

$$SR^{it} = B0 + B1Bsize^{it} + B2Bindep^{it} + B3CEOd^{it} + B4IND^{it} + B5FPRO^{it} + B6Fsize^{it} + B7FGRWit + e^{it}$$

Where,
SR = Sustainability reporting
Bsize = Board size
Bindep = Board independence
CEOd = CEO duality
IND = Type of industry
FPRO = Firm profitability
Fsize = Firm size
FGRW = Firm growth
e = Error term
i, t = Firm, years

5. Results and Analysis

The descriptive statistics for the independent and control variables are shown in Table 3. The dependent variable sustainability reporting has a mean 0.4 suggesting that 40% of all the listed companies in the sample are disclosed their sustainability reporting. The mean value of the economic disclosure is the highest (55%) compared to environmental (34%) and social disclosure (32%). It shows that most of the companies disclose economic factors more than environmental and social factors. The mean score of board size is 7.24. This is comparable to the mean board size reported by Esa et al. (2012) and Said et al. (2009) for firms in developing economies in Asia and Africa. The mean of board independence is 0.47, indicating that the proportion of independent directors represents only 47% out of the total directors in the sample companies. This is comparable to the evidence reported by Kim and Lim (2010) and Chau and Gray (2010) for firms in Asian economies.

In the correlation matrix in Table 4, sustainability reporting has a statistically significant positive association with board size, board independence, firm size and firm growth. Among all firm characteristics, firm size has the highest significant positive correlation with firm growth which suggest that companies with more assets may influence the company's

growth. Table 4 shows that all the absolute values of Pearson's correlation coefficients are relatively low and less than 0.8. This indicates that the multicollinearity problem is not critical for proposed model of the study (Gujarati, 2002). Hence, the analysis may proceed with the selected variables.

The Pearson correlation coefficient is conducted to measure the strength of association between two variables and to determine the degree to which the variables are related. The Pearson correlation coefficient varies over the range of +1 to -1, and the coefficient's sign signifies the direction of the relationship. Direction tells us whether a large value on one variable is associated with large values on the other (and small with small values).

Table 3: Descriptive Statistics

Variables	Min	Max	Mean	Med	SD
ECON	0.290	0.790	0.547	0.570	0.107
ENVR	0.000	0.730	0.337	0.400	0.203
SOCL	0.000	0.800	0.318	0.320	0.128
SR	0.167	0.697	0.401	0.403	0.113
Bsize	4.000	13.000	7.240	7.000	1.885
Bindep(Ln)	0.250	1.000	0.478	0.444	0.137
CEOd	0.000	1.000	0.140	0.000	0.351
IND	0.000	1.000	0.460	0.000	0.500
FPRO	0.001	0.354	0.072	0.062	0.055
Fsize(Ln)	10.536	19.526	13.908	13.520	2.097
FGRW(Ln)	3.140	10.340	5.984	5.825	1.664

Table 4: Correlation matrix

	SR	Bsize	Bindep	CEOd	IND	FPRO	Fsize	FGRW
SR	1							
Bsize	.182 *	1						
Bindep	.222**	-.385**	1					
CEOd	0.01	-.235 **	0.154	1				
IND	-0.058	0.157	0.01	-0.129	1			
FPRO	0.044	0.3	-.218**	-0.037	-0.08	1		
Fsize	.227 **	.216*	-0.056	0.023	-0.086	-0.047	1	
FGRW	.455 **	.266**	-0.083	0.03	-0.085	-0.12	.550**	1

Note: *, ** Significant at 0.05 and 0.01 levels, respectively (2-tailed)

Prior to interpreting the multiple regression model results, robustness checks were performed to examine whether model results were affected by multicollinearity and outliers and whether the assumption of multiple regression was met. Table 5 presents the results of the multiple regression analysis. Based on table 5, none of the tolerance values are smaller than 0.10 and the VIF statistics are less than 10.0 for all variables. Since there are no serious multicollinearity problems among predictor variables, we can conclude that the estimated multiple regression model is valid and acceptable.

Table 5: Summary of regression analysis results				
	Dep: SR		Collinearity Statistics	
	B	t	Tolerance	VIF
	-0.108	-1.119		
Bsize	.096**	2.576	0.728	1.373
Bindep	.313**	4.815	0.801	1.249
CEOd	-0.004	-0.154	0.923	1.083
IND	-0.011	-0.648	0.932	1.072
FPRO	.353**	2.333	0.924	1.082
Fsize	-0.003	-0.655	0.688	1.453
FGRW	.032**	5.473	0.656	1.523
Note: *, ** Significant at 0.05 and 0.01 levels, respectively (2-tailed)				

The model includes all the independent variables and control variables reports R-squared value of 0.339, it suggests that predictor variables can explain 33.9% of the variance in sustainability reporting. The findings appear to suggest that the variables of board size and board independence significantly influence the level of disclosure of sustainability reporting except for CEO duality and type of industry.

Coefficient of board size and board independent is positive suggesting that both variables have a positive influence on the level of sustainability reporting and supports the Hl and H2 proposed in the study. The findings of board size are consistent with the findings reported by Lim et al., (2006), Laksamana (2008), Said et al., (2009), Ntim and Soobaroyen (2013), Esa et al., (2012) implies that companies with larger board size disclosed significantly more sustainability reporting. The significantly positive relationship between proportion of board independent and sustainability reporting is consistent with previous studies by Chau and Gray (2010) and Barako and Brown (2008). The results may imply that the engagement in sustainability reporting is the primary concern of independent directors. This study shows that independent directors play an important role in enhancing corporate image, resulting in more voluntary disclosure in sustainability reporting of company activities.

The results from the Table 5 indicate that both H3 and H4 are not significant with p-values of both variables are more than alpha value (0.05); hence, both H3 and H4 are rejected. However, previous studies by Chaw and Gray (2010) and Sobhani et al., (2012) reported a positive relationship between the CEO duality and sustainability reporting. Thus, from this study, it can be seen that CEO duality will not to help improved monitoring quality of the sustainability reporting in Malaysian companies. The finding of H4 is consistent with the previous study by Shamil et al., (2014) and inconsistent with previous studies (Haniffa and Cooke, 2005; Barako et al., 2006; Lim et al., 2007). A possible explanation for this difference might be the industry factor. This study focuses only on certain sensitive industries, namely construction, plantations, and properties as well as services. The industry in which a firm operates may also affect the level of disclosure (Ho and Wong, 2001; Lakhal, 2005)

Among the control variables, the p-value of firm growth is significant at 0.05 and the coefficient indicates a positive relationship between firm growth and sustainability reporting. This is inconsistent with previous studies (Chau and Gray, 2010; Gul and Leung, 2004; Boesso and Kumar, 2007; Shamil et al., 2014). Besides that, the results indicate that firm

profitability is significantly associated with the level of sustainability reporting at 0.05.. The use of ROA is consistent with other disclosure-based studies (Cheng and Courteney, 2006; Gul and Leung, 2004).

Control variable for firm size is not significant in this study. This result is in contrast to the prediction that large firms disclose more CSR in previous studies (Donnell and Mulcahy, 2008; Laidroo, 2009; Lakhal, 2005) which means that the decision to disclose more information in sustainability reporting in annual reports is not influenced by the size of the firm. Hence size of the firm may not be a good indicator influencing the level of disclosure of information in sustainability reporting for the current study.

6. Conclusion, Limitation and Suggestions for Further Research

The aim of this study is to examine the influence of board characteristics on the level of sustainability reporting in Malaysia. A sample 140 listed companies from the Bursa Malaysia was selected for this study. The results of the study show that board size and proportion of board independent has a positive association with the level of sustainability reporting. These is to confirm that the monitoring role of boards influence firm to disclose more company information to reduce both agency cost and information asymmetry (Brennan and Solomon, 2008; Hendry, 2005; Dalton et al., 2003). This is further supported by studies done by Forker (1992) which found that a higher percentage of independent directors on board enhanced the monitoring of the financial disclosure quality and reduce the benefits of withholding information. However, the study did not find sustainability reporting to be associated with CEO duality and type of industries. It is possible that the classification of industry as proposed by Bursa Malaysia was not able to fully capture the social sensitivity of each industry.

This study has focused on sustainability reporting on annual reports of Malaysian sensitive and non-sensitive industries. It is worth mentioning that disclosure in annual report but one way of examining the extent of corporate involvement in social activities. Company may decide to report sustainability reporting activities in a stand-alone report or company brochures or even not reporting them at all as sustainability reporting is voluntary. In other words, disclosure in annual reports should not be taken as the complete measure of sustainability reporting. The method adopted in this study was able to test only those factors which are quantifiable and hence can be included in the regression analysis.

Future research in sustainability reporting may perhaps perform to collect all the data not only from annual reports but can assess also from the website of the company to get more information of sustainability reporting. Additionally, in-depth interviews may generate data to clarify, support, and validate the results of the statistical analysis.

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