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Impact of incentives to voluntarily disclose corporate governance information in annual reports: An empirical study of Malaysian publicly listed companies

A dissertation submitted by

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ABSTRACT

This study investigates the extent to which a company's corporate governance quality is related to (a) its voluntary disclosure of corporate governance information, (b) the incentives factors that affect the relationship and (c) whether this relationship is stronger in the presence of an in-house qualified company secretary. The hypotheses development of this research study is based on Dye's voluntary disclosure theory and agency theory.

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 corporate governance quality and the IBP component is a proxy for voluntary disclosure of corporate governance information.

Using a sample of 275 publicly listed companies in Malaysia, the empirical results indicate that companies with high corporate governance quality are more likely to voluntarily disclose corporate governance information in annual reports. This result suggests that Dye's voluntary disclosure theory holds in Malaysia, a country that is characterised by weak legal protection, highly concentrated ownership and strong cultural factors.

Capital market transactions (issuance of new share and debt capital) and stock-based incentives (stock-based compensation and CEO shareholdings) are the two incentive factors that are examined in this research. The findings suggest that stock-based

compensation statistically and positively affects the relationship between corporate governance quality and voluntary disclosures. However the other incentive factors do not affect the relationship.

This study also examines the relationship between in-house qualified company secretaries and voluntary disclosures. It does this by distinguishing between two types of company secretaries, namely professional qualified versus license holders and in-house versus external. However, no evidence is found to support the hypothesis that in-house qualified company secretaries promote voluntary disclosures.

CERTIFICATION OF DISSERTATION

I certify that the ideas, results, analyses and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other awards, except where otherwise acknowledged

Norziana Lokman | Date

ENDORSEMENT

Professor Julie Cotter | Date

Associate Professor Joseph M Mula | Date

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1 Introduction

1.1 Research question and objectives

One of the major implications of the Asian financial crisis in 1997 is that foreign investors shied away from affected countries including Malaysia (Claessens & Fan 2000). Investors and managers have long debated whether poor corporate governance is an important contributor to economic downturns. A recent study by Leuz, Lins and Warnock (2009) provides new evidence that foreign investors do indeed invest less in poorly governed firms that reside in countries with weak legal institutions. This implies that improvement in corporate governance practices, including their disclosure is a potential lever for attracting more foreign investment.

Investors have now become more cautious and monitor companies' corporate governance closely before making any investment decision (McKinsey & Company July 2002). According to a global investor opinion survey in 2002, institutional investors put corporate governance on a par with financial indicators when evaluating investment decisions. The survey found that 63 percent of investors avoid investing in companies with poor corporate governance and 31 percent avoid investing in countries with poor corporate governance quality. Investors are also prepared to decrease their stock holdings in companies and countries with poor corporate governance standards (McKinsey & Company July 2002). Thus, improving companies' corporate governance is one way to strengthen consumer confidence and trust in a stock market.

Companies with better corporate governance can use their annual report disclosures to provide assurance to investors of lower investment risks (Kanagaretnam et al. 2007) and improve investor confidence in a company's accounting reports (Bhat et al. 2006). According to Coombes and Watson (2000), investors are increasingly basing their investment decisions on companies' corporate governance information. Companies with strong corporate governance have better chances to survive especially during the period of economic downturns (Mitton 2002). As such the need to rank companies' corporate governance has become increasingly important with investors seeking indicators of good governance.

Many independent local and international agencies have developed tools to measure companies' corporate governance quality. In Malaysia the Minority Shareholder Watchdog Group (MSWG) has developed a corporate governance index which facilitates an assessment of the quality of companies based on their corporate governance practices. A recent study by the MSWG and University of Nottingham Malaysia Campus (UNMC) found that more publicly listed companies in Malaysia are voluntarily disclosing information in accordance with international best practices in their annual reports (MSWG & UNMC 2007). This suggests that Malaysian companies are now not only complying with the minimum mandatory corporate governance disclosure requirements but are also disclosing more information voluntarily, especially in relation to corporate governance.

However, there is 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 that is over and above the Malaysian Codes on Corporate Governance (MCCG) recommendations and Bursa Securities Listing Requirement (BSLR) guidelines. High quality corporate governance cannot be directly observed because it is a set of activities within an organisation. However it can be signalled to investors through mandatory and voluntary disclosures in annual reports. Disclosure of this extended corporate governance information is purely voluntary as at present there are no regulations that require companies to disclose this information. Hence it is important to understand which incentive factors motivate some companies to voluntarily disclose this kind of information in their annual reports beyond existing mandatory and voluntary practices.

The main research question addressed in this study is: what are the incentive factors that influence the voluntary disclosure of corporate governance information in annual reports of Malaysian listed companies?

The following sub-questions have been developed in order to answer the main question:

1. Are companies with high quality corporate governance practices more likely to voluntarily disclose corporate governance information in their annual reports?
   (a) Does the presence of an in-house qualified company secretary in a company's corporate governance structure influence voluntary disclosures of corporate governance information in annual reports? (The presence of an in-house qualified company secretary is assumed to be an additional indicator of corporate governance quality).
2. Are companies more likely to voluntarily disclose corporate governance information in their annual reports prior to the issuance of new equity or debt?
3. Do stock-based incentives motivate managers to voluntarily disclose corporate governance information in annual reports?

The objective of this study is to examine voluntary disclosure of corporate governance information in annual reports of Malaysian publicly listed companies. This study focuses on a specific type of voluntary disclosure, that of corporate governance information in companies' annual reports, which is over and above the Malaysian Code on Corporate Governance (MCCG) and Bursa Securities Listing Requirements (BSLR). Bhat, Hope and Kang (2006) suggest that information about a firm's governance disclosures is very useful in assisting a user to assess the quality of information, especially in environments where financial reporting is less transparent. Companies can choose to voluntarily disclose this information in their annual reports in order to enhance disclosure transparency.

The annual report is chosen not only because it is a main document that contains company information for stakeholders but also because it is mandatory for all public companies listed on the Bursa Securities Malaysia Berhad (BSMB) to prepare (Bursa Malaysia Berhad 2001b). Previously, compliance to the principles and best practices of corporate governance recommended by MCCG was not mandatory. However, in June 2001 the revised BSLR made it mandatory for all companies listed on the BSMB to disclose in their annual report the extent to which they have complied with and explain any departure from the MCCG. Since compliance and explanation rules have been adopted in the Malaysian setting managers have been given freedom to choose on how much corporate governance information is to be supplied and disclosed in their annual reports, thus making disclosures somewhat voluntary.

The voluntary disclosure theory first proposed by Dye (1985) is applied in the study to a different type of voluntary disclosure information than appears to have been tested in prior research. This study tests Dye's voluntary disclosure theory by investigating whether companies with higher corporate governance quality are more forthcoming with voluntary disclosure of corporate governance information. In this study high corporate governance quality refers to a company whose corporate governance mechanisms closely conform to the MCCG and BSLR recommendations.

This study also investigates whether the presence of an in-house qualified company secretary in a company's corporate governance structure influences its voluntary disclosure practices. Prior studies on corporate governance and voluntary disclosures focus more attention on roles of directors, auditors and audit committees. In contrast, this study attempts to examine the role of the company secretary as a guardian of corporate governance. In Malaysia, a company secretary is normally required to assist the board of directors and management in preparing annual reports of a company. In the course of discharging his or her responsibility, a company secretary is expected to advise the board of directors and top management of a company in relation to compliance with the MCCG and the BSLR. A company secretary is also expected to encourage directors and management of a company to adopt voluntary disclosure practices about corporate governance information in their annual report. In acknowledging the importance of the company secretary's role, the MCCG and the BSLR further require listed companies to provide all directors of a company with advice and services of a company secretary.

This study also intends to measure how capital market transactions (issuance of new share and debt capital) and stock-based incentives (stock-based compensation and CEO shareholdings) impact the relationship between companies' corporate governance quality and companies' voluntary disclosure of corporate governance information. Signalling and agency theories are used as a basis to explain the impact of these two incentive factors on the association. According to signalling theory, external investors have less information about a firm's future prospects compared to a firm's managers who normally posses superior information. This information asymmetry problem may cause difficulties for a firm in terms of increasing external finance if it is not resolved (Healy & Palepu 2001). Therefore, managers of a firm who expect to increase external financing in the future have an incentive to provide voluntary disclosures to reduce this information asymmetry problem and lower the cost of raising external capital. On the other hand, Jensen and Meckling (1976) argue that stock-based incentives are able to align managers' interests with shareholders' interests to reduce agency problems. Managers who are rewarded with stock-based incentives have an incentive to use voluntary disclosures to reduce the possibility of devaluation of stock and firm value.

Therefore the need to study the relationship between corporate governance quality and voluntary disclosures practices in Malaysia stems from the growing importance of corporate governance information and the lack of existing literature which address incentives to voluntarily disclose corporate governance information. The sections that follow provide the institutional setting, motivation for the research, definition of key terms, contributions of the study, delimitation of scope and an outline of the dissertation.

1.2 Institutional setting

1.2.1 Development of corporate governance in Malaysia

Progress in reforming corporate governance in Malaysia started in 1998 when an independent committee was established to deliver a report and a set of corporate governance codes applicable to the Malaysian capital market environment (*Report on Corporate Governance* February 1999). The codes were published in 2000 and are known as the Malaysian Code on Corporate Governance (MCCG). The MCCG outlines principles and best practices for corporate governance. The principles for corporate governance consist of four main parts: board of directors, directors' remuneration, shareholders, and audit and accountability. Compliance with the MCCG principles and best practices at that time was not mandatory. The MCCG was revised in 2007 with the aim to improve the quality of corporate governance of publicly listed companies by adding criteria for directors' qualifications, as well as strengthening audit committees and internal audit functions.

Bursa Securities Malaysia Berhad (BSMB) has also played a part in efforts to enhance corporate governance in Malaysia by revamping its listing requirements. 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 recommendations (Bursa Malaysia Berhad 2001a). These revised listing requirements became effective on 30 June 2001.

In July 2004, BSMB launched its Best Practices in Corporate Disclosure (BPCD) with the aim of raising standards of corporate governance amongst Malaysian companies. These BPCD are 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 a spirit of disclosure and best practices as voluntary behaviour (Bursa Malaysia Berhad 2004). The BPCD provides guidance and assistance to companies in complying with their disclosure obligations under the BSLR. Compliance with BPCD guidelines is purely voluntary. However, BSMB strongly recommends that companies adopt these guidelines 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).

The key objectives of the BPCD include among others, to promote and maintain market integrity and investor confidence; to ensure companies provide equal access to material information in an accurate, clear, timely and complete manner and to avoid selective disclosure; to propagate the exercise of due diligence to ensure that information disseminated will be as far as possible accurate, clear, timely and complete; to instil in companies that they have in place an efficient management of information procedure that promotes accountability for the dissemination of material information; to encourage companies to take advantage of advances made in information technology in disseminating information; and to encourage companies to build good investor relations with the investing public that inspire trust and confidence (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 aiming to embed good corporate governance culture within publicly listed companies.

The development of corporate governance in Malaysia is also supported by two independent organisations. These are the Malaysian Institute of Corporate Governance (MICG) and the Minority Shareholders Watchdog Group (MSWG). The MICG was established by the Malaysian Government with the aim of raising 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 2000 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. Since 2005 the MSWG has published a survey report on corporate governance compliance of listed companies in Malaysia.

All of the above efforts are aimed towards improving companies' corporate governance practices and making corporations more responsible, efficient and profitable. It is hoped that this will boost investors' confidence, thus leading the way for a more efficient capital market. Indirectly, it is also expected that these efforts will improve Malaysia's economic growth through direct investment from foreign investors.

1.2.2 Company secretary role in corporate governance

In Malaysia, a company secretary is an officer of the company with substantial authority in the administrative area. The roles and responsibilities of a company secretary are derived directly from companies' articles and the Companies Act 1965. In respect of corporate governance issues, a company secretary is expected to carry out the following duties and responsibilities: Advisory – advising the board, chairman and all directors of a company on matters relating to compliance obligations under the law; Compliance – leading teams in secretarial best practice in ensuring compliance with law and regulation; and Communication – establishing efficient internal communication of Board decisions and external reporting (Kang 2005).

In acknowledging the importance of the company secretary's role, the MCCG in its Best Practices for the board of directors provides that:

Extract from the Malaysian Code on Corporate Governance

Part 2 - Best Practices in Corporate Governance

XI *Boards should be entitled to the services of a company secretary who must ensure that all appointments are properly made, that all necessary information is obtained from directors, both for the company's own records and for the purposes of meeting statutory obligations, as well as obligations arising from the Listing requirements of Exchanges or other regulatory requirements.*

XIX *Access to Information*

Directors should have access to all information within a company whether as a full board or in their individual capacity, in furtherance of their duties.

XX Access to Advice

There should be an agreed procedure for directors, whether as a full board or in their individual capacity, in furtherance of their duties to take independent professional advice at the company's expense, if necessary.

XXI All directors should have access to the advice and services of the company secretary.

XXII Directors should appoint as secretary someone who is capable of carrying out the duties to which the post entails and their removal should be a matter for the board as a whole. The board should recognise that the Chairman is entitled to the strong and positive support of the company secretary in ensuring the effective functioning of the board.

(Finance Committee on Corporate Governance March 2000, pp. 11-2)

In addition, the Bursa Securities Listing Requirements (BSLR) further requires listed companies to provide all directors of a company with advice and services of a company secretary. An illustration of the BSLR is given below:

Extract from Bursa Malaysia Listing Requirements on corporate governance

Chapter 15, para 15.04 Rights of directors

Unless otherwise provided by or subject to any applicable laws or these Requirements, a listed issuer must ensure that every director has the right to the resources, whenever necessary and reasonable for the performance of his duties, at the cost of the listed issuer and in accordance with a procedure to be determined by the board of directors, including but not limited to:

a) *obtaining full and unrestricted access to any information pertaining to the listed issuer;*

b) *obtaining full and unrestricted access to the advice and services of the company secretary; and*

c) *obtaining independent professional or other advice.*

(Bursa Malaysia Berhad 2001a, p. 1501)

Overall, company secretaries can be considered as one of the guardians of corporate governance. Company secretaries have extensive administrative, compliance and advisor roles to management and boards. Therefore it is important to ensure that only qualified and capable persons are appointed. In Malaysia matters relating to the qualification and disqualification of a company secretary are provided under the Malaysian Companies Act 1965. Section 139 of the Act requires all companies to have a company secretary or secretaries who must be a natural (human being) person of full age and who has a principal residence within Malaysia (*Malaysian Companies Act 1965*). The first company secretary must be named in the memorandum or articles of the company and any subsequent appointment of a company secretary must be made by directors. The company secretary must be present at the registered office of the company during the normal office hours at which the registered office is to be open to members of the public (Kang 2005). Further, Section 139A of the Companies Act 1965 provides that no person shall act as a secretary of a company unless -

(a) *he is a member of a professional body, or any other body, which has for the time being been prescribed by the Minister by notification published in the Gazette; or*

(b) *he is licensed by the Registrar for that purpose.*

Further the Act also specifies the person who shall be disqualified or can no longer act as the company secretary. As provided under section 139C(1) a person shall be disqualified to act as a secretary if:

(*a*) *he is an undischarged bankrupt;*

(b) *he is convicted whether within or without Malaysia of any offence mentioned in subsection 130(1);*

(c) *he ceases to be a member of the body prescribed by the Minister under section 139A; or*

(d) *he ceases to be a holder of a valid licence issued under section 139B.*

Kang (2005) explains that any person who continues to act as a secretary of a company after he is disqualified shall render himself and every director who knowingly permits him to act in that capacity guilty of an offence against the Companies Act 1965.

1.3 Motivations

Given this setting, there are four main motivations for this research. First, Malaysia has been chosen as the focus of this study not only because it is a developing country with an emerging capital market but also because of its mandatory and non-mandatory corporate governance disclosure environment, which is similar to most Asian countries (Nowland 2008b). The Malaysian setting is also characterised by having weak legal protection (La Porta et al. 2002), highly concentrated ownership (Claessens et al. 2000; Thillainathan 1998) and strong cultural factors (Haniffa & Cooke 2002). Testing the voluntary disclosure theory proposed by Dye (1985) in this type of setting will reveal whether it is also applicable to Malaysia. Most prior studies have applied this voluntary disclosure theory in developed countries such as the U.S. (Clarkson et al. 2008; Langberg & Sivaramakrishnan 2008). The results of this study will provide evidence as to whether this voluntary disclosure theory holds in developing countries such as Malaysia. To summarise, the Malaysian corporate governance rules provide a good setting to test Dye's voluntary disclosure theory on corporate governance information practices since Malaysia has both mandatory and non-mandatory corporate governance disclosure guidelines.

Second, the results of the study may reveal which factors are useful in providing incentives for managers of companies to increase voluntary disclosures. Stock-based incentives are expected to provide better alignment with shareholders' interests and reduce agency costs. Thus findings from the study can help remuneration committees in making recommendations on the types of compensation packages that could be offered in future in order to motivate managers to voluntarily disclose more information in annual reports.

Third, this study is expected to provide a better understanding on whether company secretaries can play a more effective role in improving a company's compliance and disclosure practices. This is important since company secretaries have a very close relationship with directors and management which places them in an excellent position to provide advice in relation to compliance with mandatory and non-mandatory aspects of corporate governance. The results of this study are expected to be useful to boards of companies in choosing which type of company secretary to employ for the benefit of a company.

Fourth, it is expected that results of the study provide useful insights for regulators in Malaysia especially to Bursa Malaysia Securities Berhad (BMSB) and the Companies Commission of Malaysia (CCM) in deciding whether the current comply-or-explain requirements of the MCCG and the BSLR have been effective in raising the minimum levels of corporate governance disclosure. Results also indicate which companies are expected to be the least and most likely to comply with mandatory as well as non-mandatory requirements of corporate governance disclosure practices. Thus, they can assist regulators to control companies that need more monitoring.

1.4 Definitions

Definitions used by researchers in previous studies are normally not standardised. Therefore definitions of key terms in this section are used to establish the position taken in this dissertation. The following definitions of key terms are presented here: corporate governance; corporate governance quality; and voluntary disclosure of corporate governance information.

Corporate governance

This research adopts the definition from the Malaysian High Level Finance Committee on Corporate Governance (FCCC) in defining corporate governance. The FCCC is an independent committee that is responsible for publishing a report and a set of corporate governance codes that are most suited for Malaysia. The FCCC proposed a definition of corporate governance as:

> The process and structure used to direct and manage the business and affairs of the company towards enhancing business prosperity and corporate accountability with the ultimate objective of realising long term shareholder value, whilst taking into account the interest of other stakeholders (*Report on Corporate Governance* February 1999, p. 52).

This definition is chosen because the setting of the study is Malaysia and the MCCG is the document regulating corporate governance in Malaysia. The MCCG definition is based on the Cadbury Report and recommendations made by the Hampel Report (Ow-Yong & Kooi Guan 2000). In the UK, the Cadbury Committee first issued a report in respect of the financial aspects of corporate governance of UK companies in 1992. This committee made recommendations as to definition of corporate governance as “the system by which companies are directed and controlled” (Cadbury Committee Report 1992). The Hampel Committee’s final report has widened the Cadbury Committee’s definition of corporate governance to include the “importance of corporate governance in its contribution both to business prosperity and accountability” (Hampel Committee on Corporate Governance 1998).

Corporate governance quality

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 a company that possesses and meets common corporate governance standards set by authorities. In the case of Malaysia, these common standards are captured in the basic compliance score disclosures that represent company conformance to the MCCG and BSLR guidelines. For the purpose of this study, corporate governance 'quality' refers to the total score obtained by a company in relation to its compliance with 40 key corporate governance variables based on the principles and best practices enjoined by the MCCG and BSLR. That is, its Basic Compliance Score (BCS). These corporate governance variables are reflective of four major sections of the MCCG principles and best practices: Board of Directors, Directors' Remuneration, Shareholders, and Accountability and Audit. Thus the BCS can be viewed as a comprehensive measure of an individual company's corporate governance quality. As indicated on page 2, 'high quality corporate governance cannot be directly observed because it is a set of activities within an organisation'. However, it seems reasonable to assume that the higher the BCS score obtained by the company the higher its corporate governance 'quality' will be.

Voluntary disclosure of corporate governance information

Voluntary disclosure is defined as "disclosures in excess of requirements - representing free choices on the part of company management to provide accounting and other information deemed relevant to the decision needs of users of their annual reports" (Meek et al. 1995, p. 555). This definition is adapted for this research because disclosure of this type of information (corporate governance information) is considered to be at the discretion of a firm's managers since there are no mandatory requirements for them to do so. Thus voluntary disclosure of corporate governance information is defined as corporate governance information in companies' annual reports, which is over and above the Malaysian Codes on Corporate Governance (MCCG) recommendations and Bursa Securities Listing Requirements (BSLR) guidelines.

1.5 Expected contributions

This study expects to make a number of contributions to the literature on corporate governance. First, there are no known studies that have examined the relationship between corporate governance quality and voluntary disclosure of corporate governance information in annual reports. This is true for both developed and developing countries. In addition, the proposed study is expected to add to the broader corporate governance literature by examining the company secretary's role in relation to voluntary disclosures. Previous studies have investigated the role of other guardians of corporate governance such as directors and auditors in respect of voluntary disclosures. However, prior studies appear to have neglected to examine the company secretary's guardian role in corporate governance. Investigating the role of the company secretary is appropriate since the MCCG and BSLR expressly provide for directors to have access to the advice of a company secretary.

Second, this research is also expected to make a contribution to the voluntary disclosure literature by testing Dye's voluntary disclosure theory in the Malaysian setting. As such the results of the study could provide evidence that tests Dye's voluntary disclosure theory, which suggest that a good quality company (in this case a well-governed company) is more prepared to voluntarily disclose more information (corporate governance information) to distinguish itself from a poor quality company (poorly-governed company). Most prior studies of voluntary disclosure look at incentive factors as independent variables that affect voluntary disclosure of financial and non-financial information in annual reports (Collett & Hrasky 2005; Healy & Palepu 2001; Meek et al. 1995). However, in this study specific incentive factors (capital market transactions and stock-based incentives) are applied to voluntary disclosure of corporate governance information and are considered as moderating variables rather than independent variables. Including these incentive factors as moderating variables enables a determination of which of these variables affects the relationship between corporate governance quality and voluntary disclosure of corporate governance information.

Third, this study is expected to contribute to the corporate governance and voluntary disclosure literature in terms of measurement tools used to capture corporate governance and voluntary disclosure. The study uses a more comprehensive measure of corporate governance quality compared to prior studies that commonly use one or more governance mechanisms only. In addition, the study also adopts a more extensive and robust measure of voluntary disclosure of corporate governance information than previous studies. Indexes used to measure corporate governance quality and voluntary disclosures of corporate governance are based on the MSWG corporate governance scorecard which consists of Basic Compliance Score (BCS) and International Best Practices (IBP) components. Furthermore, the study spells out the definition of an in-house qualified company secretary, which is then used to develop a tool to measure the in-house qualified company secretary variable. It does this by distinguishing between a professional qualified company secretary and a license holder, and an in-house versus an external company secretary.

Fourth, this research project anticipates contributing to the corporate governance literature in Malaysia by examining voluntary disclosure of corporate governance information during the time period following the introduction of the BPCD in 2004. Previous Malaysian research has studied voluntary disclosure during earlier time periods. For example (1) before the Asian Financial crisis 1997-1998 (Hossain et al. 1994), (2) before the introduction of the MCCG i.e. 1995-2000 (Haniffa & Cooke 2002) and (3) immediately after the implementation of MCCG i.e. 2001's data (Ghazali & Weetman 2006). Some researchers recommend that the study of voluntary disclosures should be extended to the period after 2001 (Ghazali & Weetman 2006).

1.6 Delimitations of scope

There are three main delimitations of scope placed on this study. First, the study's fields of corporate governance and voluntary disclosure are extremely broad and the scope of this study will only encompass a small part of the wider area. The aims of this research are to investigate the relationship between corporate governance quality and voluntary disclosure, the impact of incentive factors on the relationship and whether an in-house qualified company secretary promotes voluntary disclosure practices. Other aspects of corporate governance and voluntary disclosure are beyond the scope of this dissertation.

Second, the study does not test whether corporate governance quality or voluntary disclosure of corporate governance information have improved over time or as a result of increased regulatory requirements or guidance. The relationships examined in this research pertain to just one year, 2007, and it is not the intention of this research to make time series comparisons.

Third, this study focuses on a specific geographical region and the sample of this study is limited to publicly listed companies in Malaysia. Therefore the results only reflect what was happening in that region in relation to a specific sample within a specific timeframe and cannot be generalised to apply to a broader context.

Fourth, the study looks at annual report disclosures in relation to dependent, independent, moderator and control variables. As such other forms of media are not used as source of data and are beyond the scope of this study.

Finally, even though certain relationships between variables are calculated, this study is not causal in nature and will not be examining the complex cause and effect relationships between variables. This type of analysis falls beyond the scope of this research.

1.7 Outline of the dissertation

Chapter 2 deals with theory and literature review that are relevant to this research. First, it identifies and describes the theories used to underpin this research. Second, literature on incentive factors affecting voluntary disclosure is analysed. Third, prior research into voluntary disclosure is reviewed commencing with a discussion of research involving voluntary disclosure in general and then focusing on voluntary disclosure of corporate governance information. Fourth, a review of corporate governance literature is briefly discussed. Fifth, prior literature on corporate governance quality and voluntary disclosure of corporate governance practices is examined. Sixth, a review of the company secretary literature is covered with specific emphasis placed on characteristics of in-house qualified company secretaries. Finally, gaps in the literature are identified and presented.

Chapter 3 explains and presents the research design. The conceptual model of the study is presented and then hypotheses are developed.

Chapter 4 describes and justifies the research method employed in this study. First, various sections describe the measurement of constructs for dependent, independent, moderating and control variables. Second, the population, sample selection and data collection sources are explained. Third, the data analysis methods are detailed.

Chapter 5 contains an analysis of the data and presents results obtained. First, descriptive statistics provide some general observations about data collected. Second, correlations results are discussed and explained. Third, results of tests of interaction effects are presented and discussed. Fourth, regressions results are analysed and evaluated for each hypothesis. Finally, results of additional analysis are presented, including tests for assumptions of linearity, homoscedasticity as well as normality.

Chapter 6 presents a discussion of major findings from this study in view of previous research and literature. Conclusions from major findings are then discussed. Finally, recommendations, limitations and future research directions in relation to both theoretical aspects and practical implications are expressed.

2 Theories and Literature Review

2.1 Introduction

The aims of this chapter are to review the theories and prior literature that are relevant to the research. The Chapter is organised as follows: the main theories of voluntary disclosure are briefly discussed in the next section. Section 2.3 presents and discusses reasons why signalling and agency theory are relevant to this research project. Section 2.4 presents prior literature on incentives for voluntary disclosure. Section 2.5 reviews the prior research on voluntary disclosure in general and then specifically on voluntary disclosure of corporate governance information. Section 2.6 reviews corporate governance and voluntary disclosure literature globally and in Malaysia. Section 2.7 presents the prior literature on company secretaries in terms of their roles and responsibilities as guardians of corporate governance. Section 2.8 concludes the Chapter by highlighting the gaps in the literature.

2.2 Theories of voluntary disclosure

This chapter commences with an outline of voluntary disclosure theories as these theories underpin the study's conceptual model. The majority of voluntary disclosure theories are concerned with the role of disclosure in capital markets. Theories of voluntary disclosure can be broadly categorised into two main groups: economic-based theories (includes agency theory, proprietary costs theory and signalling theory) and socio-political theories (such as political economy theory, legitimacy theory and stakeholder theory). Each of these groups is discussed in the following sections.

2.2.1 Economics based theories

Agency theory

Agency theory is commonly used in the corporate governance literature to explain a firm's or manager's disclosure decisions. Jensen and Meckling (1976) developed agency theory which explains the principal-agent relationship between managers and shareholders. The separation of 'ownership and control' in a firm creates agency conflicts. These conflicts are exaggerated further by information asymmetry problems. This is another aspect of agency theory that explains the core insight of a firm's disclosure choices. Managers as insiders are considered to be in an informed position because they possess private information about the firm's future value. On the other hand, shareholders who are outsiders have to bear the risk of losing their money due to a lack of information.

An important aspect of agency theory is the need to control the behaviour of managers through monitoring mechanisms such as corporate governance and voluntary disclosure. The adoption of these governance mechanisms enables shareholders to mitigate agency problems and at the same time reduce agency costs associated with any decrease of firm value as well as monitoring and bonding costs. Stock-based incentives are another monitoring and bonding mechanism that are argued by agency theory to be able to reduce agency costs (Jensen & Murphy 1990). Managers that are paid in the form of stock ownership by the firm are more likely to make decisions that are in the best interest of the firm and its shareholders. This is known as incentive alignment.

Several empirical studies have relied on Jensen and Meckling's (1976) agency theory to explain the link between corporate governance and voluntary disclosure. For example Dey (2008) investigates the association between corporate governance and agency conflicts. He claims that corporate governance is one of the possible mechanisms that are able to reduce agency costs especially in a firm with high agency conflicts. In a similar vein, enhancing a firm's corporate governance is more likely to ensure that managers do not deviate from their duties to shareholders (Farber 2005). Others have investigated the relationship between agency theory and voluntary disclosure of financial information and non-financial information. For example, Bassett, Koh and Tutticci (2007) apply agency theory in explaining managers' decisions to disclose employee stock options. They argue that managers may have an incentive to convince shareholders that they are acting optimally by disclosing voluntarily, if they know that shareholders will seek bonding and monitoring activities to control their behaviours. The same argument is also used in investigating voluntary disclosure of risk management and internal control reporting (Bronson et al. 2006).

Agrawal and Gershon (1987) investigate the relationship between stock-based incentives and the firm's decisions on investment and financing. The findings of the study are consistent with agency theory arguments that stock-based incentives are able to reduce agency problems. Stock-based incentives are also found to be able to provide the necessary incentives to managers in making strategic decisions on the frequency and quality of firms' disclosures (Nagar et al. 2003). A study that investigates the association between voluntary disclosure and insider trading found that managers with stock-based incentives will use voluntary disclosures as a mechanism to protect themselves from insider trading allegations (Neo 1999). Thus these studies have shown that stock-based incentives are able to increase the alignment of managers' interests with the shareholders, reduce agency problems and monitor managers' behaviours.

Signalling theory

Signalling theory is focused on information asymmetry problems among parties that are involved in the allocation of firm funds. Information asymmetry problems occur when one party (manager) has more information than the other party (investor) (Akerlof 1970; Levin 2001) about a firm's quality and how this relates to a firm's future profits. In this situation investors with no information about firm quality will then value all stocks at the same price which is a weighted average of their general perceptions. Hence managers of high quality firms will have incentives to provide additional disclosure to signal a firm's quality to investors in order to avoid depreciation of a firm's stock value. Firms that do not disclose additional information are viewed to be of poor quality. In addition, a less informed investor will create an adverse selection effect which lowers their willingness to trade in a firm's stock and this in turn will reduce the liquidity of a firm's stock (Leuz & Wysocki 2008). To be effective, the signal must not be easily copied by another firm and must conform to the actual quality of the firm (in terms of firm share value) (Morris 1987).

Kanagaretnam, Lobo and Whalen (2007) have studied the direct relationship between corporate governance and information asymmetry around quarterly earnings announcements. The results of their study show that better governed firms provide assurance to investors about the lower risks involved in investing in their firm as a result of an increase in disclosure. Furthermore, managers also have incentives to provide voluntary disclosures as a way to reduce information asymmetry and gain benefits from the lower cost of capital (Botosan 1997; Dhaliwal et al. 2009; Sengupta

1998), increase in capital market liquidity (Healy et al. 1999) and higher firm value (Lang et al. 2009). A recent study by Wei-Peng, Huimin, Tsui-Ling and Soushan (2010) find that firm needs for external financing can improve the relationship between corporate governance and firm value. Collett and Hrasky's (2005) study shows that firms tend to increase voluntary disclosure in annual reports prior to financing activity. As such firms also become more strategic in making disclosure decisions especially in terms of the timing of disclosures. This suggests that firms planning to raise external financing will have more incentive to make improvements to the overall quality of their corporate governance and use voluntary disclosures to signal their strong governance.

Dye (1985) developed a voluntary disclosure theory based on the information asymmetry problem that exists between managers and investors. The voluntary disclosure theory of Dye (1985) predicts that good quality firms will disclose their information more completely to distinguish themselves from poor quality firms. He argues that managers will disclose all of their non-proprietary information whether good or bad to avoid the firm's value being depreciated. However, there are three main reasons for management failure to disclose non-proprietary information. The first reason is that investors are uncertain about whether management possesses a firm's private information, and as consequence managers may be successful in hiding 'bad' information. The second reason is that managers possess an enormous amount of private information which may include both proprietary and non-proprietary information. In the situation where private information contains proprietary information, managers will normally choose not to disclose it. The third reason originates from the agency relationship between managers and shareholders.

Non-disclosure of non-proprietary information by managers is considered the best solution if disclosure of this information worsens the agency relationship between them (Dye 1985). Dye's voluntary disclosure theory is well accepted and has been used extensively in voluntary disclosure literature.

Several empirical studies support Dye's (1985) voluntary disclosure theory. In a study of voluntary disclosure of bad news, Skinner (1994) extends Dye's voluntary disclosure theory by suggesting that good firms will disclose more good news to distinguish themselves from bad firms. He suggests that firms are motivated to voluntarily disclose good news in a desire to signal to investors that the firm is doing well. By contrast, bad news disclosure is influenced by a need to prevent litigation costs and a reduction of firm value. Clarkson, Richardson and Vasvari (2008) test Dye's voluntary disclosure theory using the level of voluntary environmental disclosures of US companies. Their results show that superior environmental performers are more likely to disclose environmental performance information voluntarily. This result is consistent with the expectation of Dye's voluntary disclosure theory which suggests that good quality firms will disclose more information. Similar results are also produced in a study by Langberg and Sivaramakrishnan (2008) who examine the impact of the financial analyst's role on voluntary disclosures. All of these studies provide support to the argument that good quality firms will signal their 'quality' through voluntary disclosures.

2.2.2 Socio-Political theories

Socio-political theories consist of political economy theory, legitimacy theory and stakeholder theory (Patten 2002). These theories anticipate that the relationship between environmental performance and the level of voluntary disclosure is opposite to that predicted by Dye's voluntary disclosure theory - firms tend to increase disclosure when their quality is poor. These theories suggest that social and political factors faced by firms determine their levels of social disclosures. Specifically legitimacy theory argues that a firm's economic legitimacy is observed by the market, while social legitimacy is observed by public policy practices. If firms believe that their social legitimacy is being threatened, then they would have an incentive to become actively involved in public policy practices by providing additional disclosure and reporting as a legitimizing device (Cho & Patten 2007).

There are number of reasons why these theories may not be relevant to this research. First, the predictions of the above theories tend to relate to voluntary disclosures of environmental and corporate social responsibility rather than to voluntary disclosure of corporate governance information. Second, corporate governance information is mainly useful to investors (i.e. capital providers) rather than to other stakeholders of the company because it provides information on how well a firm operates internally and the reliability of its accounting and reporting. This information is of more concern to investors than to the broader set of stakeholders. Third, the main incentives to disclose under socio-political theories are related to legitimising firm activity as well as responding to pressure from various social and political groups rather than the mechanisms used to monitor manager behaviour. On the other hand, the main incentive to disclose corporate governance information voluntarily is to reduce information asymmetry problems and to act as a mechanism to monitor manager behaviours. As such, socio-political theories are not as relevant as signalling and agency theories to explain voluntary disclosures of corporate governance information which the main focus of this research.

2.3 Why signalling and agency theories are relevant to this research

Signalling and agency theories are relevant to this research project as they are able to explain the conditions under which a company is likely to voluntarily disclose corporate governance information. As mentioned earlier, a 'good' quality firm, in this case a better governed firm in terms of corporate governance quality, is more likely to disclose more information (corporate governance information) voluntarily compared to a poor quality firm. Better governed firms are claimed by Dey (2008) to possess higher inherent agency conflicts. He has shown that firms with high agency problems have a tendency to improve corporate governance and voluntary disclosures in order to mitigate agency conflicts within the firm. Furthermore, a study by Kanagaretnam, Lobo and Whalen (2007) has also found evidence which shows that better governed firms are likely to improve corporate governance and voluntary disclosures to reduce information asymmetry problems between managers and investors around quarterly management earnings forecasts announcements. Thus, in this respect voluntary disclosures can serve two main purposes. The first is to signal firm quality which subsequently reduces information asymmetry and secondly, to act as a monitoring mechanism which lowers agency conflicts.

Healy and Palepu (2001) have used agency, signalling and proprietary cost theories in their review of empirical studies of disclosure in capital markets. Empirical studies of financial and non-financial accounting disclosures have also used agency and signalling theories in examining firms' and managers' voluntary disclosure choices (Deumes & Knechel 2008; Mitchell 2006; Watson et al. 2002). It seems therefore that greater insights can be gained into why managers voluntarily disclose corporate governance information by drawing on signalling and agency theories.

Apart from the above discussion, there are four reasons why agency theory and signalling theory complement each other. First, information asymmetry problems are a necessary condition for signalling theory, and without them the need for signalling does not exist (Morris 1987). While, 'separation of ownership and control' as well as monitoring costs in agency theory imply information asymmetry problems between managers and shareholders. Thus, in both theories the condition of information asymmetry is present and not conflicting with each other.

Second, signalling theory mentions the concept of 'quality'. Agency theory does not mention the concept of quality but uses the concept of firm value. However, if the concept of quality is taken from the market perspective then quality can also be considered in terms of a firm's future value. As such these theories are compatible with each other because the main focus of these theories is to maximise profits.

Third, the agency costs in agency theory refer to monitoring and bonding costs (Gaffikin 2008). Monitoring costs are costs incurred by shareholders to monitor managers' behaviours. These costs include resources used to employ an effective board of directors, contract auditors and establish various board committees. Bonding costs are incurred by managers to bond themselves to act in a manner that serves the interests of shareholders. These are costs related to time and effort that managers put in to prepare additional reports or disclosures for shareholders. Information asymmetry leads to costs in the form of opportunities foregone by managers of good quality firms if they are raising equity or debt capital (Botosan 1997; Sengupta 1998). Less will be paid for a firm's equity or debt capital if information asymmetry is high compared to when there is little or no information asymmetry. According to Morris (1987), for signalling and agency theories to be consistent, signalling costs must be borne by managers. Consistent with agency theory, signalling theory also assumes that managers of good quality firms will bear the cost of devaluation of a firm's share price and litigation cost if a firm fails to disclose both good news and bad news. As such agency costs (bonding costs) and information asymmetry costs which are borne by managers can provide incentive for them to disclose more information for the purpose to reduce such costs.

Fourth, three common bonding devices in agency theory are management compensation packages, contractual debt agreements and dividends. All of these bonding devices, as illustrated by Morris (1987), act as signals as well as bonding devices that encourage managers to disclose more information. Signalling theory is concerned with types of signals (good or bad news) that reflect firm quality. This signal can cover all aspects of firm quality, for example quality of corporate disclosures, quality of boards and auditors, attractive dividend policy and attractive compensation packages, which if disclosed can signal firm quality. In the absence of signalling (non-disclosure), the investors will assume that those firms are of poor quality and this will consequently lower the firms' stock value. Therefore managers of firms have incentives to disclose either good or bad news to avoid devaluation of their firms' stock. Consistent with agency theory, all of these signals can also act as monitoring and bonding devices.

Based on the above discussion, there is some degree of consistency, complementarity and compatibility of these theories with each other. Thus, this research will apply signalling and agency theories in building a conceptual model that explain company decisions to adopt voluntary disclosure of corporate governance information.

2.4 Incentives for voluntary disclosure

Prior to the voluntary disclosure literature being reviewed in more in-depth, the factors that influence disclosure decisions of managers are considered. This section provides discussion on several incentives that influence managers to make voluntary disclosures. It then highlights the incentives that are relevant for this research.

2.4.1 Incentives for voluntary disclosure in general

Some of the incentive factors that influence firm voluntary disclosure decisions have been discussed earlier in agency and signalling theories section. Among others, the main incentives for managers to make voluntary disclosures are to reduce information asymmetry and agency problems which can then reduce the monitoring costs and increase firm value. Healy and Palepu (2001) have classified these incentive factors into six categories of motivations, which are also known as determining factors (Collett & Hrasky 2005; Gandia 2008) and reasons (Sheridan et al. 2006) for voluntary disclosure. These incentive factors are capital market transactions, corporate control contests, stock-based incentives, litigation costs, proprietary costs and management talent signalling.

Under capital market transactions, managers of firms that intend to raise external finance through issuance of new equity and debt have incentives to voluntarily disclose additional information to reduce information asymmetry problems between inside and outside investors. By disclosing voluntarily, the information asymmetry problem can be reduced, which consequently lowers the cost of capital for a firm to raise external finance.

The corporate control contests argument is that shareholders normally blame managers for a firm’s poor accounting and stock performance. Hence, managers will use voluntary disclosures to explain the reason for poor firm performance, to reduce the possibility of undervaluation or avoid losing their jobs.

Stock-based incentives can encourage managers to disclose their private information to avoid insider trading allegations. There are two forms of stock based-incentives: stock-based compensation and CEO/management shareholdings. Firms that offer stock-based compensation as part of total compensation packages for managers have incentives to adopt voluntary disclosure to reduce stock depreciations and increase firms' values. Managers who own stock in a firm are less likely to misappropriate a firm's resources because they would suffer the same loss as other shareholders if their stock value depreciated (Fama & Jensen 1983). It is suggested that stock-based incentives may be able to align managers' interests with shareholders (Jensen & Meckling 1976).

The threat of shareholder litigation can encourage firms' managers to increase as well as reduce voluntary disclosures. Managers of firms with bad earnings news have incentives to disclose that information earlier to reduce the tendency of legal action taken by shareholders against managers for failure to adequately provide or disclose timely information. The threat of litigation can also potentially reduce incentives for managers to provide voluntary disclosures of forward-looking information such as earning forecasts.

With regards to management talent signalling, managers have incentives to make voluntary disclosures of positive information to signal their management talent in anticipating and responding to future changes to investors as well as to potential employers. Investors will see this information as a favourable assessment of a manager's ability. For example managers of a firm that report positive profits will send a signal to potential investors and employers that they have superior skill and talent. As such they expect better compensation contracts will be offered to them in the future. However there have been limited studies into this type of incentive.

For proprietary costs it is predicted that managers may be reluctant to voluntarily disclose information if they believe that the information may be harmful to their competitive position. In contrast to the five previous incentive factors, proprietary costs assume that there is no conflict of interest between managers and shareholders. In addition, the degree and nature of competition may influence the incentives a firm has to voluntarily disclose information.

Capital market transactions and stock-based incentives hypotheses basically are based on agency and signalling theories which focus on the aspect of information asymmetry and agency problems that need to be overcome by managers. Thus these incentives (capital market transactions and stock-based incentives) can also act as a signal as well as a monitoring and bonding device that can help managers to reduce these problems. However the other incentive factors (corporate control contests, litigation costs, proprietary costs and management talent signalling) are primarily based on signalling theory to explain the conditions under which managers make voluntary disclosures. Further discussion on the reasons why capital market transactions and stock-based incentives are possible incentives that explain voluntary disclosure of corporate governance information in the Malaysian context is presented in the next section.

2.4.2 Incentive to voluntarily disclose corporate governance information

From the discussion of the various incentive factors that motivate managers to voluntarily increase disclosure of information, the study now focuses on relevant incentives for voluntary disclosure of corporate governance information based on prior literature.

Proprietary information is a firm's private information that has elements that are sensitive to future value (financial and market) which can cause a firm to suffer losses if such information is disclosed to the public (Dye 1985, 1986). For example, firm product and market strategies are types of information that are associated with proprietary costs that can affect firm future earnings if they are exposed to competitors. In contrast, voluntary disclosures of corporate governance information have minimal proprietary costs since this information is probably not of great worth to firm competitors (Labelle 2002).

It is also difficult to claim that voluntary corporate governance disclosures might be linked with attempts to avoid litigation costs (Collett & Hrasky 2005; Ghazali & Weetman 2006). According to Sheridan, Jones and Marston (2006) the litigation cost hypothesis is more relevant to companies operating in the U.S. rather than in developing countries such as Malaysia. This is because investor protection rights and legal institutions in these countries are weaker compared to developed countries (Claessens & Fan 2000; La Porta et al. 2002; Mitton 2002).

Furthermore, Malaysian companies are characterized by a high concentration of ownership and family owned businesses which suggest that there is no active market for corporate control and takeovers (Ghazali & Weetman 2006; Haniffa & Hudaib 2006; Thillainathan 1998). As such the corporate control hypothesis is not likely to explain voluntary disclosure in the Malaysian context.

Currently empirical studies into management talent signalling are limited in terms of providing concrete support for this type of incentive. Hence, the proprietary cost, litigation cost, corporate control contest and management talent signalling hypotheses offer the least likely potential explanation for voluntary disclosure of corporate governance information in Malaysia.

The capital market transactions hypothesis suggests that the benefits of an increase in voluntary disclosures reduces investors' investment risks (Bushman & Smith 2001); increases numbers of investors following (Healy & Palepu 2001) and reduces information asymmetry (Lang & Lundholm 2000). Empirical studies on the association between voluntary disclosure of corporate governance and capital market transactions have also provided strong support for the arguments that capital market transactions provide an incentive to firms to increase corporate governance disclosures. Firms anticipating issuance of new capital in the future are found to be more forthcoming to disclose corporate governance information in annual reports (Bujaki & McConomy 2002; Collett & Hrasky 2005). The benefit of lower cost of raising capital is suggested as one of the reasons that encourage managers to provide more information (Botosan 1997; Chen et al. 2007; Eng et al. 2001).

Stock-based incentives propose that voluntary disclosure is used by managers to reduce the possibility of a reduction of a firm's value in a situation where managers are offered stock-based incentives as part of their total remuneration packages. As suggested by Jensen and Meckling (1976), managers who own equity in a firm do not have the same incentives to misappropriate a firm's resources, since they would suffer directly from reduced share value while managers who do not own equity in a firm would not suffer the same consequences. Prior studies that link stock-based incentives and voluntary disclosure have used agency theory to explain the relationship. For example, a study by Armando (2000) suggests that once controlling owners (managers) obtain effective control of a firm, their cash-flow rights will also increase. These cash-flow rights serve as a credible commitment to managers who own equity in a firm to improve the alignment of interest between managers and shareholders and mitigate the effects of entrenchment. A consistent result was also produced by a study which examined the association between disclosure activities of managers and stock-based incentives of US companies (Nagar et al. 2003). The results of the study suggest that stock-based incentives are able to mitigate the agency problem and enhance alignment of managers' interests with those of shareholders.

In this study, it is argued that incentives for companies to disclose corporate governance information are to reduce agency costs, information asymmetry problems and market devaluations. Based on the above analysis, capital market transactions and stock-based incentives are expected to be more likely to explain the incentives that encourage managers of firms to voluntarily disclose corporate governance information in annual reports.

2.5 Voluntary disclosure literature

The two major streams of literature relevant to this research are voluntary disclosure in general and voluntary disclosure of corporate governance information in particular. This section provides an overview of prior literature in these areas, with the emphasis being on voluntary disclosure of corporate governance information, which is closely aligned with the focus of this research.

2.5.1 Voluntary disclosure in general

Voluntary disclosure involves inclusion and reporting of various types of voluntary disclosure in either annual reports or in other disclosure media such as company newsletters, press releases, and company and stock exchange websites. Prior studies have given considerable attention to the disclosure, reporting and provision of additional information contained in annual reports (Barako et al. 2006; Collett & Hrasky 2005; Gray et al. 1995; Hossain et al. 1995; Langberg & Sivaramakrishnan 2008; Mitchell 2006; Watson et al. 2002). The annual report is regarded as the primary document that contains a vast amount of corporate information in relation to the strategic, financial and non-financial activities of a company. According to Meek, Roberts and Gray (1995) strategic and financial information have obvious decision relevance to investors. Non-financial information is generally directed more towards a company's social accountability and is aimed at a broader group of stakeholders than just the investors. As such, the annual report is used for different reasons by various groups of people namely investors, creditors, financial analysts, regulators and government and non-government agencies.

Meek, Roberts and Gray (1995) examine voluntary disclosure of three types of information contained in annual reports of multinational corporations from the USA, UK and continental Europe. They divided voluntary disclosure information in annual reports into three categories. The first category is strategic information. This information relates to a firm's corporate information, corporate strategy, acquisitions and disposals, research and development, and future prospects. The second category is non-financial and consists of information about directors, employee, social policy and value added information. The third category is financial and is comprised of segmental information, financial review, foreign currency and stock price information. They conclude that the factors affecting a firm's disclosure decisions are expected to vary by type of information. This suggests that the determining factors affecting a firm's voluntary disclosure practices are different depending on the type of information disclosed.

Prior studies on voluntary disclosure in relation to strategic and financial information in annual reports tend to focus on the reporting of financial ratios (Mitchell 2006; Watson et al. 2002) and management earnings forecasts (Ajinkya et al. 2005; Karamanou & Vafeas 2005). Another group of studies examines voluntary disclosure of non-financial information, which specifically looks at disclosure of corporate governance information (Bujaki & McConomy 2002; Collett & Hrasky 2005); reporting on internal risk management and control systems (Bronson et al. 2006; Deumes & Knechel 2008); employee stock options disclosures (Bassett et al. 2007); environmental and corporate social responsibility reporting (Clarkson et al. 2008; Dhaliwal et al. 2009) in annual reports; and a firm's website and separate documents accompanying annual reports e.g. sustainability reporting.

Studies of voluntary disclosure have identified several determining factors that affect a firm's decision to adopt voluntary disclosures. These determining factors are divided into three categories: firm-specific factors, governance attributes and cultural characteristics. Haniffa and Cooke (2002) have divided firm-specific factors into three main components: firm structure (size, leverage, diversification, complexity, assets-in-place and ownership); firm performance (profitability); and market related factors (industry type, listing status, auditor type, listing age and foreign activities). These firm-specific factors are commonly included in the prior studies of voluntary disclosure and are often included as additional or controlling variables in a regression equation model. Prior studies that investigate the link between governance attributes and voluntary disclosure commonly use individual corporate governance mechanisms (Eng & Mak 2003; Ho & Wong 2001) or construct a one dimensional governance metric by summing a few governance variables (Beekes & Brown 2006; Dey 2008). Commonly the cultural characteristics measure looks at individual background such as race, religion and education background of directors (Haniffa & Cooke 2002) as well as the legal origin of a country in which the study is focused (Bushman et al. 2004).

Previous studies have examined how firm-specific factors influence a firm's level of voluntary disclosure of information (Hossain et al. 1995; Hossain et al. 1994; Watson et al. 2002). Hossain, Tan and Adams (1994) investigated whether firm size, leverage, assets-in-place, ownership structure and type of auditors determine the levels of voluntary disclosures by listed companies in Malaysia. They found that firm size, listing status and ownership structures are significantly related to the level of information voluntarily disclosed by listed Malaysian companies. Hossain, Perera and Rahman (1995) subsequently found size and listing status to be the main determining factors that affect the level of voluntary reporting. They also found that a firm's level of leverage is associated with voluntary disclosure by New Zealand listed firms. In their study they did not examine ownership structure. Another study by Watson, Shrives and Marston (2002) investigated the extent of voluntary disclosure reporting of specific information i.e. financial ratios in annual reports of 313 UK companies. Consistent with earlier studies, they found size to be associated with voluntarily disclosure levels. In addition industry type and firm performance was also found to be associated with voluntary disclosures of financial ratios.

Most studies use corporate governance variables such as presence of non-executive directors, separation of Chairman and CEO roles; presence of family members on boards, frequency of meetings and audit committees in examining voluntary disclosures. Eng and Mak (2003) and Ho and Wong (2001) found that an increase in the number of non-executive directors on a board, the presence of an audit committee, and the separation of CEO and Chairman roles all influence the levels of voluntary disclosures of all information types in annual reports. Studies into voluntary disclosure of strategic information reveal that the presence of effective corporate governance mechanisms significantly influences levels of voluntary disclosures. For example, Ajinka, Bhojraj and Sengupta (2005) found that the presence of non-executive directors and institutional investors is more likely to influence firms to issue management earnings forecasts.

In a similar vein, Karamanou and Vafeas (2005) investigated how effective corporate governance attributes are associated with voluntary disclosures of earnings forecasts. They captured effective corporate governance using size of board, proportion of non-executive directors, meeting frequency of board and audit committees, directors' ownership, and institutional ownership. They reported that firms with effective governance mechanisms are more forthcoming in reporting and publishing management's earnings forecasts voluntarily. In addition, studies that investigate voluntary disclosures of non-financial information also examine the importance of governance attributes in explaining voluntary disclosures of corporate governance practices (Labelle 2002), internal risks and controls (Deumes & Knechel 2008), and stock option disclosures (Bassett et al. 2007). Thus, characteristics of boards of directors, audit committees and auditors are used by prior studies to examine link between firms' corporate governance and voluntary disclosures.

In relation to cultural characteristics, Haniffa and Cooke (2002) examine the importance of various cultural characteristics of directors including the race, religion and education backgrounds as possible determinants of voluntary disclosures in annual reports of Malaysian listed companies. They find that one of the cultural factors (race) is significantly associated with the extent of voluntary disclosures. Bushman, Piotroski and Smith (2004) investigate whether a country's legal origins and political economy characteristics determine corporate transparency in 46 countries. They factor analyse a range of measures capturing countries' firm-specific information into two categories: financial transparency and governance transparency. The empirical analysis in their study shows that a country's legal origins significantly influence governance transparency, whereas financial transparency is mostly determined by political economy. These studies provide some evidence on the relationship between race of directors and a country's legal system and voluntary disclosures.

Economic consequences of voluntary disclosures are another important area which researchers have investigated in relation to the extent and quality of voluntary disclosures. Leuz and Wysocki (2008) divided the economic consequences of voluntary disclosures into two categories, which consist of 1) firm-specific benefits and costs; and 2) market-wide benefits and costs. Firm-specific benefits of voluntary disclosures are associated with improved market liquidity, reduced cost of capital and increased firm valuation. Empirical studies have found consistent evidence which supports the proposition that voluntary disclosures can benefit a firm by increasing market liquidity (Healy et al. 1999), lowering the cost of capital (Botosan 1997; Dhaliwal et al. 2009; Sengupta 1998) and improving firm value (Brown & Caylor 2006; Nowland 2008a). However, there are costs involved in producing this type of disclosure. The costs include higher direct costs (Meek et al. 1995) and proprietary costs (Verrecchia 1983, 1990).

The market-wide economic consequences of voluntary disclosures can have outward benefits and costs to other firms in different industries through disclosure of proprietary information (Leuz & Wysocki 2008). Disclosure of information such as operating performance and governance quality provide useful benchmarks that help investors in assessing other firms' managerial efficiencies which can in turn reduce monitoring costs. It is also useful in helping investors to evaluate another firm's value, as well as reducing the duplication efforts of information intermediaries. This in turn reduces a firm's cost of producing information. In terms of market wide costs, increases in voluntary disclosure may increase the risk of losing present and potential investors from non-disclosing firms to disclosing firms. Furthermore, misleading reporting made by one firm may have a negative impact on other firms in the same industry. Lastly increase in disclosure may also cause high risk-tolerant investors to hold smaller amounts of shares due to the adverse selection effect which reduces the efficiency of risk sharing.

Overall, numerous studies have been conducted to research various aspects of voluntary disclosure, namely, type of media used, information types, determining factors, and economic consequences of voluntary disclosure. In short, the governance attributes, firm-specific factors and cultural characteristics are among the most common determining factors that have been found to affect voluntary disclosure.

However, prior studies have also found that different types of voluntary disclosure will be affected by different types of determining factors. The economic consequences of voluntary disclosure can also play an important role in influencing firm's disclosure decisions. As such, understanding the conditions and the reasons for managers and companies to adopt voluntary disclosure practices specifically in relation to corporate governance information is essential.

2.5.2 Voluntary disclosure of corporate governance information

Empirical studies on voluntary disclosure of corporate governance information are sparse. Based on a review of the literature, there are only four other studies that have examined voluntary disclosure focusing specifically on corporate governance information. First, Bujaki and McConomy (2002) examined the factors that influence the level of voluntary corporate governance disclosures and the choices of disclosure media by Canadian listed companies. In this study, the researchers developed their own disclosure checklist in order to measure the extent of voluntary disclosure of corporate governance. This disclosure checklist is based on the Toronto Stock Exchange (TSE) guidelines. Their study documents that the extent of corporate governance disclosures varies widely among Canadian listed companies. In particular companies planning to raise external finance in the near future are more likely than other firms to choose annual reports as their form of communication. This suggests that these companies are being strategic in their choice of disclosure medium and the extent of their voluntary disclosure practices.

Second, and consistent with prior studies, Collett and Hrasky (2005) found evidence that incentives exist for some listed Australian firms to voluntarily disclose corporate governance information in the absence of a mandatory requirement. They also developed a disclosure checklist as a proxy for the voluntary disclosure of corporate governance information in annual reports and used capital market transactions (issue of new equity and debt capital) as the independent variables. The results of the study show a significant association between voluntary disclosure of corporate governance practices with companies that intend to issue new equity in the future but not for issuance of new debt capital. Hence, firms that intend to raise external finance are more likely to disclose voluntarily corporate governance information in annual reports in order to gain benefits from a lower cost of capital.

Third, in contrast with the above studies, Labelle (2002) examines the incentives for companies to engage in better quality disclosure of corporate governance practices in the Statement of Corporate Governance Practices (SCGP). He used the Canadian Institute of Chartered Accountants (CICA) corporate governance disclosure index to measure companies' corporate governance disclosures. The study did not find a consistent and significant relationship between disclosure quality of corporate governance practices and firm financing activity, firm performance or other corporate governance variables. He suggests that the results indicate that the determinants of corporate governance disclosure quality are not the same as for other aspects of a firm's financial disclosure policy. He also points out the limitations of the study which might be the reason for the inconsistency in the results. One of the reasons is the type of disclosure medium used in the study. He argues that the information disclosed in the SCGP is less standardised, communicates less precise measures of firm performance and overall represents a less credible information medium than the annual report. Another limitation of the study is the weakness of the measurement tool used to measure corporate governance practices.

From the above discussion, there are three main points that need to be considered in investigating voluntary disclosure of corporate governance information. First, the firms' disclosure strategies are generally related to corporate governance structures, firm-specific factors and disclosure medium. Second, there may be incentive factors other than financing activity that encourage firms to disclose more information. Finally, and most importantly, it is difficult to find a measurement tool that can appropriately measure the voluntary disclosure of corporate governance. There have, nevertheless, been very few studies which have set out with the overall aim of investigating the impact of incentives factors (capital market transactions and stock-based incentives) on voluntary disclosures in developing countries. Thus more research is needed in this area to understand the conditions and reasons that influence companies to adopt voluntary disclosure of corporate governance practices.

2.6 Corporate governance and voluntary disclosure literature

It is important to now examine the literature that links corporate governance to voluntary disclosure. The next sub-section presents a general overview of corporate governance literature. The second sub-section reviews corporate governance quality and voluntary disclosure studies globally, while the third sub-section reviews the prior literature on the topic in the Malaysian context.

2.6.1 Corporate governance literature

Generally, there are vast amounts of research which cover numerous aspects of corporate governance. Corporate governance research generally falls into two broad categories: role of corporate governance in improving firm value and performance; and the impact of corporate governance on voluntary disclosures. Agency theory is the most common theory used in the corporate governance literature to explain underlying issues of various corporate governance aspects and its link to firm performance (Brown & Caylor 2004) and firm value (Black et al. 2006; Durnev & Kim 2005; Gompers et al. 2003; Klapper & Love 2004). Prior studies find that improvements in firms' corporate governance are associated with enhanced corporate performance and improved firm value (Brown & Caylor 2006; Durnev & Kim 2005; Gompers et al. 2003). Thus corporate governance is an effective mechanism to monitor and control managers' behaviour, which subsequently reduces agency costs and improves firm value.

Recent studies increasingly focus on using broader approaches for measuring corporate governance mechanisms. For example, Gompers, Ishii and Metrick (2003) construct their own corporate governance index based on 24 corporate governance rules that represent the level of shareholder rights of 1500 large US companies. This governance index is then used to examine the relationship between the level of shareholder rights and firm performance. Black, Jang and Kim (2006) adopt a similar approach in examining corporate governance practices of Korean firms with their market values. On the other hand, Klapper and Love (2004) investigate the relationship between corporate governance and firm value across 14 emerging markets. They use the Credit Lyonnais Securities Asia (CLSA Asia - Pacific Markets) corporate governance rating as a measure of a firm's corporate governance quality and find that corporate governance quality is positively related to better firm and stock performance. Durnev and Kim (2005) also use the CLSA corporate governance rating to examine corporate governance quality and firm stock value from 27 countries. Consistent with Klapper and Love's study, they find that companies with higher corporate governance quality are valued higher in stock markets.

Studies that link corporate governance and voluntary disclosure also used agency theory in explaining managers' disclosure decisions. It assumes that managers use corporate governance and voluntary disclosure as ways to reduce agency and information asymmetry problems between managers and shareholders (Cheng & Courtenay 2006; Eng & Mak 2003; Karamanou & Vafeas 2005; Kent & Stewart 2008). Most studies find companies that adopt good corporate governance structures, in term of having effective board of directors, audit committees and auditors, are more likely to increase voluntary disclosure levels (Adams & Hossain 1998; Barako et al. 2006; Poh Ling et al. 2008). Therefore corporate governance is seen to provide some kind of incentive to managers to adopt voluntary disclosures than non-disclosures.

However, studies that focus on the consideration of broader corporate governance mechanisms and how they relate to voluntary disclosures are limited. Thus the next section presents review of the literature that links corporate governance quality and voluntary disclosures.

2.6.2 Corporate governance quality and voluntary disclosure in general

Most prior studies have used one or more corporate governance mechanisms (board of directors, audit committee and external auditors) as a measure for corporate governance quality and its link to voluntary disclosure. Most of these studies find evidence that this type of corporate governance mechanism influences companies' disclosure practices. From an agency theory perspective, the presence of independent non-executive directors on company boards should help reduce conflicts between shareholders and company management, as they have a role in monitoring, overseeing and supervising board actions (Solomon 2007). Various studies have found a strong relationship between the proportion of independent directors on boards and voluntary disclosure (Adams & Hossain 1998; Ajinkya et al. 2005; Barako et al. 2006; Cheng & Courtenay 2006). These studies suggest that the presence of independent non-executive directors plays a complementary role in information disclosure. For this reason agency problems are expected to be reduced as board decisions about disclosure are monitored by independent non-executive directors.

Prior studies on the role of audit committees support the argument that the presence of audit committees will enhance the reliability of financial reporting (Ho & Wong 2001; McMullen 1996). A consistent result is also found in a study of Kenyan listed companies (Barako et al. 2006). The findings of these studies suggest that the establishment of an audit committee would enhance voluntary disclosure practices. The quality of external auditors and audit committees have also been found to have an impact on the likelihood of disclosures of internal control deficiencies when an audit of internal control is not required (Stephens 2009) and of voluntary employee stock options disclosures (Bassett et al. 2007). Therefore the presence of a quality audit committee as well as an external auditor could be expected to improve a firm’s corporate governance and thus can be regarded as effective monitoring devices for improving corporate disclosures.

Kent and Stewart (2008) investigate several corporate governance mechanisms (board characteristics, audit committees and external auditors) to examine the relationship between corporate governance quality and the level of disclosure during the transition to International Financial Reporting Standards. They argue that using more than one corporate governance mechanism enables them to identify which governance mechanisms are more effective in increasing the level of disclosure. The results of their study also provide evidence consistent with prior studies that have identified that a firm with high governance quality (which is measured by an effective board of directors, audit committee and external auditor) is more likely to provide a greater level of financial reporting disclosures. Another study by Karamanou and Vafeas (2005) uses effective board of directors and audit committee to measure corporate governance quality. They also find a positive association between corporate governance quality and voluntary disclosures of management earnings forecasts.

Studies that use a broader set of corporate governance quality measures in investigating the association between a firm's corporate governance quality and information disclosures are limited. Brown and Beekes' (2006) study is the only identified research that uses a broader governance set to measure corporate governance quality. They investigate whether corporate governance quality is associated with the 'informativeness' of disclosures by Australian listed companies. The study uses a corporate governance index developed by experts i.e. the Horwath Report 2002, as a proxy for corporate governance quality. The results of the study provide strong support for the notion that companies with high corporate governance quality provide more informative disclosures than companies with lower corporate governance quality.

From the above discussion, the measurement method chosen to capture corporate governance quality is clearly a fundamental issue. Previous studies have focused on the importance of a firm's governance quality using one or more corporate governance mechanisms. Based on the above discussion and analysis of the empirical studies, it seems that there are no known studies that link corporate governance quality (using a broader set of corporate governance mechanisms) and voluntary disclosure specifically in relation to corporate governance information. Prior studies have also failed to draw on the relationship between incentive factors such as capital market transactions and stock-based incentives in measuring the links between a firm's corporate governance quality and voluntary disclosure. Hence, this study seeks to fill these gaps in the literature.

2.6.3 Corporate governance quality and voluntary disclosure in Malaysia

Voluntary disclosure of additional information by Malaysian companies has been subject to at least two prior research studies. Both of these studies used individual or selected corporate governance mechanisms as a proxy for corporate governance quality in examining the extent of companies' voluntary disclosure practices in Malaysia. Haniffa and Cooke (2002) examined the importance of a variety of corporate governance attributes, company characteristics and cultural factors as possible determinants of voluntary disclosure before implementation of the Malaysian Code on Corporate Governance (MCCG). Their study includes several corporate governance variables including proportion of non-executive directors on the board, family members on the board, separate roles of chairman and CEO, non-executive chairman and cross-directorship to measure the corporate governance quality of Malaysian listed companies. Their study is based on 1995 annual report data. A voluntary disclosure index is adopted from previous studies by Hossain, Tan and Adams (1994) and Soh (1996). This index is used because it is relevant to the

Malaysian context. The voluntary disclosure index includes all items of voluntary disclosure information - strategic, non-financial and financial - in annual reports. The results of the study indicate that family members on the board and having a non-executive chairman are significantly associated with the level of voluntary disclosures. One of the cultural factors (race) is also significantly associated with the level of voluntary disclosure. Hence it is important to consider all of the above determining factors in investigating corporate governance quality and voluntary disclosures as it has been indicated in prior studies that these factors may affect the extent of voluntary disclosures.

Ghazali and Weetman (2006) assess whether the introduction of the MCCG increased the amount of disclosure among Malaysian publicly listed companies and reduced the influence of insider domination on voluntary disclosures. They also use more than one corporate governance variable - independent non-executive directors, independent chairman and family member on the board - as the explanatory variables that motivate firms to increase levels of voluntary disclosures in annual reports. In addition, the study separately examines the impact of different types of ownership and proprietary costs on voluntary disclosure. Their study uses a voluntary disclosure index which is similar to Haniffa and Cooke's study. The results of their study do not show any significant relationship between any of the board of directors' characteristics and proprietary costs with regards to voluntary disclosures. However they found that the ownership structure, which is proxied by the proportion of shares held by executive directors, is associated with less voluntary disclosure. This suggests that directors' ownership has significant influence on the level of voluntary disclosures among listed companies in Malaysia. These unexpected results may be due to a firm's unfamiliarity with the new Bursa Securities Listing Requirements

(BSLR) since the researchers used 2001 annual reports data which was generated immediately after the implementation of the MCCG codes and the BSLR. In addition, the data of this study is only based on a single year, 2001, and therefore does not represent the true context of current voluntary disclosure practices of Malaysian listed companies.

This research is different from earlier Malaysian studies in at least four respects. First, the study looks at a specific type of voluntary disclosure information which is corporate governance information in annual reports. Second, it uses a more comprehensive voluntary disclosure index, which does not appear to have been used in previous studies. This study also uses a broader measure of corporate governance quality that appears to not have been studied in prior studies. Both of these indexes are provided by the Minority Shareholders Watchdog Group (MSWG) in Malaysia. The Basic Compliance Score (BCS) and International Best Practices (IBP) components of the MSWG are proxies for the corporate governance quality and the voluntary disclosure of corporate governance practices respectively. Third, hypotheses tests are carried out to measure the effects of incentive factors - capital market transactions and stock-based incentives - on the level of voluntary disclosure of a firm's corporate governance quality. These incentives have not been included in prior Malaysian studies as factors that influence voluntary disclosures. However, in this research, these incentive factors are considered as the moderating variables that impact the association between corporate governance quality and voluntary disclosures. Fourth, this study also investigates the roles of company secretaries in improving voluntary corporate governance disclosure practices in Malaysia.

2.7 Company secretary

As indicated in the review of prior literature on corporate governance and voluntary disclosure in section 2.6, prior research has tended to focus on the board of directors, auditors and audit committees as the guardians of corporate governance. In this section, the review of prior literature is focused on the role of the company secretary in the context of corporate governance and voluntary disclosure in Malaysia.

2.7.1 Company secretary role in corporate governance and voluntary disclosure

The company secretary is an officer of the company with considerable authority in the administrative area with powers and duties derived directly from the articles of association of the company and the Companies Act 1965 (Kang 2005). As commented by Thambimuthu (2007) a board will seek a company secretary's advice in relation to regulations and compliance derived from regulatory bodies such as the Securities Commission and Bursa Securities. Thus, it is a company secretary who ensures that directors and companies comply with the various requirements of the legislation and statutory bodies.

From an agency theory perspective, directors, auditors and the audit committees are the formal monitoring mechanisms used by firms and shareholders to supervise and control managers' actions, which results in lowering agency problems. Hopkinson (2000) believes that the evolution of corporate governance standards will provide company secretaries with opportunities to earn themselves central roles as company officers with responsibilities for corporate governance compliance. He comments that company secretaries are well placed to take on responsibilities as corporate governance monitors, since they already fulfil compliance functions and their presence on company boards makes them privy to the highest levels of corporate strategy. In this context, company secretaries are also considered to be one of the guardians of corporate governance.

Acknowledging the important role a company secretary plays in corporate governance, the Malaysian Code on Corporate Governance (MCCG) in its Best Practices for a board of directors provides a specific section that relates to a company secretary. In addition the Bursa Malaysia Listing Requirements (BMLR) further requires listed companies to provide all their directors with advice and services by company secretaries. An illustration of the MCCG and BSLR is given in Chapter 1.

The profession of company secretary has now been moved to a level where the company secretary is recognised as an adviser and as a guardian of corporate governance. A study by Lee (2009), examining the relationship between company secretaries and the effectiveness of corporate governance in Malaysia, found that the company secretary's role has become more significant since the introduction of the MCCG. This suggests that the role of a company secretary has developed from being traditionally administrative and regulated in nature to a more enhanced and extended one with wider duties and responsibilities in promoting corporate governance.

To explore the importance of company secretaries' roles in corporate governance and voluntary disclosure in Malaysia, this study examines whether there is a relationship between company secretaries and voluntary disclosure of corporate governance information. Since prior studies of voluntary disclosure and corporate governance are limited in relation to the company secretary's role, this study draws on prior studies about directors, auditors and audit committee characteristics to explain how in-house qualified company secretaries are expected to influence voluntary disclosure practices. In this study, academic and professional qualifications and whether secretaries are in-house or external are considered.

Academic qualifications can be an important precursor of disclosure practice. Haniffa and Cooke (2002) suggest that if a board of directors consists of individuals who have an academic qualification in accounting or business, they may choose to disclose more information to demonstrate accountability, improve corporate image and offer credibility to the management team. Recent studies have investigated the characteristics that are expected to contribute to the effectiveness of audit committees such as audit committee expertise. For example Stephens (2009) found that companies that have an accounting/financial expert on their audit committee are significantly more likely to voluntarily issue internal control reports prior to the Sarbanes-Oxley Act (SOX) 404 audit report. As such, this study expects that company secretaries who have a professional qualification are better able to advise management and directors in relation to compliance with the MCCG code and the BSLR, as well as to influence the adoption of voluntary disclosure of governance information.

Whether company secretaries are in-house or external is another determining factor that can influence disclosures. According to Kang (2005) an in-house (inside) company secretary is a full-time employee of the company. On the other hand, an external (outside) company secretary is not an employee of the company. In this case, a company engages a professional secretarial firm to provide secretarial services to the company and pays in the form of a service fee. Prior studies on voluntary disclosure have focused more attention on the independence of boards and audit committees. Distinctions between executive (inside) and non-executive (outside) directors have been highlighted (Haniffa & Cooke 2002; Rosa et al. 2004) and inconsistent results have been reported in prior studies (Chen & Jaggi 2000; Forker 1992).

Non-executive (outside) directors are arguably able to monitor and control an executive director's behaviour (Fama & Jensen 1983). In addition to monitoring, non-executive directors can play roles in determining and monitoring a firm's voluntary disclosure policy (Ajinkya et al. 2005) and the issuance of earnings forecasts (Karamanou & Vafeas 2005). Non-executive directors are also suggested to be able to provide advice on strategic decisions that can improve a firm's performance (Chen & Jaggi 2000). Empirical evidence generally supports audit committee independence as being associated with better financial reporting quality. For example Turley and Zaman (2004) have found a significant association between audit committee independence and the quality of financial reporting.

Executive directors (inside) also have incentives to disclose more information voluntarily to protect their jobs and reputation. In a situation of poor earning or stock performance, executive directors could use voluntary disclosure to reduce the possibility of firm undervaluation and poor performance in order to avoid losing their job (Healy & Palepu 2001). In addition, since executive directors are employees of the company, they understand the business better than non-executive directors and so can make superior decisions (Donaldson & Davies 1994).

In this research, it is expected that an in-house (inside) company secretary is better able to monitor and control management behaviour. He/she is also assumed to be able to provide management and directors with better access to appropriate advice and services as well as to offer inside information about the firm or industry-specific information. An external (outside) company secretary may have limited resources and time. However he or she can offer disclosures of information based on experiences derived from personal knowledge about other companies.

2.8 Gaps in literature

This chapter has reviewed voluntary disclosure theories and literature relevant to this research. The main conceptual points that emanate from this review are that in spite of extensive available research examining voluntary disclosure and corporate governance quality, incentives for reporting on corporate governance information, especially in relation to capital market transactions and stock-based incentives, are still relatively unknown. More specifically, the association between corporate governance quality and voluntary disclosure of corporate governance information in both developed and developing countries remain largely unexplained. Further, it appears that none of the prior literature in Malaysia has specifically applied Dye's (1985) voluntary disclosure theory to explain a firm's voluntary disclosure practices. Finally, the role of a company secretary as the guardian of corporate governance has not previously been examined. Similarly the review has not revealed any prior studies that investigated the effectiveness of in-house qualified company secretaries in influencing voluntary disclosure practices of publicly listed companies in Malaysia. To address these gaps, Chapter 3 explains the research design and the hypotheses development and draws on Dye's voluntary disclosure theory and agency theory.

3 Research Design

3.1 Introduction

This Chapter discusses the conceptual model of the study and its hypotheses development. The conceptual model is based on Dye's voluntary disclosure theory and agency theory. The discussion and applicability of these theories to explain voluntary disclosure of corporate governance information have been considered in Chapter 2. This Chapter is organised as follows: section 3.2 restates the main research question that was introduced in Chapter 1. Section 3.3 explains the conceptual model of the study. Section 3.4 develops the hypotheses that are tested and section 3.5 concludes the Chapter.

3.2 Research question

The main research question investigated in this study is:

What are the incentive factors that influence the voluntary disclosure of corporate governance information in annual reports of Malaysian listed companies?

The following sub-questions are developed in order to answer the main question:

1. Are companies with high quality corporate governance practices more likely to voluntarily disclose corporate governance information in their annual reports?

   (b) Does the presence of an in-house qualified company secretary in a company's corporate governance structure influence voluntary disclosure of corporate governance information in annual reports? (The presence of an in-house qualified company secretary is assumed to be an additional indicator of corporate governance quality).

2. Are companies more likely to voluntarily disclose corporate governance information in their annual reports prior to the issuance of new equity or debt?
3. Do stock-based incentives motivate managers to voluntarily disclose corporate governance information in annual reports?

3.3 Conceptual model

From the main research question, this section presents a conceptual model of the study. A primary focus of this study is the relationship between corporate governance quality and voluntary disclosure of corporate governance information. Dye's voluntary disclosure theory (1985) predicts that good quality companies are more likely to voluntarily disclose more information so as to distinguish themselves from poor quality companies. By applying the above voluntary disclosure theory this study predicts that companies with high quality of corporate governance are more forthcoming with voluntary disclosure of corporate governance information. According to Skinner (1994) good quality companies are more likely to disclose good news so as to differentiate themselves from bad quality companies. Here, corporate governance information is considered as 'good news' and in principle companies are motivated to disclose good news (corporate governance information) to members of the public as a signal that the company is run and managed well. In addition, as one of the guardians of corporate governance, the company secretary is expected to influence a company's voluntary disclosure decisions. Therefore, a high quality company that employs an in-house qualified company secretary is expected to have a greater extent of disclosures than one that employs a less qualified company secretary. Two possible incentives for voluntary disclosure that may explain why companies are likely to disclose additional information voluntarily are also investigated. First, companies have incentives to disclose more information to reduce the cost of capital when they intend to raise new shares or debt capital (Sengupta 1998; Seppanen 2000). Specifically, disclosing more information will reduce information asymmetry between companies and investors (Healy & Palepu 2001). As such, the issuances of new shares or debt capital are possible moderators that strengthen the association between corporate governance quality and voluntary disclosure of corporate governance information. Second, managers are privy to information that investors demand and they are more likely to publicly disclose additional information when they are provided with appropriate incentives (Nagar et al. 2003). Stock-based incentives (stock-based compensation and CEO shareholdings) are suggested to be able to motivate managers to increase voluntary disclosure (Jensen & Murphy 1990; Nagar et al. 2003) and reduce agency costs. Hence, stock-based incentives are analysed as potential moderators of the association. Figure 3.1 provides an overview of the conceptual model of the research.

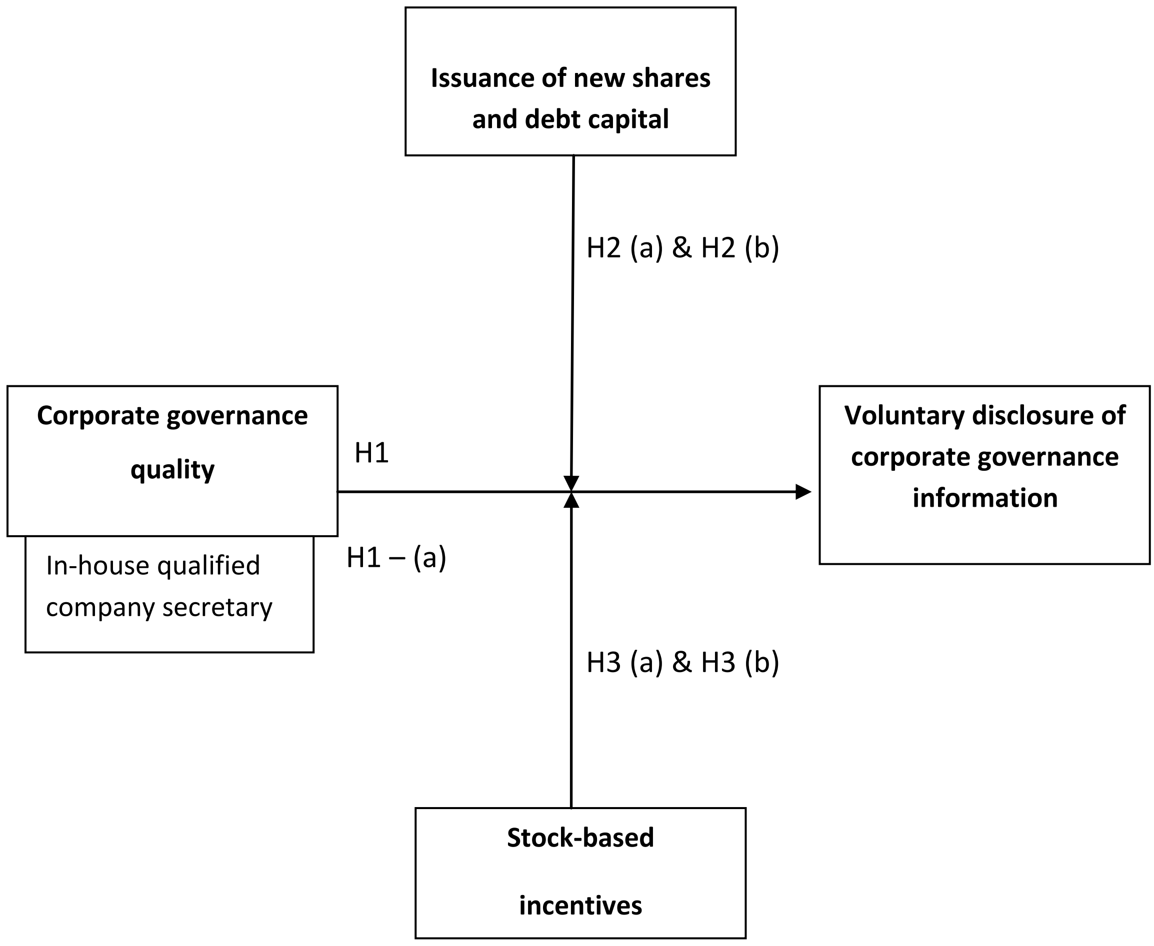


Figure 3.1: Conceptual Model

3.4 Hypotheses development

This section develops the hypotheses used to test the research question. This research aims to examine whether companies with higher quality corporate governance are more forthcoming with voluntary disclosure of corporate governance information in their annual reports. In addition to a broad measure that captures many aspects of corporate governance quality, the study includes the company secretary's role as a separate measure of corporate governance quality. This new variable is included in order to determine the role of company secretaries in influencing companies' decisions to adopt voluntary disclosure practices. In addition, this study investigates the incentive factors related to capital market transactions (issuance of new shares or debt capital) and stock-based incentives (stock-based compensation and CEO shareholdings).

3.4.1 Corporate governance quality and voluntary disclosure of corporate governance information

The contention of this research is that when companies' corporate governance quality is high, those companies are also more likely to voluntarily disclose corporate governance information in their annual reports. Dye (1985) argues that high quality companies will disclose more information to differentiate themselves from poor quality companies. By applying Dye's voluntary disclosure theory, this study predicts that companies with high corporate governance quality are more prepared to voluntarily disclose corporate governance information in their annual reports. Companies with high corporate governance quality in this study refer to companies that have a high level of conformity with the basic mandatory requirements of the Bursa Securities Listing Requirements (BSLR) and the Malaysian Code on Corporate Governance (MCCG).

Signalling theory proposes that high quality companies will disclose more information voluntarily than poor quality companies to signal to investors that they are high quality companies (Dye 1985; Verrecchia 1983). Companies with high corporate governance quality due to their effective board governance structures have incentives to inform internal and external investors about their effective governance structures. High quality companies will signal their corporate governance quality by voluntarily disclosing corporate governance information in annual reports. These kinds of disclosures are difficult to replicate by poor quality companies. By doing so, they will potentially increase firm value since knowledgeable investors will infer that companies with high corporate governance quality are less risky than companies with lower corporate governance quality. 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 have incentives to adopt better governance practices such as voluntarily disclosure to reduce agency conflicts, and the possibility of bonding and monitoring activities imposed by shareholders to control their behaviour. Dey's (2008) study provides evidence that supports the agency theory argument that the existence of corporate governance mechanisms in a firm is a function of the level of agency conflicts in the firm. This suggests that firms with high levels of agency conflicts are likely to adopt effective corporate governance mechanisms.

As explained earlier, one of the characteristics of the Malaysian setting is highly concentrated ownership. Claessens, Djankov and Lang (2000) show that more than half of Malaysian publicly listed companies were controlled by family and management-owned firms. This characteristic suggests that Malaysian companies not only have agency conflicts between managers and shareholders but also between the controlling shareholder and minority shareholders. Hence in this case, a Malaysian's company with high corporate governance quality is expected to use voluntary disclosure to reduce agency conflicts that exist between controlling shareholders and minority shareholders. This study hypothesises that:

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

3.4.2 In-house qualified company secretary and voluntary disclosure of corporate governance information

As predicted an additional contributor to corporate governance quality, the presence of an in-house qualified company secretary is explored. In this research an in-house qualified company secretary is defined as a person employed on a full-time basis with a relevant professional qualification and/or being a member of a professional body. The alternative is an external company secretary holding a license to act as a company secretary. The academic background of an individual can be an important determinant of disclosure practices because with a better education, managers are more likely to adopt innovative activities and accept ambiguity (Hambrick & Mason 1984). Grace, Ireland and Dunstan (1995) observe that the level of education should be examined as a basic measure for professional status. Wallace and Cooke (1990) posit that 'an increase in the level of education in a country may increase political awareness and demand for corporate accountability'. Therefore, if a company secretary is an individual with a professional academic background in accounting, business or law, he/she may choose to disclose more information to demonstrate accountability. Employing a person with a professional qualification can improve a company's image as well as offering credibility to a management team. The MCCG suggests that directors should appoint as company secretary someone who is capable of carrying out such duties in line with his/her qualification.

The status of a company secretary's appointment can also play an important role in influencing company decisions to disclose voluntarily. Having an in-house company secretary provides advantages to a board of directors because all directors would have access to the advice and services of a company secretary at all times. This study assumes that an in-house company secretary is in a better position to offer inside information and is also likely to have specialised firm or industry-specific information to add value, when compared to an external company secretary. When a company secretary is an external secretary, he or she can offer disclosure of information based on experiences derived from personal knowledge of other companies. However, an external company secretary may have limited resources and time available due to his or her commitment to other companies.

In relation to Dye's voluntary disclosure theory this study expects that a good quality company (that usually employs an in-house qualified company secretary) is more likely to disclose good news (corporate governance information) to investors to differentiate itself from a poor quality company, and to signal its quality to investors. As such, the appointment of an in-house qualified company secretary provides a signal to investors that the company has a qualified person to provide expert advice to directors and management in relation to compliance and corporate governance issues. In line with agency theory, the presence of an in-house qualified company secretary is considered as a mechanism to control managers' behaviours as well as to influence them by providing advice to management to disclose information voluntarily. Thus, based on the above discussion, the study predicts that the presence of an in-house qualified company secretary will significantly influence voluntary disclosure practices.

Research conducted by Lee (2009) explores the importance of the company secretary's role in corporate governance in Malaysia. Her study documents that the respondents of her study are confident that the company secretary can enhance a company's corporate governance, and uphold the integrity of the company, by bringing to the board a wide range of knowledge and experience and by providing advice on governance issues more objectively. Accordingly the results of Lee's study indicate that the company secretary does influence the company's corporate governance quality which may suggest improved firm disclosures practices. Thus, this study predicts that there is a positive relationship between in-house qualified company secretaries and voluntary disclosure of corporate governance information in annual reports. It is hypothesises that:

H1- (a): there is a positive relationship between the employment of in-house qualified company secretaries and voluntary disclosure of corporate governance information.

This study combined both in-house and professional qualification in the hypothesis because both of these criteria are considered to be important in determining the effectiveness of company secretary's role in influencing voluntary disclosures. Thus considering them together is necessary to ensure that the study capture the relevant criteria that is considered to be an effective company secretary.

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

According to the capital market transactions hypothesis, firms that are planning to make capital offerings (issuance of new shares or debt capital) have incentives to provide voluntary disclosure to reduce information asymmetry between managers and investors. This study argues that when dealing with capital market transactions incentives which are expected to influence voluntary disclosure of corporate governance, there are two important aspects to be considered. First, voluntary disclosure provides a signal to investors that firms are likely to have better corporate governance quality which implies that lower information asymmetry problems exist between managers and shareholders. Lower information asymmetry will reduce the risk for investors in forecasting future payoffs from their investment. As such issuance of new shares or debt capital can provide extra incentives to a 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 high quality companies are likely to disclose more information to avoid a reduction of firm value. The more weight managers place on maximizing current firm value, the greater their incentives to disclose positive (corporate governance) information prior to issuance of new shares or debt capital.

Second, firms with high corporate governance quality are likely to have better liquidity and lower cost of capital. This is because firms with high corporate governance quality are more likely to use voluntary disclosure as a mechanism to lower information asymmetry problems between investors and management which subsequently lowers the cost of capital (Healy & Palepu 2001). Thus, firms that intend to issue new share or debt capital in the future will have more incentives to improve their voluntary disclosure of corporate governance practices in order to reduce the cost of raising external financing. Prior studies have found consistent evidence for the view that, in general, voluntary disclosure facilitates a company's access to lower cost of external capital financing (Botosan 1997; Botosan & Plumlee 2002). Lang and Lundholm (1993) found that disclosure scores were higher for companies that were issuing new securities. Seppanen (2000) suggests that managers do make disclosures to facilitate capital raising at a lower capital cost. A study by Collett 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. Research on quality of disclosure and the cost of debt also shows that companies with high disclosure quality ratings from financial analysts enjoy a lower effective interest cost of issuing debt (Sengupta 1998).

The cost of external financing can be reduced by using better voluntary disclosure practices which signal firm quality and the resultant effect of lower information asymmetry problems. In this respect, Malaysian firms that are planning to raise external financing have incentives to increase voluntary disclosure of corporate governance information in order to signal the firm's quality. This signal can reduce information asymmetry, increase firm value and lower the cost of external financing. Accordingly, the study hypothesises that:

H2 (a): the relationship between corporate governance quality and voluntary disclosure of corporate governance information is moderated by the intention to raise new share capital in the following year.

H2 (b): the relationship between corporate governance quality and voluntary disclosure of corporate governance information is moderated by the intention to raise debt funds in the following year.

3.4.4 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 to disclose their private information because such disclosure reduces their private benefits. One possible approach to overcome this agency conflict is to link managers' compensation directly to their disclosure activity. Stock-based incentives are suggested by agency theory to be able to reduce agency conflicts and improve managers' decision abilities from the shareholders' perspective (Fama & Jensen 1983; Jensen & Murphy 1990). This form of compensation can serve as an alignment incentive as well as a monitoring device to ensure managers' interests are better aligned with shareholders' interests.

This research considers two forms of stock-based incentives: stock-based compensation and CEO shareholdings. Stock-based compensation is viewed as an outcome-based incentive that is likely to influence the managers to act in the best interest of the shareholders as opposed to cash form incentives (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 suggests that stock-based compensation increases the level of alignment between managers' and shareholders' interests which then lowers the agency costs. Prior studies have examined a link between stock-based compensation and voluntary disclosures. Neo (1999) found that managers will take advantage of voluntary disclosures to ward off the appearance of impropriety when dealing with insider transactions. Furthermore, it was also found that CEOs may make opportunistic voluntary disclosure decisions that maximise their stock option compensation which in turn will also maximise shareholders' wealth (Aboody & Kasznik 2000). Therefore managers' disclosure activities are related to their stock-based compensation which acts as a motivator as well as a monitoring mechanism that can reduce agency costs.

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). Nagar, Nanda and Wysocki (2003) have examined the association between managers' disclosure practices and CEO shareholdings which is based on stock price. They found that the value of shares owned by the CEOs improve firms' disclosure practices. This result suggests that CEO shareholdings can mitigate agency conflicts between managers and shareholders.

In contrast, most of the studies in Asian countries, such as those undertaken 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 working in the best interests of the firm. This agency conflict becomes more apparent especially in Asian countries where weak legal institutions and high concentration of ownership structures are common (Claessens et al. 2000).

Stock-based incentives can also provide signals about firms' quality. Companies that use stock-based incentives to compensate their CEO will be viewed to have a high quality governance structure. These high quality firms are expected to employ effective compensation packages that can motivate as well as monitor managers' behaviours. For this reason, a company with high corporate governance quality is likely to increase disclosure of corporate governance information voluntarily when managers are compensated with stock-based incentives.

Overall, the study postulates that a company with high corporate governance quality, stock-based incentives encourages management to disclose more information voluntarily. However this is more likely to be the case for stock-based compensation than CEO shareholdings, particularly in the Malaysia setting. Thus the next hypotheses are that:

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

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

3.5 Conclusion

The research question and conceptual model of this study are presented in this Chapter. Dye's voluntary disclosure theory and agency theory are used to explain the incentives that motivate firms' managers to disclose corporate governance information voluntarily. The model includes variables that are usually found to have a significant relationship to voluntary disclosure in general and specifically to corporate governance practices. Third, based on the conceptual model, three hypotheses are stated. The sample and research methodology used to test these hypotheses are described in the next chapter.

4 Research Methodology

4.1 Introduction

The aim of this Chapter is to explain the method used to test the hypotheses developed in Chapter 3. This chapter is organised as follows: section 4.2 explains how the dependent, independent, moderating and control variables are measured. Justification for and discussion about the chosen methods are also provided. Section 4.3 explains the population, sample selection and identifies the data sources used. Section 4.4 describes the data analysis techniques that are applied in this study and section 4.5 concludes the Chapter.

4.2 Measures of variables

4.2.1 Dependent variable

The dependent variable is voluntary disclosure of corporate governance information (VDCGI). A number of alternative approaches could be used to measure voluntary disclosure of corporate governance. First, a self constructed disclosure index could be used to measure the voluntary disclosure of corporate governance information in annual reports. This method is adopted by most voluntary disclosure studies on corporate governance information (Bujaki & McConomy 2002; Collett & Hrasky 2005). For example, Bujaki and McConomy (2002) have developed a scoring system that measures the extent of disclosure in annual reports based on the 25 variables from the Toronto Stock Exchange (TSE) compulsory guidelines on corporate governance. Each variable is coded as '1' if the company disclosed according to the guideline and '0' if otherwise. A similar dichotomous scoring system is used in Collett and Hrasky's (2005) Australian study. The year 1994 is used as a base year because after that year the Australian Stock Exchange (ASX) made it compulsory for all listed companies to include in their annual reports a statement about their corporate governance practices. Collett and Hrasky's study identified the following corporate governance information in the annual reports of 29 Australian companies: the presence of particular board committees, the structure of the board of directors, the functions of the board of directors and board committees, the internal control policies, and directors' share dealings. However, this technique of measuring voluntary disclosure has been criticised as involving a lot of judgment from the researcher and hence the findings may be difficult to replicate (Healy & Palepu 2001).

The second approach is a disclosure index developed by another organisation, such as a rating agency or professional association. Only a few studies have used a disclosure index that has been developed by one of these organisations to measure voluntary disclosure of corporate governance practices. For example, Labelle (2002) used the governance disclosure index developed by the Canadian Institute of Chartered Accountants (CICA) as a benchmark for firms' corporate governance disclosure quality in annual reports. This governance disclosure index is based on the criteria of the Toronto Stock Exchange (TSE) listing requirements. Firms are awarded a value of '1' if they provide a good or very good level of corporate governance disclosure according to the CICA panel of experts and '0' otherwise. Healy and Palepu (2001) identify several benefits of using a voluntary disclosure index published by an organisation such as the Association for Investment Management and Research (AIMR). This AIMR report provides a comprehensive measure of voluntary disclosure practices for a large number of listed companies relative to their industry peers. The panels that are involved in the ranking process comprise leading analysts for each industry and are likely to be well qualified or experts in judging firms' voluntary disclosures.

A disclosure index developed by a rating agency or professional organisation is adopted for measuring voluntary disclosure in this research. This disclosure index was developed by the Minority Shareholder Watchdog Group (MSWG) in Malaysia. The MSWG is an independent association that has published a Corporate Governance Survey Report of Malaysian listed companies since 2005. The report shows the overall ranking of corporate governance scores of large listed companies based on their level of compliance with the basic corporate governance requirements and best practices. The total corporate governance score is the sum of two main components: the Basic Compliance Score (BCS) and International Best Practices (IBP). In this study the BCS component is the independent variable which represents a firm's corporate governance quality. The IBP component represents voluntary disclosure of corporate governance practices of a company and is the dependent variable of the study. Table 4.1 contains details of the Corporate Governance Scorecard.

There are four main reasons for choosing this method for measuring the dependent variable in this study. First, the voluntary disclosure index in this study was developed by an independent agency. Second, the population of interest for this research consists of Malaysian listed companies, which is also the focus of the Minority Shareholder Watchdog Group (MSWG) corporate governance survey report. Third, the International Best Practices (IBP) component in the MSWG report consists of principles and best practices that are highly recommended by other international bodies and jurisdictions, but which are purely voluntary in Malaysia. Thus this means that companies are free to choose whether to conform to the international best practice recommendation relating to reporting on corporate governance information. Fourth, data that relates to voluntary disclosure of corporate governance practices is available and accessible. This index is preferred over a self-constructed one because the information provided is standardised and can be used for benchmarking, ranking and cross-comparisons among Malaysian companies.

Table 4.1: 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

The dependent variable for this research is measured as the score obtained by a company for the IBP component of the Corporate Governance Scorecard used by the MSWG. The IBP comprises 35 items capturing selected international best practices that are drawn from other influential principles, 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).

The IBP component of the corporate governance scorecard includes voluntary disclosure information in relation to four main categories: board of directors; directors' remuneration; additional shareholder information; and accountability and audit. These four categories are measured by 35 key voluntary disclosure items. Managers of companies are free to choose whether to conform to this IBP recommendations relating to reporting on corporate governance information in their annual reports. Table 4.2 provides details of the 35 key voluntary disclosure items of the IBP component of the corporate governance scorecard.

Table 4.2: List of 35 key voluntary disclosure items 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.
Section B - Directors' Remuneration
The level and make-up of remuneration
1. Disclose the term of reference of RC (including activities, responsibilities, reporting frequency, meeting frequency and individual attendance)
2. 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).
3. Disclose whether the company uses significant (more than 50 percent of total remuneration) performance based remuneration for executive directors.
4. Disclose whether the company uses long-term incentives (shares based payments) to reward executive director.
Disclosure of Remuneration
5. Discloses information in relation to remuneration of each director received from company and from subsidiaries.
6. 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

4.2.2 Independent variables

This section describes in detail the technique used to measure the independent variables. Justification of the chosen technique is also provided.

Corporate governance quality

The first independent variable in the study is corporate governance quality (CGQ) which is represented by the total score obtained by a company in the Basic Compliance Score (BCS) component of the MSWG's Corporate Governance Scorecard. The BCS and IBP are the main components of Corporate Governance Scorecard: The BCS comprises the company's compliance with 40 key items based on the Malaysian Code on Corporate Governance and the Bursa Securities Listing Requirement (MSWG & UNMC 2007). Therefore the total score of BCS component will be used to represent sample companies' corporate governance quality. The higher the score the better is a company's corporate governance quality (Table 4.3).

This research project uses a similar approach to measuring corporate governance quality as has been applied in Beekes and Brown's (2006) study, except that the Horwath Report 2002 is used by Beekes and Brown (2006) as the basis to measure corporate governance quality of Australian listed companies. The 2002 Horwarth report contains the ranking of corporate governance for Australian's top 250 companies by market capitalisation as at 30 June, 2001. The criteria used to rank companies are based on information related to the Board and its principal committees as reported and disclosed by companies in their 2001 Annual Reports and related party disclosures. The companies are ranked according to a five-star system. A five-star rating indicates that a company's corporate governance structure is excellent and a one-star rating indicates that a company's corporate governance structure is poor.

For the purpose of their research, Beekes and Brown transformed Horwath's raw rating scores to range from 1 to 100, where good corporate governance is reflected in a higher score.

There are three main reasons for using this measure for corporate governance quality. First, recent studies on corporate governance have developed a broader set of corporate governance indices. This particular index is seen as an appropriate measure of corporate governance quality as 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). Second, an individual or combination of several corporate governance variables (for example directors, auditors and audit 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 inference (Agrawal & Knoeber 1996; Bowen et al. 2005). Third, the corporate governance quality index that is represented by the BCS component of the Corporate Governance Scorecard is customised to the local business environment and addresses the governance issues that are relevant to the Malaysian context. Therefore, in this research the total score of the BCS component will measure the corporate governance quality of a company.

One of the major issues of adopting this technique is possibility that the above measure captures 'box-ticking rather than corporate governance quality. To assess this possibility, the study conducts some analysis on annual reports of the highest and lowest scoring firms in the sample. It shows that there are significant differences between low and high corporate governance quality firm in relation to the contents of their corporate governance statement in annual report. The high scoring companies have more detailed and longer corporate governance statements compared to companies with low corporate governance quality. In addition, some companies with low corporate governance quality fail to comply fully with MCCG and BSLR. Overall these findings appears to indicate that the measure is capturing more than just box-ticking.

Table 4.3: List of 40 key corporate governance items 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.

Section B - Directors' Remuneration

The level and make-up of remuneration

1. Have a remuneration committee (RC)
2. RC consists wholly of non-executive directors.
3. RC to recommend to the Board the remuneration of the executive directors.
4. Disclose of membership of the RC in directors' report.
5. Take into account of pay and employment conditions within the industry.
6. Link executive directors' package to corporate and individual performance.
7. Relate non-executive directors' remuneration to contribution and responsibilities.

Disclosure of Remuneration

8. 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

Company secretary

The company secretary (CSEC) is the second independent variable of this research. In order to measure whether the company secretary is an in-house qualified company secretary, the definition of an in-house qualified company secretary needs to be ascertained properly. This research defines in-house qualified company secretary as someone who is employed on a full-time basis by the company and possesses a professional qualification or is a member of a professional body. If the company secretary is an in-house company secretary '1' point will be assigned and '0' if the company secretary is an external company secretary. Another '1' point will assigned to a company that has employed someone with a professional qualification and/or is a member of professional body, and '0' point if otherwise. These scores will be summed up together. A full score of 2 points is considered to be an in-house qualified company secretary and a score less than 2 is classified as not in-house qualified.

To ascertain whether a particular secretary is a qualified person a reference is made to the requirement of the Act. According to section 139A 'no person may act as company secretary unless he is a member of a professional body which has been prescribed by the Minister of Domestic Trade and Consumer Affairs or he is licensed by the Registrar of Companies to act as company secretary' (*Malaysian Companies*

Act 1965). In this study it is predicted that a person who is a member of a professional body has professional qualification either in accounting, law or business. A license holder has less academic qualifications since the minimum qualification to apply for the licence is Sijil Pelajaran Malaysia, which is equivalent to O'Level (Section 139B *Malaysian Companies Act 1965*).

In checking for this information, the study searches the annual report for the professional membership number or the licence registration number issued to the company secretary. It is the requirement of the Act that whenever the secretary is to sign any statutory forms or documents, the registration number shall be legibly written after or printed under his or her name (Companies Regulations 1966, Reg. 18(3) *Malaysian Companies Act 1965*). For example if a person has a professional qualification and/or is a member of a professional body, the registration number will appear as 'MAICSA 7018176' or 'MIA 1112' and for a licence holder the number will appear as 'Licence no. 0005687'. Based on this information, the secretary will be classified as either (a) someone with a professional qualification and/or a member of a professional body or (b) a licensed secretary.

To determine whether a company secretary is an in-house or external, annual report information in relation to the registered office address of the company and the company's business or principal address is checked. If these addresses appear the same then the company secretary is categorised as in-house (full-time) but if not then he or she is seen as an external company secretary. In addition, the study checks whether the company secretary's name appears in the list of the management team members since an in-house company secretary is also considered to be a member of the company's management team and sometimes holds other senior positions in the company.

In case of a company that employs more than one company secretary and either both of them are in-house or one is an in-house and the other is an external, a decision to determine whether they are in-house qualified or not is given to the company secretary that possesses better professional qualifications. The reason for this is because the descriptive statistics of company secretary (Table 5.10) shows that most companies that employed more than one company secretary tend to engage an external secretary with better qualifications than the existing in-house company secretary.

4.2.3 Moderating variables

This section explains in detail the techniques used to measure the moderating variables that are expected to moderate the relationship between corporate governance quality and voluntary disclosure of corporate governance information.

Issuance of new shares

Collett and Hrasky (2005), and Bujaki and McConomy (2002) consider an increase of a certain percentage of the existing share capital level from the preceding year in their measurement of an issuance of new shares (S-ISS). Five percent and 20 percent have been used in Collett and Hrasky (2005) and Bujaki and McConomy (2002) respectively to measure an issuance of new shares for firms. A value of '1' is assigned if the company's issued share capital increases by the certain fixed percentage or more from the preceding year and a '0' otherwise. In contrast Labelle (2002) measures issuance of new shares by examining whether the firm appeared to have raised funds in T+1 in the Financial Post Record of New Issues. If the firm's name appeared in the Financial Post Record of New Issues, the same dichotomous scoring system used in the above studies is adopted to measure the variable. For the purpose of this research project, the scale used in the study of Collett and Hrasky (2005) is adopted. That is a five percent increase of share capital will be considered as an issuance of new share capital.

Issuance of new debt

A similar scale to the one used by Collett and Hrasky (2005) is also adopted to measure the issuance of new debt capital (D-ISS). This variable takes a value of '1' if the company's existing debt issuance increases by five percent or more compared to the previous year's debt level. Lang and Lundholm (1993) use an index variable to identify firm-years with a debt offering in the current or following two years. New debt issue data are collected from the Investment Dealer's Digest which provides a complete listing of the SEC registration statement for filings. Issuance of new debt is a dummy variable equal to one if the firm files a debt equity registration statement in the current year or in the next two years, and 0 otherwise. Lang and Lundholm (1993) include financing activity which takes place in the future years to reflect increased disclosure in anticipation of future securities issues. This form of data is not available in Malaysia. Hence, a five percent increase of debt capital from the previous year will be used to measure an issue of new debt.

Stock based compensation

To measure this variable, the study will use Nagar, Nanda and Wysocki's (2003) scale to determine stock-based compensation (SC-OPTIONS). That is the sum of total value of stock option grants plus the value of restricted stock grants divided by the total value of direct compensation. The main reason for using this measurement is the availability of data in relation to directors' components of remuneration packages and stock options. These data are easily assessable and can be found in annual reports. Thus measuring stock-based compensation using this technique is possible.

The CEO shareholdings

CEO shareholdings (SH-OWN) are measured as the market value of the total CEO ownership over the total market value of issued share capital of a company. Deumes and Knechel (2008) use top managers' equity ownership to measure the association between management ownership and voluntary reporting of internal control. They measure managerial ownership by summing up the percentage of shares held by members of the management board. On the other hand Nagar, Nanda and Wysocki (2003) use the average value of CEO shareholdings in the firm over the sample period to measure the stock price-based incentives. In this research project, a similar approach is employed to measure CEO shareholdings (the market value of shares held by 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.

4.2.4 Control variables

In order to test the relationship between corporate governance quality and the voluntary disclosure of corporate governance information, it is important to include control variables that could be associated with voluntary disclosures. The control variables that are included in the model to test all the hypotheses in this research are company size, type of industry, listing status, leverage, family member on the board, race and profitability. These control variables are drawn from prior research (Collett & Hrasky 2005; Deumes & Knechel 2008; Ghazali & Weetman 2006; Haniffa &

Cooke 2002; Ho & Wong 2001; Hossain et al. 1995; Meek et al. 1995; Watson et al. 2002).

Company size (SIZE) has consistently been associated with increases in voluntary disclosure in general. Larger firms are suggested not to have difficulty in general to comply with governance issues as well as to provide corporate governance information in annual reports compared to smaller firms (Bujaki & McConomy 2002). Larger firms are also likely to be more complex and have a wider ownership base than smaller firms. Thus, agency theory suggests that larger firms will have higher agency costs compared to smaller firms which requires them to voluntarily disclose more information to mitigate this agency problem (Jensen & Meckling 1976). There are a number of methods used to measure firm size: total revenue (Meek et al. 1995); the sum of market value of equity or market capitalisation (Beekes & Brown 2006; Collett & Hrasky 2005); and total assets (Labelle 2002). There are two main reasons why the study uses total assets to measure a company's size instead of market capitalisation. First, total assets are a better measure than market capitalisation since it is not impacted by stock market conditions. Second, it is also not related to how the company is financed. That is how much debt versus equity is included in its capital structure.

Type of industry or industry classification according to which firms are grouped together is another determining factor that is commonly used in previous studies to explain the level of voluntary disclosure. 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). This study uses the indicators of ‘1’ if a company operates in trading/services sector and ‘0’ otherwise. Prior studies on voluntary disclosure in Malaysia have also used trading/services (TRA) sector classification as well as other sectors such as industrial, consumer, construction and plantation (Ghazali & Weetman 2006; Haniffa & Cooke 2002). Trading/services sector is chosen because they represent the majority sample of companies in the study.

Listing (LIS) status refers to firms whose shares are listed on both international and domestic stock exchanges. Firms whose shares are listed on an international stock exchange face additional listing requirements in relation to corporate governance disclosure in their annual reports (Gray et al. 1995). To measure listing status a dummy variable is used, whereby a company that is listed on both the domestic and the international stock exchange is assigned a value of ‘1’ and a value of ‘0’ otherwise.

Jensen and Meckling (1976) suggested that a firm with a high gearing ratio (LEV) will have more agency problems because the potential for wealth transfers from debt holders to shareholders increases. Thus, voluntary disclosure is expected to increase as the gearing ratio increases. Deumes and Knechel (2008) hypothesise and have found a positive association between leverage and voluntary reporting on internal control within a two year period (1998 and 1999) but an insignificant association in 1997. Gray, Meek and Roberts’ (1995) study also found a significant association between leverage and voluntary disclosure but in the inverse direction. Some studies use total liabilities divided by total assets of a firm to represent leverage (Bujaki & McConomy 2002; Haniffa & Cooke 2002; Meek et al. 1995) while another group of studies measures leverage by the ratio of the book value of debt to the sum of the market value of equity and the book value of debt or long term loans to shareholders' funds (Deumes & Knechel 2008; Ghazali & Weetman 2006). In this study the first method of measurement of leverage is used. This method of measuring leverage is preferred because shareholders' equity has been used to measure return on equity (ROE) variable. Thus this can reduce the possibility of multicollinearity problem.

The presence of a family member on board (FMB) is measured by the proportion of family members on the board (Ghazali & Weetman 2006; Haniffa & Cooke 2002; Ho & Wong 2001). The presence of family members on the board is considered to be the main factor that hinders voluntary disclosure especially for firms that operate in Asian countries. Ho and Wong (2001) argue that in Hong Kong, the majority of listed firms are family-owned and this is considered as highly concentrated ownership. These types of family-owned firms are controlled and managed by family members who own a substantial amount of the firms' issued share capital. As such decisions made by a board of directors that is dominated by family members are more likely to approve the desires or needs of the family. They find evidence to support their prediction that companies with a high proportion of family members on the board are less likely to disclose information voluntarily. Similar results are also found in studies that examined the level of voluntary disclosure in the Malaysian setting (Ghazali & Weetman 2006; Haniffa & Cooke 2002).

Another factor that is considered to be a contributor to decisions to disclose voluntarily is race. Haniffa and Cooke (2002) used cultural factors (race and education background) as one of the determining factors that influence voluntary disclosure by Malaysian corporations. They measure race as a firm having a Malay managing director, a Malay finance director, a Malay Chairman, the proportion of

Malay directors on the board and the proportion of Malay shareholdings. They proposed a negative relationship for all of the above variables with the level of voluntary disclosure. The results of their study show that race significantly influences the level of voluntary disclosure and in an opposite direction. This suggests that in examining voluntary disclosure in Malaysia, cultural factors such as race should be considered. Therefore the proportion of Malay directors (BOARD-M) on the board will be used to measure cultural factors in this research.

Companies reporting high profitability are expected to have more incentive to disclose voluntarily as good performance (profit) is considered to be good news. In contrast Collett and Hrasky (2005) predict that companies with poor performance (loss) may have more incentive to disclose corporate governance information voluntarily. They used return on assets (ROA) to measure firm performance. 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. ROE is a continuous variable measured as profits before tax divided by shareholders' equity. This measure of profitability has been used in prior studies in Malaysia (Ghazali & Weetman 2006; Haniffa & Cooke 2002).

4.3 Population and sample selection

4.3.1 Population

The population of this study consists of the 987 companies listed on the Bursa Securities Malaysia Berhad (BSMB) in 2007. However since one of the major criteria for inclusion in the sample of the study is corporate governance quality, the sample frame is reduced to the 350 companies that have data on corporate governance quality available. This sample frame is based on the 350 top listed companies published in the MSWG 2007 corporate governance survey report. The MSWG assessed annual report disclosures using the corporate governance scorecard and then used this assessment to rank companies according to the quality of their corporate governance structures. Identifying companies with corporate governance quality data is necessary because empirical tests in this research project analyse the association between corporate governance quality and voluntary disclosure of corporate governance information.

4.3.2 Sample selection

From the sample frame of 350 top listed companies in Malaysia, 40 companies are excluded either because their shares have been suspended, deleted, delisted, acquired or become privatised during the period. Another 35 companies in the Finance sector are also excluded because these companies are required to comply not only with the Bursa Securities Listing Requirements but also with stricter rules such as the Banking and Financial Act and the Bank Negara rules. This leaves a final sample of 275 companies. Table 4.4 shows the total number of companies listed on the BSMB and how the final sample is derived.

Table 4.4: Sample companies used for empirical tests

Total population	987
less: Companies without data on corporate governance quality	637
Top 350 companies with corporate governance quality	350
less: Companies whose shares were deleted, suspended, delisted, acquired or privatised	40
	310
Less: Companies in Finance sector	35
Final Sample	275

4.3.3 Data collection and data sources

Secondary data is used in the form of company annual reports. There are a few reasons for using annual reports as the main data source. First, the corporate governance quality (CGQ) and voluntary disclosure of corporate governance information (VDCGI) variables are proxied through the use of the MSWG measurement of the IBP and BCS components of the corporate governance scorecard. The MSWG collects data in relation to corporate governance quality and voluntary disclosure information from companies' annual reports.

Second, most of the relevant data such as company secretary, issuance of new share and debt capital, stock-based incentives as well as data on control variables can be obtained from the annual reports. Annual reports of listed companies are easily assessable through company websites, the Bursa Securities Malaysia Berhad (BSMB) websites and the OSIRIS database.

Third, most of the prior studies of voluntary disclosure have used annual reports to analyse the extent of corporate governance disclosures (Bujaki & McConomy 2002; Collett & Hrasky 2005). According to Catasus (2000) there are two main reasons for researchers to use annual reports for corporate governance studies. The first reason is that annual reports are commonly viewed as representing the domain of corporate concerns. Hence annual reports are one of the most important media to communicate these concerns to stakeholders. Second, an annual report is issued regularly and is easily assessable for inspection by members of the public. Thus, using an annual report as the main source of data collection for this research is justifiable.

The study uses 2007 annual reports for three main reasons. First, there is no corporate governance quality data available for a large population before 2006.

Second, the study uses 2007 annual reports because the data collected in the MSWG corporate governance survey report 2008 was based on 2007 annual reports. Third, 2007 was chosen because it was the most recent year for which full financial data was available for the sample companies, and to avoid the effect of the global economic downturn which happened at the end of 2008.

The BSMB website's link to companies' websites as well as the OSIRIS database are used as sources for companies' annual reports to collect company secretary data, moderating data (issuance of new share and debt capital, and stock-based incentives), and control variables data. Both the corporate governance quality and voluntary disclosure data are obtained from the MSWG. The governance data refer to the position at the end of the 2007 financial year as reported in the annual reports. All data in relation to issuance of new shares and debt capital refer to the end of the year 2008 and 2009 financial years as reported in the companies' annual reports. This approach is chosen because it identifies the voluntary disclosure practices that are in place at the beginning of the relevant financial year and which are therefore relevant for financing activity in the following year. Prior studies have found evidence that shows companies increase disclosure in their annual reports prior to financing activities (Bujaki & McConomy 2002; Collett & Hrasky 2005; Lang & Lundholm 2000). The study expects that issuances of new share or debt capital will be made in the next two years (2008 and 2009) from the base year 2007. Therefore this study assumes that the current firms' disclosure decisions are related to firm anticipation of future financing needs. Finally, data on stock-based incentives and company secretaries are based on companies' 2007 annual reports.

4.4 Data analysis techniques

4.4.1 Descriptive statistics

As a first step before testing the hypotheses, general observations are made on various data obtained for the year 2007. Descriptive statistics are a useful tool for making some general observations about the data collected, for example the characteristics of the companies involved in the study, the size range and average mean size or the industry classification and listing status of the companies. All data are tabulated, either through simple tabulation or cross-tabulation. This technique is useful for arranging data in a more informative format. The data are described by measures of central tendency such as mean, median or mode. In addition, graphs are used to help simplify and clarify research data (Zikmund 2003). Other statistics such as standard deviation and variance also provide information about the distribution of each variable (Hair et al. 2006).

4.4.2 Interpretive analysis

Correlation analysis: measures of association between variables

Pearson's and Spearman's rho product-moment correlation tests are run to measure the relationship of one variable to another. These tests also look at whether there is significant correlation among independent variables, the dependent variable, the moderating variables and the control variables. It is important to keep in mind that correlation does not mean causation. Hence, no matter how high the correlation between the two variables, this correlation does not indicate that the independent variable causes the dependent variable (Zikmund 2003). In addition correlations between independent, moderating and control variables help to discover if multicollinearity will be a problem in the regression analysis.

Regression model and analysis

Regression analysis is the main technique used for measuring the linear association between dependent, independent and moderator variables. The type of regression analysis to test all the hypotheses is a linear simultaneous multiple regression technique which is also referred to as forced entry regression or standardised multiple regression. In this type of regression technique all variables are forced to enter the equation at the same time. The simultaneous regression technique is appropriate because the main purpose of this research is to determine the extent of the influence of incentive factors on voluntary disclosure of corporate governance information. The simultaneous multiple regression technique enables the study to estimate the direct effects of each variable on the dependent variable. In addition, this research is also interested to know whether Dye's voluntary disclosure theory holds in developing countries as well as to different type of voluntary disclosure. This technique is believed by some researchers to be the only appropriate method for theory testing (Studenmund & Cassidy 1987). The following multiple regression equation model is used for hypotheses testing:

$$\begin{aligned} VDECGI = {} & \beta_0 + \beta_1 CGQ + \beta_2 CSEC + \beta_3 S\text{-}ISS + \beta_4 CGQ{*}S\text{-}ISS + \beta_5 D\text{-}ISS + \\ & \beta_6 CGQ{*}D\text{-}ISS + \beta_7 SC\text{-}OPTIONS + \beta_8 CGQ{*}\ SC\text{-}OPTIONS + \\ & \beta_9\ SH\text{-}OWN + \beta_{10} CGQ\ {*}SH\text{-}OWN + \beta_{11} SIZE + \beta_{12} IND + \beta_{13} LIST \\ & + \beta_{14} LEV + ß_{15}\ FMB + ß_{16}\ BOARD\text{-}M + ß_{17}\ ROE + \varepsilon_i \end{aligned}$$

where VDECGI represents Voluntary Disclosure of Corporate Governance Information. Table 4.5 provides a summary of the regression equation components.

Label	**Explanation**
CGQ*S-ISS	interaction term of CGQ and S-ISS
CGQ*D-ISS	interaction term of CGQ and D-ISS
CGQ*SC-OPTIONS	interaction term of CGQ and SC-OPTIONS
CGQ*SH-OWN	interaction term of CGQ and SH-OWN

This multiple regression model also includes interaction effects between corporate governance quality and each moderator. In order to test all hypotheses in this study it is necessary to consider the simultaneous effects of the independent and moderating variables on voluntary disclosure outcomes (Chen & Jaggi 2000; Labelle 2002). Since incentive factors (capital market transactions and stock-based incentives) are expected to moderate the relationship between corporate governance quality and voluntary disclosure, it is necessary to test the interaction terms related to each of the incentive factors in order to rule out the possibility that the unobserved interaction of corporate governance quality and the incentive factors drives the primary results of this study.

4.5 Conclusion

This Chapter explains the research methodology used to test the hypotheses developed in Chapter 3. First, the measures used for each of dependent, independent, moderating and control variables are explained and justification for adopting the approach is provided. Second, the population from which the sample was selected is discussed and the main sources of data used have been described. Finally, the data analysis techniques undertaken in this research are outlined. Chapter 5 presents an analysis of the results obtained by using these tests.

Table 4.5: Summary of regression equation components

Dependent variable	Operational	Source of information
VDCGI = Voluntary disclosure of corporate governance information	Total number of points awarded for voluntary corporate governance information	The proportion of IBP scores obtained from the MSWG
Independent variables	**Operational**	**Source of information**
CGQ = Corporate governance quality	Total number of points awarded for corporate governance quality	The proportion of BCS scores obtained from the MSWG
CSEC = Company secretary	In-house qualified company secretary: Member of professional body = 1, otherwise 0. In-house = 1, external = 0. The above score will then be added together. Full-time qualified company secretary should obtain a score of 2 points. A score below 2 points is considered as 'Not in-house qualified'	Company annual report
Moderating variables	**Operational**	**Source of information**
S-ISS = Share issue	5% or more of existing share issued.	Company annual report
D-ISS = Debt issue	Non-current liabilities increase by 5% or more.	Company annual report
SC-OPTIONS = Ratio of stock based compensation to total 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	Company annual report
SH-OWN = value of shares held by CEO	Ratio of market value of the CEO's shareholdings to total market value of issued share capital.	Company annual report
Control variables	**Operational**	**Source of information**
SIZE = Size	Total assets	Company annual report
TRA = Trading/ services sector	1 if the company is in the trading/services sector and 0 if otherwise	Company annual report
LIS = Cross Listing	1 if the company has multiple listings, 0 if otherwise	Company annual report
LEV = Leverage	Total liabilities divided by total assets	Company annual report
FMB = Family members on the board	Proportion of family members on the board to the total number of directors	Company annual report
BOARD-M = Malay directors on board	Proportion of Malay directors to total number of directors on the board	Company annual report
ROE = Return on equity	Profits before tax divided by shareholders' equity	Company annual report

5 Analysis and Results

5.1 Introduction

This chapter analyses the results from the descriptive statistics, correlations and regression analyses. It does not draw conclusion from the results nor suggest implications for theory, policy or practice. This is left to Chapter 6. The current Chapter is organised as follows: section 5.2 discusses the descriptive statistics of the sample. Section 5.3 explains the results obtained from the correlation analysis. Section 5.4 details the results of testing the interaction term effects. Section 5.5 presents the results of the regression analysis. Section 5.6 outlines the results of additional tests and section 5.7 concludes the Chapter by summarising its main outcomes.

5.2 Descriptive statistics

The number of sample firms and the population from each industry sector are shown in Table 5.1. The majority (49.1%) of sampled companies are from the trading/services and industrial sectors. The property sector accounts for 15.3%, followed by consumer product (11.6%) and plantation (10.9%). The construction, infrastructure, technology, hotel and closed-end fund sectors represent 6.5%, 2.9%, 2.5%, 0.7% and 0.4% respectively from the sample. As can be seen in Table 5.1, the 275 companies are a reasonably representative sample based on industry sector.

Table 5.1: 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	3.0
Hotel	2	0.7	4	0.5
Closed-end fund	1	0.4	2	0.2
Mining	0	0.0	1	0.1
Finance	0	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 those that triggered any of the criteria pursuant to Amended Practice Note 17 of the Listing Requirements of Bursa Securities Malaysia Berhad. GN3 companies are those that triggered any of the criteria pursuant to Guidance Note 3 of MESDAQ market Listing Requirements of Bursa Securities Malaysia Berhad.

Source: Bursa Malaysia Berhad

Table 5.2 summarises the descriptive statistics for the corporate governance quality (CGQ) and its sub-categories that make-up the Basic Compliance Score (BCS) component of Minority Shareholder Watchdog Group (MSWG) scorecard. The distribution of CGQ score and its sub-categories is presented in Table 5.3. The sub-categories include board of directors, directors' remuneration, shareholders, and accountability and audit. The highest total CGQ score achieved by a company is 39 out of 40 points and the lowest score is 18 points. The mean and median values are 29.67 and 30 respectively. This suggests that companies' CGQ scores in the sample are at relatively high levels. A close review of Tables 5.2 and 5.3 reveals that the averages mean score under the board of directors category was 14.98, with the minimum and maximum score of nine and 20 respectively. Directors' remuneration was the category with the poorest governance quality. This is indicated by a median score of 4 points, with less than 21 per cent of the 275 companies obtaining a score above 6 points. On the other hand, the majority of companies (84%) attained a maximum score of 2 points in the shareholders category with a mean of 1.84. Similarly, more than 80 percent of companies score a maximum 9 points for the accountability and audit category. The above analysis indicates that more than one-half (51.6%) of the companies in the sample obtained a CGQ score of 30 and above points.

Table 5.2: Descriptive statistics for Corporate Governance Quality (CGQ) and its sub-categories (*N* = 275)

Categories	Mean	Median	Minimum	Maximum
Part A - Board of Directors (0 to 21)*	14.98	15.00	9.00	20.00
Part B - Directors' remuneration (0 to 8)*	3.98	4.00	0.00	8.00
Part C - Shareholders (0 to 2)*	1.84	2.00	0.00	2.00
Part D - Accountability and Audit(0 to 9)*	8.87	9.00	7.00	9.00
Total possible CGQ score (0-40)*	29.67	30.00	18.00	39.00

*Numbers in bracket are minimum and maximum possible scores.

Table 5.3: Distribution of Corporate Governance Quality (CGQ) score and its sub-categories (*N*=275)

Board of directors (0-21)*

Score	No of companies	Percentage
9 to 12	42	15.3
13 to 16	166	60.3
17 to 20	67	24.4
Total	275	100.0

Directors' Remuneration (0-8)*

Score	No of companies	Percentage
0 to 2	58	21.1
3 to 5	160	58.2
6 and above	57	20.7
Total	275	100.0

Shareholders (0 - 2)*

Score	No of companies	Percentage
0	3	1.1
1	39	14.2
2	233	84.7
Total	275	100.0

Accountability and Audit (0-9)*

Score	No of companies	Percentage
7	2	0.7
8	32	11.7
9	241	87.6
Total	275	100.0

Total CGQ Score (0-40)*

Score	No of companies	Percentage
18 to 24	30	10.9
25 to 29	91	33.1
30 to 34	129	46.9
35 to 39	25	4.7
Total	275	100.0

*Numbers in bracket are minimum and maximum possible scores.

Tables 5.4 and 5.5 summarise the descriptive statistics and distribution score in relation to voluntary disclosure of corporate governance information (VDCGI) and its sub-categories which represent the International Best Practices (IBP) score component of MSWG scorecard. Possible VDCGI scores range from a minimum of zero point to a maximum of 35 points. Tables 5.4 and 5.5 reveal that there is a wide range in observed VDCGI scores, from 1 to 25, with a mean of 9.18. This suggests that most companies scored at the lower end of the possible range. The mean score for the board of directors' category is low at 1.36 with a majority of companies (60%) obtaining a score of zero to one point and about 40 per cent of companies obtaining a score over two points. The average mean score for the directors' remuneration category is also low at 0.78. More than 80 per cent of sample companies received a score of less than two points compared with about 50 (18%) of companies receiving two or above points for the directors' remuneration category. The minimum and maximum possible scores for the shareholders category are zero and nine points respectively. The observed mean and median for this sub-category are 3.43 and 4.00. The mean score for accountability and audit category is 3.61 while the median is 4.00. The overall analysis of the VDCGI score indicates that less than 10 per cent of the 275 sample companies received a disclosure score of more than 14 out of the maximum possible score of 35.

Table 5.4: Descriptive statistics for Voluntary Disclosure of Corporate Governance Information (VDCGI) and its sub-categories (*N* = 275)

Categories	Mean	Median	Minimum	Maximum
Part A - Board of Directors (0 to 8)*	1.36	1.00	0.00	7.00
Part B - Directors' remuneration (0 to 6)*	0.78	1.00	0.00	4.00
Part C - Shareholders (0 to 9)*	3.43	4.00	0.00	8.00
Part D - Accountability and Audit(0 to 12)*	3.61	4.00	0.00	9.00
Total VDCGI Score (0-35)*	9.18	9.00	1.00	25.00

*Numbers in bracket are minimum and maximum possible scores.

Table 5.5: Distribution of Voluntary Disclosure of Corporate Governance Information (VDCGI) score and its sub-categories (*N*=275)

Board of Directors (0-8)*

Score	No of companies	Percentage
1 and below	166	60.4
2 to 4	106	38.5
5 to 7	3	1.1
Total	275	100.0

Directors' Remuneration (0-6)*

Score	No of companies	Percentage
1 and below	225	81.8
2 to 3	49	17.8
4	1	0.4
Total	275	100.0

Shareholders (0-9)*

Score	No of companies	Percentage
0 to 2	64	23.3
3 to 5	184	66.9
6 to 8	27	9.8
Total	275	100.0

Accountability and Audit (0-12)*

Score	No of companies	Percentage
0 to 3	123	44.7
4 to 6	129	46.9
7 to 9	23	8.4
Total	275	100.0

Total VDCGI score (0-35)*

Score	No of companies	Percentage
1 to 7	95	34.6
8 to 14	156	56.7
15 to 25	24	8.7
Total	275	100.0

*Numbers in bracket are minimum and maximum possible scores.

Table 5.6 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. There are 198 companies that did not offer stock-based compensation (SC-OPTIONS) as part of the total compensation packages for the CEO compared to only 77 companies that offered this form of compensation (Table 5.7). The mean proportion of stock-based compensation is 0.15 as shown in Table 5.6. CEOs on the whole owned on average 0.17 of the total issued shares, although the highest proportion of shares owned by CEOs (SH-OWN) in the sample reached 0.75. Based on Table 5.7, there are around 45% of CEOs who owned shares in companies and the remaining 55% of them did not own shares.

Table 5.6: Summary statistics for other continuous variables

Continuous Variables	Label	Mean	Median	Standard Deviation	Minimum	Maximum
% of Stock-based Compensation	SC-OPTIONS	0.15	0.00	0.28	0.00	0.95
% of CEO shares own	SH-OWN	0.17	0.01	0.21	0.00	0.75
Total Assets	LSIZE	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
Returns on equity	ROE	0.18	0.16	0.23	-0.78	2.90
% of Family members on board	FMB	0.18	0.00	0.22	0.00	0.83
% of Malay directors on board	BOARD-M	0.43	0.38	0.28	0.00	1.00

The distribution of the total assets (LSIZE) was normalised using a log transformation (Table 5.7). Mean value of total assets before transformation is Malaysian Ringgit (MYR) 2.9 billion. More than one-half of companies are smaller than MYR 1.0 billion total assets. The range of total assets indicates that sampled companies are widely distributed (Table 5.8). Leverage (LEV) levels of companies are quite high with a mean of 0.43. The lowest gearing level is 0.00 with highest at 1.95. Return on equity ratio (ROE) is used to measure profitability of a company. Statistics on ROE indicate that a small number of companies exhibit negative ROE. The maximum ROE is 2.90 and the mean is 0.18 (Table 5.6).

Table 5.7: Summary of companies with and without stock-based compensation, CEO shareholdings, family members and Malay directors

	No of companies	%		No of companies	%
Stock-based compensation (SC-OPTIONS)	77	28	Do not offer Stock-based compensation	198	72
CEO Shareholdings (SH-OWN)	150	55	No CEO shareholdings	125	45
Family members on boards (FMB)	123	45	No family member on boards	152	55
Malay directors on boards (BOARD-M)	256	93	No Malay directors on boards	19	7

The proportion of family members on boards of directors (FMB) ranges from 0.00 to 0.83. As shown in Table 5.7, there are more than half (152) of companies in the sample did not have directors with family connections. The mean and median for the proportion of Malay directors on boards (BOARD-M) are 0.43 and 0.38 of which the minimum and maximum proportion of Malay directors on board range from zero and 1.00 respectively. In addition, Table 5.7 also shows that there are about 19 (7%) companies that have no Malay directors, indicating that majority of companies would have at least one Malay director as a member of their board.

Table 5.8: Total assets of sample companies

Statistics

SIZE (MYR'000)	
Mean	2,948,926
Median	986,600
Minimum	101,973
Maximum	67,724,600

Total assets	No. of companies	Percentage
less than 1 billion	141	51.3
Between 1 billion to 3.5 billion	87	31.6
Between 3.5 billion to 7.0 billion	25	9.1
Between 7.0 billion to 10.5 billion	9	3.3
Above 10.5 billion	13	4.7

Descriptive statistics for dichotomous variables are presented in Table 5.9. Nearly half (48%) of the sample companies employed in-house qualified company secretaries (CSEC). More than 70% of them have professional qualifications (ProQ) and about two third (68%) of them are also in-house (InH) company secretaries. Table 5.10 presents more detailed descriptive statistics for company secretaries. It shows that 55% (150) of sample companies have more than one company secretary. The remaining 45% (125) employed only one company secretary. Eighty-four (56%) of these company secretaries are in-house qualified compared to only 49 (39%) companies with one company secretary that are in-house qualified. In fact, 26 (17%) of companies with more than one company secretary have both professional by qualified and license holder as well as in-house and external. This shows that companies value academic qualifications of company secretaries on par with the in-house category. Some companies that employed an in-house company secretary of lower academic qualification (license holder) are likely to engage an external company secretary with higher qualifications (professional qualification). In addition, 58 (21%) of the in-house company secretaries also hold various posts in companies other than as a company secretary alone.

Table 5.9: Summary for dichotomous or dummy variables

Dichotomous or Dummy Variable	**Label**	**Number of companies where Dummy Variable = 1**	**%**	**Number of companies where Dummy Variable= 0**	**%**
In-house qualified company secretary	CSEC	133	48	142	52
*Professional Qualification	ProQ	202	73	73	27
*In-house	InH	191	69	84	31
Issued new shares	S-ISS	44	16	231	84
*ESOS	Esos	27	10	248	90
*Rights	Rights	17	6	258	94
Issued new debt funds	D-ISS	43	16	232	84
Cross listing	LIS	10	4	265	90
Trading/ services sector	TRA	72	26	203	74

There are 44 companies that issued new shares (S-ISS), while the remaining 231 companies did not issue any new shares. Out of the 44 companies that issued new shares, 27 of the new issuances are Employee Share Options Scheme (ESOS) and 17 are in the form of a rights issue (Rights). There are 43 companies that issued new debt capital (D-ISS). This indicates that there are only a small number of companies in the sample that issued new shares and debt capital during the period of 2008 to 2009.

Ten listed companies have shares that are cross listed (LIS) on other stock exchanges (Table 5.9). The sub-sample of companies that belong to the trading/services sector (TRA) is 72 which represent 26% of the overall sample.

Company size, as measured by total assets initially has very high values for skewness and kurtosis. Therefore, as is common in the literature, this variable was transformed using a natural log transformation. This transformation reduced the skewness and kurtosis statistics to 0.754 and 0.498 respectively. The stock-based compensation variable also had reasonably high statistics for skewness and kurtosis. This was dealt with by transforming the variable using a square root transformation. This transformation reduced the skewness to 1.272 and kurtosis to -0.179. The remaining variables have lower values of skewness and kurtosis and are normally distributed.

Table 5.10: Descriptive statistics of company secretary data

	No of companies	percentage
One company secretary	125	45
More than one	150	55
total	275	100

	One company secretary	**percentage**	**More than one**	**percentage**	**Total**	**percentage**
In-house qualified (CSEC)	49	39	84	56	133	48
Not in-house qualified	76	61	66	44	142	52
	125		150		275	100
Professional qualified (ProQ)	84	67	118	79	202	73
License holder	41	33	32	21	73	27
	125		150		275	100
In-house (InH)	96	77	95	63	191	69
External	29	23	55	37	84	31
	125		150		275	100
Holding other post	24	19	34	23	58	21
Not holding other post	101	81	116	77	217	79
	125		150		275	100
Both in-house and external	0		91	61		
Have license as well as professional qualified	0		33	22		
Have both of the above category	0		26	17		
			150			

5.3 *Correlation results*

5.3.1 Correlations between dependent variable and predictor variables

The bivariate relationships among variables in the regression model are explored in Tables 5.11 and 5.12. The Pearson correlation coefficients between dependent, independent, moderating and control variables are reported in Table 5.11. As expected, there is a significant correlation between corporate governance quality (CGQ) and voluntary disclosure of corporate governance information (VDCGI), r = 0.49, p (one-tailed) < 0.01. In addition, issuance of new shares (S-ISS) and debt funds (D-ISS), stock-based compensation (SC-OPTIONS), natural log for total assets (LSIZE), leverage (LEV), proportion of Malay directors (BOARD-M), return on equity (ROE), cross-listing (LIS) and trading/services sector (TRA) are all positively and significantly correlated with voluntary disclosure of corporate governance information. The proportion of family members on boards (FMB) is negatively correlated with voluntary disclosure as expected, r = -0.35, p (one-tailed) < 0.01. As predicted, CEO shareholding (SH-OWN) is also negatively and significantly correlated with voluntary disclosure. An in-house qualified company secretary is the only variable that is not significantly correlated to voluntary disclosure. Overall, these correlation results provide initial support for the majority of the hypotheses. They also confirm the importance of the control variables.

Non-parametric Spearman's rho correlations are also calculated and presented in Table 5.12. As with Pearson correlations in Table 5.11, CGQ is significantly positively correlated with VDECGI. VDECGI is also positively correlates with S-ISS, D-ISS, SC-OPTIONS, LSIZE, LEV, BOARD-M, ROE, LIS and TRA. FMB and SH-OWN are negatively correlated with VDCGI. These correlations suggest that issuance of new shares, issuance of new debt capital, stock-based compensation, firm size, leverage, proportion of Malay directors on board, cross listing, trading/services sector, proportion of family members on boards, and CEO shareholdings are associated with voluntary disclosure of corporate governance information. As before, the in-house company secretary is not associated with voluntary disclosure.

The correlation analysis was run again. This time the company secretary variable is divided into professional qualified versus licence holder (ProQ) and in-house versus external company secretary (InH). The issuance of new shares variable is also divided into two categories: Employee Share Options Scheme (ESOS) and rights issues (Rights). The reason for this is to test whether voluntary disclosure of corporate governance information is influenced by types of company secretary or types of issuance of new shares. As can be seen from Table 5.13, in-house company secretary is significantly related to voluntary disclosure, $r = 0.20$, $p < 0.01$ as predicted by hypothesis H1(a). However the relationship between professional qualified company secretary and voluntary disclosure is in an inverse direction, $r = -0.11$, $p < 0.05$. Professional qualified company secretary is negatively related with in-house company secretary, $r = -0.130$, $p < 0.05$. The negative correlation between professional qualified and in-house suggests that most in-house company secretaries in the sample have lower qualifications. This suggests that professional qualification (ProQ) is influencing the insignificant correlation between company secretary and voluntary disclosure. In the case of issuance of new shares, ESOS is significantly related to voluntary disclosure, $r = 0.24$, $p < 0.01$, while rights issue is not. This suggests that ESOS are driving the significant correlation between issuance of new shares and voluntary disclosure of corporate governance information. Similar results are also reported by Spearman's rho correlations (Table 5.14).

Table 5.11: Pearson Correlations between all variables in the voluntary disclosure model

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1	VDCGI													
2	CGQ	**0.494												
3	CSEC D	0.089	*0.121											
4	S-ISS D	**0.215	0.087	*0.114										
5	D-ISS D	**0.244	0.077	0.064	**0.222									
6	SC-OPTIONS	**0.265	0.064	0.039	**0.475	**0.222								
7	SH-OWN	**-0.293	**-0.199	0.001	0.058	-*0.138	0.035							
8	LSIZE	**0.403	*0.136	-0.014	0.090	**0.335	*0.132	**-0.224						
9	LEV	**0.173	0.084	0.063	**0.186	**0.310	0.096	-0.041	**0.393					
10	FMB	**-0.349	**-0.259	0.019	-0.024	-0.045	*0.118	**0.358	*-0.137	0.002				
11	BOARD-M	**0.306	**0.205	0.053	-0.014	0.083	-0.001	**-0.267	**0.239	**0.152	**-0.422			
12	ROE	**0.250	0.066	-0.006	0.036	**0.158	0.031	-0.083	0.044	**0.145	-0.019	-0.067		
13	LIS D	**0.154	0.038	0.006	-0.085	**0.184	0.046	-0.065	**0.318	0.065	-0.063	0.092	-0.018	
14	TRA D	**0.234	0.098	0.036	-0.012	**0.176	0.020	*-0.113	**0.175	*0.121	**-0.272	**0.349	0.018	*0.105

Notes:
** Correlation is significant at the 0.01 level (one-tailed)
* Correlation is significant at the 0.05 level (one-tailed)

N = 275

VDCGI 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; CSEC equals to 1 if the company secretary hold a professional qualification and employed in-house and zero otherwise; S-ISS equals to 1 if the company issue new shares with 5% and above and zero otherwise; D-ISS equals to 1 if the company issue new debt capital with 5% and above and zero otherwise; SC-OPTIONS is the proportion of stock-based compensation over the total compensation; SH-OWN is the proportion of total CEO's shareholdings; LSIZE is the company size as measured by the natural log of its total assets; LEV is a percentage of total debts to total assets; FMB is the percentage of total family members on boards; BOARD-M is the percentage of Malay directors on boards; ROE is the total shareholders' returns on total equity; LIS equals to 1 if the company shares is cross listed in more than one stock exchanges and zero otherwise; and TRA equals to 1 if the company is a trading/services sector and zero otherwise.

'D' stands for dummy variable.

Table 5.12: Spearman's rho Correlations between all variables in the voluntary disclosure model

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1	VDCGI													
2	CGQ	0.454**												
3	CSEC D	0.067	0.105*											
4	S-ISS D	0.247**	0.086	0.114*										
5	D-ISS D	0.239**	0.092	0.064	0.222**									
6	SC-OPTIONS	0.268**	0.014	0.036	0.494**	0.202**								
7	SH-OWN	-0.305**	-0.263**	-0.005	0.103*	-0.144**	0.096							
8	LSIZE	0.392**	0.170**	0.015	0.112*	0.318**	0.103*	-0.300**						
9	LEV	0.215**	0.084	0.084	0.222**	0.356**	0.103*	-0.045	0.450**					
10	FMB	-0.347**	-0.275**	0.014	-0.020*	-0.064	0.105*	0.414**	-0.120*	-0.019				
11	BOARD-M	0.279**	0.190**	0.051	-0.034*	0.073	0.014	-0.326**	0.235**	0.186**	-0.415**			
12	ROE	0.118*	-0.045	0.028	0.111*	0.147**	0.128*	-0.004	0.073	0.222**	0.016	-0.002		
13	LIS D	0.128*	0.012	0.006	-0.085	0.184**	0.052	-0.081	0.229**	0.069	-0.066	0.085	-0.001	
14	TRA D	0.210**	0.083	0.036	-0.012	0.176**	0.018	-0.160**	0.135*	0.150**	-0.279**	0.343**	0.034	0.105*

Note:

* Correlation is significant at the 0.05 level (one-tailed)

** Correlation is significant at the 0.01 level (one-tailed)

N = 275

VDCGI 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; CSEC equals to 1 if the company secretary hold a professional qualification and employed in-house and zero otherwise; S-ISS equals to 1 if the company issue new shares with 5% and above and zero otherwise; D-ISS equals to 1 if the company issue new debt capital with 5% and above and zero otherwise; SC-OPTIONS is the proportion of stock-based compensation over the total compensation; SH-OWN is the proportion of total CEO's shareholdings; LSIZE is the company size as measured by the natural log of its total assets; LEV is a percentage of total debts to total assets; FMB is the percentage of total family members on boards; BOARD-M is the percentage of Malay directors on boards; ROE is the total shareholders' returns on total equity; LIS equals to 1 if the company shares is cross listed in more than one stock exchanges and zero otherwise; and TRA equals to 1 if the company is a trading/services sector and zero otherwise.

'D' stands for dummy variable

Table 5.13: Pearson Correlations between the different types of company secretary and issuance of new share variables with voluntary disclosure

	Variable	1	2	3	4
1	VDCGI				
2	ProQ	*-0.109			
3	InH	**0.200	*-0.130		
4	ESOS	**0.236	*0.136	0.037	
5	Rights	0.057	0.026	0.048	**0.231

Notes:
** Correlation is significant at the 0.01 level (one-tailed)
* Correlation is significant at the 0.05 level (one-tailed)

N = 275

VDCGI is the total score of IBP component that represent voluntary disclosure score; ProQ equals to 1 if the company secretary holds professional qualification and zero otherwise; InH equals to 1 if the company secretary is employed in-house rather than external; ESOS equals to 1 if the company issue new shares in the form of Employee Share Options Scheme and zero otherwise; and Rights equals to 1 if the company issues a rights issue and zero otherwise.

Table 5.14: Spearman's rho Correlations between the different types of company secretary and issuance of new share variables with voluntary disclosure

	Variable	1	2	3	4
1	VDCGI				
2	ProQ	-0.121*			
3	InH	0.189**	-0.130*		
4	ESOS	0.259**	0.136*	0.037	
5	Rights	0.088	0.026	0.048	0.231**

Note:

* Correlation is significant at the 0.05 level (one-tailed)

** Correlation is significant at the 0.01 level (one-tailed)

N = 275

VDCGI is the total score of IBP component that represent voluntary disclosure score; ProQ equals to 1 if the company secretary holds professional qualification and zero otherwise; InH equals to 1 if the company secretary is employed in-house rather than external; ESOS equals to 1 if the company issue new shares in the form of Employee Share Options Scheme and zero otherwise; and Rights equal to 1 if the company issue a rights issue and zero otherwise.

5.3.2 Correlation between predictor variables

In-house qualified company secretaries, size of companies and Malay directors on boards are positively and significantly related to corporate governance quality. This suggests that good quality companies are likely to employ an in-house qualified company secretary, are bigger and have Malay directors on their boards. In contrast, CEO shareholdings and family members on boards have a significant inverse relationship with corporate governance quality. This may infer that corporate governance quality would be lower in companies that have family members on board and with higher CEO's shareholdings. Issuance of new debt, stock-based compensation and highly leveraged companies are all positively correlated with issuance of new share capital. Similarly, issuance of new debt capital is also highly correlated with stock-based compensation, highly leveraged as well as bigger companies. In addition, issuance of new debt capital is significantly and moderately correlated with return on equity, cross-listing and trading/services sector but is negatively correlated with CEO shareholdings.

Stock-based compensation is moderately positively correlated with companies of larger size and family connections on boards. There is a significant positive relationship between proportion of family members on boards and CEO shareholdings. In contrast, CEO shareholdings are negatively correlated with size of companies, Malay directors and membership of the trading/services sector. Size of companies, as a natural log of total assets, is positively correlated with having higher leverage, Malay directors on boards and shares cross-listed on more than one stock exchange. Bigger companies are also moderately positively correlated with companies in trading/services sector and negatively correlated with presence of family members on boards. Gearing level is moderately positively correlated with Malay directors and returns on equity. Gearing levels in trading/services sector is also moderately positively correlated. Furthermore, trading/services sector also has a higher Malay directors' proportion on boards as well as number of cross listing companies. The presence of Malay directors on boards and companies in trading/services sector are negatively related with family member connections.

There are a few techniques that can be applied to identify multicollinearity problems in the sample. One way of identifying multicollinearity is to scan a correlation matrix of all of the predictor variables and see if any correlate very highly (above 0.80). None of the predictor variables are very highly correlated. This is a good way to check multicollinearity problems but it can miss more delicate forms of multicollinearity (Field 2009). Another way of checking for collinearity problems is examining the SPSS output from the regression analysis by requesting collinearity diagnostic statistics. The collinearity diagnostic statistic from the regression analysis output produces a variance inflation factor (VIF) and tolerance statistics. A VIF that is greater than 10 indicates a strong linear relationship between predictors (Bowerman & O' Connel 1990; Hair et al. 2006; Myers 1990). A value of tolerance which is below 0.2 indicates a potential problem with collinearity (Menard 1995). The SPSS output (Appendix 1) shows that variables in the regression model lack collinearity as no predictor has a VIF exceeding 10 or has a tolerance value below 0.2.

5.4 *Testing interaction in multiple regression model*

Four interaction terms were identified in Chapter 4 along with reasons for including these interaction effects between moderating variables and voluntary disclosure. However no information was provided for deciding which interaction term should be included in the final regression model. A test is run to find out which of these interaction terms are statistically significant when added to the regression model. To facilitate this test, cross-product variables are created by multiplying the two variables of interest (Cohen 1978).

In this research project, there are four cross-product terms: corporate governance quality (CGQ) and issuance of new shares (CGQ*S-ISS), CGQ and issuance of new debt (CGQ*D-ISS), CGQ and stock-based compensation (CGQ*SC-OPTIONS), and CGQ and CEO shareholdings (CGQ*SH-OWN). The study has to first centre the continuous variables (prior to multiplication) by subtracting the mean for each continuous variable. The main advantage of doing this is that it can improve statistical validity and interpretation of regression results by reducing multicollinearity problems between the product of two variables that are multiplied (Keith 2006).

To test the statistical significance of the interaction for the CGQ*S-ISS term, voluntary disclosure of corporate governance information (VDCGI) was first regressed on S-ISS and CGQ (centred). These variables are entered using simultaneous multiple regression. As shown in column 1 of Table 5.15, these variables account for 27.3% of the variance in VDCGI. The second step in this sequential regression, is to add the interaction term (CGQ*I-ISS) to the model. As shown in column 2 of Table 5.15, the addition of the interaction term does not lead to a statistically significant increase in R^2 (ΔR^2 = 0.003, F [1, 271] = 1.020, p = 0.313). The regression coefficients analysis as presented in Model 1 and 2, shows that CGQ has a large effect (0.479 and 0.458) on VDCGI and S-ISS has a moderate effect (0.173 and 0.163). The regression coefficient of CGQ and S-ISS in Model 2 also has a large (0.458) and moderate (0.163) effect on VDCGI. However, the inclusion of CGQ*S-ISS in the model is found to be insignificant. The interaction term in this case does not help explain voluntary disclosure beyond the explanation provided by S-ISS and CGQ. This result suggests that CGQ has the same effect on VDCGI for companies that issue and do not issue new shares.

Table 5.15: Regression results testing for interaction term CGQ*S-ISS on VDCGI

	Model 1	Model 2
Intercept (Constant)	8.878	8.874
S-ISS D	0.173	0.163
	(3.328)**	(3.098)**
CGQ_Cent	0.479	0.458
	(9.222)***	(8.204)***
CGQ*S-ISS		0.057
		(1.010)
Adjusted *R2*	0.268	0.268
F statistic	51.134	34.432
R Square	0.273	0.276
R Square Change	0.273	0.003
F Change	51.134	1.020
Sig. *F* Change	0.000	0.313

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

** Significant at 0.01

*** Significant at 0.001

A similar test was repeated for CGQ*D-ISS, the results are presented in Table 5.16. D-ISS and CGQ (centred) together account for 28.6% of the variance in VDCGI (F [2, 272] = 54.596, p < 0.001). However, the addition of the interaction term of

CGQ*D-ISS into Model 2 was not statistically significant, ($\Delta R^2 = 0.001$, F [1, 271] = .465, p = 0.496), suggesting that CGQ has the same effect on VDCGI of both issued and non-issuing companies in the case of debt capital.

Table 5.16: Regression results testing for interaction term CGQ*D-ISS on VDCGI

	Model 1	Model 2
Intercept (Constant)	8.821	8.818
D-ISS D	0.207	0.203
	(4.039)***	(3.928)***
CGQ_Cent	0.478	0.459
	(9.300)***	(7.925)***
CGQ*D-ISS		0.040
		(0.682)
Adjusted R2	0.281	0.280
F statistic	54.596	36.481
R Square	0.286	0.288
R Square Change	0.286	0.001
F Change	54.596	0.465
Sig. *F* Change	0.000	0.496

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

** Significant at 0.01

*** Significant at 0.001

For the interaction of CGQ*SC-OPTIONS and CGQ*SH-OWN, the same test was carried out. Since both stock-based compensation (SC-OPTIONS) and CEO shareholdings (SH-OWN) are continuous variables, these two variables need to be centred and then centred variables are multiplied to create a cross-product term. Also included is firm size (LSIZE). This time LSIZE is included because both SC-OPTIONS and SH-OWN variables can no longer be used to test the interaction term in the model since both of these variables have been centred in order to get the cross-product terms (CGQ*SC-OPTIONS and CGQ*SH-OWN). Table 5.17 presents the test result of the interaction between SC-OPTIONS (centred) and CGQ (centred) in their effects on VDCGI. As shown in column 1 of Table 5.17, the initial three independent variables account for 39.6% of the variance in VDCGI (F [3, 271], = 59.268, p < 0.001. The addition of CGQ*SC-OPTIONS in Model 2 explains an additional 3.1% of the variance in VDCGI, a statistically significant increase (F [1, 270] = 14.715, p < 0.001). As shown in the top portion of the table, prior to and after consideration of the interaction term, each independent variable has a statistically significant effect on VDCGI. Indeed, CGQ (centred) and LSIZE have a large effect on VDCGI, and SC-OPTIONS (centred) has a moderate positive effect on VDCGI. The interaction term of CGQ*SC-OPTIONS also has a moderate effect on VDCGI as presented in the lower part of column 2 of the Table 5.17.

Table 5.17: Regression results testing for interaction term CGQ*SC-OPTIONS on VDCGI

	Model 1	Model 2
Intercept (Constant)	-6.005	-6.555
LSIZE	0.317	0.328
	(6.606)***	(6.990)***
CGQ_Cent	0.444	0.445
	(9.238)***	(9.575)***
SC-OPTIONS_Cent	0.199	0.181
	(4.185)***	(3.877)***
CGQ*SC-OPTIONS		0.179
		(3.875)***
Adjusted R2	0.391	0.421
F statistic	59.268	50.379
R Square	0.396	0.427
R Square Change	0.396	0.031
F Change	59.268	14.715
Sig. *F* Change	0.000	0.000

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

** Significant at 0.01

*** Significant at 0.001

Finally, VDCGI was regressed on LSIZE, SH-OWN (centred), and CGQ (centred) in a simultaneous regression, with the CGQ*SH-OWN interaction term in a second sequential step. The results are presented in Table 5.18 which reports that the first three independent variables account for 37.6% of the variance in VDCGI (F [3, 271] = 54.509, p < 0.001). When CGQ*SH-OWN is included, this interaction term explains an additional 0.5% only of the variance in VDCGI but not statistically significant (F [1, 270] = 2.245, p = 0.135). This indicates that the interaction term of CGQ*SH-OWN is not statistically significant in explaining VDCGI in the model.

Table 5.18: Regression results testing for interaction term CGQ*SH-OWN on VDCGI

	Model 1	Model 2
Intercept (Constant)	-5.894	-5.904
LSIZE	0.315	0.313
	(6.361)***	(6.353)***
CGQ_Cent	0.423	0.413
	(8.609)***	(8.351)***
SH-OWN_Cent	-0.138	-0.148
	(-2.488)**	(-2.945)**
CGQ*SH-OWN		-0.073
		(-1.498)
Adjusted R2	0.396	0.372
F statistic	54.509	41.631
R Square	0.376	0.381
R Square Change	0.376	0.005
F Change	54.509	2.245
Sig. *F* Change	0.000	0.135

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

** Significant at 0.01

*** Significant at 0.001

Overall, these results indicate that interaction terms CGQ*S-ISS, CGQ*D-ISS and CGQ*SH-OWN are not statistically significant. These interaction terms have no effect on VDCGI and thus should not be added to the model. CGQ*SC-OPTIONS on the other hand has a statistically significant effect on VDCGI, and as such this interaction term is included in the final model.

5.5 Regression analysis results

The regression analysis is run with assumption that the conditions of linearity, homoscedasticity and normality are met. Discussion on whether the underlying regression assumptions are met is presented on Section 5.6. The results obtained from regressing the voluntary disclosure (VDCGI) on the various independent, moderating and control variables are now related to the regression model (equation) that is specified in Chapter 4 that is used to test each hypothesis. The regression is run to examine whether corporate governance quality (CGQ), in-house qualified company secretary (CSEC), issuance of new shares (S-ISS) and debt capital (D-ISS), stock-based compensation (SC-OPTIONS) and CEO shareholdings (SH-OWN) influence voluntary disclosure of corporate governance information (VDCGI) after controlling for firm size (SIZE), leverage (LEV), family member (FMB), Malay directors (BOARD-M), return on equity (ROE), industry type (TRA) and cross listing (LIS). All the above variables are entered into the equation as well as the interaction term between corporate governance quality and stock-based compensation (CGQ*SC-OPTIONS) which was shown earlier to have a statistically significant effect on VDCGI.

The regression results are presented in Table 5.19. The F value of 21.312 for the model is significant at the 0.001 level and the adjusted R^2 is 0.509. Both of these values suggest that the model explains variations in the VDCGI very well. The regression coefficient for CGQ ($ß$ = 0.359) is positive and statistically significant (p

< 0.001), suggesting that companies with high corporate governance quality are associated with more voluntary disclosure of corporate governance information. It is noteworthy that corporate governance quality is an important explanatory variable in the regression model, as indicated by its coefficient value. This provides strong support for Hypothesis 1 that there is a positive relationship between companies' corporate governance quality and voluntary disclosures of corporate governance information.

SC-OPTIONS has a positive and statistically significant effect on VDCGI (*ß* = 0.189, $p < 0.001$). In addition the interaction term CGQ*SC-OPTIONS also significantly influences the relationship between corporate governance quality and voluntary disclosures of corporate governance practices (*ß* = 0.157, $p < 0.001$). Thus, Hypothesis 3(a) that stock-based compensation moderates the relationship between companies' corporate governance quality and voluntary disclosure of corporate governance information is also supported.

However, the other predictors such as in-house qualified company secretary, issuance of new shares and debt capital, and CEO shareholdings are not statistically significant in explaining voluntary disclosures. The relationship between CGQ and VDCGI is so strong that the other independent variables become insignificant when it is controlled (in contrast to correlation analysis results). This implies that CGQ strongly influences VDCGI compared to the other independent variables except for SC-OPTIONS. Therefore Hypotheses H1(a), H2(a), H2(b) and H3(b) are not supported.

In addition, the control variable firm size is positively and significantly related to voluntary disclosure information (*ß* = 0.255, $p < 0.001$). Similarly, return on equity is also significantly positively related to voluntary disclosure information (*ß* = 0.215, $p < 0.001$). The proportion of family members on boards is negatively and significantly related to voluntary disclosure (*ß* = -0.144, $p < 0.01$). The proportion of Malay directors on boards' variable is positively related to voluntary disclosure ($p < 0.1$). However, the regression coefficient of this variable is very small (*ß* = 0.087). The remaining control variables (leverage, trading/services sector and cross listing) are not significantly related to voluntary disclosures.

The regression results in this research show that the intercept value is negative. The general meaning of the word 'intercept' is the point where a given line intersects the *Y* axis. The *Y* intercept is the *Y* value of the line when *X* equals zero (Motulsky & Christopoulos 2003). It defines the elevation of the line. Thus the negative intercept of -15.682 in this regression model means that if the predictor variables are of zero value, it would have negative voluntary disclosures. Prior studies of voluntary disclosure in Asian countries have also documented negative intercept value in their regression analysis, for example Eng and Mak (2003); Leung and Horwitz (2004) and Hossain, Tan and Adams (1994).

Table 5.19: Regression results for total sample and overall VDCGI

	Predicted sign	All variables plus Interaction term
Intercept		-15.682
Variables:		
CGQ	+	0.359 (7.943)***
CSEC D	+	0.023 (0.532)
S-ISS D	+	0.035 (0.673)
D-ISS D	+	0.031 (0.643)
SH-OWN	-	-0.077 (-1.622)
SC-OPTIONS	+	0.189 (3.768)***
LSIZE	+	0.255 (4.949)***
LEV	+	-0.041 (-0.836)
FMB	-	-0.144 (-2.796)**
BOARD-M	+	0.087 (1.717)†
ROE	+	0.215 (4.915)***
TRA D	+	0.045 (0.966)
LIS D	+	0.031 (0.678)
CGQ*SC-OPTIONS	+	0.157 (3.546)***
N		275
Adjusted R^2		0.509
F statistic		21.312***

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
VDCGI 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; CSEC equals to 1 if the company secretary hold a professional qualification and employed in-house and zero otherwise; S-ISS equals to 1 if the company issue new shares with 5% and above and zero otherwise; D-ISS equals to 1 if the company issue new debt capital with 5% and above and zero otherwise; SC-OPTIONS is the proportion of stock-based compensation over the total compensation; SH-OWN is the proportion of total CEO's shareholdings; LSIZE is the company size as measured by the natural log of its total assets; LEV is a percentage of total debts to total assets; FMB is the percentage of total family members on boards; BOARD-M is the percentage of Malay directors on boards; ROE is the total shareholders' returns on total equity; LIS equals to 1 if the company shares is cross listed in more than one stock exchanges and zero otherwise; and TRA equals to 1 if the company is a trading/services sector and zero otherwise.
'D' stands for dummy variable.

5.6 *Additional analysis*

5.6.1 Testing whether underlying regression assumptions are met

To test whether the fundamental assumptions of linearity and homoscedasticity in the multiple regression model are appropriate, an examination of scatter plots is undertaken. Analyses of the scatter plots indicate that assumptions of linearity and homoscedasticity are approximately met (Appendix 2). In addition, a histogram with curve and normal probability plots are used to test the normality of residuals. The histogram of regression standardised residual appears normally by distributed (a bell-shaped curve). The normality probability plot also shows that most observed residual points lie on a normal distribution line (Appendices 3 and 4). As such the assumption of normality of the model is met. For any two observations the residual terms should be uncorrelated or independent. This assumption can be tested with a Durbin-Watson test. The result of a Durbin-Watson test informs that the assumption of independent errors has almost certainly been met. The closer the value to 2 the better, and for this data the value is 1.894 (Appendix 5).

Residual statistics should also be examined for any extreme cases. In a normal sample, it is expected that 95% of cases will have standardised residuals within $\pm$2 (Field 2009). With a sample of 275, it is reasonable to expect about 5% (14 cases) to have standardised residuals outside of these limits. From the Casewise Diagnostics table produced by SPSS, there are 13 (4.7%) cases that are outside the limits. Therefore, the research sample is within what is expected. In addition, 99% of cases should lie within $\pm$2.5 and so it is expected that only 1% of cases will lie outside of these limits. From the cases listed, it is clear that three cases (1%) lie outside the limits (cases 103, 130 and 221). These diagnostics give no real cause for concern of any possible outliers that may influence regression parameters because none of the cases have a standardised residual greater than 3. Therefore the above sample appears to conform to what is expected for a reasonably accurate model (Appendix 6).

The *F* value in the initial model (without CGQ*SCOPTIONS), shows that the *F*-ratio is 21.050, which is highly significant ($p < .001$). For the final model (after including CGQ*SCOPTIONS), the value of *F* is slightly higher (21.312) and also highly significant ($p < .001$). This can be interpreted as meaning that the initial model significantly improves the ability to explain and predict the outcome variable, but that the final model (with interaction term effect of CGQ*SCOPTIONS) is slightly better because the *F* ratio is slightly more significant (Appendix 7).

5.6.2 Sensitivity analysis tests

A series of tests are conducted to test the model's sensitivity. First, additional analysis is undertaken by distinguishing the form of new share issues in the model (Employee Share Options Schemes (ESOS) and rights issues) and breaking-down the company secretary variable into two variables that capture its component parts (in-house versus external; professional qualification versus licence holder). Table 5.20 presents the regression results after replacing the in-house qualified company secretary (CSEC) dummy variable with professional qualified (ProQ) and in-house (InH) dummy variables. Similarly S-ISS dummy variable is replaced by dummy variables ESOS and rights issue (Rights). Again regression results show that the presence of different types of company secretary and issuance of new shares variables are not statistically significantly related to voluntary disclosure, which is consistent with the primary result.

Second, the study also investigates the effects of using alternative definitions for several variables. Specifically, the study replaces the dummy variables for issuance of new shares and debt capital with a measure of the percentage of new issuance of shares and debt relative to the existing balance. In addition, the ratio value of stock-based compensation to total compensation and the ratio of market value of CEO shareholding are replaced by dummy variables as proxies for stock-based compensation and CEO shareholdings. The results are quantitatively similar to those using previous definitions except that the proportion of Malay directors on boards' variable is now no longer significant (Table 5.21). Tests using these alternative variable definitions do not alter the primary findings and conclusions of this research.

Third, the study examines whether results are different by sub-categories of voluntary disclosures of corporate governance information. As shown in Table 5.22 the amount of explained variations in voluntary disclosure ranges from 10.4% for the board of directors category to 39.3% for directors' remuneration category. Corporate governance quality is significant at the 0.01 level in explaining all categories of voluntary disclosures of corporate governance information. In-house qualified company secretary is not significant in any category of voluntary corporate governance disclosures, indicating that the presence of an in-house qualified company secretary does not influence voluntary disclosures. Issuance of new shares is significant in the shareholders category, but not for other categories. In contrast, issuance of new debt capital has no significant influence for any category of voluntary disclosures. CEO shareholdings have no significant influence on voluntary disclosure for all categories except for the shareholders category. On the other hand, stock-based compensation is statistically significant in explaining voluntary disclosure for board of directors and directors' remuneration categories. In addition, the control variables such as size, proportion of family members on boards and return on equity continue to be significant in explaining at least two categories of voluntary disclosures. Overall the results of these additional tests are consistent with the results of primary findings and conclusions

Fourth, a regression test was rerun to ascertain that CGQ is not driving the company secretary variable to become insignificant in the regression analysis. The measurement tool used to capture corporate governance quality in this study is based on the basic compliance score (BCS) component of Minority Shareholder Watchdog Group (MSWG). The BCS component of MSWG includes the company secretary's role in assessing a company's CGQ under the access to information variable of the board of directors' category (item number 19 of Table 4.3). Even though this measurement tool does not directly measure company secretary characteristics, it is necessary to conduct an additional test to ensure that CGQ is not driving the results. The regression was first rerun by including all variables except CGQ. The next regression was rerun by replacing the in-house qualified company secretary (CSEC) variable with in-house company secretary (InH). Results of tests are reported in Tables 5.23 and 5.24. The company secretary variable is not significantly related with voluntary disclosure even when CGQ is not controlled. Thus this suggests that the presence of an in-house qualified company secretary has no effect on voluntary disclosure of corporate governance information which is consistent with the primary findings.

An analysis of the company secretary data (Table 5.10) of the sample reveals that more than half (150 companies accounting for 55% of the sample companies) of the listed companies are employing more than one company secretary. In order to analyse the impact of having more than one company secretary on voluntary disclosures, another regression was run with the same variables. The coefficient on company secretary variable remains insignificant and the coefficient for other variables are similar with the primary finding. This indicates that the presence of company secretary has no effect on voluntary disclosure of corporate governance information.

Table 5.20: Regression results according to different types of company secretary and new shares issues

	Predicted sign	All variables plus Interaction term
Intercept		-15.860
Variables:		
CGQ	+	0.363 (7.956)**
ProQ D	+	0.008 (0.165)
InH D	+	0.017 (0.377)
ESOS D	+	0.024 (0.424)
Rights D	+	0.035 (0.772)
D-ISS D	+	0.029 (0.583)
SH-OWN	-	-0.078 (-1.625)
SC-OPTIONS	+	0.187 (3.580)***
LSIZE	+	0.254 4.720)***
LEV	+	-0.042 (-0.868)
FMB	-	-0.140 (-2.699)**
BOARD-M	+	0.085 (1.669)†
ROE	+	0.215 (4.892)***
TRA D	+	0.045 (0.955)
LIS D	+	0.320 (0.700)
CGQ*SC-OPTIONS	+	0.162 (3.625)***
N		275
Adjusted R^2		0.506
F statistic		18.546***

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
VDCGI 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; CSEC equals to 1 if the company secretary hold a professional qualification and employed in-house and zero otherwise; S-ISS equals to 1 if the company issue new shares with 5% and above and zero otherwise; D-ISS equals to 1 if the company issue new debt capital with 5% and above and zero otherwise; SC-OPTIONS is the proportion of stock-based compensation over the total compensation; SH-OWN is the proportion of total CEO's shareholdings; LSIZE is the company size as measured by the natural log of its total assets; LEV is a percentage of total debts to total assets; FCB is the percentage of total family members on boards; BOARD-M is the percentage of Malay directors on boards; ROE is the total shareholders' returns on total equity; LIS equals to 1 if the company shares is cross listed in more than one stock exchanges and zero otherwise; and TRA equals to 1 if the company is a trading/services sector and zero otherwise.
'D' stands for dummy variable.

Table 5.21: Regression results using alternative definitions for issuance of new shares and debt capital and stock-based compensation and CEO shareholdings

	Predicted sign	All variables plus Interaction term
Intercept		-12.674
Variables:		
CGQ	+	0.263 (5.076)***
CSEC D	+	0.029 (0.661)
S-ISS	+	0.037 (0.820)
D-ISS	+	0.023 (0.490)
SH-OWN D	-	-0.054 (-1.016)
SC-OPTIONS D	+	0.220 (4.904)***
LSIZE	+	0.256 (4.849)***
LEV	+	-0.034 (-0.705)
FMB	-	-0.151 (-2.977)**
BOARD-M	+	0.076 (1.482)
ROE	+	0.22 (5.019)***
TRA D	+	0.049 (1.042)
LIS D	+	0.030 (0.657)
CGQ*SC-OPTIONS	+	0.188 (3.755)***
N		275
Adjusted R2		0.509
F statistic		21.254***

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
VDCGI 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; CSEC equals to 1 if the company secretary hold a professional qualification and employed in-house and zero otherwise; S-ISS equals to 1 if the company issue new shares with 5% and above and zero otherwise; D-ISS equals to 1 if the company issue new debt capital with 5% and above and zero otherwise; SC-OPTIONS is the proportion of stock-based compensation over the total compensation; SH-OWN is the proportion of total CEO's shareholdings; LSIZE is the company size as measured by the natural log of its total assets; LEV is a percentage of total debts to total assets; FCB is the percentage of total family members on boards; BOARD-M is the percentage of Malay directors on boards; ROE is the total shareholders' returns on total equity; LIS equals to 1 if the company shares is cross listed in more than one stock exchanges and zero otherwise; and TRA equals to 1 if the company is a trading/services sector and zero otherwise.
'D' stands for dummy variable.

Table 5.22: Regression results according to sub-categories of voluntary disclosure of corporate governance information

	Predicted sign	Board of directors	Directors' remuneration	Shareholders	Accountability and Audit
Intercept		-0.848	-2.582	-7.220	-5.126
Variables:					
CGQ	+	0.182 (2.977)**	0.263 (5.235)***	0.324 (6.406)***	0.232 (4.309)***
CSEC D	+	-0.012 (-0.212)	-.0350 (-0.728)	0.053 (1.101)	0.019 (0.376)
S-ISS D	+	-0.080 (-1.140)	0.037 (0.635)	0.113 (1.954)†	0.008 (0.135)
D-ISS D	+	-0.001 (-0.014)	-0.054 (-1.008)	0.049 (0.910)	0.041 (0.712)
SH-OWN	-	0.065 (1.023)	-0.037 (-0.712)	-0.150 (-2.837)**	-0.052 (-0.915)
SC-OPTIONS	+	0.160 (2.353)*	0.461 (8.254)***	0.063 (1.121)	0.05 (0.828)
LSIZE	+	0.025 -0.364	0.160 (2.786)**	0.264 (4.582)***	0.209 (3.395)**
LEV	+	0.002 (0.028)	-0.015 (-0.278)	0.030 (0.550)	-0.100 (-1.729)†
FMB	-	-0.168 (-2.422)*	-0.075 (-1.316)	0.075 (1.306)	-0.219 (-3.570)***
BOARD-M	+	-0.004 (-0.058)	0.053 (0.943)	0.104 (1.848)†	0.064 (1.066)
ROE	+	0.110 (1.861)†	0.105 (2.153)*	0.126 (2.586)*	0.212 (4.059)***
TRA D	+	-0.014 (-0.224)	0.032 (0.604)	0.097 (1.841)†	0.006 (0.100)
LIS D	+	0.028 (0.456)	0.047 (0.924)	-0.046 (-0.903)	0.065 (1.193)
CGQ*SC-OPTIONS	+	0.221 (3.704)***	0.039 (0.783)	0.063 (1.277)	0.111 (2.094)*
N		275	275	275	275
Adjusted R^2		0.104	0.393	0.386	0.300
F statistic		3.273***	13.651***	13.284***	9.375***

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

VDCGI 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; CSEC equals to 1 if the company secretary hold a professional qualification and employed in-house and zero otherwise; S-ISS equals to 1 if the company issue new shares with 5% and above and zero otherwise; D-ISS equals to 1 if the company issue new debt capital with 5% and above and zero otherwise; SC-OPTIONS is the proportion of stock-based compensation over the total compensation; SH-OWN is the proportion of total CEO's shareholdings; LSIZE is the company size as measured by the natural log of its total assets; LEV is a percentage of total debts to total assets; FCB is the percentage of total family members on boards; BOARD-M is the percentage of Malay directors on boards; ROE is the total shareholders' returns on total equity; LIS equals to 1 if the company shares is cross listed in more than one stock exchanges and zero otherwise; and TRA equals to 1 if the company is a trading/services sector and zero otherwise.

'D' stands for dummy variable.

Table 5.23: Regression results for testing the effect of in-house qualified company secretary (CSEC) on VDCGI when CGQ is excluded

	Predicted sign	All variables plus Interaction term
Intercept		-5.058
Variables:		
CSEC D	+	0.066 (1.378)
S-ISS D	+	0.056 (0.966)
D-ISS D	+	0.025 (0.457)
SH-OWN	-	-0.112 (-2.142)*
SC-OPTIONS	+	0.207 (3.707)***
LSIZE	+	0.273 (4.769)***
LEV	+	-0.033 (-0.618)
FMB	-	-0.214 (-3.799)***
BOARD-M	+	0.116 (2.066)*
ROE	+	0.233 (4.801)***
TRA D	+	0.045 (0.867)
LIS D	+	0.030 (0.599)
CGQ*SC-OPTIONS	+	0.132 (3.692)**
N		275
Adjusted R^2		0.393
F statistic		14.620***

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
VDCGI 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; CSEC equals to 1 if the company secretary hold a professional qualification and employed in-house and zero otherwise; S-ISS equals to 1 if the company issue new shares with 5% and above and zero otherwise; D-ISS equals to 1 if the company issue new debt capital with 5% and above and zero otherwise; SC-OPTIONS is the proportion of stock-based compensation over the total compensation; SH-OWN is the proportion of total CEO's shareholdings; LSIZE is the company size as measured by the natural log of its total assets; LEV is a percentage of total debts to total assets; FCB is the percentage of total family members on boards; BOARD-M is the percentage of Malay directors on boards; ROE is the total shareholders' returns on total equity; LIS equals to 1 if the company shares is cross listed in more than one stock exchanges and zero otherwise; and TRA equals to 1 if the company is a trading/services sector and zero otherwise.
'D' stands for dummy variable.

Table 5.24: Regression results for testing the effect of in-house company secretary (InH) on VDECGI when CGQ is excluded

	Predicted sign	All variables plus Interaction term
Intercept		-4.524
Variables:		
InH D	+	0.03 (0.552)
S-ISS D	+	0.062 (1.085)
D-ISS D	+	0.027 (0.490)
SH-OWN	-	-0.11 (-2.091)*
SC-OPTIONS	+	0.203 (3.630)***
LSIZE	+	0.262 (4.522)***
LEV	+	-0.032 (-0.594)
FMB	-	-0.211 (-3.739)***
BOARD-M	+	0.117 (2.084)*
ROE	+	0.232 (4.756)***
TRA D	+	0.044 (0.849)
LIS D	+	0.032 (0.633)
CGQ*SCOPTIONS	+	0.137 (2.787)**
N		275
Adjusted R^2		0.389
F statistic		14.416***

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
VDCGI 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; CSEC equals to 1 if the company secretary hold a professional qualification and employed in-house and zero otherwise; S-ISS equals to 1 if the company issue new shares with 5% and above and zero otherwise; D-ISS equals to 1 if the company issue new debt capital with 5% and above and zero otherwise; SC-OPTIONS is the proportion of stock-based compensation over the total compensation; SH-OWN is the proportion of total CEO's shareholdings; LSIZE is the company size as measured by the natural log of its total assets; LEV is a percentage of total debts to total assets; FCB is the percentage of total family members on boards; BOARD-M is the percentage of Malay directors on boards; ROE is the total shareholders' returns on total equity; LIS equals to 1 if the company shares is cross listed in more than one stock exchanges and zero otherwise; and TRA equals to 1 if the company is a trading/services sector and zero otherwise.
'D' stands for dummy variable.

5.7 Conclusion

This chapter presents the results obtained from the statistical tests undertaken in this research. These include descriptive statistics, correlation analysis, regression analysis and some additional tests. Three hypotheses and sub-hypotheses are formulated in relation to the relationship between corporate governance quality, in-house qualified company secretary, moderating role of capital market transactions and stock-based incentives, and voluntary disclosure of corporate governance information. Based on the regression results and equation model developed in Chapter 4, the final model is:

$$VDCGI = -15.682 + 0.359\ CGQ + 0.189\ SC\text{-}OPTIONS + 0.157\ CGQ{*}\ SC\text{-}OPTIONS + 0.255 SIZE - 0.144\ FMB + 0.087\ BOARD\text{-}M + ß_{17}\ 0.215\ ROE + \varepsilon_i$$

Table 5.25 summarises the results of hypotheses testing. As illustrated in Table 5.25, Hypothesis 1 (a), Hypothesis 2 (a), Hypothesis 2 (b) and Hypothesis 3 (b) are not supported. This summary shows that there is a positive relationship between corporate governance quality and voluntary disclosure of corporate governance information. In addition, the relationship between corporate governance quality and voluntary disclosure of corporate governance information is moderated by stock-based compensation. As such, Hypothesis 1 and Hypothesis 3(a) are supported. Chapter 6 provides a discussion of these results and outlines conclusions drawn from major findings. A discussion of implications from this study for theory, policy and practice are also presented.

Table 5.25: Summary of hypotheses and results

Hypothesis	**Result**
Hypothesis 1: there is a positive relationship between corporate governance quality and voluntary disclosure of corporate governance information.	Supported
Hypothesis 1 (a): there is a positive relationship between the employment of in-house qualified company secretaries and voluntary disclosure of corporate governance information.	Not supported
Hypothesis 2 (a): the relationship between corporate governance quality and voluntary disclosure of corporate governance information is moderated by the intention to raise new share capital in the following year.	Not supported
Hypothesis 2 (b): the relationship between corporate governance quality and voluntary disclosure of corporate governance information is moderated by the intention to raise debt fund in the following year.	Not supported
Hypothesis 3 (a): the relationship between corporate governance quality and voluntary disclosure of corporate governance information is moderated by stock-based compensation.	Supported
Hypothesis 3 (b): the relationship between corporate governance quality and voluntary disclosure of corporate governance information is moderated by CEO share ownership.	Not supported

6 Discussions and Conclusions

6.1 Introduction

This study examines voluntary disclosure of corporate governance information practices in Malaysia to identify which incentive factors influence the relationship between corporate governance quality and corporate governance disclosure. It first examined the association between corporate governance quality and voluntary disclosure of corporate governance information. Next, the impact of capital market transactions and stock-based incentives on the relationship are examined. Finally, it explored the influence of in-house qualified company secretaries on the voluntary disclosure of corporate governance information. Chapter 5 reports results of hypotheses testing. This Chapter provides a discussion of these results and presents conclusions from the study. The Chapter is organised as follows: section 6.2 outlines and discusses major findings of the study. Section 6.3 draws the main conclusions. Sections 6.4 and 6.5 identify several implications from the findings for theory, policy and practice. Section 6.6 discusses limitations of the study and section 6.7 suggests a number of avenues for future research.

6.2 Discussion of major findings

6.2.1 Corporate governance quality

Corporate governance quality has been advocated in prior studies to be one of the main factors that contribute to increased voluntary disclosure practices in general (Beekes & Brown 2006; Bushman et al. 2004; Karamanou & Vafeas 2005; Kent & Stewart 2008). Companies with high corporate governance quality are likely to be more forthcoming in disclosing corporate governance information voluntarily so as to confirm/signal their higher corporate governance quality. In the context of Dye's (1985) voluntary disclosure theory, there are incentives for well governed companies to improve their corporate governance disclosures so as to separate themselves from average as well as lower quality companies.

Regression analysis results show that corporate governance quality (CGQ) is substantially and significantly associated with the level of voluntary disclosure of corporate governance information even after controlling for other variables. This strong relationship suggests that a Malaysian company with high corporate governance quality is more prepared to disclose more corporate governance information voluntarily compared to a company with lower corporate governance quality.

This study employs Dye (1985) voluntary disclosure theory in developing and testing hypotheses that are identified in Chapter 3. In addition, the study uses agency theory to explain the impact of incentive factors and a company secretary's role on the association between corporate governance quality and voluntary disclosures. The finding of the study support the voluntary disclosure theory of Dye (1985). Thus this suggests that this theory does hold even in developing countries and in relation to disclosures of corporate governance information.

Unlike previous studies, this research uses a broader corporate governance quality index in measuring a company's corporate governance quality. Most studies have used one or more corporate governance mechanisms in investigating the association between corporate governance and voluntary disclosures (Adams & Hossain 1998; Ajinkya et al. 2005; Bassett et al. 2007; Cheng & Courtenay 2006; Ho & Wong 2001; Karamanou & Vafeas 2005; Kent & Stewart 2008; Stephens 2009). Brown and

Beekes' (2006) study is currently the only known published paper that has examined corporate governance quality using a broader index. In this research study, a corporate governance quality index is adopted from the Corporate Governance Survey Report 2008 of the Minority Shareholder Watchdog Group (MSWG) in Malaysia. Consistent with Brown and Beekes results, high corporate governance quality companies in Malaysian tend to increase voluntary corporate governance disclosure practices than lower quality companies.

In addition, this study focuses on a specific type of disclosure that is voluntary disclosure of corporate governance information. In contrast Brown and Beekes' (2006) study focuses on disclosure 'informativeness' of price sensitive announcements. While several studies have examined factors associated with total voluntary disclosures (Barako et al. 2006; Ghazali & Weetman 2006; Haniffa & Cooke 2002; Ho & Wong 2001; Hossain & Masrur 2007; Hossain et al. 1995; Hossain et al. 1994; Meek et al. 1995), few analyse the determining factors associated with voluntary disclosures of corporate governance information in developed countries (Bujaki & McConomy 2002; Collett & Hrasky 2005; Labelle 2002; Mallin & Ow-Yong 2009). However, no known published papers have directly examined this issue in Asian countries such as Malaysia. As such this research fills the gaps in prior research by investigating the association between corporate governance quality and voluntary disclosure of corporate governance practices in the Malaysian context.

In brief, a company's voluntary disclosure of corporate governance is a good signal to gauge firm corporate governance quality. Using a broader corporate governance quality index enabled this research to measure company corporate governance structures more comprehensively compared to the traditional approach of measuring corporate governance using one or several factors. Furthermore, the results of this study provide support that voluntary disclosure theory of Dye (1985) can also be applied to different types of disclosures and regulatory environments.

6.2.2 In-house qualified company secretary

Although it has the expected positive sign, the in-house qualified company secretary variable lacks statistical significance and therefore H1 (a) is not supported. Further analysis was run to examine the impact of the in-house qualified company secretary variable on the relationship between corporate governance quality and voluntary disclosure. In this additional analysis, the study divided the in-house qualified company secretary variable into (a) professional qualified versus license holder, and (b) in-house versus external. The results of the regression analysis show that different types or characteristics of a company secretary are not significantly related to voluntary disclosure when overall corporate governance quality and other factors are controlled. Further analysis was also run to determine whether the insignificant result is influenced by controlling for corporate governance quality. The regression analysis was rerun by excluding the corporate governance quality variable from the final model. The results of these tests confirm that an in-house qualified company secretary has no significant relationship with voluntary disclosure.

This insignificant result may be due to a number of reasons. The close relationship between a company secretary with both management and board of directors may create confusion as to whom a company secretary should report. A company secretary's reporting role has a specific primary responsibility to the chairman of the board and an administrative function to management. This puts a company secretary as a middle person in a company's organisation chart. The nature of a company secretary's working relationship involves both accountability to a board through the chairman and as a reporting relationship to management through the CEO. Hence, this complex working and reporting relationship may contribute to the insignificant results obtained from the study.

A company secretary that is engaged full-time may be seen to lack independence, especially when he/she is employed full-time (in-house) by a company and earns a salary. This lack of independence may affect the confidence and trust of shareholders as well as future investors in relation to a company secretary's ability to persuade a board and management to adopt sound governance and compliance. Prior studies of director and audit committee characteristics have placed independence as the main factor that contributes to voluntary disclosures (Chen & Jaggi 2000; Lim et al. 2007; Turley & Zaman 2004). In this study, an in-house qualified company secretary fulfils both criteria of professionally qualified and employed in-house. Since an in-house company secretary is considered to lack independence this may explain the insignificant relationship between in-house qualified company secretary and voluntary disclosure practices in this study. As such, whether a company secretary's position can be made independent like non-executive directors, chairman or auditors is questionable.

How a board and management view the role of a company secretary is an essential factor in ensuring they perform their duties and responsibilities effectively because it is these perceptions and respect that place a company secretary in the position of influence (Thambimuthu 2007). A company secretary must earn the respect and trust from all levels, as a person who can be relied upon to carry out duties and responsibilities entrusted to her or him. This can only be achieved if they act professionally. In relating to the findings, this point may also be a contributor to the insignificant result.

The company secretary profession is not like the accounting and legal professions which have their own statute such as the Accountant Act and the Legal Profession Act 1976 in Malaysia (Lee 2009). There is no specific statute governing the company secretary profession. The nonexistence of a statute permits the perception that the company secretary profession is not important and often misunderstood.

Finally, if the status of a company secretary is maintained simply to fulfil compliance requirements and the position is not used by a company to gain strategic competitive advantage then the presence of an in-house qualified company secretary may not be able to promote good governance (Lee 2009). It is acknowledged that in publicly listed companies, company secretaries are only one of the many guardians of corporate governance. As described by Harrison (2007), corporate governance has four cornerstones or legs, being board of directors, management, auditors and company secretaries. The involvement and participation of all of these guardians can improve companies' governance quality as well as voluntary disclosure practices.

6.2.3 Moderating roles of issuance of new share and debt capital

The issuance of new shares does not significantly impact the relationship between corporate governance quality (CGQ) and voluntary disclosure practices (VDCGI). This result is inconsistent with results of prior studies which found that a company's intention to issue new share in the future increases voluntary disclosures (Bujaki & McConomy 2002; Collett & Hrasky 2005). Both the Pearson and Spearman's rho correlations presented in Chapter 5 show that this variable is significantly correlated with VDECGI, but that it loses significance in the multivariate context when CGQ and other variables are considered. Thus CGQ may be the reason why the results of this research are different from prior research because they did not consider CGQ in their voluntary disclosure models.

Further analysis was carried out to examine the impact of issuance of new shares. Issuance of new shares is divided into two different forms of new shares: Employee Share Option Scheme (ESOS) and rights issues. Similarly, results reveal that companies with an intention to issue new shares in the future either in the form of ESOS or rights are not related to higher voluntary disclosures of corporate governance information. Thus Hypothesis H2 (a) is not supported.

Descriptive statistics of issuance of new shares (Table 5.9) showed that the most preferred method of issuing new shares in Malaysia is by ESOS and rights issues. More than half (61%) of the total issuance of new shares during the period of 2007 to 2009 was in the form of ESOS and 17 (39%) of them were rights issues. The main reason for choosing these methods of issuing new shares rather than public issuance of new shares (such as public offerings) is likely to be that it is less time consuming and cheaper. Public offerings of new shares require shareholders' consent and applications for approvals to Securities Commission which may take 8-12 months. An issuing company is also required to issue a prospectus which is much more costly compared to ESOS (*Malaysian Companies Act 1965*). In addition the process of making a public offering is complicated and involves specialist assistance, guidance and practical physical necessities such as staff, space and stationery (Kang 2005).

Another possible reason for Malaysian companies not choosing public offerings may be due to the market impact of the global financial crisis that occurred during the years 2008 and 2009. Finally, descriptive statistics (Table 5.7) show that there are about 45% of sampled companies with family members on their boards. It can be assumed that these companies are family controlled firms. Family controlled firms tend to protect their dominant position by limiting the amount of capital contributed by other shareholders. This may be the reason why Malaysian companies prefer issuance of new shares in the form of ESOS or rights instead of public offerings.

Hypothesis H2 (b) predicts that the relationship between a company's corporate governance quality and its voluntary disclosure of corporate governance information is moderated by its intention to raise debt capital in the following year. The effect of issuance of new debt capital is positive but has no significant impact on the relationship between corporate governance quality and voluntary corporate governance disclosures. Collett and Hrasky (2005) also found no significant relationship between debt capital and voluntary disclosure of corporate governance information of Australian listed companies. They suggest that the insignificant result is caused by the nature of the debt capital employed by companies in Australia which tends to be private debt compared to public debt. As such less disclosure may be expected because a private lender normally would have better access to a company's non-publicly disclosed information from other sources.

In this research most issuance of new debt capital was in the form of bonds such as Islamic bonds (or SUKUK), irredeemable convertible unsecured loan stock (ICULS), redeemable convertible unsecured loan stock (RCULS) and non-convertible unsecured loan stock (NCULS) as well as Islamic debt which is a combination of both private and public debt. While incentives still remain to reduce information asymmetry and the risk of the debt issue, the disclosure of corporate governance information in annual reports may not be of particular importance to a private lender. In addition as explained earlier about family controlled firms which tend to protect their dominant position in the company, the relationship between this type of firm with other private lenders becomes crucial. Therefore, for family controlled firms, private debt represents a major source of financing that can be used when needed as an alternative to public debt.

6.2.4 Moderating role of stock-based incentives

The next moderating variables that this research examines are stock-based incentives (stock-based compensation and CEO shareholdings). The study predicts that stock-based compensation moderates the relationship between corporate governance quality and voluntary disclosure of corporate governance information. The results show that stock-based compensation positively and significantly impact the association between corporate governance quality and voluntary disclosure of corporate governance practices. This significant result for stock-based compensation is consistent with prior studies which documented that stock-based compensation increases voluntary disclosure practices (Aboody & Kasznik 2000; Nagar et al. 2003; Neo 1999). In addition, the interaction term of CGQ*SC-OPTIONS is also found to be highly significant and positively associated with the voluntary disclosure of corporate governance information. This result indicates that companies that offer stock-based compensation as part of a CEO's compensation package are more likely to increase disclosures of corporate governance information in their annual reports than companies that do not offer this form of compensation. This result supports hypothesis H3 (a) and provides some evidence that incentive factors have a moderating impact on the relationship between CGQ and voluntary disclosure.

On the other hand, the CEO shareholdings do not significantly impact the relationship between corporate governance quality and voluntary disclosure of corporate governance information. Thus hypothesis H3 (b) is not supported. Mallin and Ow-Yong (2009) also documented the lack of a significant relationship between directors' shareholdings and the level of corporate governance disclosure among Alternative Investment Market (AIM) companies. Ghazali and Weetman (2006) examined the level of voluntary disclosure of Malaysian listed companies after the introduction of the Malaysian Code of Corporate Governance MCCG in 2001. They found that a company with a higher percentage of shares held by executive directors discloses less voluntarily. This result contradicts findings by Nanda, Nagar and Wysocki (2003), who reported a positive and significant relationship between CEO shareholdings and the frequency of management earnings forecasts and disclosure quality practices in the USA. However, it should be noted that this study examined a different type of voluntary disclosures compared to the Nanda, Nagar and Wysocki study. In addition the market environment in which a company operates may also contribute to inconsistent results.

6.3 Conclusions from major findings

This study examines the relationship between corporate governance quality and voluntary disclosure of corporate governance practices in annual reports of Malaysian publicly listed companies. The impact of incentive factors: issuance of new shares and debt capital, stock-based compensation and CEO's shareholdings on the relationship between corporate governance quality and voluntary disclosure are also evaluated. In addition, the study included the role of in-house qualified company secretary in the disclosure decision.

Overall the study has found a positive and significant relationship between corporate governance quality and voluntary disclosure of corporate governance information. The results suggest that companies with high governance quality are more likely to disclose corporate governance practices voluntarily. As such voluntary disclosure of corporate governance practices is a good indicator of a company's actual corporate governance 'quality'. Further, results indicate that voluntary disclosure practices are higher in companies that offer stock-based compensation. Thus stock-based compensation does appear to provide incentives for managers of companies to disclose voluntarily. Finally, the presence of an in-house qualified company secretary, issuance of new shares or debt capital and CEO's shareholdings are not associated with increased levels of disclosure of corporate governance practices in annual reports.

Other drivers of voluntary disclosure in annual reports are also included in this research as control variables. First, company size as log of total assets is a common firm-specific variable related to voluntary disclosures (Barako et al. 2006; Bujaki & McConomy 2002; Haniffa & Cooke 2002; Ho & Wong 2001; Labelle 2002; Mallin & Ow-Yong 2009). As predicted, company size is positively and highly significantly related to the voluntary disclosure of corporate governance in formation. Bigger companies would have better resources to employ and put in place sound governance compared to smaller companies.

Second, it is expected that companies with higher leverage levels would have more disclosures of corporate governance in their annual reports. However the result from this study shows leverage is insignificant and has a negative coefficient. This unexpected result is similar to the study of the level of voluntary disclosure by Hong Kong listed companies (Ho & Wong 2001). In contrast, studies of listed companies in Kenya and Canada found a positive and significant association with voluntary disclosures (Barako et al. 2006; Bujaki & McConomy 2002). These inconsistent results may be explained by different market environments in which companies operated and the type of voluntary disclosures made.

Third, the proportion of family members on the board is negatively and strongly related to voluntary disclosures of corporate governance practices. This finding is consistent with the argument that companies with a higher proportion of family members on boards are more likely to have lower corporate governance disclosure practices (Chen & Jaggi 2000; Ghazali & Weetman 2006; Haniffa & Cooke 2002; Ho & Wong 2001).

Fourth, the cultural factor (race) which is measured by the proportion of Malay directors on a board is significant and positively related to 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 better disclosures 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). A recent study by Wan-Hussin (2009) also found that a Malay CEO is associated with superior segmental disclosures prior to the introduction of the segment reporting standard in Malaysia.

Fifth, similar to prior studies (Ghazali & Weetman 2006; Haniffa & Cooke 2002), return on equity (ROE) is also found to be significantly and positively related to voluntary disclosures of corporate governance information. Hence, good governance companies with positive profit, which is represented by a positive ROE, can provide more corporate governance information voluntarily because stronger profits enable companies to invest more in governance practices.

Sixth, the industry sector (trading/services) has an insignificant relationship to voluntary disclosures. Consistent with the result from Haniffa and Cooke's (2002) study, trading/services sector variable lacks a significant relationship with the level of voluntary disclosures. 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 explained by evidence that a very small number of sample companies (4%) had their shares listed on more than one stock exchange.

6.4 Implications for theory

The conclusions from this research have several theoretical implications. First, Dye's (1985) voluntary disclosure theory predicts that good quality companies in terms of governance quality are more likely to voluntarily disclose more information to distinguish themselves from poorer quality companies. The results provide empirical evidence to support Dye's voluntary disclosure theory even in a different regulatory environment such as Malaysia. Voluntary disclosure practices are used by companies as a signal to communicate a company's corporate governance quality. This signal (voluntary disclosure of corporate governance information) is viewed by investors as good news that can reduce information asymmetry problems and lower investors' investment risks to provide additional funds. This research suggests that voluntary disclosure of corporate governance practices may potentially reduce information asymmetry and agency problems which consequently reveal the actual company value (in term of corporate governance quality).

Second, agency theory also suggests that the presence of an in-house qualified company secretary can monitor managers' behaviours and reduce agency costs. Prior literature suggests that some characteristics of in-house qualified company secretaries can enhance their ability to influence and monitor voluntary disclosure practices. This study uses academic qualifications and the position of either in-house or external as characteristics considered to be important to enhance voluntary disclosures. However, this research finds these characteristics are not statistically significantly related to voluntary disclosure of corporate governance information. In addition, signalling theory predicts that high quality companies are likely to employ an in-house-qualified company secretary to signal a company's quality. However results of this research suggest that variations in company secretary's characteristics may not influence their ability to monitor managers' behaviour or to provide a signal about company quality.

Third, signalling theory claims that companies planning to raise capital in the future have incentives to increase voluntary disclosure for the purpose of reducing information asymmetry and cost of capital. This argument has been tested and supported by previous studies to be one of the main incentive factors that influence a company to improve disclosures of corporate governance practices (Bujaki & McConomy 2002; Collett & Hrasky 2005). However, this study did not find consistent results with prior studies. This suggests that financing activity may not be the only driver that influences companies' disclosure decisions.

Fourth, stock-based compensation is argued by agency theory to be able to improve an alignment of managers' interests with shareholders' interests. In addition, signalling theory suggests that stock-based incentives can provide signals about a company's quality. Results of this study show that stock-based compensation positively and significantly impact the relationship between corporate governance quality and voluntary disclosures. Findings of this research support the agency theory argument that stock-based compensation can provide an incentive for managers to voluntarily disclose more information by aligning managers' interests with the shareholders' interests. It also provides support to the signalling theory view that investors will infer companies that offer stock-based compensation are of high quality companies. Thus high quality companies are more likely to disclose voluntarily compared to lower quality companies.

6.5 Implications for policy and practice

There are several implications of this research for policy and practice. The Bursa Securities Malaysia Securities Berhad (BSMB) could find the results of this research useful in assessing improvements in a firm's corporate governance quality and voluntary disclosures of corporate governance practices. The implementation for the Malaysian Codes on Corporate Governance (MCCG) and Bursa Securities Listing Requirements (BSLR) that came into effect from June 2001 and the Best Practices in

Corporate Disclosure (BPCD) on July 2004 have been shown to be effective and have also increased levels of voluntary disclosures in annual reports. This increase is supported by the results from this research showing that a company with high corporate governance quality is significantly better in disclosing corporate governance practices. Therefore, there are benefits for companies to improve their corporate governance structures in compliance with MCCG, BSLR and BPCD.

MCCG and BSLR also require all listed companies to employ qualified persons as a company secretary and ensure that a chairman and all directors of a company have access to expert advice and services of a company secretary. This research finds that the presence of an in-house qualified company secretary is not directly related to increased voluntary disclosures. So, while, it is unclear that benefits exist from employing an in-house qualified company secretary the benefits will only be more obvious if the position is strategically used to a company's advantage. Mere compliance by companies with statutory requirements for the appointment of company secretary may not provide benefits to them in improving voluntary disclosure practices. Therefore, the BSLR may perhaps consider reassessing the requirements in light of these results.

Finally, company policies on remuneration and performance systems for both management and directors often consider using stock-based compensation as a way to rewarding and motivating high level executives to perform better. This study provides evidence that companies that offer stock-based compensation to their managers are more willing to disclose more information. While the MCCG and BSLR can influence a company to disclose more, offering appropriate incentives for management in the form of stock rather than cash provides incentives for them to voluntarily disclose more corporate governance information.

6.6 Limitations

Despite several strengths of this research, a number of limitations require mentioning. The first limitation of this study is that findings are based on Malaysian companies which may limit the generalisability of results to other jurisdictions such as to developed countries. The population from which the sample is drawn was all listed companies on the Bursa Securities Malaysia Berhad (BSMB) in 2007. Companies listed on the BSMB were selected because of the wider availability of annual report information from databases used for this research. Therefore, results of this study may not be generalisable to smaller and non-listed companies. In addition, only those companies that have corporate governance quality data published by the Minority Shareholder Watchdog Group in its 2008 corporate governance survey report were included in the sample for the research. This is because there is no corporate governance quality data available for a large number of companies before 2007. Consequently, results may not be generalisable to companies' corporate governance quality data prior to 2007. Furthermore, 2007 was selected as the base year to avoid any effects of the global financial crisis which happened in year 2008. Some of these sample companies may no longer exist due to the financial crisis and results may be different after the crisis.

Second, the BCS component of MSWG measures 'quality' in term of a firm's compliance with the MCCG and BSLR. However it also includes some disclosure items. Thus the measure used for corporate governance quality in this study may also be capturing disclosure items rather than indicators of actual governance quality. The measurement used to measure corporate governance quality in this study is not a perfect measure but never the less a further check has been carried out to ensure that it actually measures quality rather than box-ticking. Discussion on this is given on page 85-86.

Third, the measurement used to measure voluntary disclosure of corporate governance information may also capture corporate governance quality. As explained above, corporate governance quality is measured as firm conformance to mandated items which also captures some disclosure items. Thus these two variables may be related simply because they each capture some aspects of quality and some aspects of disclosure. Even though in this research voluntary disclosure is referring to additional disclosure items in relation to corporate governance information, this study acknowledges this limitation in terms of measurement as there always are with this kind of research.

Fourth, this research relies on companies annual reports for the data necessary to test hypotheses. Since the study has used this information, it can only measure characteristics of a company secretary, capital market transactions and stock-based incentives based on information disclosed. Therefore relevant information which is published in companies' websites or other forms of media may have been excluded by this study.

Fifth, in order to measure the in-house qualified company secretary variable, the study divided company secretaries into two categories: professional qualified versus license holder and in-house versus external. Even though these characteristics can accurately describe company secretary qualities, there are other characteristics which may be important and should be included in measuring an in-house qualified company secretary. The other characteristics are years of work experience, type of skills and other positions held by a company secretary within the same company.

Sixth, the main focus of this study is specifically on voluntary disclosures of corporate governance information. As such results may not be generalisable to other types of disclosures. Higher disclosures of corporate governance practices do not mean that they are credible or reflective of the true state of affairs of a company in disclosing total voluntary disclosures. Also more disclosures do not necessarily imply better disclosure quality of total voluntary disclosure practices of a company. Therefore, the findings should be interpreted with care.

6.7 Future research

Based on the findings and limitations of the study, there are several avenues for future research. It would be interesting to know whether results can be replicated for smaller Malaysian listed and non-listed companies to find out if capital market transactions and stock-based incentives significantly impact on the relationship of corporate governance quality and voluntary disclosure practices. A similar study can also be conducted in other settings with similar market environments for example in other Asian countries as well as developed countries. This may be possible only if the corporate governance quality data are available.

The data collection could be extended to include other forms of media. This would improve accessibility and accuracy of information obtained. It would also ensure that researchers would get the most recent information about companies' corporate governance practices. As such this will reduce the possibility of having missing values in data analysis.

Future research should also explore other characteristics such as experience, skills, other positions held and the number of company secretaries employed, in measuring the effectiveness of a company secretary role in corporate governance disclosures. This could involve attending companies' annual general meetings, and conducting interviews or distributing questionnaires. A comparison study of the importance of the role of each of the guardians of corporate governance in an organisation can enable future researchers to measure appropriately the relationship between each guardian of corporate governance with voluntary disclosures.

Finally, future studies in this area should examine whether corporate governance quality, capital market transactions and stock-based incentives are positively related to the total voluntary disclosures and other specific types of disclosure. This may only be possible if data concerning different types of information is widely available.

List of References

Aboody, D & Kasznik, R 2000, 'CEO stock option awards and the timing of corporate voluntary disclosures', *Journal of Accounting Economics*, vol. 29, pp. 73-100

Adams, M & Hossain, M 1998, 'Managerial discretion and voluntary disclosure: Empirical evidence from the New Zealand life insurance industry', *Journal of Accounting and Public Policy*, vol. 17, no. 3, pp. 245-81

Agrawal, A & Gershon, NM 1987, 'Managerial Incentives and Corporate Investment and Financing Decisions', *The Journal of Finance*, vol. 42, no. 4, pp. 823-37

Agrawal, A & Knoeber, CR 1996, 'Firm performance and mechanisms to control agency problems between managers and shareholders', *Journal of Financial and Quantitative Analysis*, vol. 31, no. 3, pp. 377-97

Ajinkya, B, Bhojraj, S & Sengupta, P 2005, 'The Association between Outside Directors, Institutional Investors and the Properties of Management Earnings Forecasts', *Journal of Accounting Research*, vol. 43, pp. 343-76

Akerlof, GA 1970, 'The Market for "Lemons": Quality Uncertainty and the Market Mechanism', *The Quarterly Journal of Economics*, vol. 84, no. 3, pp. 488-500

Armando, G 2000, 'Going Public without Governance: Managerial Reputation Effects', *Journal of Finance*, vol. 55, no. 2, pp. 615-46

Barako, DG, Hancock, P & Izan, HY 2006, 'Factors influencing voluntary disclosure by Kenyan companies', *Corporate Governance: An International Review*, vol. 14, no. 2, pp. 107-25

Bassett, M, Koh, P-S & Tutticci, I 2007, 'The association between employee stock option disclosures and corporate governance: Evidence from an enhanced disclosure regime', *The British Accounting Review*, vol. 39, no. 4, pp. 303-22

Beekes, W & Brown, P 2006, 'Do Better-Governed Australian Firms Make More Informative Disclosures?', *Journal of Business Finance & Accounting*, vol. 33, pp. 422-50

Bhat, G, Hope, O-K & Kang, T 2006, 'Does corporate governance transparency affect the accuracy of analyst forecasts?', *Accounting and Finance*, vol. 46, no. 5, pp. 715-32

Black, BS, Jang, H & Kim, W 2006, 'Does Corporate Governance Predict Firms' Market Values? Evidence from Korea ', *The Journal of Law, Economics and Organisation*, vol. 22, no. 2, pp. 366-413

Botosan, C 1997, 'Disclosure level and the cost of equity capital', *The Accounting Review*, vol. 72, no. 3, pp. 323-49

Botosan, C & Plumlee, M 2002, 'A re-examination of disclosure level and the expected cost of equity capital', *Journal of Accounting Research*, vol. 40, no. 1, pp. 21-41

Bowen, RM, Rajgopal, S & Venkatachalam, M 2005, 'Accounting Discretion, Corporate Governance and Firm Performance', *SSRN eLibrary*, viewed 15.1.2010, <http://ssrn.com/paper=367940>

Bowerman, BL & O' Connel, RT 1990, *Linear statistical models: An approach* 2nd edn, CA: Duxbury, Belmont.

Bronson, SN, Carcello, JV & Raghunandan, K 2006, 'Firm Characteristics and Voluntary Management Reports on Internal Control', *Auditing*, vol. 25, pp. 25-39, viewed 15.2.2009, <http://ezproxy.usq.edu.au/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=23717094&site=ehost-live>

Brown, LD & Caylor, ML 2004, 'Corporate Governance and Firm Performance', *SSRN eLibrary*, viewed 15.9.2008, <http://ssrn.com/paper=586423>

---- 2006, 'Corporate governance and firm valuation', *Journal of Accounting and Public Policy*, vol. 25, no. 4, pp. 409-34

Bujaki, M & McConomy, BJ 2002, 'Corporate Governance: Factors influencing voluntary disclosure by publicly traded Canadian Firms', *Canadian Accounting Perspectives*, vol. 1, pp. 105-39

Bursa Malaysia Berhad 2001a, 'Listing Requirements of Bursa Malaysia Securities Berhad', no. Chapter 15, Part E, Para 15.26, viewed 21.07.2008, <http://www.bursamalaysia.com/website/bm/>

---- 2001b, 'Annual Report Checklist', *Bursa Securities Listing Requirements*, no. Chapter 9, Part K, Para 9.25, Appendix 9C, viewed 21.07.2008, <http://www.bursamalaysia.com/website/bm/>

---- 2004, 'Best Practices in Corporate Disclosure', *Regulation, Rules, Listing requirements*, pp. 1-30, viewed 21.07.2008, <http://www.bursamalaysia.com/website/bm/>

Bushman, RM & Smith, AJ 2001, 'Financial accounting information and corporate governance', *Journal of Accounting and Economics*, vol. 32, no. 1-3, pp. 237-333

Bushman, RM, Piotroski, JD & Smith, AJ 2004, 'What Determines Corporate Transparency?', *Journal of Accounting Research*, vol. 42, pp. 207-52

Cadbury Committee Report 1992, *Report of the Committee on the Financial Aspects of Corporate Governance*, Gee & Co, London.

Catasus, B 2000, 'Silent Nature Becomes Normal', *International Studies of Management & Organization*, vol. 30, p. 59

Chau, GK & Gray, SJ 2002, 'Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore', *The International Journal of Accounting*, vol. 37, pp. 247-65

Chen, CJP & Jaggi, B 2000, 'Association between independent non-executive directors, family control and financial disclosures in Hong Kong', *Journal of Accounting and Public Policy*, vol. 19, no. 4-5, pp. 285-310

Chen, W-P, Chung, H, Lee, C & Liao, W-L 2007, 'Corporate Governance and Equity Liquidity: analysis of S&P transparency and disclosure rankings', *Corporate Governance: An International Review*, vol. 15, no. 4, pp. 644-60

Cheng, ECM & Courtenay, SM 2006, 'Board composition, regulatory regime and voluntary disclosure', *The International Journal of Accounting*, vol. 41, no. 3, pp. 262-89

Cho, CH & Patten, DM 2007, 'The role of environmental disclosures as tools of legitimacy: A research note', *Accounting, Organizations and Society*, vol. 32, no. 7-8, pp. 639-47

Claessens, S & Fan, JPH 2000, 'Corporate governance in Asia: A survey', *International Review of Finance*, vol. 2, no. 2, pp. 71-103

Claessens, S, Djankov, S & Lang, LHP 2000, 'The separation of ownership and control in East Asian Corporations', *Journal of Financial Economics*, vol. 58, no. 1-2, pp. 81-112

Clarkson, PM, Li, Y, Richardson, GD & Vasvari, FP 2008, 'Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis', *Accounting, Organizations and Society*, vol. 33, no. 4-5, pp. 303-27

CLSA Asia - Pacific Markets 2007, *On a wing and a prayer: The greening of governance*, CLSA and ACGA.

Cohen, J 1978, 'Partialed products are interactions: partialed powers are curve components', *Psychological Bulletin*, vol. 85, pp. 114-28

Collett, P & Hrasky, S 2005, 'Voluntary Disclosure of Corporate Governance Practices by Listed Australian Companies', *Corporate Governance: An International Review*, vol. 13, no. 2, pp. 188-96

Coombes, P & Watson, M 2000, 'Three surveys on corporate governance', *McKinsey Quarterly*, no. 4, pp. 74-7

De Nicolo, G, Laeven, L & Ueda, K 2008, 'Corporate governance quality: Trends and real effects', *Journal of Financial Intermediation*, vol. 17, pp. 198-228

Deumes, R & Knechel, WR 2008, 'Economic Incentives for Voluntary Reporting on Internal Risk Management and Control Systems', *Auditing*, vol. 27, pp. 35-66

Dey, A 2008, 'Corporate Governance and Agency Conflicts', *Journal of Accounting Research*, vol. 46, pp. 1143-81

Dhaliwal, DS, Li, OZ, Tsang, AH & Yang, YG 2009, 'Voluntary Non-Financial Disclosure and the Cost of Equity Capital: The Case of Corporate Social Responsibility Reporting', *SSRN eLibrary*, viewed 24.12.2009, <http://ssrn.com/paper=1343453>

Donaldson, L & Davies, JH 1994, 'Boards and corporate performance - Research challenges the conventional wisdom', *Corporate Governance: An International Review*, vol. 2, no. 3, pp. 151-60

Durnev, A & Kim, EH 2005, 'To Steal or Not to Steal: Firm Attributes, Legal Environment, and Valuation', *The Journal of Finance*, vol. 60, no. 3, pp. 1461-93

Dye, RA 1985, 'Disclosure of Nonproprietary Information', *Journal of Accounting Research*, vol. 23, no. 1, pp. 123-45

---- 1986, 'Proprietary and Nonproprietary Disclosures', *The Journal of Business*, vol. 59, no. 2, pp. 331-66

Eng, LL & Mak, YT 2003, 'Corporate governance and voluntary disclosure', *Journal of Accounting and Public Policy*, vol. 22, pp. 325-45

Eng, LL, Kwok, FH & Yew, KH 2001, 'The relation between financial statement disclosure and the cost of equity capital of Singapore firms', *Accounting Research journal*, vol. 14, no. 1, pp. 35-48

Fama, EF & Jensen, MC 1983, 'Separation of ownership and control', *Journal of Law and Economics*, vol. 27, pp. 301-25

Farber, DB 2005, 'Restoring Trust after Fraud: Does Corporate Governance Matter?', *Accounting Review*, vol. 80, pp. 539-61

Field, A 2009, *Discovering statistics using SPSS*, Third edn, Sage, London.

Finance Committee on Corporate Governance March 2000, *Malaysian Code on Corporate Governance*.

Forker, JJ 1992, 'Corporate Governance and Disclosure Quality', *Accounting & Business Research*, vol. 22, pp. 111-24

Gaffikin, M 2008, *Accounting theory: Research, regulation and accounting practice*, Pearson Education Australia, Frenchs Forest N.S.W.

Gandia, JL 2008, 'Determinants of internet-based corporate governance disclosure by Spanish listed companies', *Journal of Corporate Governance*, vol. 32, no. 6, pp. 791-817, viewed 16.9.2009, <http://www.emeraldinsight.com/1468-4527.htm>

Ghazali, NAM & Weetman, P 2006, 'Perpetuating traditional influences: Voluntary disclosure in Malaysia following the economic crisis', *Journal of International Accounting Auditing & Taxation*, vol. 15, pp. 226-48

Gompers, P, Ishii, J & Metrick, A 2003, 'Corporate Governance and Equity Prices', *The Quarterly Journal of Economics*, vol. 118, no. 1, pp. 107-55

Grace, M, Ireland, A & Dunstan, K 1995, 'The effects of board size and diversity on strategic change', *Strategic Management Journal*, vol. 15, pp. 241-50

Gray, SJ, Meek, GK & Roberts, CB 1995, 'International capital market pressures and voluntary annual report disclosures by U.S. and U.K. Multinationals', *Journal of International Financial Management & Accounting*, Spring95, pp. 43-68.

Hair, JF, Black, WC, Babin, BJ, Anderson, RE & Tatham, RL 2006, *Multivariate Data Analysis*, Sixth edn, Pearson Education International, New Jersey.

Hambrick, DC & Mason, PA 1984, 'Upper Echelons: The Organization as a Reflection of Its Top Managers', *Academy of Management Review*, vol. 9, pp. 193-206

Hampel Committee on Corporate Governance 1998, *Final Report*, Gee & Co, London.

Haniffa, R & Hudaib, M 2006, 'Corporate governance structure and performance of Malaysian listed companies ', *Journal of Business Finance and Accounting*, vol. 33, no. 7 & 8, pp. 1034-62

Haniffa, RM & Cooke, TE 2002, 'Culture, Corporate Governance and Disclosure in Malaysian Corporations', *Abacus*, vol. 38, pp. 317-49

Harrison, M 2007, 'Company secretary and internal auditor: Joint guardians of governance, risk management and control', *Keeping good companies: Journal of Chartered Secretaries Australia Ltd*, vol. 59, no. 1, pp. 24-6

Healy, PM & Palepu, KG 2001, 'Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature', *Journal of Accounting and Economics*, vol. 31, no. 1-3, pp. 405-40

Healy, PM, Hutton, AP & Palepu, KG 1999, 'Stock Performance and Intermediation Changes Surrounding Sustained Increases in Disclosure', *Contemporary Accounting Research*, vol. 16, pp. 485-520

Ho, SSM & Wong, KS 2001, 'A study of the relationship between corporate governance structures and the extent of voluntary disclosure', *Journal of International Accounting, Auditing and Taxation*, vol. 10, pp. 139-56

Hopkinson, G 2000, 'Governance monitor: A company secretarial role?', *The Company Secretary Journal, the Hong Kong Institute of Company Secretaries* vol. 10, no. 4, pp. 324-6

Hossain, M & Masrur, R 2007, 'The determinants and characteristics of voluntary disclosure by Indian banking companies', *Corporate Social Responsibility and Environmental Management*, vol. 14, pp. 274-88

Hossain, M, Tan, LM & Adams, M 1994, 'Voluntary disclosure in an emerging capital market: Some empirical evidence from companies listed on the Kuala Lumpur Stock Exchange', *The International Journal of Accounting*, vol. 29, no. 4, pp. 334-51

Hossain, M, Perera, MHB & Rahman, A 1995, 'Voluntary disclosure in the annual reports of New Zealand companies', *Journal of International Management and Accounting*, vol. 6, no. 1, pp. 69-87

Jensen, MC & Meckling, WH 1976, 'Theory of the firm: Managerial behavior, agency costs and ownership structure', *Journal of Financial Economics*, vol. 3, no. 4, pp. 305-60, viewed 1.1.2008, <http://papers.ssrn.com/abstract=94043>

Jensen, MC & Murphy, KJ 1990, 'Performance pay and top-management incentives', *Journal of Political Economy*, vol. 98, no. 2, pp. 225-64

Kanagaretnam, K, Lobo, GJ & Whalen, DJ 2007, 'Does good corporate governance reduce information asymmetry around quarterly earnings announcements?', *Journal of Accounting and Public Policy*, vol. 26, no. 4, pp. 497-522

Kang, SM 2005, *Handbook on Company Secretarial Practice in Malaysia*, 4 edn, LexisNexis Group, Selangor, Malaysia.

Karamanou, I & Vafeas, N 2005, 'The Association between Corporate Boards, Audit Committees, and Management Earnings Forecasts: An Empirical Analysis', *Journal of Accounting Research*, vol. 43, pp. 453-86

Keith, TZ 2006, *Multiple Regression and Beyond*, Pearson, New York.

Kent, P & Stewart, J 2008, 'Corporate governance and disclosures on the transition to International Financial Reporting Standards', *Accounting & Finance*, vol. 48, pp. 649-71

Klapper, LF & Love, I 2004, 'Corporate governance, investor protection, and performance in emerging markets', *Journal of Corporate Finance*, vol. 10, no. 5, pp. 703-28

La Porta, R, Lopez-De-Silanes, F, Shleifer, A & Vishny, R 2002, 'Investor Protection and Corporate Valuation', *The Journal of Finance*, vol. 57, no. 3, pp. 1147-70

Labelle, R 2002, 'The statement of corporate governance practices (SCGP): A voluntary disclosure and corporate governance perspective', *HEC Montreal Working Paper*, viewed 2.2.2009, <http://ssrn.com/abstract=317519>

Lang, M & Lundholm, R 1993, 'Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures', *Journal of Accounting Research*, vol. 31, no. 2, pp. 246-71

---- 2000, 'Voluntary disclosure and equity offerings: Reducing information asymmetry or hyping the stock?', *Contemporary Accounting Research*, vol. 17, pp. 623-62

Lang, M, Lins, KV & Maffett, MG 2009, 'Transparency, Liquidity, and Valuation: International Evidence', *SSRN eLibrary*, viewed 25.11.2009, <http://ssrn.com/paper=1323514>

Langberg, N & Sivaramakrishnan, K 2008, 'Voluntary disclosures and information production by analysts', *Journal of Accounting and Economics*, vol. 46, no. 1, pp. 78-100

Larcker, DF, Richardson, SA & Tuna, Är 2007, 'Corporate Governance, Accounting Outcomes, and Organizational Performance', *Accounting Review*, vol. 82, pp. 963-1008

Lee, SM 2009, 'Unanswered questions on the role of the company secretary in corporate governance', *The Chartered Secretary Malaysia*, no. Sep-Oct, pp. 27-30

Leung, S & Horwitz, B 2004, 'Director ownership and voluntary segment disclosure: Hong Kong', *Journal of International Management and Accounting*, vol. 15, no. 3, pp. 235-60

Leuz, C & Wysocki, PD 2008, 'Economic Consequences of Financial Reporting and Disclosure Regulation: A Review and Suggestions for Future Research', *SSRN eLibrary*, viewed 14.08.2009, <http://ssrn.com/paper=1105398>

Leuz, C, Lins, KV & Warnock, FE 2009, 'Do Foreigners Invest Less in Poorly Governed Firms?', *The Review of Financial Studies*, vol. 22, no. 8, pp. 3245-85

Levin, J 2001, 'Information and the Market for Lemons', *The RAND Journal of Economics*, vol. 32, no. 4, pp. 657-66

Lim, S, Matolcsy, Z & Chow, D 2007, 'The Association between Board Composition and Different Types of Voluntary Disclosure', *European Accounting Review*, vol. 16, pp. 555-83

Malaysian Companies Act 1965, 2008, 2 edn, CCH Asia Pte Limited, Malaysia.

Mallin, C & Ow-Yong, K 2009, 'Corporate Governance in Alternative Investment Market (AIM) Companies: Determinants of Corporate Governance Disclosure', *SSRN eLibrary*, viewed 14.08.2009, <http://ssrn.com/paper=1326627>

McKinsey & Company July 2002, 'Global investor opinion survey: Key findings', viewed 13.5.2008, <http://www.mckinsey.com/governance>

McMullen, DA 1996, 'Audit Committee Performance: An Investigation of the Consequences Associated with Audit Committees', *Auditing*, vol. 15, no. 1, pp. 87-103

Meek, GK, Roberts, CB & Gray, SJ 1995, 'Factors influencing voluntary annual report disclosure by U.S., U.K. and Continental European multinational corporations', *Journal of International Business Studies*, vol. 26, pp. 555-72

Menard, S 1995, *Apllied logistic regression analysis*, Sage University paper series on quantitative application in the social sciences, 07-106 CA: Sage, Thousand Oaks.

Mitchell, JD 2006, 'Selective reporting for ratios in Australian annual Reports: Evidence from a voluntary reporting environment', *Accounting research journal*, vol. 19, no. 1, pp. 5-30

Mitton, T 2002, 'A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis', *Journal of Financial Economics*, vol. 64, pp. 215-41

Morris, RD 1987, 'Signalling, Agency Theory and Accounting Policy Choice', *Accounting & Business Research*, vol. 18, pp. 47-56

Motulsky, H & Christopoulos, A 2003, *Fitting models to biological data using linear and nonlinear regression*, GraphPadSoftware, Inc. viewed 20.7.2011, <http://www.graphpad.com/manuals/Prism4/RegressionBook.pdf>.

MSWG & UNMC 2007, *Corporate Governance Survey Report 2007 - Main Board PLCs*.

Myers, R 1990, *Classical and modern regression with application* 2nd edn, MA: Duxbury, Boston.

Nagar, V, Nanda, D & Wysocki, P 2003, 'Discretionary disclosure and stock-based incentives', *Journal of Accounting & Economics*, vol. 34, pp. 283-309

Neo, CF 1999, 'Voluntary disclosure and insider transactions', *Journal of Accounting & Economics*, vol. 27, pp. 305-26

Nowland, J 2008a, 'Are East Asian companies benefiting from Western board practices?', *Journal of Business Ethics*, vol. 79, pp. 133-50

---- 2008b, 'The Effect of National Governance Codes on Firm Disclosure Practices: Evidence from Analyst Earnings Forecasts', *Corporate Governance: An International Review*, vol. 16, pp. 475-91

Ow-Yong, K & Kooi Guan, C 2000, 'Corporate Governance Codes: a comparison between Malaysia and the UK', *Corporate Governance: An International Review*, vol. 8, no. 2, pp. 125-32

Patten, DM 2002, 'The relation between environmental performance and environmental disclosure: a research note', *Accounting, Organizations and Society*, vol. 27, no. 8, pp. 763-73

Poh Ling, H, Tower, G & Barako, D 2008, 'Improving governance leads to improved corporate communication', *Corporate Ownership & Control*, vol. 5, pp. 26-33

Report on Corporate Governance, February 1999, High Level Finance Committee on Corporate Governance of Malaysia.

Rosa, RDS, Izan, HY & Lin, M 2004, 'Board Characteristics of Australian IPOs: An analysis in Light of the ASX Best Practice Recommendations', *Australian Accounting Review*, vol. 14, no. 32, pp. 25-32

Sengupta, P 1998, 'Corporate disclosure quality and the cost of debt', *The Accounting Review*, vol. 73, no. 4, pp. 459-74

Seppanen, HJ 2000, 'Discretionary Disclosure and External Financing in a Relationship Financing Environment', *SSRN eLibrary*, viewed 1.11.2008, <http://ssrn.com/paper=204668>

Sheridan, L, Jones, E & Marston, C 2006, 'Corporate governance codes and the supply of corporate information in the UK', *Corporate Governance: An International Review*, vol. 14, no. 5, pp. 497-503

Skinner, DJ 1994, 'Why Firms Voluntarily Disclose Bad News', *Journal of Accounting Research*, vol. 32, no. 1, pp. 38-60

Smith, CW & Watts, RL 1992, 'The investment opportunity set and corporate financing, dividend, and compensation policies', *Journal of Financial Economics*, vol. 32, no. 3, pp. 263-92

Solomon, J 2007, *Corporate governance and accountability*, 2 edn, John Wiley & Sons Ltd, West Sussex, England.

Stephens, NM 2009, 'Corporate Governance Quality and Internal Control Reporting Under SOX Section 302', *SSRN eLibrary*, viewed 14.08.2009, <http://ssrn.com/paper=1313339>

Studenmund, AH & Cassidy, HJ 1987, *Using Econometrics: a practical guide*, Little Brown, Boston.

Thambimuthu, RK 2007, 'Corporate governance and the company secretary as adviser', *The Chartered Secretary Malaysia*, no. Nov-Dec, pp. 15-8

Thillainathan, R 1998, 'A Review of Corporate Governance in Malaysia with Special Reference to Shareholder and Creditor Rights', *Malaysian Journal of Economic Studies*, no. Jun-Dec, viewed 1.3.2011, <http://findarticles.com/p/articles/mi_qa5520/is_199806/ai_n21433592/ >

Tie, FH 2003, *Corporate governance and corporate law reform in Malaysia: The impact of modernisation, globalisation and the communications revolution* Sweet & Maxwell Asia Pte Ltd, Selangor, Malaysia.

Turley, S & Zaman, M 2004, 'The Corporate Governance Effects of Audit Committees', *Journal of Management & Governance*, vol. 8, no. 3, pp. 305-32

Verrecchia, RE 1983, 'Discretionary disclosure', *Journal of Accounting and Economics*, vol. 5, pp. 179-94

---- 1990, 'Information quality and discretionary disclosure', *Journal of Accounting and Economics*, vol. 12, no. 4, pp. 365-80

Wallace, RSO & Cooke, TE 1990, 'The diagnosis and resolution of emerging issues in corporate disclosure practices', *Journal of Accounting and Business Research* vol. 20, pp. 143-51

Wan-Hussin, WN 2009, 'The impact of family-firm structure and board composition on corporate transparency: Evidence based on segment disclosures in Malaysia', *The International Journal of Accounting*, vol. 44, no. 4, pp. 313-33

Watson, A, Shrives, P & Marston, C 2002, 'Voluntary disclosure of accounting ratios in the UK', *The British Accounting Review*, vol. 34, no. 4, pp. 289-313

Wei-Peng, C, Huimin, C, Tsui-Ling, H & Soushan, W 2010, 'External Financing Needs, Corporate Governance, and Firm Value', *Corporate Governance: An International Review*, vol. 18, no. 3, pp. 234-49

Zikmund, WG 2003, *Business Research Methods*, 7 edn, Thomson/South-Western, Cincinnati, Ohio.

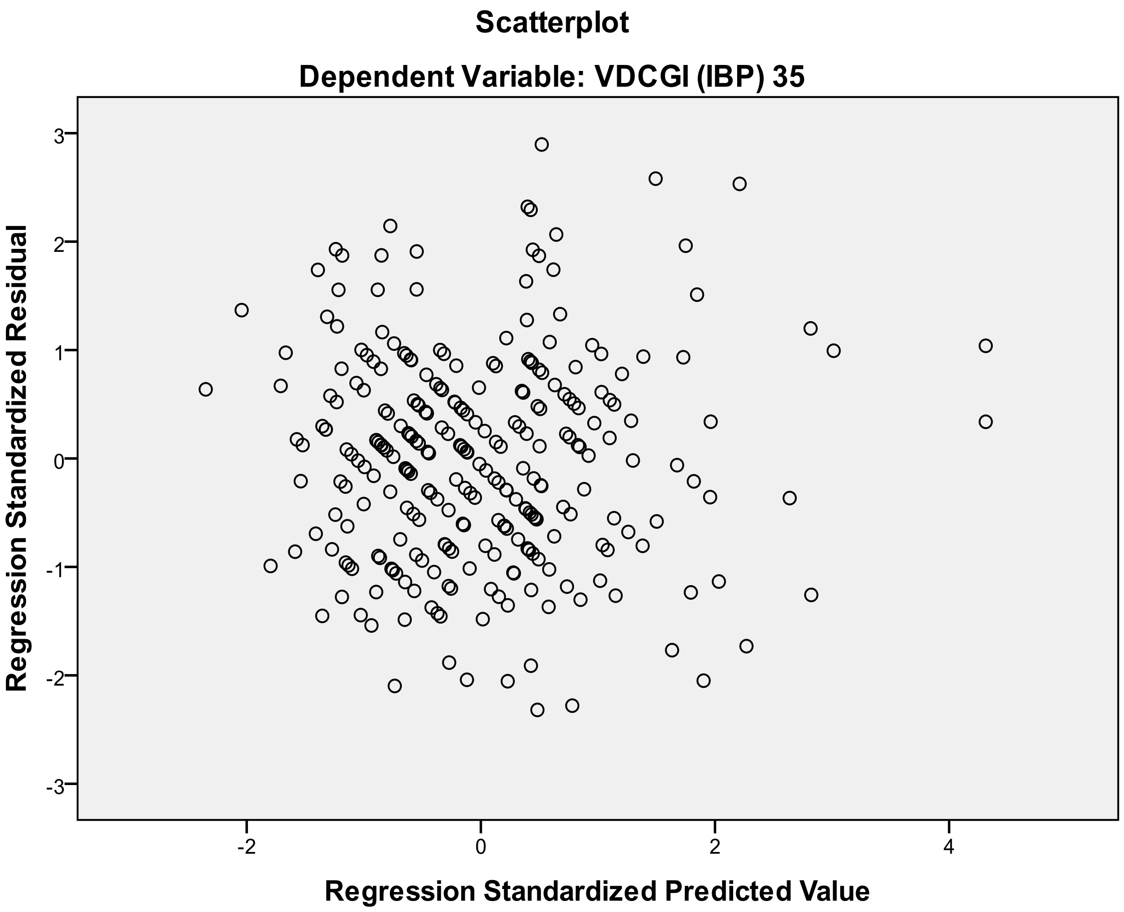
Appendix 1 – Tests for multicollinearity

Coefficientsa

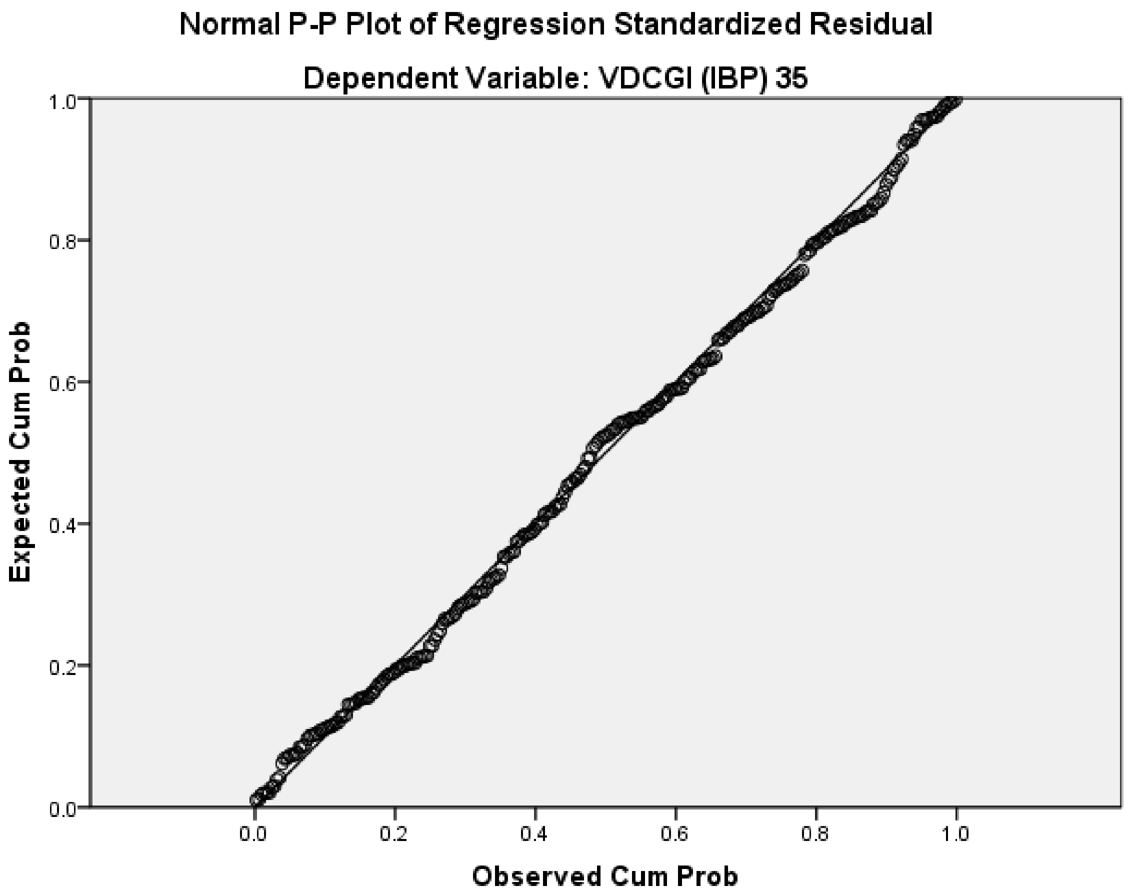
Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-15.682	2.734		-5.737	.000	-21.065	-10.299					
	CGQ (BCS) 40	.393	.050	.359	7.943	.000	.296	.491	.494	.442	.336	.878	1.138
	CSEC D	.188	.353	.023	.532	.595	-.507	.884	.089	.033	.023	.952	1.051
	S-ISS D	.387	.575	.035	.673	.502	-.746	1.520	.215	.042	.028	.666	1.500
	D-ISS D	.349	.543	.031	.643	.520	-.720	1.419	.244	.040	.027	.762	1.312
	SC-OPTIONS	2.298	.610	.189	3.768	.000	1.097	3.499	.266	.228	.159	.709	1.410
	SH-OWN	-1.459	.900	-.077	-1.622	.106	-3.231	.312	-.293	-.100	-.069	.800	1.249
	LSIZE	.873	.176	.255	4.949	.000	.526	1.220	.403	.293	.209	.676	1.479
	LEV	-.734	.878	-.041	-.836	.404	-2.462	.995	.173	-.052	-.035	.758	1.320
	FMB	-2.661	.952	-.144	-2.796	.006	-4.535	-.787	-.349	-.171	-.118	.679	1.472
	BOARD-M	1.251	.729	.087	1.717	.087	-.184	2.686	.306	.106	.073	.703	1.423
	ROE	3.820	.777	.215	4.915	.000	2.290	5.351	.250	.292	.208	.938	1.066
	TRA D	.419	.434	.045	.966	.335	-.436	1.274	.234	.060	.041	.814	1.228
	LIS D	.672	.991	.031	.678	.498	-1.280	2.624	.154	.042	.029	.861	1.161
	CGQ*SC-OPTIONS	.510	.144	.157	3.546	.000	.227	.794	.166	.215	.150	.915	1.093

a. Dependent variable: VDCGI (IBP)35

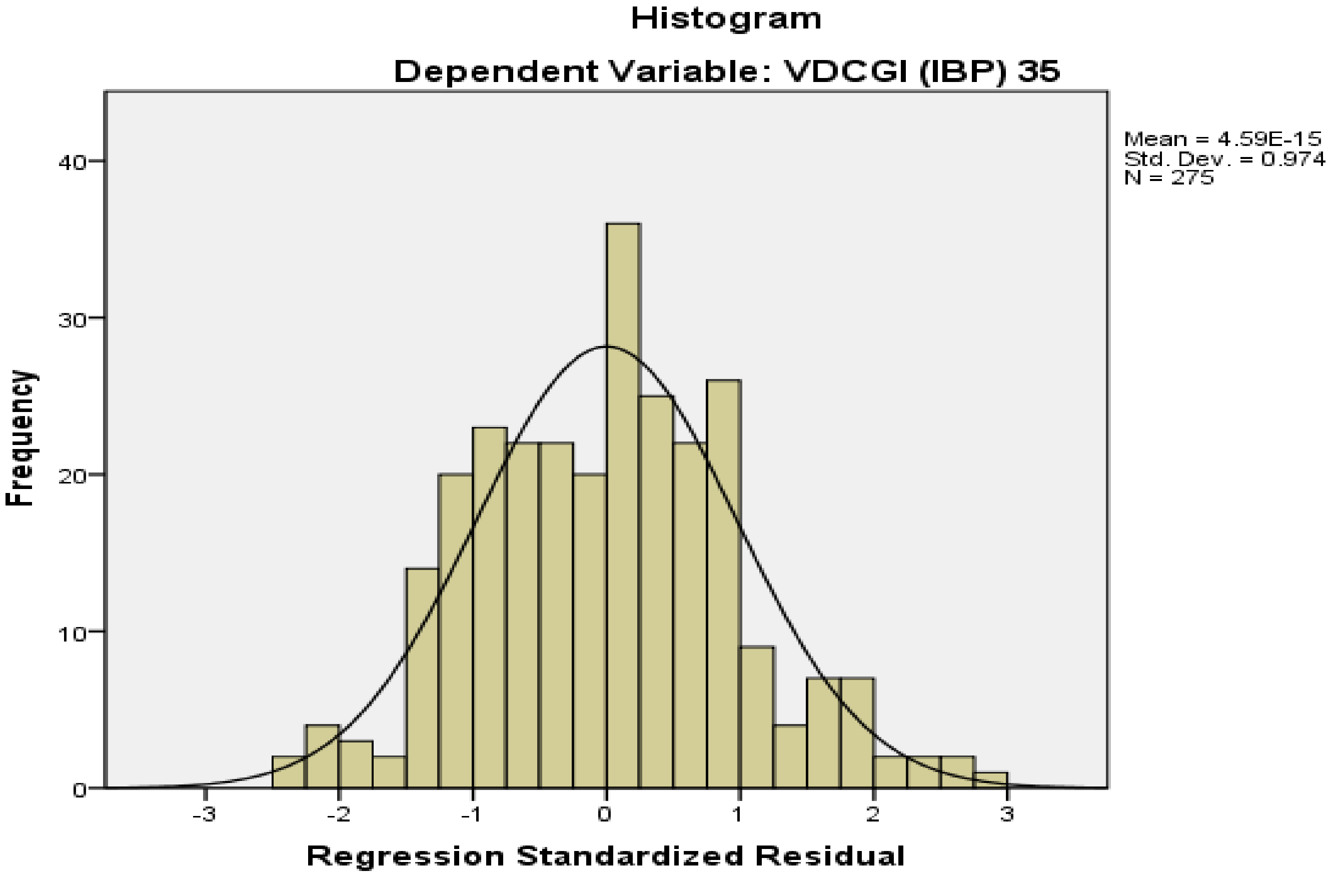
Appendix 2 – Test of linearity and homoscedasticity



Appendix 3 - Test of normality of standardised residual



Appendix 4 - Test of normality of the model



Appendix 5 - Test of assumption of independent errors

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.731	.534	.509	2.856	.534	21.312	14	260	.000	1.894

a. Predictors (Constant): CGQ*SC-OPTIONS, BOARD-M, ROE, SC-OPTIONS, CSEC D, LIS D, LEV, CGQ (BCS) 40, SH-OWN, TRA D, D-ISS D, FMB, LSIZE, S-ISS D.

b. Dependent variable: VDCGI (IBP) 35

Appendix 6 - Test for any extreme cases which may be an outlier.

Casewise Diagnostics[a]

Case Number	Std. Residual	VDCGI (IBP) 35	Predicted Value	Residual
16	-2.054	4	9.87	-5.866
28	2.066	17	11.10	5.898
97	-2.041	3	8.83	-5.828
103	**2.896**	19	10.73	8.269
130	**2.581**	21	13.63	7.369
143	-2.319	4	10.62	-6.621
158	2.294	17	10.45	6.549
192	-2.279	5	11.51	-6.509
221	**2.533**	23	15.77	7.232
233	2.144	13	6.88	6.123
235	2.321	17	10.37	6.628
236	-2.049	9	14.85	-5.851
242	-2.098	1	6.99	-5.990

a. Dependent variable: VDCGI (IBP) 35

Appendix 7 - The *F* ratio test results.

Results before including interaction term CGQ*SCOPTIONS

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2330.326	13	179.256	21.050	.000[a]
	Residual	2222.583	261	8.516		
	Total	4552.909	274			

a. Predictors: (Constant), LIS D, CSEC D, ROE, SC-OPTIONS, TRA D, SH-OWN, LEV, CGQ (BCS) 40, D-ISS D, BOARD-M, FMB, S-ISS D, LSIZE

b. Dependent Variable: VDCGI (IBP) 35

Results after including interaction term CGQ*SCOPTIONS

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2432.863	14	173.776	21.312	.000[a]
	Residual	2120.046	260	8.154		
	Total	4552.909	274			

a. Predictors: (Constant), CGQ*SC-OPTIONS, BOARD-M, ROE, SC-OPTIONS, CSEC D, LIS D, LEV, CGQ (BCS) 40, SH-OWN, TRA D, D-ISS D, FMB, LSIZE, S-ISS D

b. Dependent Variable: VDCGI (IBP) 35