CORPORATE GOVERNANCE AND FINANCIAL PERFORMANCE OF PUBLIC LISTED COMPANIES: PRE AND POST IMPLEMENTATION OF THE MALAYSIAN CODE OF CORPORATE GOVERNANCE

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Abstract

This study examine the impact of corporate governance and ownership structures on firm performance of 293 companies listed on the Main and Second Board of Bursa Malaysia six-years before and after the implementation of Malaysian Code of Corporate Governance (MCCG) in 2001. Institutional and foreign shareholdings were found to be significantly associated with both market and accounting performance measures before and after implementation of MCCG, implying their positive roles on performance. Contrary to the recommendation by MCCG, role duality (positions of Chairman and CEO were the same person) was observed to be negatively related to accounting performance measures but in the opposite direction for market performance measures. The result is robust with respect to controls for firm size and gearing.

Keywords: Corporate Governance, MCCG, Firm Performance, Bursa Malaysia and Ownership Structures

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1 Introduction

Following major corporate collapses around the world in the last two decades from US and Europe to North east and South east Asia in mid-1997, corporate governance (CG) has become an important topic of debate not only at national but regional and international levels as well (UNDP, 2002). According to Kirkpatrick (2009), the OECD Steering Group on CG also attributed the financial crisis to weak governance arrangements. It is recognized that continuing efforts must be undertaken to restore public confidence in the corporate sector by not only reviewing current corporate legislature but also the way in which these businesses have been conducted in the affected countries. Since then, there was a call for greater transparency and accountability in both public and private sectors to ensure stability of market oriented economics Around this time, governments of many countries around the world have undertaken various measures to improve the efficacy of the governance structures for this will not only attract more foreign investments into the countries but also investors are willing to pay a premium for the price of shares (Coombes & Watson, 2000). Furthermore, effective CG also promotes efficient use of resources which will ultimately bring about benefits to the long term viability of the firms and the country at large (Gregory & Simms, 1999). In addition, there have been many academic studies (Vafeas & Theodorou, 1998; Weir, Laing & McKnight, 2002; amongst others) to determine the most effective governance structures.

This study include CG variables such as board sub committees, shareholdings by independent, executive and foreign shareholdings in a comprehensive model as proposed by Haniffa and Hudaib (2006). Their studies have not examined these governance structure characteristics in a single study.

Few studies have explored the effect of CG on firm financial performance before and after implementation of MCCG in 2001. Past studies in Malaysia only focus on companies listed in the Main Board and over a few years only (Abdul Wahab, How & Verhoevan, 2008; Che Haat, Abdul Rahman & Mahenthiran, 2008; Haniffa & Hudaib, 2006).

Furthermore, the results would be more generalisable as the sample in this study includes smaller firms unlike previous studies. The duration of this study is over twelve years with 3,516 observations using panel data analysis. Fixed effect regression beside pooled ordinary least square (OLS) is used to

control for omitted variables in panel data, which vary across companies but do not change over time because it represents an unbiased method of controlling for omitted variables in a panel data set (Hausman & Taylor, 1981). Therefore, the use of CG and ownership structures in a single study will provide valuable insights into the impact of CG and ownership mechanisms on firm performance before and after the implementation of MCCG in 2001.

The objective of this paper is twofold. First to explore CG practices (board size, board composition, role duality and board committees) before and after the implementation of MCCG in 2001and to determine whether such differences are significant over these two periods. The second objective is to examine the effect of the corporate governance structure on financial performance before and after the implementation of MCCG in 2001.

Our analysis involves an examination of 293 companies listed on the main and second board of the KLSE³ between 1995 to 2000 and 2001 to 2006. The paired sample t- tests reveal that there is a significant difference in the extent of CG practices between the two periods. Regression results indicate significant associations between accounting and performance measures and board size, board composition, role duality, institutional and foreign shareholdings, gearing and company Furthermore, the results showed a significant performance relationship between accounting measures and executive and independent directors' shareholdings. The results also contribute towards practice as well as research. Agency and stewardship theories are used to explain reasons behind the underlying results where necessary.

The remainder of the paper is organized as follows. The next section briefly discusses the development of CG in Malaysia and ownership structures in Malaysia as well as the history of MCCG. Section 3 reviews the relevant literature on the impact of governance mechanisms on firm performance. It also sets out the hypotheses to be tested. Section 4 describes the data and the empirical method of the study, followed by a discussion of the results in Section 5. The paper ends with a summary and concluding remarks as well as possible avenues for future research in Section 6.

2 Corporate governance in Malaysia

2.1 CG development

The Malaysian government plays a prominent role in the development of the Malaysian corporate sector to promote industrialization and at the same time restructure society in terms of participation and ownership. The New Economic Policy (NEP) enacted In order to achieve rapid growth and social goals, the government called for the privatization of key state owned enterprises in the Second Outline Perspective Plan⁴. Khazanah Nasional (Khazanah)⁵ was formed under the Companies Act 1965 in 1993 as a public limited company to oversee these government controlled companies known as Government-Linked Companies or GLCs. The GLC Transformation Program of 2005 is part of an ongoing effort by the government to drive the development of the Malaysian economy by enhancing the performance of the companies under its control.

Because of its financial stake in these GLCs, the government also has a say in the appointment of members of the board of directors and senior management positions. Besides that, it is also involved in awarding contract, strategy, restructuring and financing, acquisition and divestments of these companies. Therefore, the influence of government is very significant and has affected the governance structures of these companies. Since then, the performance relationship between firm government ownership has been an issue of interest not only among academics but also investors and policy makers. Several comparative studies (Lau & Tong, 2008; Nurul & Rashidah, 2011) on the performance of GLCs and non-GLCs were conducted using both accounting and market measures. Their findings showed that there was a significant difference in the performance of non GLCs and GLCs. In fact GLCs were outperformed by non GLCs. Large pension trust funds such as Employee Provident Fund (EPF), AmanahRaya Trustees Berhad, Permodalan Nasional Berhad are managed by the government (Jomo, 1995). These entities also participated actively and substantially in the Malaysian stock market. They are substantial shareholders of GLCs too.

Following the 1997 economic crisis, one of the key weaknesses that surfaced was the overlapping authority of regulatory institutions governing the securities market and its ambiguous accountability. Therefore to address this issue, the Securities Commission Act of 1993 was amended to make the Securities Commission (SC) as the sole regulator for fundraising activities and for the corporate bond market. The Malaysian Capital Market Master Plan was established to further regulate the capital market a

⁵ http://www.khazanah.gov.my



in 1971 has entrenched government intervention in the corporate sector and since its implementation, business and politics became intertwined in Malaysia (Malaysia, 1971). According to Gomez and Jomo (1997), NEP has affected the way businesses were conducted which resulted in unequal access to opportunities. Therefore firm performance could be linked to the owner and how close their relationship or ties were with the political agents.

³ Previously Kuala Lumpur Stock Exchange. Now known as Bursa Malaysia

⁴ Privatization Masterplan released by the government in 1991 (Malaysia, 1991).

year later. The legal framework for corporate governance is based on common law. The legal framework governing companies is defined by the Companies Act of 1965 (CA); the Securities Industry Act of 1983, as amended; the Banking and Financial Act of 1989; the Securities Industry (Central Depositories) Act of 1991; the Securities Commission Act of 1993; the Futures Industry Act of 1993; and the Financial Reporting Act of 1997. Therefore, even before the implementation of MCCG in 2001, there was a certain degree of CG reforms in place such as the requirements to have independent directors presence in the board in 1987 and the setting up of audit committee with effect from 1994 (Khoo, 2003).

Even though, Malaysia has comprehensive laws relating to CG in terms of shareholder and creditor protection, shareholders were not active participants in the annual general meeting (Zhuang et al. 2000). In 2001, the Minority Shareholder Watchdog Group (MSWG) was established to promote shareholder activism. Subsequently, institutional investors are encouraged by the regulators to take the lead role as empirical evidences showed that they could bring about socially responsible changes in the firms that they invested.

The Malaysian CG reforms cover the transparency and disclosure of timely information to shareholders and protection of minority interests. Examples of specific reforms introduced by SC are that beneficial owners must be revealed in nominee accounts, the number of directorships a director can hold and disclosure on matters relating to interested party transactions which directors have personal interests in, mergers and acquisitions that are provided in the amendments to CA 1965.

2.2 Ownership structures

Concentration of ownership and control in most Malaysian companies tends to be invested by blockholders, which include the government, families and other institutions (Claessens et. al., 1999, Khatri et al., 2003, Lee, 2001, La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998, thereafter known as LLSV, 1998). Further, the high degree of concentration was due to interlocking or pyramiding structure in which a holding company owned a minor but significant proportion of shares in a large number of companies (Lim, 1981).

Zhuang et al. (2000) found that in closely held firms, the major shareholders are either individual/family. Many of these firms were started by the founders of the family and even when the companies were publicly listed, they are still actively involved in their businesses (Redding, 1996). They may even hand over the businesses to the future generations as they have long term plans for the

business such as the Genting and YTL⁶ Group. Such firms performed better because of high ownership concentration and close business networks (Redding & Wong, 1986). They also found that majority of the Malaysian firms are family (42.6 percent) and state owned (34.8 percent) which confirmed with Claessens et al. (1999). But, in a later study on ownership structure in Malaysia by Tam and Tan (2007), it was shown that government has the highest ownership concentration, followed by trust fund firms, foreign firms and family controlled business.

The ownership structure in Malaysian companies differs from that of the Anglo-American CG system where the owners are separated from control and control is delegated to managers. Therefore, the agency problem experienced in Malaysia is different from dispersed ownership structure and the problem is between controlling shareholders and minority shareholders (Tam & Tan, 2007).

2.3 Malaysian code of corporate governance

In 1997, the Asian Crisis saw the economies of "emerging markets" which include Malaysia, severely affected by the exit of foreign capital after property assets collapsed. Johnson et al. (2000) found that a possible reason is due to weak corporate governance mechanisms in these countries that resulted in expropriation by managers and thus a larger fall in assets price. Their paper also highlighted the weakness of legal institutions for CG that affected largely, the decline of stock market and currencies depreciation in the region. The importance of legal protection on creditors and minority shareholders had been expressed in many studies (LLSV, 1998; Rajan & Zingales, 1998).

In 1998, the Ministry of Finance commissioned the set up of a body known as the High Level Finance Committee (HLFC)⁷ on Corporate Governance to address any CG shortcomings after the Asian financial crisis. Members of this committee were both from the government and industry. The results of their recommendations were reported in Report on Corporate Governance (HLFC, 1999) together with the MCCG 2001. The definition of CG is adapted from OECD and other international bodies as follows:

"Corporate governance is the process and structure used to direct and manage the business and affairs of the company towards enhancing business prosperity and corporate accountability with the ultimate objective of realising long-term shareholder value, whilst taking into account the interests of other stakeholders (HLFC, 1999, p. 52)".

⁶ Yeoh Tiong Lay Group currently headed by Tan Sri Francis Yeoh

⁷ CG Guide: Bursa Malaysia

MCCG described the principles and best practices for good governance for PLCs. It also spelt out the directors' core duties as well as importance of continuing education and training for them. Besides that, the role of officers and other board sub committees and the protection of the rights of minority shareholders were also highlighted. Further, the KLSE listing rules subsequently known as the Listing Requirements (LR) was significantly amended after the financial crisis to include requirements for new listing besides maintaining good standards for continued listing. The updates to LR in 2001 addressed key corporate governance issues as found in MCCG such as disclosure of substantial and relatedtransactions, independent representation in the board, directors' attendance of meetings and training, the Audit Committees roles and functions and a report on internal controls. In the annual report, PLCs must report on the extent of compliance with MCCG and reasons for noncompliance, if any.

There are two updates to MCCG 2001 in 2007 and 2012 and they took into account changing market dynamics, international developments to enhance the CG framework and its effectiveness.

3 Prior empirical studies and hypotheses development

3.1 Extent of CG practices before and after implementation of MCCG in 2001

Since the 1997 economic crisis which swept through Malaysia, the SC and KLSE addressed some of weaknesses through reforms in CG. Notably, legislations are enacted to protect minority interests as well as the establishment of MCCG in 2001. The possible reasons for more CG compliance after crisis may be attributed to increases in risk, activities of pressure groups such as MSWG, ethical investors, awards, media interest, economic activities, societal awareness and politics. There has been greater awareness on CG disclosure and practices. Given the scenario of events before and after implementation of MCCG, the hypothesis is as follows:

H1: There is a significant difference in the extent of CG practices between period 1 and 2.

3.2 Corporate governance mechanisms

A review of prior empirical literature on the relationship between CG and ownership structures on firm performance showed mixed results.

Huther (1996) and Yermack (1996) found that the market perceived smaller boards more effective than larger boards. Yermack found a positive stock price reaction for firms announcing a reduction in board size and a negative stock price reaction to announcements on increase in board size. The logic for why this might be so deals with the free-rider problem. For a small board, each member may need to monitor the firm, as there are a few of them. However, members of larger boards may assume that there are others who are monitoring. Another reason is that it may be more difficult to reach a decision with larger boards (Lipton & Lorsch, 1992).

On the other hand, bigger boards not only bring in more skills, diversity and experience into the firms but also create added value in management of resources (Goodstein et al., 1994; Pearce & Zahra, 1992). However, Holthausen and Larker (1993) failed to find a link between board size and financial performance.

Since MCCG does not recommend any board size and prior studies produced mixed results, the following hypotheses are stated as follows:

H2: There is a significant relationship between board size and firm performance in period 1 and 2.

Proponents of agency theory believed that a board comprising a larger representation of independent directors will be more effective in monitoring management by checking on the opportunistic behaviour of the executive directors (Fama & Jensen, 1983). According to Farrell and Whidbee (2000), a board comprising members who are related to the CEO is probably less likely to fire the CEO for poor performance. Furthermore, the presence of truly independent directors in the board, audit, compensation, and nominating committees has been found to be more likely to monitor management's activities effectively by several academic studies (Byrd & Hickman, 1992; Daily & Dalton, 1992; Fama, 1980; Jensen, 1993), accounting professional (AICPA⁸, 1992), government regulators such as US Securities and Exchange Commission, 1988, US Committee Of Sponsoring Organization of the Treadway Commission.

However, empirical evidences on the role of independent directors were mixed. Some studies had not found such an association (Che Haat et al., 2008; Fosberg, 1989; Haniffa & Hudaib, 2006; Hermalin & Weisbach, 1991) whilst others had found a significant positive link (Daily & Dalton, 1994; Prevost et al., 2002). However, Koerniadi & Tourani-Rad (2012) conducted a similar study of NZ firms from 2004-2006 and found that board independence was negatively related to firm performance which was contrary to the findings of Prevost et al. Koerniadi concluded that this could possibly be due to the difference in time period of the studies; theirs was done a decade later when the number of independent directors was more. Their findings suggested that board independence may not generally be suitable for countries where managers were considered as active partners along with other stakeholders in companies. This was more consistent with stewardship theory than agency theory as the boards were seen to be collaborating with managers than being monitors.

⁸ American Institute of Certified Public Accountants



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Recent findings (Chhaochharia & Grinstein 2007; Duchin et al., 2010) also concurred with theirs. A Korean study conducted during the governance reform movement in 1999 showed a weak link between outside directors and performance (Cho & Kim, 2007) which may be attributed to resistance of large shareholders to reform.

The MCCG recommends that companies should adopt a balanced board comprising at least one third independent directors to monitor management. However since empirical evidences were mixed, the next hypothesis is as follows:

H3: There is a significant relationship between board composition and firm performance in period 1 and 2.

There are two views regarding the issue of separating the role of chairperson and that of the CEO. Proponents of agency theory argue that the chairperson has to be independent in order to check on the possibility of the over ambitious plans of the CEO (Argenti, 1976; Blackburn, 1994; Stiles & Taylor, 1993). The separation of the two roles is necessary to provide the essential checks and balances over management performance. This was because a person who held both positions of CEO and Chairman would most likely engage in choosing strategies that promote his own interest instead of the company's interests (Jensen & Meckling, 1976). Furthermore, the monitoring ability of the board of directors on management may be reduced. Yermack (1996) found that firms were valued lower when the same person held both these positions. Agency theory therefore suggests that role duality reduce the monitoring effectiveness of the board over management and supports the separation of the role of chair and CEO.

On the other hand, those who favoured role duality use stewardship theory to support their case. They argued that managers will act in the best interests of the shareholders, as there was no inherent conflict between them as suggested in agency theory. Managers identified with the goals of the firm and strived to make sure those goals are achieved. Besides that, the benefits of role duality include faster implementation of decisions, which was due to lesser board interference and ability to focus on company objectives. Ultimately, this would lead to improvement in firm performance (Dahya, Lonie & Power, 1996).

The MCCG recommends the separation of the two roles to ensure proper checks and balances on the top leadership of the companies. However, since prior studies indicated mixed results, the next hypothesis is as follows:

H4: There is a significant relationship between role duality and firm performance in period 1 and 2.

Empirical evidences on the relationship between the presence of audit committee and the financial performance have yielded conflicting results. Some found no significant association between this board committee and financial performance (Klein, 1998; Petra, 2002; Vafeas & Theodorou, 1998; Weir et al., 2002). Similarly, in the analysis of a sample of 412 publicly listed Hong Kong firms during 1995–1998, Chen et al. (2005) found little impact of audit committee on firm value. In contrast, Wild (1994) showed evidence that the market reacted favourably to earnings reports after an audit committee had been formed. Similarly in a study of UK companies using 1992 and 1996 data, Laing and Weir (1999) concluded that audit committee contributed to significant improvement in performance of firms than non-executive director representation or non duality.

The MCCG recommends the establishment of an independent audit committee with majority of independent directors to ensure proper checks and balances on top management. It is mandated by the LR to have such a committee in all public listed companies in 1994. However, since prior studies indicated mixed results, the next hypothesis is as follows:

H5: There is a significant relationship between independent audit committee and firm performance in period 1 and 2.

Although not required by regulation, many corporations in US have instituted remuneration committees composed entirely of outside independent directors to give the appearance that a reasonable and objective process determines the compensation for top management, including the CEO. Cyert et al. (1997) found that the level of CEO compensation was inversely related to the level of stock ownership held by members of the remuneration committee. The result suggested that a remuneration committee might be an important element in the board of directors' ability to monitor and control the actions and decisions of top management. Remuneration committees were more effective monitors as compared to non-duality or independent boards (Laing & Weir, 1999). Petra (2005) reviewed the case study on Enron Corp., Global Crossing Ltd and WorldCom and concluded that the presence of outside independent directors on the remuneration committees did not affect firm performance. In his earlier study, he too found no association between informativeness of earnings and remuneration committee (Petra, 2002). A study conducted by Yatim (2012) showed evidence that director remuneration was positively and significantly related to a firm's accounting performance (ROA). This indicated that such committee can strengthen boards by controlling the level of directors' remuneration.

The MCCG recommends the establishment of an independent remuneration committee to ensure that top management do not remunerate themselves excessively. However, since prior studies indicated mixed results, the next hypothesis is as follows:

H6: There is a significant relationship between independent remuneration committee and firm performance in period 1 and 2.

Here again, although not required by regulation, many corporations in US had instituted nominating committees, which were composed entirely of outside independent directors. Such nominating committees gave the appearance that the board of directors had little or no prior relationship with the CEO. Shivdasani and Yermack (1998) found evidence suggesting that directors selected by CEO were not likely to monitor the behaviour of management. Their findings also suggested that the market preferred the CEO not be involved in the appointment of new directors. This highlighted the need for boards of directors to nominating maintain independent committee. However, Klein (1998) and Petra (2002) found little evidence that such independent committee affected firm performance.

The MCCG recommends the establishment of an independent nominating committee to ensure that board members are selected based on personal merits. However, since prior studies indicated mixed results, the next hypothesis is as follows:

H7: There is a significant relationship between independent nominating committee and firm performance in period 1 and 2.

Many empirical studies in Malaysia revealed that the ownership structure of PLCs were highly concentrated and were held by a small number of individuals, families and state enterprises (Claessens et al., 2000a; Tam & Tan, 2007). These studies also noted the same observations as studies done elsewhere that is, relationship between performance and executive directors' shareholdings was not linear (Khatri et al. 2002; Tam & Tan, 2007). A study done in Malaysia showed consistent positive significant impact using three performance measures (Ngui et al., 2008). However, Haniffa and Hudaib (2006) found a negative impact using ROA while no relationship using Tobin's Q. Because of the contrasting evidences on the relationship between directors' shareholdings and performance, the following hypothesis is as follows:

H8: There is a significant relationship between executive directors' shareholdings and firm performance in period 1 and 2.

Jensen (1993) espoused that outside independent directors should be encouraged to maintain ownership in their firms and this ownership should be significant in relation to the individual director's personal wealth so as to ensure that the director recognized that his/her decisions affected their own wealth as well as the wealth of the other shareholders. Similarly, Cotter, Shivdasani & Zenner (1997) concluded independent outside directors enhance shareholder gains from tender offers, and that boards with a majority of independent directors are more likely to use resistance strategies to enhance shareholder wealth. Proponents of agency theory argued that independent directors who owned shares might mitigate agency problems caused by dispersed ownership. Bhagat and Black (2000) found positive relationship between firm performance and independent directors' shareholdings.

On the other hand, Mc Connell and Serveas (1990) failed to find such an association between market based measure and independent directors' shareholdings. Several empirical evidences (Morck, 2004; Berle & Means, 1932) pointed out that such shareholdings had negative impact on firm performance as independent directors could have a misplaced sense of loyalty to dominant CEO instead of challenging their decisions. They might corroborate with management because of their non-independence. These arguments lead us to the next hypothesis:

H9: There is a significant relationship between independent directors' shareholdings and firm performance in period 1 and 2.

Many empirical evidences demonstrated that institutional shareholders have the potential to exert positive influence on firm performance that also benefitted minority shareholders (Gillian & Starks, 2000; Li & Simerly, 1998). But in a dispersed ownership situation where there were no major blockholders, free rider problems may arise (Gugler, 2001). However, dominance of a large blockholder may also create problem by over exposing the firm to risks (Demsetz & Lehn, 1985). Yet other studies observed different investment strategies behaviour exhibited by institutional investors (Black 1992; Goyer, 2010; Maug, 1998) which contributed to contrasting results in firm performance.

Prior studies that recorded the effectiveness of the monitoring by institutional investors are many (Becht et al., 2009; Denis & Sarin, 1999; Gorton & Schmid, 2000; Del Guercio & Hawkins, 1999; Holderness & Sheehan, 1988; Joh, 2003; Leech & Leahy (1991); McConnell & Servaes, 1990; Morck et al., 2000; Park & Chung, 2007; Sarkar & Sarkar, 2000; Thomsen & Pedersen, 2000; Xu & Wang, 1999). In contrast, Woidtke 2002 noted that institutional investors may not be effective monitors as there was no single controlling shareholder to ensure that managers were doing their job. Other studies found no empirical relationship between institutional ownership and firm performance (Demsetz & Lehn, 1985; Demsetz & Villalonga, 2001; Duggal & Millar, 1999; Faccio & Lasfer, 2000; Karpoff et al., 1996; Lee, 2009; Murali & Welch, 1989; Smith, 1996; Weir et al 2002). Some observed that pressure insensitive institutional investors are more likely to discipline and vote against management rather than pressure sensitive ones (Abdul Wahab et al., 2008; Brickley et al., 1988; Cornett et al., 2007; Pound, 1988). They observed that large institutional shareholders corroborated with management when it benefitted them to do so which may result in high risk exposure and subsequently a decline in firm performance.

In Malaysia, many empirical evidences pointed to a high concentration of ownership among public listed companies (Abdul Samad, 2002; OECD, 1999). Similar mixed findings were found as other countries

(Haniffa & Hudaib, 2006; Tam & Tan, 2007). Against this backdrop, the hypothesis is formulated as follows:

H10: There is a significant relationship between institutional shareholdings and firm performance in period 1 and 2.

Prior research found that foreign owners can mitigate agency problems as they can exert much influence on management to align their interests with investors (Hingorani et al., 1997; Jensen & Meckling, 1976). The results of Che Haat et al. (2008) supported that of D'Souza et al. (2001) in that foreign ownership brought about benefits such as higher managerial talent, access to advanced technology and entry into capital markets. Similarly, Weiss and Nikitin (2004) found that when foreigners became the major shareholders of publicly traded firms in the Czech Republic, these firms experienced improvements in performance. Other empirical studies which found that firms with higher share of foreign ownership performed better than their domestic counterparts were many (Ali Yrkko & Nyberg, 2005; Baek et al. 2004; Douma et al., 2006; Park & Chung, 2007; Reese & Weisbach, 2002; Sarkar & Sarkar, 2000; Suto, 2003; Tam & Tan, 2007). Yet there are studies that found no association between the relationship between foreign ownership and firm performance, which could be due to their short-term investment view (Lee, 2009). On the other hand, foreign shareholders might not be effective monitors because of their close involvement with management in running of businesses (Redding, 1996). Therefore, this leads us to the next hypothesis:

H11: There is a significant relationship between foreign shareholdings and firm performance in period 1 and 2.

3.3 Control variables (firm-specific characteristics)

3.3.1 Firm Size

Conflicting results were obtained in prior studies; some observed that firm size was positively related to firm performance. Larger firms performed better due to risk aversion (Ghosh, 1998), more analysts following their performance and banks prefer to finance larger companies (Black, Jang & Kim, 2006; Lee, 2009), better assets utilization because of economies of scale and managerial knowledge (Himmelberg et al., 1999; Tam & Tan, 2007). On the other hand, smaller firms reported positive results because they had more growth opportunities (Anderson & Reeb, 2003; Kouwenberg, 2006), more adaptable to change which enhanced competitiveness (Hannan & Freeman, 1989). On the contrary, Cornett et al. (2007) failed to find such a link. However, Haniffa and Hudaib (2006) found mixed results using Tobin's Q and ROA. Kole (1995) examined the differences in data source used in several studies by Morck et al.(1998), Mc Connell and Servaes (1990) and Hermalin and Weisbach (1991) and concluded that differences in firm size accounted for the reported differences in those studies. Therefore, these evidences lead to the next hypothesis:

H12: There is a significant relationship between firm size and firm performance in period 1 and 2.

3.3.2 Gearing

According to agency theory, external creditors may help to reduce agency costs by disciplining management if they engaged in non-optimal activities (Jensen, 1986; Stulz, 1990). Several prior empirical findings were consistent with the implications of agency theory; debt financing were used as a CG tool to constrain opportunistic behaviour of management (Chen & Lee, 2008; Hurdle, 1974; Johnson & Mitton, 2003; Suto, 2003). Managers whose firms were financed mainly by external debts would engage in wealth generating activities to service the debts faster (Grossman & Hart, 1982) and thereby reduced cost of debts (John & Senbet, 1998; Kouwenberg, 2006).

On the other hand, results of some empirical studies yielded negative results (Chang & Abu Mansor, 2005; Claessens et al., 2000b; Dowen, 1995; McConnell & Servaes, 1995, Short & Keasey, 1999; Suto, 2003; Tam & Tan, 2007; Weir et al., 2002). Some of the reasons uncovered were managers cum shareholders may be involved in risky projects to the detriment of other stakeholders (Stiglitz & Weiss, 1981). They found that not only debt financing is an ineffective CG mechanism to control management but resulted in poorer performance.

It was found that many Malaysian firms relied on external debt to finance its operations and had established close relationships with their bankers due to political patronage (Gomez & Jomo, 1997; Suto, 2003). As such, debt was not an efficient governance tool in Malaysia. Furthermore, Tam and Tan (2007) supported the argument regarding the inability of the financial market to discipline poor performance firms due to excessive political and business relationship building. Chang and Abu Mansor (2005) also concurred with Tam and Tan. However, contrasting results were discovered by Haniffa and Hudaib (2006) using two types of performance proxies; negative significant association for the accounting measure but positively related for market measure. As previous studies have uncovered contrasting results, the hypothesis is as follows:

H13: There is a significant relationship between gearing and firm performance in period 1 and 2.

4 Research Methods

The sample in this study consists of non-financial, non-unit trusts companies listed on the main board, and second board of Bursa Malaysia (Bursa) from financial year ended 1995 to 2006. The reason for excluding financial and unit trusts companies from the

sample is due to differences in the regulatory requirement in their reporting as in the studies done by Nazrul, Rubi and Hudson (2008) and Haniffa and Hudaib (2006). Only those companies which are in

operation throughout this period are selected for this study.

 Table 1. Operationalisation of Variables

Variables	Acronym	Operationalisation
Dependent variables		
Tobin's Q	Tobin Q	Ratio of the market value of a firm to the replacement cost of firm's assets
Return on asset	(ROA)	Earnings after tax divided by total assets
Independent variables		
CG variables		
Board size	BSIZE	Total number directors in the board
Board composition	BRDC	% of independent directors in the board
Role duality of Chairman/ CEO Positions	DUAL	Dichotomous, 1 if role duality and 0 if no role duality
Audit Committee	AUDC	Dichotomous, 1 with audit committee and 0 if no audit committee
Nominating Committee	NOMC	Dichotomous, 1 with nominating committee and 0 if no nominating committee
Remuneration Committee	REMC	Dichotomous, 1 with remuneration committee and 0 if no remuneration committee
Ownership variables		
% of executive directors' shareholdings	MOWN	% of shareholdings held by executive directors'
% of institutional shareholdings	IOWN	% of shareholdings held by institutions
% of foreign shareholdings	FOWN	% of shareholdings held by foreigners
Control variables		
Firm size	LNTA	Natural logarithm of total assets
Gearing	GEAR	Total debt to total assets

The sample consists of 430 public listed companies as at 31st December 1994. The screening process finally yielded a sample of 293 companies with a panel sample of 3,516 observations across a twelve years period after excluding delisted companies over the sample period. This panel is balanced as all data are available for all the 293 companies throughout this period. Bursa Malaysia revamped its LR on January 2001 after the 1997 Asian crisis requiring companies to include in their annual statement how they have applied the principles set in Part 1 of MCCG and compliance to the best practices in Part II of MCCG, stating reasons for noncompliance.

Therefore, for this study, this sample is further divided into two groups before and after the implementation of MCCG in 2001 that is, 1995 to 2000 constitutes period 1, and 2001 to 2006 period 2 as the objective is look at the pre and post effect of implementation of MCCG. The justification for selecting the data spanning a period of six years before and after the implementation of the MCCG is to derive an equal distribution of research period. In addition, there is a dearth of research in Malaysia exploring the before and after effect of such implementation. Furthermore, most of the studies (Haniffa & Hudaib, 2006; Ngui et al 2008) conducted were merely based on data gathered over a few years (time series and cross sectional) in main board of Bursa. Consequently, it hinders a further observation and understanding on

how the pre and post effect on the firm performance after the implementation of MCCG in 2001.

There are ten independent variables, two dependent variables and two control variables. The ten independent variables are broken down into two types of structure namely corporate governance structures (board characteristics) and ownership structures (shareholdings by executive directors, independent directors, institutions and foreigners). Similar breakdown were found in prior empirical research (Anderson & Reeb, 2003; Haniffa & Hudaib, 2006; Petra, 2002).

Data on CG variables, ownership shareholdings and accounting performance measure (ROA) were hand collected from the annual reports (prior to 2001) and retrieved from the Bursa Malaysia's website (year 2001 onwards). Tobin's Q data was extracted from Bloomberg and DataStream databases. Table 1 provides a summary of the operationalisation of the variables.

The following two models are formulated based on agency and stewardship theories as well as prior research discussed in section 2. The models are estimated with inclusion of all dependent and independent variables and control variables. These comprehensive models will therefore provide better insight into the effect of these structures on the firm performance. They are namely:

4.1 Model 1

$$ROA = \alpha_0 + \beta_1(BSIZE) + \beta_2(BRDC) + \beta_3(DUAL) + \beta_4(AUDC) + \beta_5(REMC) + \beta_6(NOMC) + \beta_7(MOWM) + \beta_8(OOWM) + \beta_9(IOWM) + \beta_{10}(FOWN) + \beta_{11}(LNTA) + \beta_{12}(GEAR) + \varepsilon$$
(1)

4.2 Model 2

$$Tobin Q = \alpha_0 + \beta_1(BSIZE) + \beta_2(BRDC) + \beta_3(DUAL) + \beta_4(AUDC) + \beta_5(REMC) + \beta_6(NOMC) + \beta_7(MOWN) + \beta_8(OOWN) + \beta_9(IOWN) + \beta_{10}(FOWN) + \beta_{11}(LNTA) + \beta_{12}(GEAR) + \varepsilon$$
(2)

```
where \alpha_0
                  Intercept
        Tobin Q
                    - Tobin's Q; proxy for market return
        ROA
                    - Return on assets; proxy for accounting return
        BSIZE
                    - Board size.
        BRDC
                    - Board composition; Percentage of independent directors in the board.
        DUAL
                    - Duality; Role duality of 1 if chairperson of the board is also the chief executive officer.
                      Otherwise 0
        AUDC
                    - Audit committee; Dichotomous 1 with audit committee and 0 if no audit committee
        REMC
                    - Remuneration committee
        NOMC
                    - Nominating committee
                    - Percentage of shares held by executive directors
        MOWN
                    - Percentage of shares held by outside independent directors
        OOWN
        IOWN
                    - Percentage of shares held by local institutions
                    - Percentage of shares held by foreign institutions
        FOWN
       LNTA
                    - Natural logarithm of total assets
        GEAR
                    - Debt ratio defined as total debt to total asset
                    - Coefficient measuring relationship strength
        \beta_{1\tau o}\beta_{12}
                    - Error term
```

To test whether there is a significant difference in the extent of CG practices before and after implementation of MCCG in 2001, the parametric paired sample t-test was conducted. We used regression analysis to test the interrelationship between the various independent variables and the two measures of performance. The assumptions underlying the regression model were tested for multicollinearity based on the correlation matrix. Assumptions of multicollinearity, normality, homoscedasticity and autocorrelation will be addressed first as multivariate regression is used to test the hypotheses. The Pearson correlation matrix is used to test the multicollinearity assumption, whilst the Jarques-Bera test is used to test the normality of the variables and the Breusch Godfrey test statistic is used to test for autocorrelation. The Breusch-Pagan-Godfrey test is a Lagrange multiplier test of the null hypothesis of no heteroskedasticity.

5 Results

5.1 Descriptive statistics

The sample of 293 companies is made up of 239 companies (81.6%) in Main Board and 54 (18.4%) companies in the Second Board.

Table 2 presents the results of the test on the hypothesis that there is a significant difference in the extent of CG practices in the Malaysian companies

before and after implementation of MCCG in 2001 such as board size, board composition, role duality and board committees for the combined sector. The paired sample t-tests on all these six CG variables indicate significant mean differences between these two periods as their p-values are less than 0.05. The purpose of the test is mainly descriptive, that is to explain any significant differences between the two periods. Based on the statistical tests, we can accept the hypothesis 1 that is most Malaysian companies have increasingly complied with the recommendations suggested by MCCG.

Although six CG variables are voluntary in nature with the exception of AUDC, companies tend to comply with the best practices as recommended in the MCCG over time. This may be due to the Malaysian Corporate Governance (MCG) Index annual award, which is given to the top 100 companies that have met specific criteria in areas such as compliance, performance, and quality of disclosure. The MCG index, created by MSWG, aims to provide shareholders with information on best corporate governance practices among public listed companies in Malaysia. The other possible reasons for compliance are enhancing corporate image, receiving stakeholders support, obtaining funds easier and bandwagon effect.

Table 2. Paired Sample t-test for CG Variables

Sector /Variables	Mean Period 1	Mean Period 2	Mean difference	t-statistics	p-value
BSIZE	7.781	7.633	-0.148	-1.961	0.050**
BRDC	33.552	40.712	7.161	16.983	0.000**
DUAL	0.260	0.150	-0.110	-8.182	0.000**
AUDC	0.990	1.000	0.010	4.142	0.000**
REMC	0.008	0.807	0.799	82.689	0.000**
NOMC	0.011	0.805	0.794	81.222	0.000**

** Means are significantly different at p < 0.05

5.2 Multivariate analysis

5.2.1 Descriptive statistics

Table 3 presents the correlation matrix for the dependent and continuous independent variables. It indicates multicollinearity problem between remuneration and nominating committees. These two variables are dummy variables with value of 0 or 1.

Based on the high degree of correlation, remuneration committee is removed from the model (Gujerati, 1999).

 Table 3. Correlation Matrix of Combined Sector

Correlation	ROA	TOBINQ	BSIZE	BRDC	DUAL	AUDC	REMC	NOMC	MOWN	OOWN	IOWN	FOWN	LNTA	GEAR
1995-2000														
ROA	1													
TOBINQ	0.002	1												
BSIZE	0.161***	-0.079***	1											
BRDC	-0.11***	0.044*	-0.483***	1										
DUAL	-0.071***	0.102***	-0.108***	-0.002	1									
AUDC	-0.035	-0.044*	0.04*	0.02	-0.061**	1								
REMC	0.001	-0.032	0.038	0.022	-0.009	0.009	1							
NOMC	0.004	-0.018	0.05**	0.003	-0.027	0.011	0.594***	1						
MOWN	0.014	0.022	-0.035	-0.072***	0.072***	-0.07***	-0.034	-0.028	1					
OOWN	0.019	-0.017	0.021	-0.006	-0.011	-0.019	-0.007	-0.016	0.045*	1				
IOWN	0.102***	-0.009	0.039	0.073***	-0.025	-0.039*	0.039	0.032	-0.311***	-0.096***	1			
FOWN	0.116***	0.019	0.209***	-0.108***	-0.014	0.045*	-0.032	-0.053**	-0.169***	-0.011	-0.518***	1		
LNTA	0.133***	-0.343***	0.313***	-0.067***	-0.068***	0.122***	0.079***	0.048**	-0.18***	-0.031	0.106***	0.218***	1	
GEAR	-0.617***	-0.052**	-0.14***	0.091***	0.033	0.06**	-0.037	-0.003	0.022	-0.001	-0.089***	-0.138***	-0.039	1

^{*} Significant at the 10% level; **Significant at the 5% level; *** Significant at the 1% level.

 Table 3. Correlation Matrix of Combined Sector (continued)

Correlation	ROA	TOBINQ	BSIZE	BRDC	DUAL	REMC	NOMC	MOWN	OOWN	IOWN	FOWN	LNTA	GEAR
Correlation	KON	товиче	BSIZE	ВКВС	DUME	KEMC	Nome	MOWIN	00111	10 1111	10111	LIVIII	GL/IIC
2001-2006													
ROA	1												
TOBINQ	-0.122***	1											
BSIZE	0.185***	-0.095***	1										
BRDC	-0.081***	0.11***	-0.279***	1									
DUAL	-0.029	0.03	-0.102***	0.023	1								
REMC	0.072***	-0.152***	0.081***	0.065***	0.016	1							
NOMC	0.078***	-0.154***	0.081***	0.056**	-0.003	0.916***	1						
MOWN	0.01	-0.017	-0.071***	-0.032	0.112***	0.043*	0.045*	1					
OOWN	0.026	-0.043*	0.134***	0.017	0.018	0.047**	0.043*	0.073**	1				
IOWN	0.083***	-0.062***	0.128***	-0.058**	-0.098***	-0.029	0.001	-0.319***	-0.014	1			
FOWN	0.075**	0.126***	0.122***	-0.021	-0.033	-0.058**	-0.1***	-0.153***	-0.042*	-0.462***	1		
LNTA	0.193***	-0.244***	0.356***	-0.016	-0.025	0.038*	0.061***	-0.196***	-0.056**	0.224***	0.155***	1	
GEAR	-0.654***	0.154***	-0.155***	0.063***	-0.008	-0.129***	-0.136***	-0.011	-0.017	-0.064***	-0.073***	-0.093***	1

Table 4 presents the descriptive statistics of the performance measures and independent variables. The results show that variables are not normally distributed based on Jarques-Bera test. However, Waternaux (1976) found that underestimates of variance associated with positive kurtosis disappear with samples of 100 or more cases. In a large sample, a variable with statistically significant skewness often does not deviate enough from normality to make a substantive difference in the analysis. Tabachnick and Fidell (2007) also concurred with Waternaux because they highlighted that transformation are not globally proposed due to its complexity of interpretation. In addition, the central limit theorem states that the sampling distribution of the ordinary least square estimators is approximately normal if the sample is large (Stock and Watson, 2007)⁹. Therefore, the data need not be transformed if the sample is more than 100. Robust standard errors test is used to correct any heteroscedasticity issue (White, 1980).

It is noticeable that the mean of return on asset (ROA) tend to decrease to -0.01 in period 2 from 0.003 in period 1, which may possibly be due to the economic crisis in 1997/1998 and only rebound slowly and slightly from 2003 until 2005. It then dipped again in 2006. Whilst in the earlier years (1995 to 1997) in period 1, prior to the economic crisis, the mean of ROA was substantially higher and positive as compare to the later years. Similarly, the mean of Tobin's Q has dropped to 1.1 in period 2 from 1.7 in period 1 which seem to suggest that the public did not perceive favorably the company performance since the economic crisis. As for the continuous independent variables, the mean of board size (BSIZE) in both periods is within the size recommended by Lipton and Lorsch (1992) for board effectiveness. In period 2, the board size average 7.6, which is slightly lower than in period 1 at 7.8. On average, percentage of independent directors in the board (BRDC) has increased to 41 % in period 2 from 34 % in period 1, which is above the 1/3 recommended by the MCCG. This is because the then KLSE listing rule introduced the requirements for independent directors on boards of PLCs in 1987. It was found that the mean % of firms having role duality (DUAL) has dropped to 15% in period 2 from 26% in period 1, indicating that 85% of firms has separated the role of chairman and CEO in period 2 as compared to 74% in period 1. This is also in line with the recommendation of MCCG that the role of chairperson and CEO should be separated for better governance. Generally, role duality is uncommon in Malaysia as concurred by Haniffa and Hudaib (2006) and Classens and Fan (2002). All the firms have audit committees (AUDC) in period 2 in compliance with the Code whilst in period 1, presence of audit committee is found in 99% of the firms. The then

KLSE¹⁰ listing rule requires the establishment of audit committees in PLCs in 1993. On average, the number of firms that formed remuneration committee (REMC) has increased dramatically to 81% in period 2 whilst only 0.8% in period 1. Similarly, there is a substantial increase in the number of firms that formed nominating committees (NOMC) from 81% in period 2 whilst only 1.1% in period 1. The executive directors hold, on average, about 5 % of the outstanding shares (MOWN) in their firms for both periods. The mean value of percentage ownership by independent directors (OOWN) is only marginal as compared with other shareholders, that is, 0.4 % in period 1 and then declined sharply to 0.2% in period 2. According to LR, independent shareholders cannot be a major shareholder and therefore, their ownership cannot exceed 5% of the aggregate of the nominal amounts of all the voting shares in the company. In contrast, the mean of institutional ownership (IOWN) averaging across all firms has increased to 53 % in period 2 from 52% in period 1 but the increase is only slightly. This shows that Malaysian firms have concentrated ownerships as concurred by results shown in Claessens and Fan (2002), Haniffa and Hudaib (2006) and Tam and Tan (2007). On the other hand, the average percentage foreign ownership (FOWN) has decreased to 10 % in period 2 from 15% in period 1. The mean for the natural logarithm of total assets size of the firms (LNTA) has increased significantly from 8.6 in period 1 to 8.7 in period 2. The mean for the gearing ratio (GEAR) in period 2 is 54.9% as compared with 52.4% in period 1, which implies that companies are more geared in period 2.

 $^{^{\}rm 10}$ Previously the Stock Exchange of Malaysia is known as KLSE



⁹. Sample size of > 100 is considered large

Table 4. Descriptive Statistics of Variables for Combined Sector

Variables	Mean	Std Dev.	Min	Max
1995 to 2000				
ROA	0.003	0.233	-5.411	2.079
Γobin Q	1.707	1.940	0.189	38.293
BSIZE	7.781	2.383	3.000	18.000
BRDC	33.552	13.336	6.670	100.000
DUAL	0.260	0.439	0.000	1.000
AUDC	0.990	0.098	0.000	1.000
REMC	0.008	0.089	0.000	1.000
NOMC	0.011	0.106	0.000	1.000
MOWN	5.353	11.131	0.000	73.750
OOWN	0.357	2.270	0.000	7.1180
OWN	51.860	22.596	0.000	98.480
FOWN	15.123	18.517	0.000	90.000
NTA	8.601	0.668	6.019	10.712
GEAR	0.525	0.394	0.009	5.253
2000-2006				
ROA	-0.010	0.227	-5.215	0.887
Tobin Q	1.084	0.737	0.305	13.839
BSIZE	7.633	2.077	2.000	18.000
BRDC	40.712	11.606	0.000	100.00
UAL	0.150	0.360	0.000	1.000
AUDC	1.000	0.000	1.000	1.000
REMC	0.807	0.400	0.000	1.000
NOMC	0.805	0.400	0.000	1.000
IOWN	5.509	11.100	0.000	60.250
OOWN	0.182	0.640	0.000	8.130
OWN	53.066	22.060	1.990	97.730
FOWN	9.800	15.620	0.000	81.950
LNTA	8.699	0.670	5.940	10.810
GEAR	0.549	0.900	0.010	20.110

The sample consists of 3,516 annual observations for 293 companies from 1995 to 2006. BSIZE = board size; BRDC = Board composition; DUAL = role duality; AUDC = audit committee; REMC = remuneration committee; NOMC = Nominating committee; MOWN = shareholding by executive directors; OOWN = shareholding by independent director; IOWN = shareholding by institutional investors; FOWN = shareholding by foreign investors; LNTA = firm size; GEAR = gearing (total debts/ total assets).

The multivariate regression results shall be discussed using fixed effect regression method for the two models. Pooled OLS is not appropriate as

demonstrated by the redundant fixed effects test as shown in Table 5.

Table 5. Redundant Fixed Effects Tests

Dependent variable	ROA	Tobin Q
1995-2000		
F- statistic	2.875	4.596
<i>p</i> -value	0.000	0.000
2001-2006		
F- statistic	1.717	2.573
<i>p</i> -value	0.000	0.000

5.3 Results Based on Accounting Measure

Table 6 reports the results of the regression analysis based on accounting performance, ROA. The adjusted R² for period 1 was 0.630 and for period 2 was 0.634, indicating that the fraction of the sample variance of ROA is explained better by the corporate governance variables in period 2.

Board size (BSIZE) is found to have a significant and negative relationship with ROA at 5% level (p<0.05) in period 1. The negative result supports the findings of Yermack (1996) and Lipton and Lorsch (1992) that smaller boards are perceived to be more effective as compared to bigger boards as over sized boards may give rise to coordination problems. Lipton and Lorsch recommended a board size of eight to nine, which is similar to the mean board size of this study. In contrast, the regression estimate show a positive and significant association between firm performance and board size in period 2 at the 5% level, consistent with several studies (Goodstein et al., 1994; Pearce & Zahra, 1992; Pfeffer, 1987). Bigger boards provide diversity and skills that would help companies to secure critical resources and reduce environmental uncertainties. Thus hypothesis 2 is supported in both periods. MCCG does not prescribe any optimum board size but leave it to individual firm to decide on its appropriate board size.

Contrary to expectation of MCCG and agency theory, the effect of board composition (BRDC) on firm performance yields a significant and negative relationship with ROA at the 1% level in period 1. The negative result is consistent with the findings of Goodstein et al. (1994) that having a high percentage of independent directors may stifle strategic actions, lack business knowledge to be truly effective and lack real independence (Demb & Neubauer, 1992) or they may be coerced by management to be passive in return for an attractive reward in the company (Abdullah, 2006; Cho & Kim, 2007; Ngui et al., 2008). Based on this finding, hypothesis 3 is supported in period 1.

Interestingly, role duality is significantly related to firm performance in both periods at the 1% (p<0.01) level. The negative result is similar to the findings of Haniffa and Hudaib (2006) and Jensen (1993) who observed that role duality gives too much unfettered power of decision to only one individual. Such power may most likely cause him to pursue his own interests instead of shareholders. Agency theory advocates the separation of role as role duality reduce the monitoring effectiveness of the board over management. In similar vein, MCCG also exhorts PLCs to separate the role of chairperson and CEO. Looking at Table 4, the percentage of role duality has dropped from 0.26 in period 1 to 0.15 in period 2, which implies that 85 % of PLCs in Malaysia have separated the two roles in period 2. Thus hypothesis 4 is supported in both periods.

Executive directors' shareholding (MOWN) is found to be significantly related to ROA, at the 1%

level (p<0.01) for both periods. The positive regression coefficient implied that executive directors' shareholding provide incentive for alignment of management and shareholders' interests resulting in better firm performance as confirmed by Jensen and Meckling (1976). This finding supports agency theory, which advocates the adoption of good CG practices to discipline any expropriation behavior of management. Thus, hypothesis 8 is supported in both periods.

Shareholding by independent directors (OOWN) is found to be significantly related to ROA at the 1% level (p< 0.01) in both periods. The positive results in both periods confirm with the findings of Jensen (1993) and Cotter et al. (1997) that firm performance increase as the level of independent directors' shareholding increases. It supports the belief that independent directors will check on the opportunistic behavior of management as shareholdings of independent directors increases This finding supports agency theory that such shareholdings is an effective internal CG mechanism. Thus, hypothesis 9 is supported in both periods.

Interestingly, the results demonstrate effective monitoring role on management by the institutional and foreign investors as indicated by the significant positive relationships at the 1% level (p< 0.01) in both periods. The findings confirm the observations of several studies (Lee, 2009; McConnell & Servaes, 1990; Nesbitt. 1994) that institutional investors improve firm performance by mitigating agency problems as these investors have greater incentives to prevent managers from self-serving behavior. In the case of foreign shareholdings, the positive result is consistent with prior empirical findings (Sarkar, & Sarkar, 2000; Tam & Tan, 2007; Weiss & Nikitin, 2004) that foreign shareholders are effective monitors and therefore discourage managers from extracting private benefit. In addition, the presence of foreign investors in a firm is associated with higher managerial talent, access to advanced technology and capital markets, greater operational efficiency and entry into lucrative markets (D'Souza et al., 2001). This evidence leads to the support of hypotheses 10 and 11 in both periods.

The empirical results confirm the significant relationship between firm size (LNTA) and firm performance at the 1% level (p<0.01) for both periods. The positive result supports prior research findings that larger firms can secure loans easier, diversify their risk, under pressure to perform as more analysts following, growth in assets are better utilized with greater managerial experience & economies of scale (Black et al., 2006b; Ghosh, 1998; Lee, 2009; Tam & Tan, 2007). Thus, hypothesis 12 is supported in both periods.

It is interesting to note that the result indicate a significant relationship for both periods in the combined sectors between gearing (GEAR) and ROA at the 1% level (p<0.01). The negative result suggests that higher leverage leads to poorer performance

which supports the argument that banks and creditors may not be effective monitors because of their close working relationship with management and they may also have multiple directorships in other firms which may compromise their commitment to the firm (Claessens et al., 2000b; Suto, 2003). Past research also found that in cases of excessive debt financing, equity owners may encourage firms to engage in risky projects to the detriment of other investors (Dowen, 1995; McConnell & Servaes, 1995; Short & Keasey, 1999; Tam & Tan, 2007; Weir et al., 2002). Thus, hypothesis 13 is supported in both periods.

5.4 Results Based on Market Measure

Table 6 reports the results from the regression equation linking CG and market performance based on Tobin Q. The adjusted R² for period 1 was 0.532 and for period 2 was 0.355, indicating that the fraction of the sample variance of Tobin's Q is explained better by the corporate governance variables in period 1.

The empirical results indicate a significant relationship between board size and Tobin Q in period 2 at 1% level (p<0.01) with positive regression coefficient, a finding which is consistent with accounting based measure, ROA in the same period. Apparently, the market believe that bigger boards improve firm performance as larger board brings a wealth of skills and experience into the companies thus confirming the findings of Haniffa and Hudaib (2006) and Goodstein et al. (1994). Thus, hypothesis 2 is supported in period 2.

The evidence indicate a strong significant relationship at 1% level (p<0.01) in both periods between the percentage of independent directors in the board with firm performance in the combined sector. The positive results support the belief held by Byrd and Hickman (1992) that deviations from value maximizing decisions will decline as percentage of independent directors in the board increases. Apparently, market views increases in the percentage of independent directors in the board favorably as they believe that independent directors are effective monitors of management, which is contrary to the results using accounting return. This finding supports agency theory. Thus, hypothesis 3 is supported in both periods.

Unlike accounting performance results, role duality is found to be significantly related to firm performance but in the positive direction in period 1 and 2 at 5% level (p<0.05) and 1% level (p<0.01) respectively. It appears that the market believe that role duality helps in enhancing decision making and CEO can make quick decisions with minimal board interference which supports stewardship theory (Dahya et al., 1996; Stewart, 1991). Thus, hypothesis 4 is supported in both periods.

In contrast with the accounting based measures, hypotheses 8 and 9 are not supported as it failed to find a link between shareholding by executive

directors and independent directors and firm performance. This could be an indication that the market does not perceive that with such small shareholdings held by independent shareholders will warrant them to play an effective role in monitoring managers. As such, the results show no significant relationships, which are consistent with other prior studies (Chen et al., 2005; Holderness, 2003; Petra, 2002).

The positive results obtained for both periods are identical with accounting based performance measures in that relationship is significant at 1% level (p<0.01). This implies that the market perceives institutional investors to be good monitors on management as they focused more on firm performance and less on self serving behavior (Guercio & Hawkins, 1999). Therefore it can be concluded that the market perceive favorably the governance role played by the institutional investors in aligning the interests of management with that of shareholders. Thus, hypothesis 10 is supported.

The results revealed that the market performance improve significantly in both periods at 1% level (p<0.01) as the level of foreign shareholding increases implying that they are able to minimize self-serving behavior of management. Tam and Tan (2007) also found such relationship in their study. Thus, hypothesis 11 is supported.

It is interesting to note that the control variable, firm size (LNTA) has a significant influence on Tobin's Q at 1% level (p<0.01) for both periods. The negative regression coefficient supports the findings of Anderson and Reeb (2003) and Haniffa and Hudaib (2006) suggesting that the market perceives smaller firms to be better performers as they are more creative, innovative and ready to change in order to increase firm performance. However, this finding is in contrast with that of accounting based measures where bigger firms seem to produce favorable results. Thus, hypothesis 12 is supported in both periods.

The significant and positive relation between gearing (GEAR) and Tobin's Q for both periods at 5% level (p<0.05) in period 1 and 1% (p<0.01) in period 2 also indicates that the market is more confident with the monitoring by firms' creditor which confirms prior studies (Che Haat et al., 2008; Haniffa & Hudaib, 2006; Jensen, 1986). However, this result is contrary to that of accounting based measures where high geared companies (high debt to asset ratio) may cause management to throw prudence aside to choose riskier project and hence, leading to poorer firm performance. In the same vein, Claessens et al. (2000a) argued that the close relationship between major finance providers and management resulting in preferential deals might lower incentives for banks to monitor. Thus, hypothesis 13 is supported for both periods.

Table 6. Fixed Effect Regression Results

Maniahlas	Period 1	(1995-2000)	Period 2 (2	2001-2006)
Variables	ROA	Tobin Q	ROA	Tobin Q
DOICE	-0.002**	0.003	0.002**	0.020***
BSIZE	(-2.509)	(0.300)	(2.519)	(4.352)
DDDC	-0.001***	0.006***	-0.000	0.005***
BRDC	(-3.383)	(4.890)	(-0.807)	(7.515)
DILAI	-0.016***	0.077**	-0.009***	0.077***
DUAL	(-4.871)	(2.446)	(-2.658)	(3.126)
NOMO	0.013	-0.003	-0.006	0.042
NOMC	(1.122)	(-0.017)	(-0.791)	(0.967)
MOWN	0.001***	0.002	0.001***	0.000
MOWN	(7.948)	(1.309)	(4.879)	(0.092)
OOWN	0.002***	0.002	0.006***	-0.013
OOWN	(3.352)	(0.477)	(3.404)	(-1.227)
IOWN	0.001***	0.004***	0.001***	0.002***
IOWN	(10.582)	(5.353)	(4.228)	(4.923)
FOWN	0.001***	0.012***	0.001***	0.007***
FOWN	(9.307)	(7.336)	(3.281)	(10.047)
I NIT A	0.031***	-0.684***	0.032***	-0.232***
LNTA	(8.604)	(-13.22)	(11.239)	(-9.048)
GEAR	-0.247***	0.126**	-0.147***	0.144***
UEAK	(-20.835)	(2.600)	(-19.581)	(4.170)
Adjusted R ²	0.630	0.532	0.634	0.355
F-statistic	10.84	7.56	11.28	4.18
Prob (F-statistic)	0.00	0.00	0.00	0.00

The standard errors reported are robust standard errors .t-statistics is in parentheses.

BSIZE = board size defined as the number of directors in the board. BRDC = board composition defined as the percentage of independent directors in the board. DUAL = role duality define as t the separation of role between chairman and CEO NOMC = defined as the presence of nominating committee. MOWN = the shareholding by executive directors (ED) defined as the % of shares held by ED. OOWN = shareholding by independent directors (IND) defined as the % of shares held by IND. IOWN = shareholding by institutional investors (II) defined as the % of shares held by II. FOWN = shareholding by foreign investors (FI) defined as the % of shares held by FI. LNTA = logarithm of total assets. GEAR = gearing defined as the total debt over total asset.

6 Conclusions

6.1 Overview of findings

This study examined the extent of corporate governance (CG) practices before and after the implementation of MCCG in 2001, and whether there is an association between performance and three groups of independent variables: CG & ownership variables and firm specific (control) variables. Descriptive analysis of the longitudinal study and the results of the paired sample t-test indicated significant differences in the extent of CG practices for the two periods before and after implementation of MCCG in 2001 despite minimal legislative guidance for some of these practices with the exception of the establishment of audit committee. Some of the possible reasons of companies choosing comply to recommendations of MCCG include getting awards,

enhancing corporate image, receiving government support, obtaining funds and a bandwagon effect. Regression analysis is used to explain variability in the dependent variable with the explanatory variables being CG and ownership variables with companyspecific factors acting as control variables. Two different dependent variables are used in the regression models: ROA and Tobin's O. The results based on ROA suggest that board size affected performance differently for both periods; larger board is seen as less effective in monitoring performance before implementation of MCCG as this could be costly for companies in terms of compensation. However, after implementation of MCCG, larger board seemed to provide companies with the diversity in experience and expertise in improving performance. Similarly, results based on market measure seem to suggest that larger boards are perceived to enhance performance after the implementation of MCCG.

^{*} Significant at the 10% level; **Significant at the 5% level; *** Significant at the 1% level.

Therefore, it is best left to each company to assess its appropriate board size as MCCG does not recommend the optimum board size.

Based on the market measure regression model, the results indicate that the composition of non-executive directors is statistically related to market performance for both periods. This implies that Malaysian companies with board dominated by non-executive directors played an effective monitoring role on performance. However, the accounting model seemed to suggest the limited role of the non-executive directors in the first period only. It is not significantly related in period 2. The recommendation by MCCG to have at least one third non-executive director board representations should be adhered and independent directors must be constantly reminded to discharge their duties in the best interests of the shareholders during their training.

As for role duality, it is noticeable that there is a negative relationship at the 1% level for both periods based on the accounting model. This suggests that role duality gives too much unfettered power of decision to only one individual, which may cause him to pursue his own interests instead of shareholders. However role duality were also significantly related to market performance measure but in the positive direction which seems to suggest that the market perceive that role duality helps in enhancing decision making and CEO can make decisions with minimal interference. The results support stewardship theory. As the findings yield contradictory results for both models, it is deemed best to leave to individual company to decide on this issue.

Interestingly, only accounting regression model seems to indicate that managerial and independent directors' ownership improves performance for both periods. Therefore, companies must factor in stock option in the remuneration package for executive directors as well as independent directors so that theirs and shareholders' interests are aligned.

The results show a strong positive relationship between institutional and foreign investors on firm performance for both regression models. These two groups of investors should be enlisted to engage actively in its monitoring role on management because of their sizable ownership stake in the organization. They can further strengthen corporate governance practices in the firms.

Notwithstanding the findings, the current study suffers from the following limitations that would potentially represent opportunities for further investigations. Firstly, the key limitation in the study is that the ownership identities of large shareholders has not been identified as they may have different investment objectives and strategies, and culture, which will affect firm performance and possibly the type of CG mechanisms employed. Further analysis can also be done to distinguish between those investors that may have business relationships with the firms and those that have no such relationships. It will

also be interesting to look at the effect of employee ownership on firm performance.

Secondly, the issue of causality has not been explored, for example, the causal relationship between CG and ownership structure and firm performance should be studied further so as to predict the cause and effect relationship more accurately. It is beneficial to carry out different types of causality tests such as Granger (1988) to understand the cause and effect of the relationship.

Finally, the current study used the fixed effect model in which the estimator is sensitive to nonnormality, heteroscedasticity and serial correlation in idiosyncratic errors (Wooldridge, 2009:488). A more dynamic panel data methodology such as generalised methods of moments (GMM) may be used in future research, which is more powerful and can eliminate biasness and inconsistency (Wooldridge, 2001).

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