CORPORATE GOVERNANCE QUALITY, INCENTIVE FACTORS AND VOLUNTARY CORPORATE GOVERNANCE DISCLOSURES IN ANNUAL REPORTS OF MALAYSIAN PUBLICLY LISTED COMPANIES

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Abstract

This paper investigates the relationship between corporate governance quality and voluntary disclosure of corporate governance information for listed companies in Malaysia. The moderating impacts of incentive factors (capital market transactions and stock-based incentives) on this relationship are also examined. Corporate governance quality is measured using a comprehensive index. The empirical evidence of this study is broadly consistent with the notion that high corporate governance quality is positively related to a greater extent of voluntary disclosure. Stock-based compensation significantly influences the relationship between corporate governance quality and voluntary disclosures; however the other incentive factors examined do not appear to influence the relationship.

Keywords: Corporate Governance Quality, Voluntary Disclosure, Incentive Factors, Malaysia

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1. Introduction

This paper investigates the relationship between corporate governance quality and voluntary disclosure of corporate governance information in Malaysia. High quality corporate governance cannot generally be directly observed because it is a set of activities within an organisation. However, it may be signalled to investors through mandatory and voluntary disclosures in annual reports. Hence it is important to understand the incentive factors that motivate some companies to voluntarily disclose extended corporate governance information. The research question addressed is: what are the incentive factors that influence the voluntary disclosure of corporate governance information in annual reports of Malaysian publicly listed companies?

Malaysia is chosen as the empirical setting for the research since it has a mandatory and non-mandatory corporate governance disclosure environment and as such provides an opportunity to test the applicability of voluntary disclosure theory (Dye, 1985; Verrecchia, 1983) in a developing country. Like other developing countries, Malaysia has an emerging capital market and is characterised by having weak legal protection (La Porta et al. 2002), highly concentrated ownership (Claessens et al. 2000; Thillainathan 1999) and strong cultural factors (Haniffa & Cooke 2002a). One of the major implications of the Asian financial crisis in 1997-1998 is that foreign investors shied away from the affected countries including Malaysia (Claessens & Fan 2000). Investors and managers have long debated whether poor corporate governance is an important contributor to economic downturns. Leuz, Lins and Warnock (2009) provide evidence that foreigners do invest less in poorly governed firms that reside in countries with weak legal institutions. The findings of the above study suggest that a high standard of corporate governance practices, including their disclosure, is a potential lever to attract more foreign investment.

Companies with more effective corporate governance can use their annual report disclosures to provide assurance to investors of the firm's commitment to corporate governance and hence potentially lower investment risks (Kanagaretnam et al. 2007). According to Coombes and Watson (2000), investors are increasingly basing their investment decisions on companies' corporate governance information. As such the need to rate companies' corporate governance has become increasingly important with investors seeking indicators of good governance.

According to Beekes and Brown (2006, p. 422) "a company's corporate governance quality increases as additional, common corporate governance standards are met". Hence, a company with high corporate governance quality is defined as one that possesses and meets the common corporate governance standards set by authorities. Many independent local and international agencies have developed tools to measure companies' corporate governance quality (Van den Berghe & Levrau 2003), while several prior studies have used corporate governance indexes or ratings as measures of corporate governance quality (Durnev & Kim 2005; Beekes & Brown 2006; Brown & Caylor 2006; Randers et al 2010).[1] In this study, a company with high corporate governance quality is defined as a company that conforms to all or most of the basic mandatory requirements of Bursa Malaysia Listing Requirements (BMLR) and Malaysian Codes on Corporate Governance (MCCG).

In Malaysia, the Minority Shareholder Watchdog Group (MSWG) developed the corporate governance scorecard, which facilitates the assessment and rating of the quality of companies based on their corporate governance practices (Appendix 1). A recent study by the MSWG and the University of Nottingham Malaysia Campus (UNMC) (2007) found that more publicly listed companies in Malaysia are voluntarily disclosing information in accordance with international best practices in their annual reports. This result implies that Malaysian companies are now not only complying with minimum mandatory corporate governance disclosure requirements but are also disclosing more information voluntarily, especially in relation to corporate governance. However, there is considerable variation in the extent of voluntary disclosure of corporate governance information between publicly listed companies in Malaysia (MSWG & UNMC 2007). Voluntary disclosure of corporate governance information is defined as corporate governance information which is over and above the MCCG recommendations and BMLR guidelines.

A broad corporate governance quality index that captures the four main factors of effective corporate governance is adopted from the Minority Shareholder Watchdog Group (MSWG) in Malaysia. It consists of two main components: basic compliance score (BCS) and international best practices score (IBP). In this research, the BCS component is used to measure the level of a company's corporate governance quality and the IBP component is a proxy for voluntary disclosure of extended corporate governance information.

This study makes a number of contributions to the literature on corporate governance and voluntary disclosure. First, using a sample of 275 publicly listed Malaysian companies, it provides evidence on the extent of both mandatory and voluntary corporate governance disclosures. The results indicate that while there is a high level of compliance with mandatory reporting requirements, voluntary disclosure still falls well below international best practices. Further, the results suggest that the Best Practices in Corporate Disclosure (BPCD) initiative has not been entirely successful as yet, because none of the study's sample firms has implemented all of the voluntary disclosures suggested by international best practices. Hence, while the BPCD's main purpose is to encourage companies to improve voluntary disclosures (IBP) practices, and at the same time guide companies in complying with the mandatory disclosures (BCS) of Bursa Securities Listing Requirements (BSLR), there is room for expansion of the corporate commitment if the BPCD's goals are to be met.

Second, the results provide support for the contention that effective governed Malaysian companies signal their superior governance quality using voluntary disclosures. The results suggest that voluntary disclosure of corporate governance practices is a useful indicator of a company's actual corporate governance quality. The study demonstrates the applicability of voluntary disclosure theory to developing countries such as Malaysia. Further, compared with prior research, this study uses more comprehensive measures of corporate governance quality and voluntary disclosure of corporate governance practices.

Third, an examination of several potential incentive factors related to voluntary disclosure differs from prior research in that it evaluates these incentives in the context of a firm's underlying corporate governance quality. In particular, capital market transactions (issuance of new equity and debt capital) and stock-based incentives (stock-based compensation and CEO shareholdings) are examined to determine whether these disclosure incentives

[1] The majority of these studies have explored the relationship between corporate governance indices/ratings and firm performance or value. There are considerable similarities between the way that this study measures corporate governance quality and the index from International Shareholder Services (ISS) used by Brown & Caylor (2006), Deminor Ratings (Europe) used by Renders et al (2010), Howarth Corporate Governance Report (Australia) used by Beekes and Brown (2006) and the majority of the self-constructed corporate governance ratings and indices used in prior research. This is especially the case for the categories of Board of directors, Directors remuneration, and Accountability and audit. The Howarth Corporate Governance Report is quite similar to this study since it is based on annual report and web based disclosures of the companies. However some other ratings cover a broader range of issues such as fairness, social awareness, accounting policies, executive pay, takeover defences and shareholder rights (e.g. CLSA Corporate Governance Ratings, GovernanceMetrics International, Investor Responsibility Research Centre).

moderate the relationship between corporate governance quality and voluntary disclosure. The findings suggest that stock-based compensation statistically and positively affects the association between corporate governance quality and voluntary disclosures. However the other incentive factors do not affect the relationship.

The paper is organised as follows: The next section provides a description of the Malaysia's institutional setting. The relevant literature is then reviewed, and the hypotheses are presented. Section 4 describes the research methods used in this paper. The results of the study are detailed and discussed in Section 5, while the final section presents the conclusions of the study and the implications for theory and practice.

2. Development of corporate governance in Malaysia

Progress in reforming corporate governance in Malaysia started in 1998 when an independent committee was established to conduct a detailed study on corporate governance and to make recommendations for improvements. The committee released a Report on Corporate Governance, which laid the basis for the drafting of a set of corporate governance codes that applicable to the Malaysian capital market environment (Finance Committee Report on Corporate Governance 1999). The codes were published in 2000 and known as the Malaysian Codes on Corporate Governance (MCCG). The MCCG was initially issued as a guideline for enhancing corporate governance practices amongst Malaysian listed companies (Rahman 2006). The MCCG contains the principles and best practices for corporate governance. The principles for corporate governance consist of four main parts including: board of directors, directors' remuneration, shareholders, and audit and accountability.

Bursa Securities Malaysia Berhad (BSMB) has also played a major role in efforts to enhance corporate governance in Malaysia. For, instance Chapter 15 of the Revamped Listing Requirements addresses issues on corporate governance and one of the major requirements is that a listed company must ensure that its board of directors discloses the level of compliance and explains any deviation from the MCCG's recommendation in its annual report (Bursa Malaysia Berhad 2001). These revised Listing Requirements became effective in 30 June 2001, making reporting against the MCCG mandatory.

The BSMB conducts front line monitoring of the compliance of publicly listed companies with their reporting requirements through monitoring their announcements, market trading activity, the media in general, public complaints, and, in the case of reporting, through internal review of documents furnished (The World Bank June 2005). Non-compliance with the listing requirements could expose listed companies, their directors and/or officers to penalties under the Bursa Malaysia Listing Requirement (BMLR) and Securities Industry Act (SIA) 1983. The BSMB may impose a range of actions and penalties for breach. These include the issuance of caution letters, reprimands, fines (not exceeding MYR 1 million), directions for rectification, imposition of condition(s) for compliance, the non-acceptance of applications or submissions, mandate education or training program for directors and management, suspension of trading and de-listing (Bursa Malaysia Berhad 2001). In addition, Section 11 of SIA 1983 also empowers the Securities Commission (SC) to enforce the BMLR directly.

In July 2004, BSMB launched the BPCD with the aim of raising the standards of corporate governance amongst Malaysian companies. These BPCD were a set of guidelines aimed at assisting companies to move beyond minimal compliance into exemplary levels of disclosure with the hope of cultivating and instilling the spirit of disclosure and best practices as voluntary behaviour (Bursa Malaysia Berhad 2004). The BPCD set out to provide guidance and assistance to companies in complying with their disclosure obligations under the BMLR. Compliance with the BPCD guidelines is purely voluntary. However, BSMB strongly recommended that companies adopt these BPCD and integrate them into their own disclosure practices, policies and procedures. The BPCD are intended to aid in building and maintaining corporate credibility and investor confidence in Malaysia's capital markets (Bursa Malaysia Berhad 2004).

In addition, the government of Malaysia and the regulatory bodies have made reforms to other related laws. These include the *Securities Commission Act 1993 (SCA), Securities Commission (Amendment) Act 2000, Securities Industry Act 1983 (SIA), Securities Industry (Compliance with Approved Accounting Standards) Regulations 1999, the Malaysian Code on Take-overs and Mergers 1998, and Companies (Amendment) Act 2007* (Tie 2003). These initiatives were established with the aims of embedding a good corporate governance culture among publicly listed companies and obtaining market efficiency and a level playing field for investors.

The development of corporate governance in Malaysia is also supported by two independent organisations, the Malaysian Institute of Corporate Governance (MICG) and the Minority Shareholders Watchdog Group (MSWG). The MICG was established by Malaysian government with the aim of raising the awareness and practice of good corporate governance. It was established in March 1998 by the High Level Finance Committee of Corporate Governance. The MSWG was established in July 2001 with the purpose of enhancing shareholder activism and protecting minority interests. It has evolved into an independent corporate governance

research and monitoring organisation which provides advice to both individual and institutional minority shareholders on voting at companies general meetings. The MSWG has since 2005 published a survey report on corporate governance compliance of listed companies in Malaysia. The findings from these reports reveal that the requirements of the MCCG have been met with a high level of compliance. Further, Wahab, How & Verhoeven (2007) found a significant improvement in corporate governance practices subsequent to the MCCG governance reforms.

3. Literature review and hypotheses

3.1 Corporate governance quality and voluntary disclosures

Voluntary disclosure theory proposes that high quality companies will disclose more information voluntarily than poor quality companies to signal to investors that they are high quality (Dye 1985; Verrecchia 1983). In relation to corporate governance, high quality companies have incentives to inform investors about their superior corporate governance practices in order to avoid the adverse selection problem. That is, companies with high quality corporate governance are expected to signal their corporate governance quality "type" by voluntarily disclosing a greater extent of objective corporate governance information in annual reports.

Verifiable disclosures about high quality corporate governance practices are difficult to replicate by poor quality companies. Poorly governed firms will choose to disclose less or to be silent about their weaker corporate governance practices, thus being placed in a pool of firms where investors and other report users assign the "average type" to that pool. What sustains this partial disclosure equilibrium is the potential for proprietary costs associated with extended voluntary disclosure about corporate governance quality (Verrecchia, 1983). Thus, voluntary disclosure theory predicts a positive relationship between corporate governance quality and the voluntary disclosure of corporate governance information.

Agency theory can also explain why managers voluntarily disclose information. The agency conflicts that occur between managers and shareholders are due to the separation of ownership and control. Managers may have incentives to adopt better governance mechanisms such as voluntarily disclosure practices to reduce agency conflicts and the possibility of bonding and monitoring activities imposed by shareholders to control their behaviour (Jensen & Meckling 1976). Dey's (2008) study provides evidence in support of the argument that the extent of corporate governance mechanisms in a firm is a function of the firm's level of agency conflicts. Hence, both theory and evidence support the contention that firms with high levels of agency conflicts are likely to adopt effective corporate governance mechanisms to reduce agency costs borne by firms and managers. For example, higher costs of debt and equity and lower compensation to executives through price protection (Smith and Watts 1992; Hermalin & Weisbach 1998, 2003). A firm with high corporate governance quality is therefore expected to increase voluntary disclosure in order to reduce agency conflicts.

There are several studies that link corporate governance and voluntary disclosures (Ajinkya et al. 2005; Eng & Mak 2003; Ho & Wong 2001; Karamanou & Vafeas 2005; Laksmana 2008; Stephens 2009). The results of these studies suggest that promoting stronger governance encourages firms to be more transparent in their reporting. Further, companies with better corporate governance will use voluntary disclosures as a way to eliminate agency conflicts and reduce the information asymmetry problems that exist between managers and shareholders. All of the above studies used either one or more corporate governance mechanisms to measure companies' corporate governance quality. In contrast, Beekes and Brown (2006) used a broader set of corporate governance mechanisms to investigate the links between company corporate governance quality and informativeness of disclosures by Australian companies in relation to price sensitive announcements to the share market. They used a corporate governance index developed by the Horwath Report 2002 as the measure for corporate governance quality of 250 Australian companies. The results of their study confirm their prediction that "better-governed" Australian companies, as reflected in adherence to national and international best practices, do make more informative announcements. Thus, their empirical analysis is consistent with the belief that effective corporate governance is related to a greater extent of voluntary disclosures.

In accordance with voluntary disclosure and agency theories, this study predicts that companies with high quality corporate governance practices have incentives to voluntarily disclose a greater extent of corporate governance information in their annual reports. Hence this study hypothesises that:

H1: There is a positive relationship between corporate governance quality and voluntary disclosure of corporate governance information.

3.2 The moderating role of issuance of new shares and debt capital

Firms that are planning on making capital offerings (issuance of new equity or debt) have incentives to provide voluntary disclosures to reduce information asymmetry between managers and investors (Lang & Lundholm 2000). If investors are unable to determine the governance quality of firms issuing capital, they are unable to differentiate between high and low

quality firms or to accurately value a firm's securities; thus leading to problems of adverse selection (Akerlof 1970). High quality firms have incentives to make credible voluntary disclosures to capital providers to signal their superior corporate governance quality. This argument is based on the seminal work of Spence (1973a) who demonstrates that informed economic agents in markets characterised by information asymmetry have incentives to take observable and costly actions to credibly signal their private information to uninformed agents. Signals that are not costly lack credibility.

Lower information asymmetry will reduce the risk for investors in forecasting future payoffs from their investment (Akerlof 1970). As such, issuance of new shares or debt capital provides an extra incentive to the firm to signal the high quality of its corporate governance via increased voluntary disclosure of corporate governance information. De Nicolo, Laeven and Ueda (2008) find that companies with high corporate governance quality are in a better position to be able to attract outside financing. This finding is consistent with the above argument that companies with high quality corporate governance have incentives to signal this information to capital providers. There is empirical evidence to suggest that high quality firms that are planning an issuance make more voluntary disclosures. Lang and Lundholm (1993) found that disclosure scores were higher for companies that were issuing new securities. Seppanen (2000) suggests that managers make disclosures to facilitate capital raising. Collet and Hrasky (2005) also found consistent results that suggest that companies planning to issue new shares in the future have an incentive to make voluntary disclosures.

The theory and evidence presented in this section suggests that problems of adverse selection and information asymmetry can be reduced by signalling firm quality through voluntary disclosures. Thus, high corporate governance quality firms that are planning to raise external financing have incentives to voluntarily disclose information about their superior corporate governance practices. The decision to issue capital rather than to rely on internal funding conveys a signal about the firm's value and investment opportunities. Further, the choice to issue debt versus equity provides a signal to capital providers since the incentives and costs related to issues of debt are different to those for equity issues (Myers 1977, Myers & Majluf, 1984). Corporate governance adoption and disclosure incentives may also be different for debt and equity issues. Indeed, disclosure incentives differ between types of debt since private and syndicated debt are relationship lending with strong information flows to the lenders, while public debt has similar potential for information asymmetry problems as equity. We therefore focus on issues of equity and public debt in the hypothesis, and consider them separately to allow for differences in corporate governance adoption and disclosure.

H2 (a): Voluntary corporate governance disclosure is positively associated with the interaction of corporate governance quality and equity issues in the following two years.

H2 (b): Voluntary corporate governance disclosure is positively associated with the interaction of corporate governance quality and public debt issues in the following two years.

3.3 The moderating role of stock-based incentives

Agency theory suggests that agency problems occur because of conflicting interests between managers and shareholders. This conflicting interest discourages managers from disclosing their private information because such disclosure reduces their private benefits (Nagar, 1999). One possible approach to overcome this agency conflict is to link managers' compensation directly to their disclosure activity; however this is difficult to do. On the other hand, stock-based incentives can have the impact of both aligning managers' incentives with those of shareholders and providing incentives for managers to increase disclosure. Stock-based incentives are suggested by agency theory to be able to reduce agency conflicts and improve managers' decision ability from the shareholders perspective (Fama & Jensen 1983; Jensen & Murphy 1990).

This research considers two forms of stock-based incentives: stock-based compensation and CEO shareholdings. By stock-based compensation we mean the proportion of CEO compensation tied to the stock price. It is viewed as an outcome-based incentive that is likely to influence managers to act in the best interest of shareholders as opposed to cash form incentive (goals-based). Smith and Watts (1992) argue that the use of stock-based compensation lowers monitoring costs of shareholders by providing managers with incentives to maximize shareholders' value. This result suggests that stock-based compensation has the potential to increase the level of alignment between managers and shareholders' interests which then lowers the agency costs. Several other studies have found a positive association between stock-based compensation and future firm performance (Hanlon et al 2003; Kuang & Qin 2009; Henry 2010). However, stock-based compensation is not a perfect solution. For example, Guay (1999) shows excessive risk taking by managers in response to stock options.

Several prior studies have examined a link between stock-based compensation and voluntary disclosures. Nagar, Nanda & Wysocki (2003) find that firms' disclosures are positively related to the proportion of CEO compensation affected by stock price. Neo (1999) found that managers take advantage of voluntary disclosures to ward off the appearance of impropriety when dealing with insider transactions. However, there is also the potential for stock-based

compensation to have unintended accounting and disclosure related consequences. Bartov and Mohanram (2004) find that earnings are managed to increase cash payouts when managers exercise their options. Furthermore, CEOs have been found to make voluntary disclosure decisions that maximise their stock option compensation (Aboody & Kasznik 2000). More recently, Brockman, Martin and Puckett (2010) show that the timing and content of voluntary disclosures reflect CEO private incentives. Therefore managers' with stock-based compensation have increased incentives to make voluntary disclosures, however the timing of these disclosures are likely to be impacted by CEO incentives to maximize stock-based compensation.

CEO shareholdings can also help alleviate agency conflicts because managers' interests are closely aligned with shareholders' interests. This is because managers who own a large portion of shares in a company will bear the same consequences of losses as shareholders if they make poor business judgments that destroy company value (Jensen & Meckling 1976). However, Guay (1999) finds that the incentive effects provided by common stock are much lower than those for stock options, and of little economic importance to most CEOs in relation to risk taking. If this is also the case for disclosure incentives, it may be the case that CEO shareholdings do not provide such a strong incentive to increase disclosure compared to stock-based compensation such as stock options.

Nagar, Nanda and Wysocki (2003) examine the association between managers' disclosure practices and CEO shareholdings. They find that firms' disclosure practices are positively related to the value of shares owned by CEOs. This result suggests that CEO shareholdings can influence voluntary disclosure decisions. In contrast, most of studies in Southeast Asian countries for example in Singapore (Eng & Mak 2003), Hong Kong (Chau & Gray 2002) and Malaysia (Ghazali & Weetman 2006) have found that CEO shareholdings are associated with less voluntary disclosures. They argue that when CEOs hold a higher proportion of company issued share capital, the traditional conflicts of interest between managers and shareholders become conflicts between larger shareholders and smaller shareholders. CEOs who are also large controlling shareholders will make decisions that benefit them rather than for the best interest of the firm. This agency conflict becomes more apparent especially in Southeast Asian countries where weak legal institutions and high concentration of ownership structures are common (Claessens et al. 2000).

Overall, we expect that for a company with high quality corporate governance, stock-based incentives encourage management to disclose more information voluntarily. This is particularly expected to be the case prior to managements' exercise of stock options. However we expect the opposite effect for CEO share ownership in the Malaysian setting where large controlling shareholders are less likely to voluntarily disclose information if the benefits are expected to flow to smaller shareholders. To test this proposition the study hypothesises that:

H3 (a): The relationship between corporate governance quality and voluntary disclosure of corporate governance information is moderated by stock-based compensation incentives.

H3 (b): The relationship between corporate governance quality and voluntary disclosure of corporate governance information is moderated by CEO share ownership.

We expect the influence of stock-based compensation incentives to be positive and that of CEO share ownership to be negative.

4. Research methods and data collection

4.1 The sample

Panel A of Table 1 reports the total population of companies listed on the Bursa Securities Malaysia (BSM) and articulates how the final sample is derived. The population from which the initial sample was drawn consists of 987 Malaysian companies listed on the BSM with financial years ending during 2007. The top 350 of these listed companies have their corporate governance quality data published in the Minority Shareholder Watchdog Group (MSWG) 2008 corporate governance survey report, which is based on 2007 annual reports. There is no corporate governance quality data available for a large sample of Malaysian companies before this date.[2] Companies, whose shares were suspended, deleted, acquired or became privatised as well as those in the finance sector were excluded from the population prior to selecting the sample. Consequently, 275 companies remained from the top 350 and represent the final sample.

Panel B of Table 1 provides the sample distribution by industry. The majority (49.1%) of sample companies are from the trading/services and

[2] The same corporate governance reporting requirements were in place in Malaysia between 2001 and 2008. However the MCCG was revised in October 2007, effective 31 January 2009, by strengthening the requirements for director appointments, audit committees and the internal audit function. We only have consistent data for 2007 due to costs and changing rules. If we were to extend our analysis to the 2009 and 2010 years, the impact of these revisions on our research would be an increase in the requirements to achieve a high CGQ score and a decrease in the number of items considered to be voluntary disclosures from 35 to 30. However we would still expect to observe a significant positive relationship between CGQ and VDCG since high CGQ companies are likely to be either already complying with these additional requirements or more likely to comply with them once they became mandatory.

industrial sectors. The property sector accounts for 15.3%, followed by consumer products (11.6%) and plantations (10.9%). Construction, infrastructure, technology, hotel and closed-end fund sectors represent 6.5%, 2.9%, 2.5%, 0.7% and 0.4% of the sample respectively. As can be seen in Table 1, the 275 companies are a reasonably representative sample based on industry sector.

4.2 Data collection and sources

Both the corporate governance quality and voluntary disclosure data are obtained directly from the MSWG. This data comprises the Basic Compliance Score (BCS) and the International Best Practices (IBP) score for each of the sample companies in 2007. In addition, the MSWG provided data for the four sub-categories for each of these scores (board of directors, directors' remuneration, shareholders, accountability and audit).[3] The remaining data for the study is hand collected from company annual reports and includes data for moderating (issuance of new shares and debt and stock based incentives) and control variables. This study uses the BSMB website's link to companies' websites as well as the OSIRIS database as its sources for companies' annual report data.

Data on stock-based incentives are obtained from 2007 company annual reports,[4] while data for the issuance of new shares and debt capital relate to the 2008 and 2009 financial years. This approach is chosen because it identifies voluntary disclosures that are available to capital providers at the time of any financing activity. Prior studies have found evidence that suggests that companies increase disclosure in their annual reports prior to financing activities (Bujaki & McConomy 2002; Collett & Hrasky 2005; Lang & Lundholm 2000).

4.3 Voluntary disclosure of corporate governance (VDCG) index

This construct is measured as the score obtained by a company for the International Best Practices (IBP) component of the Corporate Governance Scorecard used by the MSWG. Details of this Scorecard are provided in Appendices 1 to 3. As depicted in Appendix 1, the total score available for each company is the sum of its Basic Compliance Score (BCS), which is based on required disclosures, and its IBP score. The corporate governance scorecard includes disclosure information in relation to four main sub-categories: board of directors; directors' remuneration; additional shareholder information; and accountability and audit.

The IBP comprises 35 items depicting selected international best practices that are drawn from other influential principals, guidelines or codes of corporate disclosure and governance. These include those of the Organisation for Economic Co-operation and Development (OECD) Principles, the International Monetary Fund (IMF) Principles and the California Public Employees' Retirement System (CalPERs) Guidelines on corporate governance (MSWG & UNMC 2007). Companies are free to choose whether to conform to the international best practice recommendations relating to reporting on corporate governance information in their annual reports. As such disclosures captured under this IBP component are considered to be voluntarily. Appendix 2 provides details of the 35 voluntary disclosure items that make up the IBP component of the Corporate Governance Scorecard. We use the IBP score to measure voluntary disclosure of corporate governance (VDCG).

4.4 Corporate governance quality (CGQ) index

The corporate governance quality index is measured as the total score obtained by a company for the BCS component of the MSWG's Corporate Governance Scorecard. The BCS assesses a company's compliance with 40 key requirements of the Malaysian Code on Corporate Governance and the Bursa Securities Listing Requirement (MSWG & UNMC 2007). The total score of the BCS component is used to capture the company's corporate governance quality. The higher the score the better is the company's corporate governance quality (Appendix 3).

There are two main reasons for using this BCS construct as a proxy for corporate governance quality. First, recent studies on corporate governance have developed a set of corporate governance indices and this particular index has been developed for Malaysian companies. The corporate governance construct that is represented by the BCS component is customised to the local corporate environment and addresses the governance issues that are relevant to the Malaysian context. Second, no single corporate governance variable is sufficient to evaluate the quality of corporate governance structures of a company (Beekes & Brown 2006; Brown & Caylor 2006; Larcker et al. 2007). An individual or combination of several corporate governance variables (for example, directors, auditors and audit

[3] We purchased this data directly from the MSWG since it is not publically available. All that is included in the MSWG corporate governance survey report is a ranking of companies based on their overall score. The scores are not publically disclosed, nor are their rankings for the BCS and IBP components of the overall score.

[4] There is a concern that stock options and stock pay are associated with excessive compensation relative to performance of the CEO and firm, especially in the year of our study which is at the cusp of the global financial crisis and the start of major concerns about the pay-performance link. It is possible that these concerns have impacted the tendency of our sample firms to use stock-based compensation.

committee) approach can create measurement errors (Larcker et al. 2007). Furthermore, these variables are likely to be interrelated and ignoring such correlations can lead to spurious inferences (Agrawal & Knoeber 1996; Bowen et al. 2005).

It is possible that our measure captures 'box-ticking' rather than corporate governance quality per se (Ismail et al 2011). To assess this possibility, we conduct some analysis on the annual reports of the highest and lowest scoring firms in the sample. We find that there are significant differences between low and high CGQ firms in relation to the contents of their corporate governance statement. That is, the extent of detail provided in relation to various aspects of the report including the board of directors; directors' remuneration; shareholders; and accountability and audit is vastly different. The high scoring firms have much longer and more detailed corporate governance statements. It illustrate, high CGQ companies generally disclose detailed information about board of directors, directors' remuneration, shareholders, and accountability and audit in their corporate governance statement and tend to take 30 pages or more. On the other hand, companies with low CGQ provide very brief information in their corporate governance statement and it takes only 10-12 pages. Further, companies with low CGQ fail to comply fully with MCCG requirements. These companies do not provide explanations as to the reasons why they fail to comply with the MCCG, nor do they provide strategies to improve. However they do provide details on which aspects of the MCCG they have failed to comply with. Overall, these findings appear to indicate that our measure is capturing more than just box-ticking. To further explore this contention, an additional test using a benchmark corporate governance quality indicator is included in section 5.4.2.

4.5 Issuance of new shares and debt capital

A similar scale to the one used by Collet and Hrasky (2005) is used to proxy the issuance of new shares and public debt. In this study, a five percent increase of equity or non-current liabilities is considered to be an issuance. A value of one is assigned if the company's issued shares or non-current liabilities increases by five percent or more in the two years following the disclosure, and zero otherwise (Stock splits, bonus share issues and restructuring of share capital due to mergers and acquisitions were ruled out when measuring the issuance of new shares).

4.6 Stock-based compensation and CEO shareholdings

This research uses Nagar, Nanda and Wysocki's (2003) scale to determine stock-based compensation. The sum of the total value of stock option grants plus the value of the restricted stock grants divided by the total value of direct compensation is used to measure stock price-based compensation. Nagar, Nanda and Wysocki argue that by using stock price, managers can observe directly investors' reactions to disclosures. In this research, a similar approach is employed to measure CEO shareholdings (the market value of shares held by the CEO) except that the market value of CEO shareholdings is not averaged by year (sample period) but divided by the total market value of issued share capital at financial year end. This technique is more suitable to measure CEO shareholdings because the study is based on one year of data rather than multiple years.

4.7 Regression model

Ordinary least squares regression analysis is used to test the hypotheses. The multiple regression model is shown below.

$$\begin{aligned} VDCG = \beta 0 + \beta 1CGQ + \beta 2S\text{-}ISS + \beta 3CGQ{*}S\text{-}ISS + \beta 4D\text{-}ISS + \\ \beta 5CGQ{*}D\text{-}ISS + \beta 6SC\text{-}OPTIONS + \beta 7CGQ{*}\ SC\text{-}OPTIONS + \\ \beta 8SH\text{-}OWN + \beta 9CGQ\ {*}SH\text{-}OWN + \beta 10SIZE + \beta 11LEV + \beta 12FMB + \\ \beta 13BOARD\text{-}M + \beta 14ROE + \beta 15TRA + \beta 16LIST + \varepsilon i \end{aligned} \quad (1)$$

where VDCG represents voluntary disclosure of corporate governance information. The model includes interaction effects between corporate governance quality and each of the moderator variables. Prior to multiplication, the continuous variables are centred by subtracting the mean for each continuous variable from each observation. The main advantage of centring is that it can improve statistical validity and interpretation of regression results by reducing multicollinearity problems between the product of the two variables that are multiplied (Keith 2006).

In addition to the independent and moderator variables, a number of control variables are included in the model to test the hypotheses. The control variables are company size, leverage, family members on the board, proportion of Malay directors, return on equity, type of industry and cross listing. These control variables have been commonly tested in prior studies of voluntary disclosure (Collett & Hrasky 2005; Deumes & Knechel 2008; Ghazali & Weetman 2006; Haniffa & Cooke 2002; Ho & Wong 2001; Hossain et al. 1995; Meek et al. 1995).

Company size (SIZE) has consistently been associated with increases in voluntary disclosure. Larger firms are suggested not to have difficulty complying with governance issues and are better able to provide corporate governance information in annual reports compared to smaller firms (Bujaki & McConomy 2002; Hossain et al. 1994). A firm with a high gearing ratio (LEV) will generally have higher agency problems because the potential for wealth transfers from debt holders to shareholders increases (Jensen & Meckling 1976). Thus, voluntary disclosure is expected to increase as leverage increases.

The presence of family members on the board (FMB) is considered to be the main factor that hinders voluntary disclosure especially for firms that operate in Asian countries (Chen & Jaggi 2000; Ghazali & Weetman 2006; Ho & Wong 2001). Thus, it is expected that companies with a high proportion of family members on the board are less likely to disclose information voluntarily. In the Malaysian context, family membership on the board is a measure of how closely held is the firm. Another factor considered to be a contributor to decisions to disclose voluntarily is a cultural factor (race). Haniffa and Cooke (2002) show that race, which is measured by the proportion of Malay directors on the board (BOARD-M), significantly influences the level of voluntary disclosure. Companies reporting high profitability are expected to have more incentive to disclose voluntarily as good performance (profit) is considered to be good news (Watson et al. 2002). Since total assets have been used to measure firm size, return on equity (ROE) is adopted as a measure of firm performance to reduce the possibility of multicollinearity problems.

An industry dummy (TRA) is included to control for industry effects. This variable captures whether the firm is in the trading or services sectors. Most prior studies that examine the association between type of industry and voluntary disclosure have found a significant association between the type of industry and voluntary disclosure practices (Collett & Hrasky 2005; Deumes & Knechel 2008; Meek et al. 1995). Finally, whether a company's shares are listed (LIST) on both international and domestic stock exchanges is another determinant of voluntary disclosure. Firms whose shares are listed on an international stock exchange face additional listing requirements in relation to corporate disclosure in their annual reports (Gray et al. 1995; Hossain et al. 1994). Table 2 provides a summary of the regression equation components and how they are measured.

5. Results and discussion

5.1 Descriptive statistics

Table 3 presents descriptive statistics for dependent, independent, and other continuous and dichotomous variables for the sample of 275 companies. Data in relation to overall voluntary disclosures of corporate governance information (VDCG) and its sub-categories is shown in Panel A. From a minimum possible score of zero to a maximum of 35, Table 3 reveals that there is a wide range in VDCG scores. These scores range between 1 and 25, with a mean of 9.18 and median of 9.00. The maximum score of 25 out of a possible 35 suggests that the BPCD has not been entirely successful yet, as none of the sample firms has implemented all of the voluntary disclosures suggested by international best practices. It may be that companies are unaware of these best practice guidelines, or that they consider it unnecessary to expend effort to adopt them (MSWG & UNMC, 2008). Mean and median values for each sub-category of VDCG indicate low scores in relation to boards of directors and directors' remuneration, with higher scores for shareholders and accountability and audit.

Descriptive statistics for the overall measure of corporate governance quality (CGQ) and its sub-categories are presented in Panel B. The highest score achieved by a company is 39 out of 40 points and the lowest score is 18 points. The mean and median values for the total CGQ score are 29.67 and 30 respectively. Again, shareholders and accountability and audit are the sub-categories with the highest scores; while directors' remuneration is the sub-category with the lowest compliance level. Overall, companies' CGQ scores in the sample are at relatively high levels. Companies score more than three times as high in the CGQ than in the VDCG aspects of disclosure suggesting that companies are more likely to comply with the mandatory requirements of corporate governance disclosure than to the voluntary corporate governance disclosures.

Panel C of Table 3 shows the descriptive statistics for other continuous variables. The proportion of stock-based compensation offered to CEOs as part of their total compensation packages ranged from 0.00 to 0.95. The mean and median are 0.15 and 0.00 respectively. These results indicate that the majority of companies in the sample do not offer stock-based compensation. CEOs on the whole owned in average 0.17 of the total issued share capital of sample companies, with the highest proportion of shares owned by a CEO in the sample of 0.75. This suggests that majority of the sampled companies are less closely held. The distribution of the total assets to book value was normalised using a log transformation. The leverage level for the sample companies is quite high with a mean of 0.43. The lowest gearing level is 0.00 and the highest is 1.95. The proportion of family members on boards ranges from 0.00 to 0.83. The average proportion of Malay directors on boards is 0.43 of which the minimum and maximum proportion is zero and 1.00 respectively. The return on equity ratio is used to measure the profitability of a company. The statistics of ROE indicate that a small number of companies exhibit

negative ROE. Mean and median ROE are 0.18 and 0.16 respectively.

Descriptive statistics for dichotomous variables are presented in Panel D. Only 44 companies (16%) issued new shares. Out of these, 27 (10%) of the new issuances are for Employee Share Options Schemes (ESOS) and 16 (6%) are in the form of a rights issue. There are 43 companies (16%) that issued new debt capital. Overall, these results indicate that there are only a small number of companies in the sample that issued new shares or debt capital during the period 2007 to 2009. As shown in Table 3, there are 10 listed companies where shares are cross listed in other stock exchanges. The sub-sample of companies that belong to the trading/services sector is 72 which represent 26% of the sample.

Pearson and Spearman's rho correlations are shown in Table 4. All of the independent and control variables are significantly correlated with VDCG in the expected directions for both types of correlations. These results provide preliminary support for the study hypotheses and choice of control variables. Several of the moderator and control variables are also correlated with CGQ. These are SH-OWN, SIZE, FMB and BOARD-M, further highlighting the importance of controlling for these effects. There are also some significant correlations between the moderator and control variables. However none of these are high enough to indicate potential multicollinearity problems for the regression analysis.

5.2Regression analysis results

Table 5 reports the regression results for voluntary disclosure of corporate governance information. The model has an adjusted R^2 of 51.1%, suggesting that the model explains variation in the voluntary disclosures quite well. Since there is potential for the interaction terms to be correlated with each other, we first run the model with all interaction terms included and then with only CGQ*SC-OPTIONS which is the only interaction term that is significantly associated with VDCG. Thus, Hypothesis 3(a) that stock-based compensation moderates the relationship between companies' corporate governance quality and voluntary disclosure of corporate governance information is supported. On the other hand, the results indicate that the interaction terms CGQ*S-ISS, CGQ*D-ISS and CGQ*SH-OWN are not statistically significantly related to VDCG. These results suggest that H2(a), H2(b) and H3(b) are not supported.[5]

The regression coefficient for CGQ (β = 0.362) is positive and statistically significant ($p < 0.001$) in explaining all categories of voluntary disclosures of corporate governance information. This result provides strong support for Hypothesis 1 that there is a positive relationship between companies' corporate governance quality and voluntary disclosures of corporate governance information.[6] SC-OPTIONS has a positive and statistically significant effect on VDCG (β = 0.188, $p < 0.001$). On the other hand, issuance of new shares and debt capital and CEO shareholdings are not statistically significant in explaining voluntary disclosures.

As predicted, company size is positively and highly significantly associated with the voluntary disclosure of corporate governance information. Similar to prior studies, return on equity is also found to be significantly and positively associated with voluntary disclosures of corporate governance information (Ghazali & Weetman 2006; Haniffa & Cooke 2002)[7], while the percentage of family members on the board is negatively associated with companies' voluntary disclosures of corporate governance practices. (Chen & Jaggi 2000; Ghazali & Weetman 2006; Haniffa & Cooke 2002; Ho & Wong 2001)

We do not find a significant relationship between leverage and voluntary disclosure of corporate governance information, suggesting that corporate governance disclosures are not perceived as an effective way to reduce the agency costs of debt in the Malaysian setting. This result may be due to a high proportion of the liabilities taking the form of relationship lending such as bank loans and syndicated debt where strong information flows exist between borrower and lender. Another possible explanation is the high proportion of family owned companies in Malaysia leading to a reduced emphasis on communications between companies and investors. Previous research has found inconsistent results for the relationship between leverage and voluntary disclosure (Barako et al. 2006; Bujaki & McConomy 2002; Ho & Wong 2001). Our results are similar to those of Ho and Wong (2001) who studied listed Hong Kong companies, which is a similar setting in that it has a high proportion of family owned companies.

The cultural factor (race) which is measured by the proportion of Malay directors on the board is marginally significant at the 0.1 level and positively

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[5] To check the robustness of this result that CGQ*SC-OPTIONS is the only interaction term that is significantly related to VDCG, we run a series of regressions where CGQ*SC-OPTIONS is replaced with each of CGQ*S-ISS, CGQ*D-ISS and CGQ*SH-OWN. The results confirm that these interaction terms are not significantly related to VDCG.

[6] Multicollinearity diagnostics using variance inflation factors (VIFs) indicate that multicollinearity is not driving the results.

[7] To test whether both positive and negative ROE are associated with voluntary disclosure, we added a LOSS dummy variable to our regression as well as an interaction term LOSS*ROE. Neither LOSS nor the interaction term is significantly related to VDCG indicating that only positive ROE is associated with voluntary disclosure.

related with corporate governance disclosure. However the coefficient value is very small. This positive coefficient means voluntary disclosures of corporate governance practices by companies that have higher proportions of Malay directors on boards are marginally better than those without Malay directors. This result is in line with expectations and consistent with a prior study in Malaysia that found one of the cultural factors (race) to be positively related with the extent of voluntary disclosures (Haniffa & Cooke 2002). Wan-Hussin (2009) study also found that a Malay CEO is associated with superior segmental disclosures prior to the introduction of the segment reporting standard in Malaysia.

The industry sector (trading/services) has an insignificant association with voluntary disclosures. This result is consistent with the result from Haniffa and Cooke's (2002) study. Finally, using a dummy variable to represent a company which is cross listed on more than one stock exchange, the coefficient produced is insignificant although prior studies have consistently found that a cross listed company has a higher level of voluntary disclosures (Collett & Hrasky 2005; Meek et al. 1995). This inconsistency may be because a very small number of sample companies (4%) had their shares listed on more than one stock exchange.

Table 6 shows results for each of the sub-categories of disclosures that make up VDCG. The amount of explained variation in voluntary disclosure for the sub-category models ranges from 10.4% in the case of the board of directors' category to 39.3% in the directors' remuneration category. Corporate governance quality is significantly positively related to all of the sub-categories of voluntary disclosure of corporate governance information. SIZE and ROE are also significant explanatory for most disclosure sub-categories. Board of director disclosures are also related to stock based compensation and having family members on the board. Indeed, the strong result for CGQ*SC-OPTIONS appears to suggest that managers of high governance quality firms that have stock-based compensation incentives choose board of director disclosures to signal their firm's superiority.

Disclosures about directors' remuneration are also positively related to stock based compensation, regardless of corporate governance quality. This result seems intuitive since these disclosures include executive as well as directors' remuneration. On the other hand, shareholder related disclosures are negatively related to CEO shareholdings. This result can be attributed to strong family relationships on boards, especially in family firms where CEO's are expected to have large shareholdings, leading to a reduced emphasis on dialog between companies and investors. Finally, accountability and audit disclosures are negatively related to family members on boards, implying a reduced emphasis on audit and internal controls for these firms, and positively related to the interaction effect between corporate governance quality and stock based compensation. Overall, these results lend additional support for H1 (corporate governance quality) and H3(a) (stock-based compensation) and limited support for H3(b) (CEO shareholdings).

5.3 Sensitivity analysis

We conduct sensitivity analysis to check the robustness of the primary results to a variety of alternate specifications for the study variables. First, we benchmark our measure of corporate governance quality against an alternate corporate governance quality indicator. This alternate measure uses CLSA's Corporate Governance Watch ratings from 2007. CLSA's ratings consists of seven components: Transparency (TRAN); Accountability (ACC); Independence (IND); Discipline (DIS); Responsibility (RES); Fairness (FAIR); and Social Awareness (SOC). We use only the TRAN and ACC categories to measure firms' corporate governance quality because these two components are the most relevant to our definition of corporate governance quality. This definition is based on meeting the common corporate governance standards set by authorities and the majority of the key MCCG recommendations and BMLR guidelines relate to transparency, independence, audit and accountability. While the IND category of CLSA's rating is also potentially relevant for measuring corporate governance quality, the analysis excludes it because most of the CLSA questions for this category overlap with those for the ACC category and inclusion of both ACC and IND could cause multicollinearity problems for the regression analysis. ACC is more comprehensive than IND. The remaining CLSA rating categories (discipline, responsibility, fairness and social awareness) are excluded because they are based on questions that are not relevant to our definition of corporate governance quality. The regression results for these sensitivity tests are shown in Table 7 and are based on the sub-sample of 42 firms for which the CSLA ratings are available. They indicate that CGQ (using CLSA's rating) is significantly positively related with VDCG; suggesting that our measure of CGQ is of a similar standard to this alternate quality indicator. Similar to the primary results shown in Table 5, family member and return on equity are related to VDCG. However, the remaining variables are not related to VDCG. These differences may be due to the sub-sample comprising mostly very large firms.

Second, given that the CGQ and VDCG variables are not ratio scale measures, we ran a sensitivity test whereby these two variables were converted to proportions by dividing each firm's raw scores by the total possible score for each measure. When the regressions were run using these ratio scale variables, the results for the regressions were

essentially the same as those reported in Table 5 using the raw scores. Third, additional analysis is undertaken by distinguishing the form of new share issues in the model into Employee Share Options Schemes (ESOS) and rights issues. The regression results show that these variables are not significantly related to voluntary disclosure, which is consistent with the primary results.

Fourth, the study replaces the dummy variables capturing issuance of new shares and debt capital with percentage of each new issuance to the existing shares and debt on issuance. Fifth, the ratio value of stock-based compensation to total compensation and the ratio of market value of CEO shareholdings are replaced by dummy variables as proxies for stock-based compensation and CEO shareholdings. The results are quantitatively similar to those using the previous definitions except that the proportion of Malay directors on boards' variable is now no longer significant. Tests using these alternative variable definitions do not alter the primary findings and conclusions of this research. Sixth, we reran a series of dummy variables instead of TRA to control for industry differences. The analysis includes sectors such as consumer product (CON), industrial product (IND), plantations (PLA) and property (PRO) in the regression model. The results are similar to the primary finding of this research which suggests that industry differences have no impact on voluntary disclosures.

Finally, in order to ensure that the decision to exclude several interaction terms from the model does not influence primary results, SH-OWN, SC-OPTIONS, S-ISS and D-ISS were deleted from the regression model and include CGQ*S-ISS, CGQ*D-ISS, CGQ*SH-OWN and CGQ*SC-OPTIONS instead. The results of this regression using just the interaction terms for moderator variables support the study's primary results that Hypotheses H2(a), H2(b) and H3(b) are not supported while Hypothesis H1 and H3(a) are supported. We come to the same conclusion when SH-OWN, SC-OPTIONS, S-ISS and D-ISS are included and the interaction terms are excluded.

6. Conclusions

The results of this research suggest that companies with high governance quality are more likely to voluntarily disclose information about corporate governance practices. This finding suggests that voluntary disclosure of corporate governance practices is a useful indicator of a company's actual corporate governance quality. The results also indicate that companies that offer stock-option based compensation, but not stock ownership alone, are also likely to voluntarily disclose more corporate governance information.

The results provide empirical evidence to support Dye's (1985) voluntary disclosure framework as it relates to corporate governance quality, particularly in a developing country such as Malaysia. Good quality Malaysian companies (in term of corporate governance quality) are more likely to voluntarily disclose more information to distinguish themselves from poor quality companies.

There are four limitations of this study. First, this research relies on companies annual reports for the data necessary to test hypotheses. Therefore relevant information which is reported in websites or other forms of media is not captured. Second, the main focus of this study is specifically on voluntary disclosures of corporate governance information. As such the results may not be generalisable to other types of disclosures. Third, the findings are based on Malaysian companies which may limit the generalisability of the results to other jurisdictions such as to developed countries or other developing countries. Finally, only one year of data, 2007, is used for the analysis. It is possible that these results do not generalise to other years. In particular, changes to the MCCG effective in 2009 are not expected to impact the tenor of the results but it is possible that they may. Future studies in this area could address these specific issues.

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Table 1. Sample selection

Panel A: Sample companies used in empirical tests

Total population of companies listed on the BSM in 2007	987
Less: Companies without data on corporate governance quality	637
Top 350 companies with corporate governance quality data available	350
Less: Companies whose shares were deleted, suspended, delisted, acquired or privatised	40
	310
Less: Companies in finance sector	35
Final Sample	275

Panel B: Sample Companies by Industry Sector

Industry sector	Number in sample	% in Sample	Number in Population	% in Population
Trading/Services	72	26.2	182	21.5
Industrial Product	63	22.9	269	31.8
Property	42	15.3	87	10.3
Consumer Product	32	11.6	133	15.7
Plantation	30	10.9	43	5.1
Construction	18	6.5	50	5.9
Infrastructure	8	2.9	12	1.4
Technology	7	2.5	25	3
Hotel	2	0.7	4	0.5
Closed-end fund	1	0.4	2	0.2
Mining	0	0	1	0.1
Finance	0	0	39	4.6
Total no. of Companies	275	100	847*	100

* This number excludes 124 companies from the MESDAQ market and 16 companies under PN17 + GN3. PN17 companies are companies that triggered any of the criteria pursuant to Amended Practice Note 17 of the Listing Requirements of Bursa Securities Malaysia Berhad. GN3 companies are companies that triggered any of the criteria pursuant to Guidance Note 3 of MESDAQ market Listing Requirements of Bursa Securities Malaysia Berhad.

Table 2. Summary of regression equation components

Dependent variable	Measurement
VDCG = Voluntary disclosure of corporate governance information	Score obtained for the International Best Practices (IBP) component of the MSWG Corporate Governance Scorecard.
Independent variable	
CGQ = Corporate governance quality	Score obtained for the Basic Compliance Score (BSC) component of the MSWG Corporate Governance Scorecard.
Moderating variables	
S-ISS = Share issue	Issued shares increase by 5% or more in the 2 years following the disclosure.
D-ISS = Debt issue	Non-current liabilities increase by 5% or more in the 2 years following the disclosure.
SC-OPTIONS = stock based compensation	The sum of total value of stock option grants plus the value of the restricted stock grants divided by the total value of direct compensation.
SH-OWN = CEO shareholdings	Proportion of market value of the CEO's shareholdings to total market value of issued share capital.
Control variables	
SIZE = Size	Log of total assets
LEV = Leverage	Total liabilities divided by total assets
FMB = Family members on the board	Proportion of family members on the board to the total number of directors
BOARD-M = Malay directors on the board	Proportion of Malay directors to total number of directors on the board
ROE = Return on equity	Profit before tax divided by total shareholders' equity
TRA = Trading/ services sector	1 if the company is in the trading/services sector, and zero otherwise
LIST = Cross Listing	1 if the company shares are cross listed on more than one stock exchange and zero otherwise.

Table 3. Descriptive statistics for dependent, independent, continuous and dichotomous variables for 275 listed Malaysian companies

	Label	Mean	Median	Standard Deviation	Minimum	Maximum
Panel A: Voluntary Disclosure of Corporate Governance Information (VDCG) and its categories						
Part A - Board of Directors (0 to 8)		1.36	1.00	1.23	0.00	7.00
Part B - Directors' remuneration (0 to 6)		0.78	1.00	0.79	0.00	4.00
Part C - Shareholders (0 to 9)		3.43	4.00	1.73	0.00	8.00
Part D - Accountability and Audit(0 to 12)		3.61	4.00	2.06	0.00	9.00
Total VDCG Score (35)	VDCG	9.18	9.00	4.08	1.00	25.00
Panel B: Corporate Governance Quality (CGQ) and its categories						
Part A - Board of Directors (0 to 21)		14.98	15.00	2.47	9.00	20.00
Part B - Directors' remuneration (0 to 8)		3.98	4.00	1.68	0.00	8.00
Part C - Shareholders (0 to 2)		1.84	2.00	0.40	0.00	2.00
Part D - Accountability and Audit(0 to 9)		8.87	9.00	0.36	7.00	9.00
Total CGQ Score (40)	CGQ	29.67	30.00	3.72	18.00	39.00
Panel C: Summary Statistics for Other Continuous Variables						
Stock-based Compensation	SC-OPTIONS	0.15	0.00	0.28	0.00	0.95
CEO shareholdings	SH-OWN	0.17	0.01	0.21	0.00	0.75
Log of total Assets	SIZE	13.99	13.8	1.19	11.53	18.03
Total Assets/Total Debt	LEV	0.43	0.42	0.23	0.00	1.95
Family members on Board	FMB	0.18	0.00	0.22	0.00	0.83
Malay directors on Board	BOARD-M	0.43	0.38	0.28	0.00	1.00
Return on equity	ROE	0.18	0.16	0.23	-0.78	2.90

		Label	Number of companies where Variable = 1	%	Number of companies where Variable= 0	%
Panel D: Summary for Dichotomous Variables						
Share issue		S-ISS	44	16	231	84
	*Esos	Esos	27	10	248	90
	*Rights	Rights	16	6	259	94
Debt issue		D-ISS	43	16	232	84
Cross listing		LIST	10	4	265	90
Trading/ services sector		TRA	72	26	203	74

Table 4. Pearson and Spearman's rho correlations between dependent, independent, moderator and control variables for sample of 275 listed Malaysian companies (the Spearman's rho correlations are shown above the diagonal)

Variable	VDCG	CGQ	S-ISS	D-ISS	SC-OPTIONS	SH-OWN	SIZE	LEV	FMB	BOARD-M	ROE	LIST	TRA
VDCG		0.454**	0.247**	0.239**	0.268**	-0.308**	0.392**	0.215**	-0.353**	0.279**	0.188*	0.128*	0.210**
CGQ	0.494**	1	0.086	0.092	0.014	-0.258**	0.170**	0.084	-0.283**	0.190**	-0.045	0.012	0.083
S-ISS	0.215**	0.087	1	0.222**	0.494**	0.100	0.112	0.222**	-0.023	-0.034	0.111	-0.085	-0.012
D-ISS	0.244**	0.076	0.222**	1	0.202**	-0.147*	0.318**	0.356**	-0.066	0.073	0.147*	0.184**	0.176**
SC-OPTIONS	0.266**	0.054	0.493**	0.212**	1	0.093	0.103	0.103	0.101	0.014	0.128*	0.052	0.018
SH-OWN	-0.295**	-0.196**	0.057	-0.141*	0.050	1	-0.306**	-0.048	0.417**	-0.323**	-0.003	-0.082	-0.150*
SIZE	0.403**	0.136*	0.090	0.335**	0.134*	-0.228**	1	0.450**	-0.124*	0.235**	0.073	0.229**	0.135*
LEV	0.173**	0.084	0.186**	0.310**	0.097	-0.043	0.393**	1	-0.020	0.186**	0.222**	0.069	0.150*
FMB	-0.355**	-0.267**	-0.026	-0.048	0.112*	0.361**	-0.140*	0.001	1	-0.415**	0.012	-0.067	-0.282**
BOARD-M	0.306**	0.205**	-0.014	0.083	0.005	-0.265**	0.239**	0.152*	-0.422**	1	-0.002	0.085	0.0343**
ROE	0.250**	0.066	0.036	0.158**	0.025	-0.083	0.044	0.145*	-0.021	-0.067	1	-0.001	0.034
LIST	0.154*	0.038	-0.085	0.184**	0.051	-0.066	0.318**	0.065	-0.064	0.092	-0.018	1	0.105
TRA	0.234**	0.098	-0.012	0.176**	0.022	-0.105	0.175**	0.121*	-0.275**	0.349**	0.018	0.105	1

*Significant at 0.05; **Significant at 0.01.

The dependent variable is VDCG, which is the total score of IBP component that represent voluntary disclosure score; CGQ is the total score of BCS component that represent corporate governance quality of a company; S-ISS equals to 1 if the issued shares increase by 5% or more in the 2 years following the disclosure and zero otherwise; D-ISS equals to 1 if non-current liabilities increase by 5% or more in the 2 years following the disclosure and zero otherwise; SC-OPTIONS is the sum of total value of stock option grants plus the value of the restricted stock grants divided by the total value of direct compensation; SH-OWN is the proportion of market value of the CEO's shareholdings to total market value of issued share capital.; LSIZE is the company size as measured by the log of its total assets; LEV is he total liabilities divided by total assets; FMB is the proportion of family members on the board to the total number of directors; BOARD-M is the proportion of Malay directors to total number of directors on the board; ROE is profit before tax divided by the total shareholders' equity; TRA equals to 1 if the company is in a trading/services sector and zero otherwise; and LIST equals to 1 if the company shares are cross listed on more than one stock exchange and zero otherwise.

Table 5. Regression Results for total voluntary disclosure of corporate governance information with and without the full set of interaction terms

VDCG = β0 + β1CGQ + β2S-ISS + β3CGQ*S-ISS + β4D-ISS + B5CGQ*D-ISS + β6SC-OPTIONS + β7CGQ* SC-OPTIONS + β8SH-OWN + β9CGQ *SH-OWN + β10SIZE + β11LEV + β12FMB + β13BOARD-M + ß14ROE + β15TRA + ß16LIST + εi

	Predicted sign	**Include all interaction terms**	**Includes interaction term CGQ*SC-OPTIONS only**
Intercept		-16.416	-15.632
Variables:			
CGQ	+	0.383 (7.141)***	0.362 (8.083)***
S-ISS	+	0.039 (0.761)	0.037 (0.725)
D-ISS	+	0.039 (0.785)	0.032 (0.669)
SH-OWN	-	-0.087 (-1.819)†	-0.077 (-1.624)
SC-OPTIONS	+	0.195 (3.819)***	0.188 (3.751)***
SIZE	+	0.254 (4.914)***	0.253 (4.932)***
LEV	+	-0.036 (-0.743)	-0.040 (-0.816)
FMB	-	-0.135 (-2.638)**	-0.141 (-2.765)**
BOARD-M	+	0.085 (1.685)†	-0.088 (1.752)†
ROE	+	0.213 (4.753)***	0.214 (4.913)***
TRA	+	0.037 (0.790)	0.046 (0.973)
LIST	+	0.031 (0.672)	0.032 (0.693)
CGQ*S-ISS	+	-0.066 (-1.143)	
CGQ*D-ISS	+	-0.005 (-0.095)	
CGQ*S-SHOWN	+	-0.060 (-1.313)	
CGQ*SC-OPTIONS	+	0.194 (3.711)***	0.159 (3.615)***
N		275	275
Adjusted R^2		0.511	0.511
F ratio		18.929***	22.992***

Notes:

The table shows standardised coefficient and t statistics (in parentheses) for the respective independent variable in the model.

†Significant at 0.1; *Significant at 0.05; **Significant at 0.01; ***Significant at 0.001.

The dependent variable is VDCG, which is the total score of IBP component that represent voluntary disclosure score; CGQ is the total score of BCS component that represent corporate governance quality of a company; S-ISS equals to 1 if the issued shares increase by 5% or more in the 2 years following the disclosure and zero otherwise; D-ISS equals to 1 if non-current liabilities increase by 5% or more in the 2 years following the disclosure and zero otherwise; SC-OPTIONS is the sum of total value of stock option grants plus the value of the restricted stock grants divided by the total value of direct compensation; SH-OWN is the proportion of market value of the CEO's shareholdings to total market value of issued share capital.; LSIZE is the company size as measured by the log of its total assets; LEV is he total liabilities divided by total assets; FMB is the proportion of family members on the board to the total number of directors; BOARD-M is the proportion of Malay directors to total number of directors on the board; ROE is profit before tax divided by the total shareholders' equity; TRA equals to 1 if the company is in a trading/services sector and zero otherwise; and LIST equals to 1 if the company shares are cross listed on more than one stock exchange and zero otherwise. CGQ*S-ISS is the interaction term between CGQ and S-ISS; CGQ*D-ISS is the interaction term between CGQ and D-ISS; CGQ*SHOWN is the interaction term between CGQ and SHOWN; CGQ*SCOPTIONS is the interaction term between CGQ and SCOPTIONS.

Table 6. Regression Results for voluntary disclosure of corporate governance information by its categories

VDCG = β0 + β1CGQ + β2S-ISS + β3D-ISS + β4 SH-OWN + β5-SCOPTIONS + β6SIZE + β7LEV + β8FMB + β9BOARD-M + ß10ROE + β11TRA + ß12LIST + β13-CGQ*SCOPTIONS + εi

	Predicted sign	Board of directors	Directors' remuneration	Shareholders	Accountability and Audit
Intercept		-0.801	-2.601	-7.172	-5.051
Variables:					
CGQ	+	0.177	0.258	0.331	0.233
		(2.929)**	(5.182)***	(6.596)***	(4.359)***
S-ISS	+	-0.082	0.033	0.119	0.01
		(-1.172)	-0.572	(2.053)*	-0.166
D-ISS	+	-0.002	-0.056	0.052	0.042
		(-0.029)	(-1.041)	-0.961	-0.73
SH-OWN	-	0.061	-0.035	-0.148	-0.053
		-0.956	(-0.673)	(-2.798)**	(-0.937)
SC-OPTIONS	+	0.161	0.463	0.06	0.048
		(2.383)*	(8.294)***	(1.074)*	-0.804
SIZE	+	0.025	0.162	0.259	0.206
		-0.363	(2.842)**	(4.507)***	(3.366)***
LEV	+	0.002	-0.017	0.032	-0.099
		-0.037	(-0.314)	-0.591	(-1.714)†
FMB	-	-0.173	-0.077	0.078	-0.217
		(-2.500)*	(-1.347)	-1.347	(-3.543)***
BOARD-M	+	-0.007	0.052	0.107	0.066
		(-0.098)	-0.925	(1.899)†	-1.096
ROE	+	0.109	0.105	0.126	0.211
		(1.857)†	(2.171)*	(2.567)*	(4.056)***
TRA	+	-0.016	0.031	0.099	0.006
		(-0.252)	-0.599	(1.876)†	-0.101
LIST	+	0.028	0.046	-0.045	0.066
		-0.454	-0.906	(-0.878)	-1.206
CGQ*SC-OPTIONS	+	0.221	0.036	0.067	0.113
		(3.721)***	-0.73	-1.361	(2.0160)*
N		275	275	275	275
Adjusted R^2		0.108	0.393	0.384	0.302
F ratio		3.549***	14.663***	14.164***	10.124***

Notes:
The table shows standardised coefficient and t statistics (in parentheses) for the respective independent variable in the model.
†Significant at 0.1; *Significant at 0.05; **Significant at 0.01; ***Significant at 0.001.
The dependent variable is VDCG, which is the total score of IBP component that represent voluntary disclosure score; CGQ is the total score of BCS component that represent corporate governance quality of a company; S-ISS equals to 1 if the issued shares increase by 5% or more in the 2 years following the disclosure and zero otherwise; D-ISS equals to 1 if non-current liabilities increase by 5% or more in the 2 years following the disclosure and zero otherwise; SC-OPTIONS is the sum of total value of stock option grants plus the value of the restricted stock grants divided by the total value of direct compensation; SH-OWN is the proportion of market value of the CEO's shareholdings to total market value of issued share capital.; LSIZE is the company size as measured by the log of its total assets; LEV is he total liabilities divided by total assets; FMB is the proportion of family members on the board to the total number of directors; BOARD-M is the proportion of Malay directors to total number of directors on the board; ROE is profit before tax divided by the total shareholders' equity; TRA equals to 1 if the company is in a trading/services sector and zero otherwise; and LIST equals to 1 if the company shares are cross listed on more than one stock exchange and zero otherwise; CGQ*SCOPTIONS is the interaction term between CGQ and SCOPTIONS.

Table 7. Regression results for CLSA's CG rating (TRAN & ACC) on VDCG

VDCG = β0 + β1CGQ + β2S-ISS + β3D-ISS + β4 SCOPTIONS+ β5-SH-OWN + β6LSIZE + β7LEV + β8FMB + β9BOARD-M + ß10ROE + β11TRA + ß12LIST + β13-CGQ*SCOPTIONS + εi

	Predicted sign	
Intercept (Constant) Variables:		-5.534
CLSA-CG (TRAN & ACC)	+	0.460 (3.621)***
S-ISS	+	-0.132 (-0.740)
D-ISS	+	0.106 (0.739)
SC-OPTIONS	+	0.297 (1.409)
SH-OWN	-	0.071 (0.504)
LSIZE	+	-0.039 (-0.230)
LEV	+	0.005 (0.033)
FMB	-	-0.41 (-2.126)*
BOARD-M	+	0.190 (1.510)
LROE	+	0.331 (2.470)*
TRA	+	0.141 (1.098)
LIST	+	0.073 (0.575)
CLSA*SCOPTIONS	+	0.188 (1.498)
N Adjusted R^2 *F* ratio		42 0.571 5.094***

The table shows standardised coefficient and *t* statistics (in parentheses) for the respective independent variable in the model.

†Significant at 0.1; *Significant at 0.05; **Significant at 0.01; ***Significant at 0.001

The dependent variable is VDCG, which is the total score of IBP component that represent voluntary disclosure score; CLSA-CG is the total score of CLSA's CG rating that based on two main components: transparency and accountability to represent corporate governance quality of a company; S-ISS equals to 1 if the issued shares increase by 5% or more in the 2 years following the disclosure and zero otherwise; D-ISS equals to 1 if non-current liabilities increase by 5% or more in the 2 years following the disclosure and zero otherwise; SC-OPTIONS is the sum of total value of stock option grants plus the value of the restricted stock grants divided by the total value of direct compensation; SH-OWN is the proportion of market value of the CEO's shareholdings to total market value of issued share capital.; LSIZE is the company size as measured by the log of its total assets; LEV is he total liabilities divided by total assets; FMB is the proportion of family members on the board to the total number of directors; BOARD-M is the proportion of Malay directors to total number of directors on the board; LROE is log for return on equity (ROE); TRA equals to 1 if the company is in a trading/services sector and zero otherwise; and LIST equals to 1 if the company shares are cross listed on more than one stock exchange and zero otherwise; CLSA*SCOPTIONS is the interaction term between CLSA and SCOPTIONS

Appendix 1. Composition of corporate governance scorecard

Categories	Attributes	Basic Compliance Score (BCS)	International and Best Practices (IBP)	Actual score/Max score	Actual Score (%)
Board of Directors	The Board's principal responsibilities				
	Board balance				
	Supply of information				
	Re-election				
	Appointment to the Board				
	Directors' training				
	Board structure and procedures				
	Chairman and CEO				
	Nomination committee				
	Audit committee				
	Remuneration committee				
	Other committee				
	Sub Total	**21**	**8**	**29**	**38**
Directors' remuneration	The level and make-up of remuneration				
	Procedure on remuneration				
	Disclosure on remuneration				
	Sub Total	**8**	**6**	**14**	**19**
Shareholders	Dialogue between companies and investors				
	The AGM				
	Sub Total	**2**	**9**	**11**	**15**
Accountability and Audit	Internal control				
	Relationship with auditors				
	Financial reporting				
	Internal Audit				
	Sub Total	**9**	**12**	**21**	**28**
	Total	**40**	**35**	**75**	**100%**

Source: Corporate Governance Survey Report 2007 – a joint survey by MSWG and the University of Nottingham, Malaysia Campus

Appendix 2. List of 35 key voluntary disclosure variables using IBP component

Section A - Board of Directors

Principal responsibilities of the board

1. Disclose the existence of code of conduct or ethics.
2. Disclose details about the implementation of the code of conduct/ethics.

Chairman and CEO

3. Does statement discloses current chairman was not a previous CEO.

Board Balance

4. Half of the board members are independent non-executive directors (INED).
5. More than half of the board members are independent non-executive directors.

Appointment to the Board (Ensuring Board's continuous effective)

6. Discloses the terms of reference of NC (including activities, responsibilities, reporting frequency, meeting frequency and individual attendance)
7. Disclose whether non-executive directors in the NC are also independent directors

Board structures and procedures

8. Disclose the type of transaction that requires board approval.

Remuneration committee (Determination of Directors' Remuneration)

9. Disclose the term of reference of RC (including activities, responsibilities, reporting frequency, meeting frequency and individual attendance).

Section B - Directors' Remuneration

The level and make-up of remuneration

1. Discloses details of the remuneration policy regarding how senior executives and directors' pay is determined. (Company must disclose key performance benchmarks in the process of determining individual pay).
2. Disclose whether the company uses significant (more than 50 percent of total remuneration) performance based remuneration for executive directors.
3. Disclose whether the company uses long-term incentives (shares based payments) to reward executive director.

Disclosure of Remuneration

4. Discloses information in relation to remuneration of each director received from company and from subsidiaries.
5. Discloses information in relation to separate fees for additional contribution by non-executive directors, like attendance fee etc.

Section C – Shareholders

Dialogue between Companies and Investors

1. Does the company has an active website?
2. Does the website has an Investor Relations section?
3. Does the website contain information or instructions as to how investors can direct queries to the company?
4. Disclose details of officer managing investor relations (e.g. name, title, age, qualification, experience etc).
5. Disclose details of investor relations policy and disclosure processes toward investors (e.g. does the company have a regular investors' relation meetings, are they using electronic communication and the media to carry their message to shareholders, etc).
6. Discloses clear and consistent corporate governance strategy.
7. Discloses comparative key performance indicator (KPI) to industry benchmarks.
8. Disclose identified specific and measurable performance target for future year.
9. Disclose the company's dividend policy.

Section D – Accountability and Audit

The audit committee

1. If the audit committee (AC) is made up of entirely INED.
2. Disclose whether or not non-executive director and independent members of AC meet separately (at least once a year) without the presence of executive officers of the company).

Internal controls

3. Disclose informative, straight-forward and updated explanation of risk factors related to company different products and industries.
4. Disclose biographical details of the officer responsible managing internal controls at the company.
5. Disclose biographical details of the officer responsible for legal and regulatory compliance at the company.

Related party transactions

6. Discloses details of related party transactions in Corporate Governance statement.

Corporate Social Responsibility

7. Any reporting statement on human resources.
8. Any reporting statement on environmental issues.
9. Any reporting statement on community issues.

Auditors

10. Is the external auditors independent (yes, if they only provide statutory audit function). Provides explanation for the use of the same external audit firm for non-statutory audit and other services.

Timely reporting

11. Is the audit report released to the public after 120 days (4 months) of the balance sheet date (BSLR rules – account have to be filed 6 months after the company's balance sheet date).

Board approval

12. Disclose in the statement of corporate Governance that the Board had approved the statement.

Source: Corporate Governance Survey Report 2007 – a joint survey by MSWG and the University of Nottingham, Malaysia Campus

Appendix 3. List of 40 key corporate governance variables using BCS component

Section A - Board of Directors

Principal responsibilities of the board

1. Disclose the statement on the issue of leads control in company

Chairman & CEO

2. Have clear division of responsibility
3. Have independent Chairman (separation of two roles).

Board balance.

4. 1/3 of the board members are independent non-executive directors.
5. Disclose non-executive director's calibre, credibility, skill and experience.

Significant shareholder

6. Board have minority shareholder representation.

Appointment to the Board (Ensuring Board's Continuous Effective)

7. Have nominating committee (NC).
8. NC composed exclusively of non-executive directors.
9. NC proposes new nominees for the board consideration and approval.
10. Disclose the annual review on the board in respect of the skills and experience and other mix (Board appraisal is conducted).
11. Disclose assessment on individual director (Individual director appraisal is conducted).

Size of Board

12. Disclose that the company had reviewed the size of the board and feels that it is appropriate.

Directors' training

13. Orientation and education program for new recruits to the board.
14. Ongoing education and training for directors.

Board structures and procedures

15. Disclose the number of board meeting in a year.
16. Disclose detail of attendance of each individual director in respect of meetings held.

Relationship of the board to management

17. Does board define limits of management's responsibilities?

Quality of information

18. Management obliged to supply to the Board with all necessary information including customer satisfaction and services quality, market share, market reaction and so on.

Access to information

19. Do directors have separate and independent access to company secretary services?

Access to advise

20. Have agreed procedure for director to take independent professional advice.

Used of Board committees

21. Have defined authority of any committee form.

Remuneration committee (Determination of Directors' Remuneration)

22. Have a remuneration committee (RC)
23. RC consists wholly of non-executive directors.
24. RC to recommend to the Board the remuneration of the executive directors.
25. Disclose of membership of the RC in directors' report.

Section B - Directors' Remuneration

The level and make-up of remuneration

1. Take into account of pay and employment conditions within the industry.
2. Link executive directors' package to corporate and individual performance.
3. Relate non-executive directors' remuneration to contribution and responsibilities.

Disclosure of Remuneration

4. Disclose details of remuneration of each director.

Section C – Shareholders

AGM

1. Special business included in the AGM notice must be accompanied by full explanation of the effects of a proposed resolution.
2. Re-election of directors, notice of meetings state which directors are standing for election with a brief description of them.

Section D – Accountability and Audit

The audit committee (AC)

1. Audit committee comprised at least three directors.
2. If more than 50% of them are independent.
3. Have written terms of reference.
4. The chairman of the audit committee is an independent non-executive director.
5. Disclose details of the activities of audit committee.
6. Disclose details of the number of audit meeting in a year.
7. Discloses details of attendance of each individual director in respect of meetings.

Internal controls (IC)

8. Disclose detail of the internal control process (e.g. what financial and non-financial measures are in place, when are they tested, when reports on IC are done and who are the reports submitted to?).
9. Disclose risk management statement

Source: Corporate Governance Survey Report 2007 – a joint survey by MSWG and the University of Nottingham, Malaysia Campus