

BOARD ATTRIBUTES AND PERFORMANCE OF GOVERNMENT-LINKED COMPANIES (GLCS): EVIDENCE FROM AN EMERGING ECONOMY

Ahmad Fahmi Sheikh Hassan*, Yusuf Karbhari**, Ahmad Afendi Mohamad Isa***, Nazrul Hisyam Ab Razak*

*Department of Accounting and Finance, Faculty of Economics and Management, Universiti Putra, Malaysia

**Cardiff Business School, Cardiff University, Cardiff, United Kingdom

*** Ministry of Foreign Affairs, Putrajaya, Malaysia



Abstract

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Government linked companies (GLCs) play a unique role in the Malaysian public sector and are perceived to be the key drivers of the economy wielding influence in the financial market. This study investigates the impact of an important governance mechanism, i.e. the board of directors on performance of 32 Malaysian listed GLCs for the period 2008 to 2013. The board attributes examined include board size, board structure, board independence, board competence, board meetings and directors' equity ownership. The three proxies of financial performance employed are return on assets (ROA), return on equity (ROE) and earnings per share (EPS) with firm size and leverage being used as control variables. We find board size to have a positive but insignificant relationship with ROA whilst board structure, board independence and board competence indicate a positive relationship with ROE. Board competence also shows a positive relationship with EPS. However, board independence and directors equity ownership report a significant inverse relationship with ROA. A possible explanation is that independence and controlling stake of the board could not influence board strategy formulation and business decisions as government maintains full authority and final say on matters. Overall, the study contributes to the growing body of literature especially relating to Government linked companies.

Keywords: Board of Directors, Corporate Governance, Government-Linked Companies, Performance, Malaysia

1. INTRODUCTION

A plethora of studies have measured the influence of corporate governance mechanisms on firm performance which reveal that well-governed firms perform better and have higher market values (see for example Brickley et al., 1994; Agrawal and Kneober, 1996; Hossain, Cahan and Adams, 2000; Lee, Rosenstein, Rangan and Davidson, 1992; Bauer et al., 2003, Abdallah and Ismail, 2016; Curi, Gedvilas and Lozano-Vivas, 2016). Agrawal and Kneober (1996) claim that a study conducted by McKinsey and Company on over 200 Institutional Investors revealed that 80 per cent of respondents were willing to pay a higher premium for well-governed companies. This indicates that well-governed companies, which generate economic efficiency, are favoured by investors. Recently, Curi et al. (2016) in their study of Lithuanian State Owned Enterprises (SOEs) introduction of corporate governance reforms found that overall corporate

governance practices are efficiency-enhancing and more specifically, board quality and strategic planning were valuable internal mechanisms in promoting overall organizational efficiency. Focusing on highly concentrated ownership, Abdallah et al. (2016) found a positive relationship between governance quality and performance of listed firms with large government ownership in the Gulf Cooperative Council (GCC) region.

In a Malaysian context, there have been a number of weak corporate governance practices as demonstrated in the case of Perwaja Steel, Renong, Malaysia Airlines System (MAS) and, more recently, 1Malaysia Development Berhad or (IMDB) which have all, incrementally, tarnished the image of Malaysian government-owned corporations. However, to date, there is a general lack of literature relating to corporate governance in Malaysian government-linked companies (GLCs) despite the fact that these organisations play a key role in driving the Malaysian economy (Lau and Tong, 2008;

Mohd Alwi and Abdul Khalid, 2009). In fact, the market capitalization of GLC's has increased 3.2 fold to RM431 billion from 2004 to 2015, making them the main contributors to the Malaysian economy over last 10 years⁴. Furthermore, GLCs play a vital role in enhancing the standard of living of Malaysian society as their products and services are related to basic necessities such as electricity, water and energy, food, car manufacturing, provision of healthcare as well as human capital development. Consequently, there is a growing expectation from society at large that GLCs must be transparent, high performance-based, allow equal opportunity and demonstrate diversity and integrity. It therefore becomes important to examine the performance of GLCs from the perspective of corporate governance attributes as this can reveal the strengths and weaknesses of such companies. In addition, exploring the link between corporate governance and performance is important in formulating effective corporate management and public regulatory policies. Several studies have previously been undertaken that examine the relationship between corporate governance mechanisms and firm performance (see Ghazali, 2014; Razak and Palahuddin, 2014; Shukeri, Shin, and Shaari, 2012). However, these studies have only focused on Malaysian privately listed companies. To the best of our knowledge, this is the first study that examines the attributes of BOD's in the context of GLC's and is thus, this study's main contribution. In this study, we investigate the relationship between corporate governance attributes by focusing on six board characteristics namely; board size, board structure, board independence, board competency, frequency of board meetings and finally equity ownership and firm's performance in Malaysian GLCs. We formulate six distinct hypotheses to test whether corporate governance mechanisms in Malaysian GLCs contribute to board effectiveness and efficiency in monitoring management's action to maximize shareholder value.

We believe this study adds to the literature in a number of ways. First, this research extends our understanding of the impact of board characteristics towards performance specifically in a GLC setting. Second, since only a few studies have been previously conducted in this field of research especially from a GLC and an emerging country's perspective, this study fills an important gap in the literature. Third, from a practical standpoint, this study provides insight into the corporate governance practices of GLCs, for instance, in terms of board size, the findings could provide guidance to shareholders and managers in determining the appropriate number of directors that should be on the board to effectively contribute towards better performance.

Our findings indicate that from a GLCs perspective, a larger board and its composition does not act as assurance towards effective monitoring and reducing corporate issues that significantly affect performance. However, the fact that an

independent and effective board of directors play an important role in motivating and monitoring managers to perform according to shareholders' interests, thus minimizing agency problems inevitably leads the firm towards better performance. In addition, since the result of this present study indicates a negative relationship between corporate governance attributes and performance of Malaysian GLCs, this may provide opportunities for future researchers to investigate other potential factors that can extend current literature. Finally, input from this study could assist government and policy makers such as the Putrajaya Committee on GLC High Performance or PCG⁵ in improving overall corporate governance practices in Malaysia. Given that GLCs' operational and managerial practices are more complicated when compared to public companies; its governance practices should be tailored to suit the distinct needs in terms of organisational culture and political environment.

The remainder of this paper is as follows. Section 2 discusses background of GLCs in Malaysia and the mainstream literature related to board governance attributes and the hypotheses to be tested. Section 3 discusses the research methodology and how the variables are measured. Section 4 reports the findings and finally, Section 5 reports the conclusion and outlines the study's main limitations and prospects for future research.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This section reviews the literature relating to governance issues of board of directors in government linked companies (GLCs). It commences with a discussion on the background of Malaysian GLCs and followed by a discussion on the relationship between board of directors, governance attributes and firm performance.

2.1. Background to Malaysian GLCs and governance landscape

Government-Linked Companies (GLCs) are defined as companies that primarily have a commercial objective and where the Malaysian Government has a direct controlling stake of more than 50%. This allows the government to make direct and important decisions for GLCs when appointing Board of Directors (BOD) and when appointing other senior management personnel. This allows government to exercise influence on the operational

⁵ The Putrajaya Committee on GLC High Performance (PCG) was established with the clear aim of transforming GLCs to become high-performing entities to benefit the future prosperity of Malaysia. The main objective of the PCG is to implement policy and provide guidelines to transform GLCs to high performing companies. PCG launched a GLC Transformation Program in 2005 and ended 28 July 2015 with the purpose of stimulating the development and growth of the economy. Several guidelines and initiatives of the program are implemented such as Key Performance Indicators (KPI), board composition, strengthening director's capabilities, enhancing productivity of organizations and others. The above elements are part of government efforts to introduce a performance based culture gearing these companies to becoming high-performing companies.

⁴Speech by the Malaysian Prime Minister Datuk Seri Najib Tun Razak at Invest Malaysia on April 23, 2015. Retrieved from The Star Online <http://www.thestar.com.my/business/business-news/2015/04/23/pm-speech-at-invest-malaysia/>

activities of GLCs via Government Linked Investment Companies (GLICs). GLICs are the Federal Government linked investment companies that allocate some or all of their funds to GLC investments. GLCs would then leverage the funds in constituting significant activities on behalf of the nation's economy. In Malaysia, GLCs employ an estimated 5% of the national workforce and account for approximately 36% and 54% respectively of the market capitalization of Bursa Malaysia and the benchmark Kuala Lumpur Composite Index (KLIC) in 2013. Even with active divestment and privatization, GLCs remain the main service providers to the nation in the strategic utilities and services comprising electricity, telecommunications, postal services, airlines, airport, public transport, water and sewerage, banking, and financial services.

Several researchers have concluded that it was the lack of good corporate governance which contributed to the 1997/1998 economic crisis in the East Asian Region (Claessens and Djankov, 1999; Mohammed et al., 2006; D'Cruz, 1999). As a result, in March 2000, the government introduced the Malaysian Code on Corporate Governance (MCCG), which identified the framework of best practice in corporate governance. One of the objectives of the Code is to improve corporate transparency and disclosure, so that users of annual reports (e.g. shareholders, potential investors and other stakeholders) will be able to obtain more timely and accurate information to make informed decision. Since then, the development of Malaysian corporate governance has progressed on a periodic basis whereby it was revised subsequently in 2007 and 2012 with enhanced features on corporate governance practices. MCCG 2012, for example, clarifies the role of the board in providing leadership, enhancing board effectiveness through strengthening its composition and reinforcing its independence. Presently, in 2016, the Securities Commission Malaysia (SCM) released the proposed draft MCCG 2016 for public consultation which is aimed to encourage progression and emphasizes on conduct and outcomes from corporate governance practices.

2.2. Board of directors governance attributes

The relationship between corporate governance and firm performance is varied and complex as there is no pattern to explain its relationship in a single characteristic or governance theory (Wan Yusoff and Alhaji 2012). Hence, there are studies which have identified board of directors' attributes that may influence firm performance. These attributes are discussed below.

2.2.1. Board size

Board size measured as the number of directors sitting on the board (see for example Jensen, 1993) is an important governance attribute that can have influence on overall board performance and may have effect on management discipline. Empirical evidence on the impact of board size and firm performance remains inconclusive and has been a matter of continuing debate. Several studies found a positive relationship between board size and firm performance. For instance, a study by Jackling and

Jhol (2009) on 180 large corporation in an emerging market India explored the positive impact of board size on firm performance measures ROA and Tobin's Q. Similar result studied by Belkhir (2009) found the robust empirical evidence of positive effect of board size in banking industry on ROA and Tobin's Q. Dalton *et al.* (1999) revised 27 studies published over the last 40 years which covers more than 20,000 firms; found positive correlation between corporate governance and firm performance. Eisenberg *et al.* (1998), Vafeas (2000) and Ghosh (2006) argued that smaller board size is associated with better firm performance. In contrast, empirical studies also provide evidence of a negative relationship between board size and firm performance. Yammeesri *et al.* (2010), however, found that there is no connection between board size and firm performance. The mixed results serve as evidence that the relationship between board size and firm performance is inconclusive. One possible reason of the contradicting results is the endogeneity of some factors in the firm performance model (Wan Yusoff and Alhaji, 2012). Thus, it is assumed that board size should consist of sufficient members to effectively discharge the duties and responsibility and closely monitor a firm's operation which ultimately leads to better firm performance. The above discussion contributes to our first hypothesis:

H1: There is positive relationship between board size and the performance of Malaysian GLCs.

2.2.2. Board leadership structure

Chief executive officer (CEO) duality is a situation whereby there is no separation of responsibilities between CEO and chairman when the CEO also serves as a chairman. Many studies have been conducted to find evidence regarding the relationship between CEO duality and firm performance. Some of the empirical findings were in favour of and some against CEO duality. For example, Leng and Abu Mansor (2005) signified that firms with dominant CEO who holds both positions of CEO and chairman of the board can improve firm performance significantly as compared to firm that do not combine the two position. Similarly, Tin Yan and ShuKam (2008) report a positive relationship between duality roles and firm performance.

In Malaysia, as elsewhere, the MCCG recommends the separation roles of the chairman and CEO and a decision to combine these two roles should be publicly explained (Abdul Razak and Mustapha, 2013). A study conducted by Rahman and Haniffa (2005) and Abdullah (2006), showed that there is no impact of duality in the role of chairman and CEO on the performance of Malaysian companies. Similarly, a study conducted by Hashim and Devi (2008) on the top 200 Malaysian public listed non-financial companies indicated that there is no significant relationship between duality and firm's performance. Given this literature review and the requirement stated by MCCG whereby the position of chairman and CEO should be held by different individuals, it is assumed that non-duality role of CEO could reduce the strong individual power base, which would improve management integrity and subsequently improve firm

performance. Hypothesis two below formally presents the discussion and leads to the following:

H2: There is a positive relationship between board leadership structure and performance of Malaysian GLCs.

2.2.3. Board independence

The structure of a Board of directors can play a central role in a corporate governance system and is in fact considered as a primary means for stakeholders to exercise control over top management (Kose and Senbet, 1998; Jackling and Juhl, 2009). Bliss (2011) defined independent directors, which are also known as Non-executive Directors (NEDs), as board members who do not have any association with the organisation they work with, except for their directorship and possibly holding a small amount of company stock. Empirical findings on the relationship between the proportion of NEDs and firm performance are very mixed. Zong-Jun and Xiao-Lan (2006) found that a large proportion on non-executive directors on board has a negative relationship with the probability of distress among firms in China. In Malaysia, Salleh and Stuard (2005) mentioned that a higher percentage of non-executive directors had led to a better auditing system and enhanced financial reporting timelines. In contrast, Haniffa and Hudaib (2006) found that non-executive directors in Malaysia had no association with the performance of Malaysian firms. According to them, in most developing countries including Malaysia, independent directors are not appointed based on their experience and expertise, but merely to serve a political agenda in order to legitimize and facilitate business activity which include contacts and potential contracts. Several other studies such as (Hermalin and Weisbach, 1991; Agrawal and Knoeber, 1996) also find negative association between board independence and firm performance.

The Malaysian Code on Corporate Governance 2012 replaced the Malaysian Code on Corporate Governance 2007 and is aimed at strengthening further aspects of board structure, board independence and composition and recognizing the role of directors and responsible fiduciaries. Furthermore, Bursa Malaysia Listing Requirement (2008) required all public listed companies in Malaysia to have at least one third of their board of directors with independent non-executive directors. Thus, given the literature review and the emphasis of having independent NEDs on board by MCCG, it is assumed that boards that are structured to have more independent directors are effective in monitoring the management performance and thus lead to better firm performance. Hence it is reasonable to hypothesize that:

H3: There is a positive relationship between board independence and the performance of Malaysian GLCs.

2.2.4. Board competency

Board competency⁶ and effectiveness refers to the degree to which a board meets its objectives. There

is no comprehensive study that has been carried out to determine the relationship between board competency and firm performance; however, the few that are available provide some insights on this matter. Rosen (2003), for example, indicated that high profile corporate scandal especially in manipulating financial reports is caused by directors who lack technical-financial knowledge to understand the complicated report and not because of the directors' lack of independence in monitoring the firm's management. This finding was further supported by Buckley et al. (2003) who added that business failure is mainly due to the ignorance among independent directors on matters related to derivatives policy.

Meanwhile, Agrawal et al. (2005) argued that the likelihood of earnings restatement is lower in firms whose boards of directors consist of independent directors with accounting or finance background. In addition, Xie et al. (2003) and Sarkar et al. (2008) also provide supported evidence on benefit of having directors with financial background. According to them, board members with corporate and financial background are effective in restricting earning management as it is associated with smaller discretionary current accrual. Thus, companies with board members who are competent and equipped with knowledge in their firm's business environment seem to perform better monitoring job and able to make sound decision which subsequently lead to better firm performance. Hence, hypothesis four summarises the argument as follows:

H4: There is positive relationship between board competence and the performance of Malaysian GLCs.

2.2.5. Board meetings' frequency

Board meetings refer to the gathering of directors on the board to discuss issues regarding the firm. The board meeting serves as a platform to discuss and plan strategies among board members to monitor and to control company's management as well as to improve the company business. It is measured as the frequency of board meetings during a year by a firm board of directors (Vafeas, 1999b; Jackling and Juhl, 2009; Shawtari et al., 2016). The frequency of meetings can provide useful indication to ascertain whether the board of directors is an active or passive board. However, empirical findings as to the effect of corporate board meetings on firm performance are varied and mixed.

One theoretical proposition is that a higher quality of managerial monitoring results from higher frequency of board meetings which affects positively on corporate performance (Vafeas, 1999a). Similarly, Vafeas (1999b) acknowledged that board meetings which were held regularly allow directors more time to discuss, set strategy and to appraise managerial performance. Gabriellson and Winlund (2000) suggested that board meetings must be held as frequent as possible to let the board

agency conflict (see for example Hoffmann, 1999). In this paper, we use educational level as the measurement for the impact of board competency on firm performance.

⁶ Board competency has been defined as the ability of the board to utilize its collective knowledge, skills, and attributes in order to mitigate the impact of

receive continuous reports concerning the company's situation. However, several theoretical views found that board meetings are not necessarily positively contribute towards a firm's performance. In fact, Jensen (1993) argued that, in well-functioning firms, the boards are relatively inactive and demonstrate less conflict. Meanwhile, Vafeas (1999b) documented a negative association between the number of board meetings and performances. It was translated by the notion that frequent board meetings are value less by the market. The underlying rationale behind this finding is that too frequent meetings are a signal of less efficient board as well as some communication issues among board members.

Thus, for the purpose of this study, we take the position that frequent board meetings are advantageous to the board as a strategic action plan for the company can be designed and suggestion to improve firm performance in future can be discussed. The above discussions lead to the following hypothesis:

H5: The board meeting frequency is positively associated with the performance of Malaysian GLCs.

2.2.6. Director's ownership

Ownership structure is one of the corporate governance elements which significantly influences the scope of agency cost. Berle and Means (1932) suggested that ownership concentration has potential to reduce the conflict of interests between managers and owners, thus, it should have positive effect on a firm's performance. This finding was further supported by Jensen and Meckling (1976) whereby they asserted that management's inclination to consume company resources which will decrease as insiders' ownership grows, therefore their interest are aligned with those of shareholders. This way, directors' equity ownership could serve as a controlling mechanism for the company's management to accomplish better market and financial performance. Iskandar et al. (2012) asserted that when a company has directors who are also served as owner through equity ownership, they will have better access to information and a direct influence on decision making that will significantly affect their own wealth, which normally contributes towards the improvement and enhancement in overall economic value of the company.

However, several studies such as Demsetz and Villalonga (2001) and Fama and Jensen (1983) found that significant percentage of insider's ownership generate compensational costs. They argued that when the directors hold too large percentage of the company's capital, it will give them advantage in term of voting power and influence. Therefore, instead of maximizing shareholders' value, this situation will stimulate the directors to achieve their objectives without compromising either their jobs or their salary. This argument shows that too high percentage of insider's ownership has a negative impact on a firm's performance.

The above theoretical findings demonstrate the existence of a nonlinear relationship between directors' equity ownership and firm's performance which has been already been highlighted in several studies (see for example McConnell and Servaes, 1990; Gedajlovic Shapiro, 1998). For the purpose of

this study, it is assumed that directors' equity ownership in the company reduces the gap between the owner and management of the company which is in line with the underlying concept of the agency theory. Thus, the following hypothesis is developed:

H6: There is positive relationship between directors' equity ownership and the performance of Malaysian GLCs.

3. RESEARCH METHODOLOGY

The objective of this study is to investigate the relationship between the various attributes of BODs and performance of Government-Linked Companies (GLCs) within the Malaysian corporate governance environment. This study utilizes descriptive research design. The data collection for this study is based on secondary data extracted from the annual reports of GLC's from 2009 to 2013. Annual reports are the main source of the data as they are regarded as the main form of company communication and considered as a major source of information to the shareholders (Amran and Susela, 2008).

The population of this study consists of all the companies listed on the Bursa Malaysia for the period 2008 to 2013. Purposive sampling technique was applied in this study whereby the sample size was determined based on the 150 companies listed on the Bursa Malaysia by market capitalisation as of April 2013. From the list, a total of 41 GLCs were selected which represented the largest companies in Malaysia and well known for their financial performance. The sample was verified for conformity to the selection criteria adopted by cross-checking the information provided by the Putrajaya Committee on GLC High Performance (PCG)'s website. Those GLCs with incomplete data and those recently listed or delisted during the period were excluded from the study. In addition, GLCs from the financial sector were excluded from the study due to their different financial reporting formats and also because some of the key variables needed in the analysis were unavailable. As a result, a final sample of 32 GLCs listed on Bursa Malaysia from 2008 to 2013 was selected.

Firm's performance was measured by using ROA, ROE and EPS (Epps and Cereola, 2008). ROA is calculated by dividing the net income before interest expense for the fiscal period with a total asset for the same period. ROE is defined as profit after tax is divided by total shareholders fund for the fiscal period. On the other hand, EPS is calculated by net income minus dividends on preferred stock divided by average outstanding shares.

This study focuses on corporate governance mechanisms that contribute to board effectiveness and efficiency in monitoring management's action to maximize shareholder value. Thus, the independent variables that relate to these attributes such as board size, board structure, board independence, board competency, board meeting and director's ownership are examined.

This study uses two control variables which are firm size and firm leverage as used by prior researchers (see for example Zainal Abidin et al., 2009). However, we also use total assets as a proxy to firm's size and total debt to total shareholder's equity was utilised as a measurement for firm's leverage. Table 1 summarizes the measurement or operationalization of all variables.

Table 1. Measurement of all variables

Variables	Operationalization
Dependent variable	
Return On Asset (ROA)	Net income/ total asset
Return On Equity (ROE)	Profit after tax/ Shareholder's fund
Earnings per share (EPS)	(Net income - Dividends on preferred stock)/ Average outstanding shares
Independent variables	
Board Size (B_SIZE)	Number of directors on board
Board Structure (B_STRUCT)	A dichotomous variable will be used where "0" CEO Duality for separation and "1" for duality
Board Independence (B_IND)	Percentage of independent non-executive directors on board
Board Competency (B_COM)	A dichotomous variable will be used where 1= If directors hold at least degree educational level 0 = Otherwise
Board Meeting (MEET)	Number of board meetings' held
Directors' Ownership (D_OWN)	Number of shares owned by the directors.
Control variables	
Firm Size (SIZE)	Natural logarithm of total asset
Firm Leverage (LEV)	Total debt/ Total shareholder's equity

We utilised SPSS to analyses the data and multiple regression was used to examine the relationship between firm performance and the six board characteristics namely board size, board structure, board independence, board competency, board meetings' frequency and director's ownership.

The regression model is as follows:

$$\text{Firm's performance} = \beta_0 + \beta_1\text{B_SIZE} + \beta_2\text{B_STRUCT} + \beta_3\text{B_IND} + \beta_4\text{B_COM} + \beta_5\text{MEET} + \beta_6\text{D_OWN} + \beta_7\text{SIZE} + \beta_8\text{LEV} + \varepsilon \quad (1)$$

where:

Firm's performance - ROA, ROE, EPS;
 $\beta_1\text{B_SIZE}$ = Number of directors on board;
 $\beta_2\text{B_STRUCT}$ = A dichotomous variable will be used where "0" CEO Duality for separation and "1" for duality;
 $\beta_3\text{B_IND}$ = Percentage of independent non-executive directors on board;

$\beta_4\text{B_COM}$ = A dichotomous variable will be used where 1= If directors hold at least; degree educational level 0 = Otherwise;
 $\beta_5\text{MEET}$ = Number of board meetings' held;
 $\beta_6\text{D_OWN}$ = Number of shares owned by the directors;
 $\beta_7\text{SIZE}$ = Natural logarithm of total asset;
 $\beta_8\text{LEV}$ = Total debt/ Total shareholder's equity;
 ε = Error term.

4. ANALYSES AND DISCUSSION

Table 2 shows the results of our multiple regression. It reports the relationship of each independent variable which constitutes the corporate governance attributes with GLCs' performance from 2008 to 2013. The reason for having three separate regression results is because we measure firm performance using ROA, ROE and EPS.

Table 2. Results of regression analysis

Variable	ROA		ROE		EPS	
	Beta coefficient	p-value	Beta coefficient	p-value	Beta coefficient	p-value
B_SIZE	0.029	0.721	-0.042	0.633	-0.088	0.327
B_STRUCT	-0.004	0.956	0.064	0.412	-0.009	0.911
B_IND	-0.305	0.000**	0.001	0.990	-0.036	0.669
B_COM	-0.052	0.542	0.057	0.537	-0.128	0.176
MEET	-0.115	0.153	-0.129	0.138	-0.139	0.117
D_OWN	-0.424	0.000**	-0.195	0.068	-0.112	0.304
SIZE	-0.116	0.173	-0.009	0.925	0.368	0.000**
LEV	-0.562	0.000**	-0.555	0.000**	-0.450	0.000**

Notes: * $p < 0.05$; ** $p < 0.001$

4.1. Board size and firm performance

Based on the results shown in Table 2 above, board size has a positive and insignificant relationship with firm performance when measured with ROA. The result is statistically represented by ROA: $\beta = 0.029$ and $p = 0.721$. With regards to ROE and EPS, board size shows a negative and inversely significant association with firm performance (as represented by ROE: $\beta = -0.042$, $p = 0.633$ and EPS: $\beta = -0.088$, $p = 0.327$). This finding indicates that the board size-profitability relationship is inclined to show a negative and insignificant result and is not the major determinant of firm performance.

Therefore, hypothesis H1 stating that there is positive relationship between board size and performance of Malaysian GLCs during 2008 - 2013 periods is rejected. This result is consistent with prior study which shows that there is no relationship between board characteristics and firm value in public listed companies in Thailand (Yammeesri et al., 2010).

4.2. Board structure and firm performance

Board structure has a negative association with firm performance measured by ROA and EPS but has a positive relationship with ROE. This relationship is represented by ROA: $\beta = -0.004$, ROE: $\beta = 0.064$ and

EPS: $\beta = -0.009$. In term of significance, board structure is insignificant to firm performance as its p-value is > 0.05 in all performance measures (ROA: p-value = 0.956; ROE: p-value = 0.412; EPS: p-value = 0.911). Based on the result found in this study, it can be concluded that board structure has negative relationship and is insignificantly contributes toward form performance, therefore H2 which hypothesised that there is a positive relationship between board leadership structure and firm performance is also rejected. This result is similar to previous study done by Rahman and Haniffa (2005) as well as Abdullah (2006) who found that there is no impact of duality role of chairman and COE on the performance of Malaysian companies. The insignificant impact of board structure on firm performance is also supported by Hashim and Devi (2008).

4.3. Board independence and firm performance

The results reported in Table 2 reveal that board independence has negative relationship with firm performance measured by ROA and EPS, but has positive relationship with performance when measured with ROE. The result is statistically represented by ROA: $\beta = -0.305$, ROE: $\beta = 0.001$ and EPS: $\beta = -0.036$. Other than ROA, board independence shows insignificant relationship with firm performance as indicated by p-value: ROA $p < 0.01$; ROE: $p = 0.938$; EPS: $p = 0.546$. This finding is consistent with Haniffa and Hudaib (2006) study who found that non-executive directors in Malaysia had no association with the performance of Malaysian firms. Since the appointment of non-executive directors on the board of Malaysian GLCs have something to do with government approval, their argument as such appointment is merely a political agenda to facilitate business activity could somehow reflected by this finding. Therefore, hypothesis H3 suggesting that there is a positive relationship between board independence and firm performance is rejected.

4.4. Board competency and firm performance

Board competency has positive relationship with firm performance in respect of ROE and EPS, but has inverse correlation with ROA (ROA: $\beta = -0.052$; ROE: $\beta = 0.057$; EPS: $\beta = 0.128$). The result also indicates that board competency is insignificant to firm performance as its p-value is > 0.05 in all performance measures as follows: ROA: p-value = 0.542; ROE: p-value = 0.537; EPS: p-value = 0.176. Therefore, the third hypothesis (H3) stating that there is a positive relationship between board competence and firm performance is not fully supported by the result, thus the hypothesis is also rejected.

4.5. Board meetings and firm performance

Our analyses also reveal that board meeting is negatively and insignificantly associated with the performance of Malaysian GLCs irrespective of measurement approach being used to describe performance (ROA, ROE, and EPS). This result is represented by ROA: $\beta = -0.115$, $p = 0.153$; ROE: $\beta = -0.129$, $p = 0.138$; EPS: $\beta = -0.139$, $p = 0.117$.

Consequently, this finding rejects H5 which hypothesised that there is a positive association between board meeting frequency and firm performance. In a way, this is consistent with prior studies by Jensen (1993) and Vafeas (1999b) who claimed that there is a negative association between the number of board meeting and performance.

4.6. Directors equity ownership and firm performance

The findings also reveal that the director's equity ownership has a negative and significant association with firm performance in terms of ROA. In contrast, director's ownership has negative but insignificant association with firm performance in the other two measures, ROE and EPS. The result is statistically represented by ROA: $\beta = -0.424$, $p = 0.000$; ROE: $\beta = -0.195$, $p = 0.068$ and EPS: $\beta = -0.112$, $p = 0.304$. Therefore, hypothesis H6 that there is positive relationship between directors' equity ownership and firm performance is also rejected. This finding is in line with prior studies done by Demsetz and Villalonga (2001) and Fama and Fensen (1983) which suggested that insider's ownership has negative impact on firm performance.

5. CONCLUSION

This study examined data collected from the annual reports of 32 Malaysian government-linked companies (GLCs) listed on Bursa Malaysia for the period 2008 to 2013. The objective of this study is to explore the distinct relationship between corporate governance attributes and firm performance in the context of Malaysian GLCs. Based on six governance attributes namely board size, board structure, board independence, board competency, frequency of board meetings and directors' equity ownership, hypotheses of each variable were developed and tested to identify their influence towards three performance measures namely ROA, ROE and EPS.

The findings reported in this study show a mixture of results on the relationship between corporate governance attributes and performance of GLCs in Malaysia. We find no conclusive evidence to justify that those GLCs with BOD featuring governance attributes as recommended in the MCCG 2007, positively contribute towards GLC performance. Our analysis reveals that board size has a positive but insignificant effect on performance in terms of ROA, indicating that a larger board size in Malaysian GLCs does not significantly affect overall performance. On the other hand, the negative effect of board size indicates that a larger board size may contribute to a worsening condition, less flexibility and poor communication between the boards of directors which in the end contributes towards an adverse reaction towards performance. Our results indicate that regardless of board size, board of directors in Malaysian GLCs are equipped to make sound business decisions that are beneficial for enhancing performance.

This study also finds that Malaysian GLCs' board leadership structure is consistent with the requirement of the guidelines promulgated by the MCCG 2012 for the role of chairman and CEO of the

company which is to be separated. However, this study finds that 'duality' does not positively contribute to firm performance suggesting that a CEO and chairman without separation but who is knowledgeable and skillful in the business industry can lead to strategic direction of the company which can significantly contribute to better firm performance. In addition, those boards that are dominated by independent non-executive directors do not seem to contribute to improving GLCs performance except on ROE. This could well imply that the appointment of independent non-executive directors on boards has been ineffective in carrying out their monitoring, advisory and networking functions. Instead, the significant presence of insider directors on the board, with their greater technical knowledge of the company's operating environment could subsequently contribute positively to firm performance.

Another interesting finding is that, except for ROA, board competence is positively affecting firm performance. This indicates that the presence of more members on GLCs board with appropriate executive background, relevant knowledge, skills and varied expertise could enhance investors and shareholders' confidence on the company's business sustainability. With competent board of directors, the likelihood of both financial misstatement and financial fraud would be reduced hence the investors and shareholders will face lower investment risk. In addition, this study highlights that the frequency of board meetings have a negative association with performance suggesting that the effectiveness of board meetings are not dependent on how frequent meetings were held, but what is most important depends on the agenda's being discussed and how responsive is the system established to solve specific challenges faced by the company. Besides, effective board meetings also need to address the issues at hand by not prolonging on unimportant matters that may divert attention away from issues which require immediate remedy. Lastly, we report that GLCs with significant equity owned by directors is negatively and insignificantly associated with firm performance. This result implies that insider ownership could stimulate higher commitment among members and reduce the conflict of interest between managers and owners are not yet proven from the viewpoint of Malaysian GLC's.

As with other research, this study suffers from several limitations. First, this study focused only on the top 150 listed Malaysian government-linked companies (GLCs) based on market capitalization of which only 32 are GLCs. Although, the sample size is small it is, nevertheless, representative as the findings represent the real impact of governance practice on firm performance. However, we suggest that future studies in this area should incorporate non-listed GLCs as a part of a larger study to achieve more meaningful results. Future studies should also include GLCs from other countries or markets in order to provide a comparative and broader impact of corporate governance attributes on firm performance by applying meta-analysis to determine overall global impact of GLC's. Future studies could also incorporate a qualitative research design enabling interviewing board members or top management in order to obtain greater insight.

Further research on Malaysian GLCs could also consider audit committees, shareholders, auditors and corporate social responsibility to enable a much deeper understanding of the overall impact of corporate governance in such companies. Finally, although this study applies the predominant approach in measuring firm performance namely ROA, ROE and EPS, other types of measurement such as the Tobin's Q which provides an alternative measurement is also suggested to be applied in future research. Such studies would undoubtedly provide a rich understanding of how GLC's operate.

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