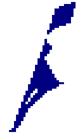
**РАЗДЕЛ 3
КОРПОРАТИВНОЕ
УПРАВЛЕНИЕ
В РАЗВИВАЮЩИХСЯ СТРАНАХ**



**SECTION 3
CORPORATE
GOVERNANCE IN
DEVELOPING COUNTRIES**

THE IMPACT OF GOVERNANCE AND OWNERSHIP STRUCTURE ON DISCLOSURE PATTERNS TRANSCENDING MAJOR REGULATORY CHANGE IN MALAYSIA

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Abstract

The purpose of this study is to investigate the extent of voluntary disclosures between 2006 and 2009 that transcends major regulatory and governance changes in Malaysia and to assess the association between strength of corporate governance structure, and ownership structure on the extent of voluntary disclosures of Malaysian listed firms over that period. The average level of voluntary disclosure within the annual reports of sample firms increased over the two periods. Further, the extent of voluntary disclosure is significantly positively associated with strength of corporate governance structure in both 2006 and 2009. Firms with concentrated ownership structure are associated with more extensive voluntary disclosures. These findings highlight the importance of an effective governance regime and concentrated ownership structure in reducing information asymmetry and agency costs and thereby enhancing the level of voluntary disclosures. These findings also have practical implications for policy-makers, analysts, auditors and regulators in Malaysia as well as East Asian countries.

Keywords: Voluntary Disclosure, Corporate Governance, Ownership Structure, Malaysia
JEL Classification: M41

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1. Introduction

In an increasingly volatile global market economy, investors require enhanced corporate disclosures that can assist them to make more informed decisions. Sound corporate governance and improved disclosure are important for the corporate world. The objectives of this study are to determine the variation in the extent of the voluntary disclosure practices in the annual reports of Malaysian listed firms between 2006 and 2009 that transcends major regulatory and governance changes in Malaysia and to assess the relation between strength of corporate governance structure, and ownership structure on the extent of voluntary disclosures in those years.

The current economic climate presents an enormous challenge for the corporate world to commit to sustainable business practices and position themselves as business leaders to their competitive advantage. The last decade has witnessed unprecedented global regulatory pressures for change, worldwide force of corporate governance reform and international convergence of accounting standards; which provide greater impetus for disclosure change. Sophisticated investors require disclosures that go beyond minimum statutory requirement to help them make more informed economic decisions. Non-financial information disclosure of a voluntary nature is a significant concern in developing countries with emerging markets such as Malaysia where the development and sustainability of capital market relies heavily on reducing the information gap between management and investors. Malaysia is one of the countries in the South East Asia region that has experienced rapid growth in market capitalization. The key ingredients in the value proposition of the significant growth in the Malaysian capital market are investor's confidence and trust in the reliability, quality and timely of information disclosed. Thus, the study on the assessment of the disclosure behaviour on this market is likely to be insightful to a range of stakeholders.

This study focuses on two key periods of 2006 and 2009. The 2006 year is chosen to represent the phase of adjustment to the corporate governance reforms since the release of the Malaysian Code of Corporate Governance (MCCG) in 2001 as well as the initiative to harmonise accounting standards with IFRS in 2006. It is expected that there is a greater focus on continuous improvement to corporate governance practices to improve accountability and transparency through the release of corporate information in annual reports. The MCCG was reviewed in 2007 to strengthen corporate governance practices, in particular with the view to enhance the quality and effectiveness of the board and audit committee. Thus, the 2009 year is selected to represent the further adjustment to corporate governance practices and the IFRS alignment before the full IFRS convergence in year 2012. These two years selected are justifiable in view of the changing governance and accounting landscape in the midst of 2007 global economic crisis could possibly result in changing disclosure practices of Malaysian listed firms.

The study contributes to the literature in several ways. First, it evaluates voluntary disclosure practices over two key time periods when Asian and global economic upheavals have triggered higher interest in corporate governance issues to improve transparency and accountability. This study provides an opportunity to clearly examine the pattern of voluntary disclosure practices of matched samples over two periods. Second, this study utilizes a novel and objective measure of strength of governance structure based on the best practice recommendations and principles released by the Malaysian Securities Commission as reflective of better or stronger governance. Currently, there is a lack of research that examines the association between the strength of governance structure and disclosure practices of firms. Reporting practices in Malaysia have evolved in line with changes in governance initiatives in Malaysia and also as a consequence of external shocks relating to economic crises and corporate collapses. Thus, it is important to gain an understanding of the key motivating factors and methods in the international context linking governance structure and management's disclosure incentives and practices. Finally, our findings should be of interest to economists, analysts, regulatory bodies, shareholders, creditors and accounting professionals. The findings will be of significance to Malaysian regulators and policy makers in assessing the disclosure practices and deliberating appropriate corporate governance requirement to improve corporate transparency. If these regulatory bodies and policy makers are well informed about actual practices at the corporate level, they will be better able to direct their policymaking and regulatory efforts. In view of the near similar governance structure, the findings will also be beneficial to the regulators and policy-makers from East Asian countries.

The empirical results of this study reveal that the strength of corporate governance structure is positively significantly associated with the extent of voluntary disclosures. Corporate governance structure plays an important role in influencing voluntary disclosure of Malaysian listed firms. Regression results also show a significantly positive association between the concentrated ownership structure and extent of voluntary disclosure in both periods. The findings support the notion that dominant shareholders' assist in monitoring management thereby providing the impetus to communicate greater information in annual reports.

The remainder of the paper is structured as follows. Section 2 reviews literature to develop hypotheses. Section 3 describes the research approach. The key findings of the study are highlighted in Section 4 then followed by concluding remarks in Section 5.

2. Literature Review and Hypotheses Development

Agency theory provides an ideal framework to assess firms' voluntary disclosure practices. Jensen and Meckling (1976) define an agency relationship as arising when there is a contract designed to motivate a rational agent to act on behalf of a

principal when the agent's interests would otherwise conflict with those of the principal. In the context of the firm, the agents such as board of directors and managers act on behalf of the principals such as shareholders and debtholders (Godfrey et al., 2006). The separation of company ownership and management provides management with the incentive to pursue self-serving utility-maximising behaviour at the expense of shareholders interests. Management are self-motivated and the goals of the shareholders and management conflict due to the non-alignment of their interests thus, giving rise to agency problems (Eisenhardt, 1989).

In the context of a firm, the crux of the matter is the possible information asymmetry between managers and shareholders. In the agency relationship, managers who have better access to firm's accounting and financial information can use their discretion in financial reporting to ameliorate agency problem and enhance the value of shareholders investments. Thus, the underlying economic and welfare considerations determine the disclosure patterns within annual reports (Godfrey et al. 2006). Extant literature (Ostberg, 2006; Healy and Palepu, 2001; Welker, 1995) cites agency theory to explain managerial disclosure decision making. Management's disclosure decisions affect firms' credibility with investors and other stakeholders (Mercer, 2005). The voluntary disclosure is thus seen as an effort of management to eliminate disparities that may exist between what investors and stakeholders expect and what management can deliver.

The adoption of corporate governance mechanisms has increased in recent years, and is largely due to changing expectations of capital markets; increased regulatory requirements; changes in accounting standards and the information needs of shareholders, capital market participants and an increasing array of other shareholders. Given the prominent attention to the role of corporate governance, there is a substantial body of evidence evaluating the influence of individual governance attributes on firms' disclosure policy. Prior studies have examined the association between corporate disclosure and specific governance attributes such as board composition, board committee formation and independence, CEO and board chairperson duality, audit committee (eg. Donnelly and Mulcahy, 2008; Cheng and Courtenay, 2006; Gul and Leung, 2004; Ho and Wong, 2001; Chen and Jaggi, 2000). Interestingly, these studies do not produce consistent evidence regarding the impact of these individual governance attributes on corporate disclosure.

Shleifer and Vishny (1997) and Core (2001) highlight that a well-designed governance structure can help ensure an optimal firm's disclosure policy. More research is needed to investigate the relation of the overall corporate governance structure and corporate disclosures. However, the use of the index-based measure and its relation to corporate disclosure has started to gain researchers' attention in recent years (O' Sullivan et al., 2008; Beekes and Brown, 2006).

O'Sullivan et al. (2008) investigate the role played by a firm's corporate governance framework in the decision to voluntarily disclose forward-looking information in annual reports of Australian companies. Their results show that firms disclosing forward-looking information typically experience a higher standard of corporate governance than non-disclosing firms in year 2000, but not in year 2002. Their results also reveal that overall corporate governance is positively and significantly associated with the firm's decision to disclose forward-looking information in annual reports in year 2000 only.

Beeks and Brown (2006) examine the link between the quality of a firm's corporate governance and the degree of informativeness of disclosed information. Their findings reveal that better-governed firms make more price-sensitive disclosure, have a larger analyst following, less biased analyst forecasts and more timely value-relevant information. Overall, Beekes and Brown (2006) provide evidence that better-governed firms make more informative disclosure to the market. Byard et al. (2006) examine the association between corporate governance and the quality of information using a sample of analysts' forecasts. They find that better-governed firms have better quality information environment. Specifically, there is a statistically significant positive association between board independence and analysts' forecast accuracy, and significantly negatively associated with role duality. Karamanou and Vafeas (2005) document that the likelihood of making management earnings forecast, a proxy for voluntary financial disclosure practices, is positively associated with stronger corporate governance structure in the form of more outside directors on the board, a lower level of managerial share ownership, a higher level of institutional ownership and a smaller audit committee.

The aforementioned literature suggests the adoption of corporate governance structure is an important determinant in influencing management to make greater disclosure of information on voluntary basis. Following Taylor et al. (2008), this study constructs a composite governance index based on various characteristics of corporate governance structure enlisted in the MCCG. This approach allows the evaluation of the influence of firm's governance structure as a whole on the extent of voluntary disclosure. The MCCG sets out principles and best practices on structures and processes that firms may use in operations towards

achieving the optimal governance framework. The MCCG is embedded with the transparency and disclosure initiatives; which suggests that firms with effective governance structure are likely to provide extensive information to stakeholders. The enactment of corporate governance principles should contribute to the reduction of information asymmetries between the board and suppliers of capital. Extant literature has shown that the presence of governance mechanisms enhances corporate disclosures (Bassett et al., 2007; Patelli and Prencipe, 2007; Cheng and Courtenay, 2006). Thus, it is reasonable to expect that a stronger governance structure will be associated with a greater extent of voluntary disclosures. As market mechanisms for promoting good corporate governance develop, the enhancement of this relationship is expected to develop over time. To formally test the influence of a firm's overall corporate governance score on the extent of voluntary disclosure, the following hypothesis is proposed:

H1: All else being equal, a firm's corporate governance score is positively associated with the extent of voluntary disclosure.

Ownership structure is a related aspect of corporate governance and arguably, has its own influencing effect upon voluntary disclosure. Jensen and Meckling (1976) postulate that ownership structure has the potential of reducing information asymmetries and thereby, alleviating agency conflict between shareholders and managers. The degree of ownership structure measures the power of shareholders to influence managers which in turn determines the nature of the agency problem (Thomsen and Pedersen, 2000). High dispersion of ownership occurs when the majority of shareholding is held by a large number of individual shareholders. Agency theory argues that firms will disclose more information to reduce agency costs and information asymmetry in a diffused ownership environment (Jensen and Meckling 1976). A wide shareholder base is predicted to demand more information to be disclosed in the annual reports to reduce information asymmetry (Fama and Jensen, 1983). Thus, discretionary disclosure in annual reports is likely to be greater in widely held firms so that individual shareholders can effectively monitor that their economic interests are optimised and managers can signal that they act in the best interests of the owners.

Greater disclosure in firms with diffuse ownership is empirically documented. For instance, Haniffa and Cooke (2002) find a significant positive relationship between voluntary disclosure of Malaysian firms and ownership diffusion based on the proportion of shares held by top ten shareholders. Using outside equity as a proxy for diffusion in Hong Kong firms, Chau and Gray (2002) reveal that the level of information disclosure is positively associated with wider ownership. The results of these studies of voluntary disclosure behaviour provide support for the agency theory argument that there is a positive association between wider ownership and the extent of voluntary disclosure.

On the other hand, the individual shareholders in a diffused ownership structure may lack monitoring capacity due to the low ownership stake of individual shareholders who may not be a formidable force to influence firm's disclosure choice (Zeckhauser and Pound, 1990). In this instance, managers may voluntarily disclose less information in the annual reports. This line of argument is empirically supported by Barako et al. (2006) who report a significant negative relationship between ownership diffusion and the extent of voluntary disclosure in Kenya, implying a lack of monitoring capacity due to low ownership stake of individual shareholders.

Notwithstanding the contrary empirical findings, the effect of ownership dispersion on the extent of voluntary disclosure lacks conclusive evidence. For instance, Alsaeed (2005) examines the effect of ownership dispersion on the extent of voluntary disclosure by a sample of non-financial Saudi firms listed on the Saudi Stock Exchange. His study could not find supportive evidence on the association between ownership dispersion and voluntary disclosure. Similarly, Eng and Mak (2003) use blockholder ownership, defined as the proportion of shares held by substantial shareholders with shareholdings of 5% and more, as a proxy measure of ownership diffusion. They document that the level of disclosure is not significantly related to ownership diffusion (low blockholder ownership). The above previous studies did not support the claim that more monitoring via greater disclosure is required when ownership is diffused.

When ownership is concentrated, the majority of ownership is controlled by a small number of large, dominant shareholders who could play an important role in monitoring management. Shleifer and Vishny (1997) argue that large (outside) ownership can help reduce agency conflicts due to their dominant power and incentive to prevent expropriation by insiders. In this regard, the dominant shareholders play a monitoring role and can be expected to put more pressure on management to disclose additional information.

Empirically, Haji (2013) and Ghazali and Weetman (2006) find no significant association between the ownership concentration and the extent of voluntary disclosure of Malaysian listed firms. On the other hand, Hossain et al. (1994) reveal that ownership concentration is statistically negatively related to the level of information voluntarily

disclosed by Malaysian listed firms. In contrast, Birt et al. (2006) report that Australian firms having high level of shares owned by top 20 shareholders are more likely to disclose voluntary segment information. They provide the rationale that ownership concentration in the hands of large shareholders has the ability to mitigate the agency problems inherent in a firm by influencing the voluntary disclosures made by the firm.

The aforementioned literature on the influence of the degree of dispersion of ownership on the extent of voluntary disclosure does not reach a clear or consistent finding. The mixed empirical findings of ownership structure as a governance mechanism could be the result of the variations in firms' ownership structure internationally. These differences clearly demonstrate the importance of considering the effect of ownership structure as governance mechanism in influencing a firm's corporate disclosure practices.

The rapid growth of Malaysia's economy has not diluted the concentrated ownership structure in Malaysian firms. Zhuang et al. (2001) report that the largest shareholder still possesses an average 30.3% of outstanding shares among all listed firms in Malaysia in 1998, with top five shareholders owning 58.8%. Further, both Abdul Samad (2004) and World Bank (1999) measure ownership concentration in terms of shareholdings by the top five shareholders in Malaysia and document that, on average, the top five shareholders held about 60% of total equity in the corporate sectors. These surveys also document that the predominant shareholdings are held by family shareholders. This suggests that ownership and control of corporations in Malaysia typify the insider-dominated mould with concentrated shareholdings, a feature that is believed to have impaired the effectiveness of existing governance mechanisms in the corporate sector. Given the high insider ownership concentration that characterised the Malaysian firms and the proposition advanced in agency theory, the following hypothesis is put forward:

H2: All else being equal, a firm's concentrated ownership structure is negatively associated with the extent of voluntary disclosure.

3. Research Methodology

The annual reports of firms for years 2006 and 2009 are sourced from Bursa Malaysia. The criteria of selection of sample companies are: (i) the availability of annual reports of companies for all two periods, (ii) companies selected in 2006 must remain listed on the stock exchange for 2009, and (iii) all banks, unit trust, insurance and finance companies will be excluded from the study due to different and stringent regulatory requirements.

This study uses a self-constructed list of 75 items of information of discretionary nature to derive a voluntary disclosure index, the proxy measure for the dependent variable. The list is developed based on the past disclosure studies conducted in developing countries (eg. Hossain et al., 1994; Haniffa and Cooke, 2002; Barako et al., 2006; Ghazali and Weetman, 2006). This list is subject to screening by a Chartered Accountant from a Big Four firm to ascertain the items remained voluntary over the two years period. The voluntary disclosure instrument examines communication made in relation to four major categories of information namely, (i) corporate and strategy; (ii) financial and capital market data; (iii) forward-looking; and (iv) corporate social responsibility. Although there is a certain degree of subjectivity in constructing a disclosure index, it has proved to be a valuable research tool in the areas of disclosure research (Beattie et al., 2004).

The complete annual report is scrutinized against the disclosure checklist. An item scores 1 if disclosed and 0 if it is not, subject to the applicability of the item concerned. The voluntary disclosure score for each company is additive and unweighted. The unweighted scoring approach assumes that each item of disclosure is equally important (Gray et al., 1995). Cooke (1989a, p.182) considers that unweighted indices are an appropriate research instrument in disclosure studies when the focus of the research is "directed at all users of corporate annual reports rather than the information needs of any specific user group." On the other hand, the weighted approach incorporates the subjectivity of assigning weights when users' preferences are unknown and likely to assign different weights to similar items (Chow and Wong-Boren, 1987). A screening process is applied to all selected companies' annual reports to ensure that judgment of relevance is not biased and not penalizing companies for not disclosing an item that is irrelevant. The disclosure instrument is scored and completed by one researcher to ensure consistency of scoring. A firm's voluntary disclosure index (VDI) is defined as the ratio of actual disclosures to the maximum possible score.

In relation to the measurement of corporate governance variable, the principles and best practices of the MCCG and the Chapter 15 of Bursa Malaysia Listing Requirement provide authoritative and objective sources for selection of corporate governance attributes. The focus is on the included governance attributes that can be operational and have been deemed in the literature to be relevant. This gives rise to thirteen attributes (as listed in Table 5) selected for the construction of a measure of the corporate governance structure of a firm.

Each of the attributes of corporate governance is measured as a dichotomous variable. A value of 1 is assigned for each corporate governance attribute that is presumed to reinforce the voluntary disclosure practice of a firm, and 0 otherwise. A

firm receives a score ranging from 0 to 13 depending on the number of attributes satisfied. This approach is deemed to be appropriate in view of the voluntary compliance with best practices of the MCCG. Firms in each period had the 'opportunity' to incorporate any or all of these attributes. Given this premise, the corporate governance score are not adjusted as 'not-applicable" items. This approach is consistent with Taylor et al. (2008). The strength of a firm's corporate governance structure is captured by creating a composite proxy measure, defined as corporate governance score (CGS). The CGS, measured as a percentage, is treated as a continuous variable.

Ownership structure variable is proxied by ownership concentration measured as the top five shareholders. This study includes firm-specific variables such as firm size, leverage, profitability, board size and audit firm size as control variables in the statistical analysis. The firms' annual reports form the basis of sourcing for the data. Table 1 summarises the operationalisation and measurement of the independent and control variables.

Table 1. Variable Specification

Variables	Measurement
Independent variables:	
Corporate governance structure (CGS)	the composite measurement of thirteen corporate governance attributes
Ownership concentration (OCON)	Proportion of shares held by top five shareholders
Control variables:	
Firm size (FSIZE)	Natural log of total assets
Profitability (PROF)	Net profit divided by Shareholders' Equity
Leverage (LEV)	Total liabilities divided by total assets
Board size (BSIZE)	Number of directors on the board
Audit firm size (AUDIT)	1 if firms are audited by Big Four, and 0 otherwise

To test whether there are significant differences in the extent of voluntary disclosures, the parametric paired sample t-test is conducted. The use of same sample companies over the two periods facilitates the conduct of paired t-test. To assess the effect of each variable on the voluntary disclosure, a normal ordinary least square regression is conducted for each period. The regression model is defined as:

$$VDI_{jt} = \beta_0 + \beta_1 CGS_{jt} + \beta_2 OCON_{jt} + \beta_3 FSIZE_{jt} + \beta_4 PROF_{jt} + \beta_5 LEV_{jt} + \beta_6 BSIZE_{jt} + \beta_7 AUDIT_{jt}\ \varepsilon_{jt}$$

where
VDI_{jt}=firm's voluntary disclosure scores
β=estimated coefficient for each item or category;
CGS_{jt} = corporate governance composite score for firm j in year t
$OCON_{jt}$=ownership concentration for firm j in year t
$FSIZE_{jt}$= firm size for firm j in year t;
$PROF_{jt}$= Profitability for firm j in year t;
LEV_{jt}= Leverage for firm j in year t;
$BSIZE_{jt}$= Board Size for firm j in year t;
$AUDIT_{jt}$= Audit firm size for firm j in year t;
ε_{jt} = error term

4. Results

Table 2 reports the descriptive statistics of firms' voluntary disclosures index score (VDI). Malaysian firms have an average VDI of 31.7%, with minimum and maximum scores of 8.0% and 74.7% respectively in 2006. The average VDI in 2009 is 35.2% while the lowest and highest disclosure scores are virtually the same as in 2009. The extent of voluntary disclosure increases slightly between 2006 and 2009.

Table 2. Descriptive Statistics of Firms' VDI

	2006	2009
Mean	31.679	35.160
Standard Deviation	15.798	17.504
Minimum	8.000	7.040
Maximum	74.680	74.670
Kurtosis	-0.380	-0.448
Skewness	0.575	0.108

Paired t-test is performed to examine the statistical significance of differences between the means of the VDI over the two periods. Table 3 shows there is a statistically significant (at the 1% level) increase in the mean VDI for sample firms.

Table 3. Paired Sample T-Test of VDI

	2006-2009
Mean of paired differences (%)	3.481
% change VDI (VDI_t-VDI_{t-1})	10.988
Correlation	0.704*
t-Stat	2.365
P(T<=t) one-tail	0.001
t Critical one-tail	1.660

Legend: VDI = Voluntary Disclosure Index Score. Paired sample t-test result for mean VDI for sample firms is performed by comparing 2006 and 2009. The percentage change in mean VDI (VDIt-VDIt-1) between the two years is shown. The correlation between paired samples is significant at the 1% level. The one-tailed significance is reported because of the directional nature of the study. There is a statistically significant increase in the extent of voluntary disclosure over the periods 2006-2009.

Table 4 shows the trend of disclosures of the four major categories of information. Malaysian listed firms tend to disclose more corporate and strategy information (CSI) in both years. The average CSI disclosure is 42.2% in 2006 although it dipped to 38.9% in 2009. Business strategy information is a complex but increasingly important subject in the face of globalization and liberalisation. Strategy impacts many aspects of a firm and ultimately impact on a firm's performance. Thus, strategy information becomes the fabric of a firm's disclosure in the annual reports. Information pertaining to corporate social responsibility (CSRI) is least communicated by Malaysian firms in 2006 (21.1%). However, the extent of CSRI disclosure increased to 35.9% (an increase by 70%) in 2009. Malaysian firms tend to disclose the same amount of financial and capital market data information (FCMI) and forward-looking information (FLI) over the two periods.

Table 4. Descriptive Statistics of VDI by Sub-Categories

	CSI	FCMI	FLI	CSRI
2006				
Mean	42.236	30.926	30.435	21.062
Minimum	0.000	0.000	0.000	0.000
Maximum	78.570	84.210	72.730	82.610
Standard Deviation	19.938	18.437	14.559	23.017
2009				
Mean	38.884	30.969	29.278	35.975
Minimum	3.770	0.000	0.000	0.000
Maximum	80.770	84.620	72.730	82.610
Standard Deviation	21.344	19.730	17.797	21.980

Legend: The descriptive statistics are expressed in percentage. VDI is categorised into four categories of discretionary information. These are: CSI = corporate and strategy information; FCMI = financial and capital market data information; FLI = forward-looking information; and SRI = corporate social responsibility information.

Further insight into firms' implementation of individual corporate governance mechanisms is revealed in Table 5. There is a notable decrease in firms adopting CG1 from 62% to 53%, a decrease by 14.5%, reflecting the situation that Malaysian firms opt for role duality in latter year. On the other hand, the adoption of the corporate governance attributes increased between 2006 and 2009 are seen in CG6 (increased by 42%), CG9 (26.5%), CG10 (27.3%) and CG12 (28.2%). Generally, Malaysian firms have increasingly become more aware of the adoption of recommended corporate governance attributes particularly the requirements of board sub-committees (audit committee, remuneration committee and nomination committees).

Table 6 reveals that the mean corporate governance score (CGS) is 69.0% in 2006. The lowest CGS is 38.5% while the highest CGS recorded is 92.3%. The mean CGS increased slightly to 72.9% in 2009 with the lowest CGS remains unchanged and the highest CGS attained is 100.0%. The average ownership shareholdings in 2006 is 57.4%, which reflects the fact that Malaysian sample firms have a high ownership concentration with the majority of shareholdings held by the top five shareholders. There is a wide variation in ownership structure which ranges from 22.1% to 85.1%. The ownership structure remains to be highly concentrated in 2009 as reflected by the average shareholdings of 59.0%. The ownership stake by the top five shareholders ranges from 16.5% to 87.9%.

Table 5. Proportion of Firms Incorporating the Attributes of Corporate Governance

	Attributes	2006	2009	Change
CG1	Chairman who is independent of Chief Executive Officer	62%	53%	-14.5%
CG2	Independent non-executive directors comprise at least one-third of the board membership	71%	70%	-1.0%
CG3	Board has defined policy of management responsibilities of the board and CEO	54%	54%	-
CG4	Audit committee chaired by independent non-executive directors	77%	75%	-3.0%
CG5	Audit committee comprises at least three directors, majority of whom are independent	74%	72%	-3.0%
CG6	At least two members of audit committee have accounting or related financial management expertise	36%	51%	42.0%
CG7	Remuneration committee chaired by independent non-executive director	51%	50%	-2.0%
CG8	Remuneration committee consists wholly of non-executive directors	40%	38%	-5.0%
CG9	Structured remuneration policy in place, where remuneration to directors is contingent of performance	34%	43%	26.5%
CG10	Disclosure requirement in the annual report of the details of remuneration to each director	11%	14%	27.3%
CG11	Nomination committee consists exclusively of non-executive directors, a majority of whom are independent	67%	66%	-1.5%
CG12	Does nomination committee adopt a formal procedure for appointments to the board?	39%	50%	28.2%
CG13	Maintain sound system of internal control - financial, operational, compliance and risk management - to safeguard shareholders' investment and company assets	75%	75%	-

Table 6. Descriptive Statistics of Explanatory Variables

	2006		2009	
	CGS	OCON	CGS	OCON
Mean	69.031	57.38	72.929	59.014
Standard Deviation	12.539	14.313	15.366	16.483
Minimum	38.460	22.100	38.460	16.540
Maximum	92.310	85.080	100.000	87.970
Kurtosis	-0.100	-0.267	-0.259	-0.138
Skewness	-0.045	-0.055	-0.089	-0.145

Pearson Product-moment correlation coefficients for the continuous explanatory variables as well as the dependent variable for both periods are shown in Table 7. There is a positive and statistically significant ($p<0.05$) correlation between CGS and VDI in 2006 and 2009. Similarly, correlation between OCON and VDI is positive and statistically significant ($p<0.01$) in these two periods. For control variables, only FSIZE, PROF and BSIZE are positively and statistically significantly correlated with VDI in 2006 and 2009. Correlation coefficients among the continuous explanatory variables are below 0.7, which is below the benchmark level of 0.8 as indicated in Judge et al. (1980). Thus, multicollinearity is not a concern in this study.

Table 7. Pearson Correlation Matrix

2006	VDI	CGS	OCON	FSIZE	LEV	PROF	BSIZE
VDI	1.000						
CGS	0.242**	1.000					
OCON	0.221**	0.212**	1.000				
FSIZE	0.569*	-0.096	-0.039	1.000			
LEV	0.177	-0.228**	-0.245**	0.336*	1.000		
PROF	0.198**	0.016	0.071	0.044	-0.115	1.000	
BSIZE	0.224**	0.015	0.123	0.289*	-0.013	0.004	1.000
2009							
VDI	1.000						
CGS	0.254**	1.000					
OCON	0.292*	0.154	1.000				
FSIZE	0.650*	0.083	0.107	1.000			
LEV	0.090	-0.250**	-0.053	0.169	1.000		
PROF	0.308*	0.125	0.086	0.112	-0.232**	1.000	
BSIZE	0.306*	0.135	0.002	0.357*	-0.049	0.112	1.000

*Legend: Pearson correlation matrix shows the correlation coefficients for all the continuous explanatory variables and the dependent variable. * Correlation is significant at the 0.01 level. ** Correlation is significant at the 0.05 level.*

OLS regression results are presented in Table 8. The F-values (9.297 in 2006 and 9.482 in 2009) of the model is significant at the 0.001 level for both periods. The explanatory power of the model as indicated by the values of adjusted R-squared are 43.3% and 52.7% in 2006 and 2009 respectively. Both of these values suggest that the model explains a substantial percentage of the variation in the level of corporate disclosure.

Table 8. Regression Analysis of Determinants of Voluntary Disclosures

		2006				2009			
Adjusted R²		0.433				0.527			
Durbin-Watson		1.986				2.187			
F statistic		9.297				9.482			
Significance		0.000*				0.000*			
	Predicted sign	Coeff.	t Stat	P-value	VIF	Coeff.	t Stat	P-value	VIF
Intercept		-58.243	-5.814	0.000*		-69.076	-3.897	0.000*	
CGS	+	0.271	2.258	0.001*	1.157	0.394	3.901	0.000*	1.340
OCON	-	0.225	2.198	0.015**	1.124	0.293	2.769	0.020**	1.068
FSIZE	+	14.717	5.543	0.000*	1.319	12.872	4.828	0.000*	1.657
LEV	+	8.204	1.213	0.114	1.307	5.176	1.015	0.152	1.216
PROF	+	13.082	1.983	0.025**	1.053	6.215	1.846	0.033#	1.230
BSIZE	+/-	0.344	0.445	0.324	1.124	0.628	0.801	0.213	1.192
AUDIT	+	-1.338	-0.389	0.349	1.237	2.550	0.707	0.241	1.237

*Legend: The table shows the results of regression for all sample firms against the independent and control variables. Associations *, **, # are statistically significant at the 1%, 5% and 10% levels respectively. One-tailed probabilities are used for the tests. The table reveals a positive and statistically highly significant association between sample firms' VDI and CGS in 2006 and 2009, which is consistent with the predictions as hypothesized in H1. OCON is positively and significantly associated with VDI thus, H2 is not supported by such result.*

The OLS regression coefficients for CGS (2006: 0.271 and 2009: 0.394) are positive and statistically significant ($p<0.01$), suggesting that the enhanced corporate governance structure is associated with greater extent of voluntary disclosure for both periods. The result is consistent with the predictions of a positive association between voluntary disclosure and the strength of corporate governance structure of all sample firms. Thus, H1 is supported in both periods. This result is similar to that of Beeks and Brown (2006), who reported a positive and significant association between corporate governance structure and information disclosure by Australian listed firms.

Although a significant predictor, the result for ownership concentration is not in the direction predicted and thus, H2 is not supported. There is a consistently positive and statistically significant ($p<0.05$) association between voluntary disclosure and ownership concentration in 2006 and 2009. The results suggest that the higher the proportion owned by the top five shareholders, the higher the disclosure. This positive relationship is consistent with the results of Haniffa and Cooke (2002) and Birt et al. (2006), suggesting that firms with concentrated ownership in the hands of large shareholders implies greater monitoring capacity to influence the management to provide more disclosures of voluntary type.

The control variables that are included in this study are firm size, leverage, profitability, board size and audit firm size. Firm size is a very important corporate attribute associated with voluntary disclosure in the annual reports. Table 8 reports that firm size is positively and statistically significantly ($p<0.01$) associated with voluntary disclosure in 2006 and 2009. Similarly, a company's profitability level is found to be positive and statistically significantly ($p<0.05$) associated with voluntary disclosure in 2006 although it shows marginal statistical significance ($p<0.10$) in 2009. Hence, companies that are large in size and are profitable voluntarily provide more information in annual reports. Leverage, board size and audit firm size lacks statistical significance to show their impact on the extent of voluntary disclosure in our multivariate analysis in both periods.

4.1 Tests on Robustness of the Model

A problem encountered in disclosure studies is that disclosure indexes are an empirical proxy for the underlying theoretical construct (Beattie et al., 2004). Cooke (1998) suggests multiple approaches are helpful to ensure the empirical results are robust across methods. The first approach used as a robustness measure is the rank regression analysis. The rank regression model is estimated with rank transformation of the VDI of the sample companies

and four corporate attributes measured on a continuous scale (i.e., corporate governance structure, ownership concentration, firm size, leverage and profitability). The OLS regression test is run on these ranked values plus the auditor type variable measured on categorical scale. The second approach involves transforming actual observations into normal scores using Van der Waerden's approach (Camfferman and Cooke, 2002, Cooke, 1998). The VDI and continuous independent variables are transformed into normal scores. This approach offers an advantage whereby a normally distributed dependent variable implies that the errors are also normally distributed by the assumptions of OLS.

Although not reported in this paper, the results of both approaches for both periods support the main findings about the significant influence of the strength of corporate governance structure and concentrated ownership structure on voluntary disclosure practices. The control variables found to have a significant relationship with disclosures are firm size and profitability.

The multivariate analysis undertaken assumes the exogenous determination of both corporate governance and ownership structure variables. Concern arises of the possibility of the endogenous determination of corporate governance and ownership structure. A potential correlated omitted variable problem may occur where there are factors that may potentially affect corporate governance and ownership structure, and that may affect voluntary disclosure of information simultaneously (Karamanou and Vafeas, 2005). The endogeneity will adversely bias the OLS model used in this study thus, it would be difficult to interpret the association between corporate governance and ownership structure and voluntary disclosure. Karamanou and Vafeas (2005) recommend the examination of the association between changes in level of governance as a way to address potential endogeneity. This approach is appropriate since there is less likely to be a corresponding change in any potential omitted variable that is correlated with both the dependent and independent variables. Hence, the multiple regression analysis is conducted to ascertain the association between the change in voluntary disclosure and the change in the independent and control variables between the two periods. The results (not shown for brevity) indicate that there is no significant association between the change in VDI and the change in CGS and the change in OCON. This change analysis lessens any possible concern of the endogeneity in the determination of corporate governance and ownership structure.

Conclusion

The study examines the association between voluntary disclosure and corporate governance structure and ownership structure. The extent of voluntary disclosure is investigated and compared over two periods when there was a revision to the code of corporate governance and the onset of global economic crisis. These changes are expected to have an influence on the corporate disclosure practices. The empirical results of this study provide credence to previous research findings as well as valuable insights regarding the extent of voluntary information disclosure among listed firms in this emerging country – Malaysia.

The results show that the extent of voluntary disclosures is, on average, low although there is a statistically significant increase over the two years covered in this study. The significant increase could be attributed to the companies' responses to the changes in the business environment as a result of the revised Malaysian Code of Corporate Governance, global economic crisis, mandatory corporate social responsibility (CSR) disclosure requirement and increasing awareness of CSR in the Malaysian environment. Subsequently, the results reveal the extent of CSR information disclosed by Malaysian listed firms increased over the two years. Forward looking and corporate strategy information disclosed have taken a dip while the disclosure on financial and capital market data information remains largely the same over the two periods.

The extent of voluntary disclosures in the annual report is related to a company's corporate governance structure, ownership structure and firm characteristics. The results suggest that corporate governance structure is positively and statistically significant in determining the extent of voluntary disclosures in 2006 and 2009 periods. Ownership structure is statistically and positively associated with voluntary disclosure in both periods although it is in the opposite direction to our expectation, suggesting that firms with concentrated ownership structure could influence management to voluntarily disclose information. Firm-specific control variables remained significant are firm size and profitability.

The findings offer both theoretical and practical implications. These results provide evidence that firms may voluntarily disclose more information in enhanced governance structure, and imply that when external regulatory bodies emphasize corporate governance, boards align their monitoring objectives accordingly. The strength of corporate governance structure would thus prove to be useful for monitoring board's activities and mitigating agency-principal conflict which could result in greater communication. The ownership structure as characterized by large, dominant shareholders play an important role in monitoring management and reducing agency conflicts. Thus, the significant increase in the extent of voluntary disclosures in the annual reports by Malaysian listed firms could be considered as the managerial disclosure decision to enhance firms' credibility

with stakeholders and thereby, reducing information asymmetry.

In terms of practical implication, the extent of voluntary disclosure as documented in this study should send a signal to Malaysian regulators to strengthen its regulatory framework in encouraging listed firms to disclose information on voluntary basis. In an increasingly volatile and interdependent global economy, both regulators and policy makers play important roles in advocating voluntary disclosures which may demonstrate the potential value of sustainability reporting as a management and investors relations tool. Another important practical implication arises from the study is the involvement of large shareholders in the ownership structure who can serve as good monitors in corporate disclosure decision-making process. Given a relatively similar corporate governance environment, the findings may be of interest to policy makers and regulators in East Asian countries.

This study has its limitations. Although it is not the intention of the study to establish the causality between the corporate governance and ownership structure and voluntary disclosure, the endogeneity issue may be further and deeper investigated by undertaken different methodologies. More governance variables could be incorporated in creating a composite proxy measure - corporate governance score. The dimension of the sample could be increased by analysing more listed firms. Also, the disclosure index can be object of criticism, as the dichotomous measurement can only ascertain the existence of items disclosed and not the informativeness of the disclosed items. Finally, the background and culture of top management team may affect the disclosure policies emanating from the board are excluded from the study. Future research will certainly shed light on these important areas.

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