# Directors' Influence on Pay-Based Performance

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# ABSTRACT

The objective of this study is to examine earnings management influence on directors' remuneration. Taking a calculation of the empirical evidence of earnings management, firm performance and directors' remuneration, this study is able to demonstrate that pay-performance is not influenced by earnings management. Data for this study were extracted from the annual reports of 678 non-financial public listed companies in Malaysia for the years of 2009, 2010 and 2011 giving rise to final 2021 observations. The findings highlighted that earnings management played no role in determining the directors' remuneration. However, the findings documented a significant and positive association between the directors' influence and the directors' remuneration. This study contributes to the growing literature by providing evidence which demonstrate that pay-performance was not directly influenced by earnings management but by the influence of the executive directors. More importantly the study documents even under strong governance, Malaysian listed firms are influenced by the executive directors.

Keywords: Executive directors; remuneration; earnings management; performance; board influence

### INTRODUCTION

In the business discipline, the Agency theory is used to explain the relationship between principals and agents. However, in the context of this paper, the Agency theory is used to specify the difference in the behavior of people who manage the firms and people who own the firms (Jensen & Meckling 1976). Clearly, firm owners and firm managers would have different agendas and motives for doing business. This disparity between the two groups of people becomes more obvious when it comes to business profits involving dollars and cents as well as remuneration for employees, particularly firm directors. It has been said that such a disparity is unhealthy, particularly when individuals from either or both groups are also serving in the board of directors of the firms concerned. When this occurs, not only will there be issues related to power struggle but also greed, where firm information may be deliberately withheld so as to create more information asymmetry as well as other forms of problems due to conflict of interest. To mitigate such issues within the firms, the management often tries to look for effective ways and strategies to improve on firm operations and practices. Among these is the strategy of adjusting the remuneration package in corporate firms by giving the board of directors the power to select and implement such actions which can increase shareholders' wealth. For the purpose of ensuring that the interest of the directors and shareholders is balanced, the remuneration of the directors is thus, associated with the firm's value or performance. If the firm is doing well, then the remuneration of the directors will increase. This works the other way round too if the firm concerned is not doing well. Although pay-for-performance sensitivity (pay performance) has

significantly increased over time, it appears to have created different implications for corporate firms.

In corporate firms, directors may use their influence to manage the company's earnings so that it allows them to gain from the targeted performance thereby, achieving the level of remuneration desired. In a corporate firm, the firm's board of directors or the executive directors also serve as the management of the company. This dual position provides them with the opportunity to decide on policies which may benefit their remuneration structure. Such a deduction is drawn from the Managerial Hegemony Theory (Mace 1971) which argues that the board is dominated by the management. Hence, the function of the board is like a rubber-stamp that merely endorses what has been decided. In that regard, this study takes into account that there is a high possibility of earnings management being manipulated by the board of directors in corporate firms/companies since firm performance can be adjusted in order for the directors to receive the desired remuneration.

Although this is a common practice among firms, there is still a need to investigate the phenomenon so that evidence can be drawn to substantiate this practice which should be curtailed to create more integrity. Moreover, an investigation of this nature will also help to deter firms/companies from such practices thereby, reducing the likelihood of misleading their stakeholders. There is a great possibility that when directors are rewarded based on the reported earnings of the firms/companies, it also increases the directors' tendency to manipulate firm earnings by manipulating firm performance. In other words, the higher the earnings management, the higher the directors' remuneration. A number of such cases have been highlighted by Faulkender, Kadyrzhanova, Prabala and Serbet (2010) who showed that high levels of compensation were being paid to executive directors even though in reality, the companies were not performing well. As employees of the company, executive directors are also working for the company. However, due to this nature, they also tend to have more information about the firms/companies when compared to external (outside) directors who are not from within the work community. This situation places the board's decision-making authority in a more vulnerable position.

This study aims to provide empirical evidence which can show that earnings management, firm performance and directors' remuneration are inter-related. To reinforce this claim, the current study uses statistics to demonstrate the relationship. Unlike previous studies which had focused on different locations and settings of organizations, this study will emphasize on all the nonfinancial listed companies of Malaysia for the years 2009, 2010 and 2011. It is deduced that the outcome of this selection of samples will be able to offer a bigger set of evidence which could be used to explain the relationship that exist in the variables which can affect the directors' remuneration.

# LITERATURE REVIEW

# DEFINITION OF DIRECTORS' REMUNERATION

In the business context, remuneration and compensation refer to the amount of money a firm/company pays to an employee in exchange for his/her services. In this regard, the reference of employee thus encompasses the board of directors. The term, remuneration, is a general term which may include all the remuneration packages such as salary, bonus, allowance, share option and benefits-inkind. This definition is similar to Platt and McCarthy's (1985) term of compensation - intangible benefits. Here, compensation is the total sum of benefits received by the directors.

The issue involving directors' remuneration can be viewed from three perspectives: how much the basic remuneration has increased, how the remuneration is structured by focusing mainly on gains of share options, and how sensitive the remuneration incentive is, with regards to sharing the price performance (Kakabadse, Kakabadse & Kouzmin 2004). Jing, Wan and Gao (2010) highlighted that these three perspectives share a similar point which concentrates on how directors are paid and supported by the firm/company they work in. Most research in the past tend to look at directors' remuneration, often, to show proof that directors should be paid correctly while some studies (Canarella & Gasparyan 2008; Theeravanich 2013; Zakaria 2012;) try to link the directors' remuneration with the company's performance since remuneration can only be justified when a company is making a profit.

# DIRECTORS' REMUNERATION AND FIRM PERFORMANCE: PAY-PERFORMANCE RELATIONSHIP

One of the issues that has been most discussed in literature that looks at directors' remuneration is firm performance (Abdullah 2006; Canarella & Gasparyan 2008; Conyon 1997; Jensen & Murphy 1990; Unite, Sullivan, Brookman, Majadillas & Taningco 2008; Yatim 2012). Scholars (such as Chu & Song 2012; Yatim 2012) have also made the consensus that directors should only be rewarded if and when the company is making a profit, or when the firm/ company has performed according to the firm/company's strategic objectives. Nonetheless, it was found that firm performance has no association with the level of rewards paid (Fernandes 2005). In fact the size of the company was the main determinant for executive compensations. Cybinski and Windsor (2013) highlight that larger companies have a tendency to pay their directors more. This is because large firms are more complex in nature as they may have many subsidiaries, and have to make difficult decisions with respect to resource allocation and the company's strategic planning.

Logically speaking, the directors' remuneration should be associated with the amount of company profit i.e. the performance of the firm/company. If a firm has made a substantial amount of profit during the year, the directors' remuneration should increase and vice versa if the firm is not performing well. In the United Kingdom (UK), the process of how directors are actually rewarded remains to be elusive, exclusive and opaque (Zakaria 2012). It was also noted that such a remuneration structure has not changed over the years although share option plans and other long term plans have changed (Zakaria 2012). As an example, in 2011, Standard Chartered disclosed that its executives directors have target performance awards that were originally set with reference to market and individual experience levels (Standard Chartered 2011). Nevertheless, these individual experience levels have remained stagnant because the directors' target was not associated with their basic salaries. Although firm performance should be linked to the directors' performance therefore, their remuneration, it appears that there have been mixed results concerning this association. Conyon (1997), for instance, found that the directors' pay was very closely linked to sales growth. This finding may create an issue for the shareholders because sales are perceived to be short-term performance measures. In this regard, it may create incentives for the directors to adjust sales in order to receive better remuneration. Due to this possibility, it is thus crucial to monitor the company's performance and to also take an initiative in understanding how the directors' remuneration was derived, based on the link of pay-performance.

Prior literature has documented the determinants of directors' remuneration which include the relationship between pay and performance, the ownership structure of executive directors and the impact of family firms on remuneration. Some literature (Theeravanich 2013) has even included earnings management as a factor that can

influence directors' remuneration. However, Unite et. al (2008) found that the pay-performance relation was not considered in family affiliated firms. This could be attributed to the external monitoring functions of banks and states which were able to control the executives' action instead of just focusing on the pay and performance alignment.

# INFLUENCE OF THE EXECUTIVE DIRECTORS

Executive directors play an important role in sharing the firm's specific information (Fama & Jensen 1983) with the board of directors. Their role as directors certainly helped to improve the decision making process of the board. The presence of the board of executive directors can be an endorsement for good strategic plans for the company's survival. However, the presence of the management on the board of directors may influence the board's effectiveness or decision making process.

Executive directors, who are also in the top management, have more advantages, when compared to external (outside) directors (Pettigrew & McNulty 1995). They have power in the selection of external directors whose term as management is often determined by some regulation/policy. This existence of power among some board directors can affect the cohesiveness of the board where power may be gathered through the collectiveness of the internal directors as opposed to the external directors. Further, with the top management also serving on the board of directors, there is a higher possibility of information asymmetry occurring between the management and the board since they also have some leverage over company information when compared to external directors. Through this, the management is able to push their ideas to the board. Moreover, the board may also be influenced by the executive directors' knowledge, experience and skill of running the company they work in (Pettigrew & McNulty 1995) because the executive directors are actually operating and governing the firms which they work in. Compared to the external directors, the executive directors have all the knowledge and information about the firm's financial management, objectives and strategic plans. Such information, inevitably, makes the directors more confident in influencing the board's decisions. Their influence becomes more potent when the board consists of passive external directors who lack the knowledge, experience and skill linked to their firm's specific industry (Ravina & Sapienza 2010). The external directors also depend on the quality of the information provided by the management thus, their to influence the board is much lesser when compared to the internal directors.

# EARNINGS MANAGEMENT AND MANAGERIAL DISCRETION

Earnings management is an important issue. It refers to the amount that is decided by the board to pay to the directors. Within a company, the financial statements for the personal gains of directors can be easily altered by linking the statements to some aspects of the company. This issue is sometimes on the agenda of the managers who have the power to make the decision about the financial statements. For example, the manager's decision may have been caused by the agency conflict occurring between shareholders as the owners of wealth and the managers who are handling the wealth. Managers or executive directors have the opportunity to adjust the reported numbers because this activity is seldom observed by the shareholders whose sole information comes mainly from the financial statements given to them by the managers or directors (Iyengar, Land & Zampelli 2010). Nonetheless, such an occurrence can be attributed to the poor corporate mechanisms practiced within the company (Jensen & Meckling 1976).

An increase in the directors' remuneration is one of the benefits gained by executive directors in addition to bonuses which may be reduced for one year so as to reap a higher bonus the following year. From this perspective, the study of earnings management and the effectiveness of the board of directors, is very useful for identifying the impact of the executive directors' behavior on earnings quality. Prior studies (Abdullah, Halim & Nelson 2014) have shown that having a separate CEO and board chair (Chairman) may help companies to improve the quality of their financial reporting. This is because a CEO and a Chairman hold two different company positions with two different sets of responsibilities. In this regard, the CEO and the Chairman who hold dual positions are likely to have opportunities to alter any documents which are to their benefit, particularly remunerations. In this regard when the directors hold dual positions, they tend to be stronger in their influence.

Firm performance is an important element for the company as the directors, especially the executive directors, are likely to change firm performance for the sake of obtaining their preferred remuneration. In their study, Chen, Luo, Tang and Tong (2015) found that interim CEOs may resort to earnings management to make the firm's performance appear better. A company's low value can be assessed by its poor performance (i.e. low profitability) and when poor performance is reflected, it impacts on the directors' remuneration. When this occurs, earnings management will be used to alter firm performance (Jouber & Fakhfakh 2012).

Most studies that focused on directors' remuneration (Abdullah 2006; Aripin, Salim, Kamardin & Che-Adam 2012; Canarella & Gasparyan 2008; Hassan & Ahmed 2012; Hsieh & Kleiner 2003; Jing et al. 2010; Niap & Taylor 2012; Theeravanich 2013; Yatim 2012; Zakaria 2012) have also discussed it from other perspectives such as firm performance and its measures, family ownership, director's personal reputation, remuneration structure, managerial discretion and the disclosure of remuneration in the annual reports. Nonetheless, there is a lack of literature that discusses other factors that may be controlled and manipulated by directors so that they receive their remuneration. Aiming to fill that gap, this study also aims to contribute to the growing literature by examining earnings management as a factor that could influence the directors' remuneration. The study expands on previous studies by looking at performance and pay followed by earnings management as a variable; these factors are assumed to influence firm performance thus, they would also affect the directors' remuneration.

# METHODOLOGY

# FRAMEWORK AND HYPOTHESES

The framework used in this study is based on the Agency theory and the Managerial Hegemony theory. In this context, earnings management increase is deduced to be caused by the agency problem which is observed in the principal and agent relationship where earnings management may be used to alter the performance of the company, which will then impact the amount of remuneration received by the agent. This is not beneficial to the company and the shareholders. As a result, there is a need to look for ways to reduce agency conflict. This can be accomplished by controlling the opportunistic behavior of the management and the board of directors. In the managerial hegemony theory, the management exerts control over the board through the executive directors. Hence, this study takes on the assumption that directors use earnings management to adjust firm performance so as to be able to receive the amount of remuneration they desire. From the discussion, it can be deduced that the presence of earnings management due to firm performance will influence the level of remuneration received by the directors. The independence of the directors and the influence of the executive directors' will also determine the directors' remuneration in the company. In this regard, this study will focus on the factors that affect the directors' remuneration as a result of the power and control

held by the board and on how the directors use earnings management to adjust firm performance and consequently, receive the amount of remuneration they desire.

In the managerial hegemony theory, management exerts control over the board through the executive directors. Hence, this study assumes that directors use earnings management to adjust firm performance so that they ultimately receive the amount of remuneration they want. Figure 1 presents the factors that may affect the directors' remuneration.

Figure 1 demonstrates that the presence of earnings management will influence the level of remuneration received by the directors as a result of firm performance. Since the directors and executive directors can exert a certain influence on the board which can ultimately determine the directors' remuneration in the company, it is necessary to focus on the factors that affect the directors' remuneration so as to see how the directors use earnings management to adjust firm performance for the purpose of receiving the amount of remuneration they desire. In this context, the research question formulated is:

RO: Do directors manage earnings so as to achieve the targeted firm performance for a pay-based performance?

The followings are discussion on the hypotheses.

# FIRM PERFORMANCE AND EARNINGS MANAGEMENT

Prior studies (Abdul Rahman & Abdul Wahab 2009; Conyon 1997; Kato, Kim & Lee 2007; Theeravanich 2013) have documented that firm performance is positively associated with the directors' remuneration. It was also found that an increase in the directors' remuneration can be justified when shareholders' wealth is increased through a high amount of profit contributed by the company. Thus, the hypothesis developed is:



FIGURE 1. Factors that affect the Directors' Remuneration and Earnings Management

H1: There is a significant positive relationship between firm performance and directors' remuneration.

Bergstresser and Philippon (2006) noted that a high amount of accruals coincide with the significant options exercised by CEOs. In another study, Shuto (2007) found that discretionary accruals increase directors' remuneration. However, the association between the discretionary accruals and the executives' bonus vary, depending on the firm's circumstances. Companies use income-decreasing accruals when there is no bonus and income-increasing accruals when there is bonus during the year. Cornett, Marcus and Tehranian (2008) stated that the estimated impact of the corporate governance variables on firm performance is far greater when discretionary accruals are removed. This means that the corporate governance mechanism can be used to monitor the earnings management activities.

The firm's performance can also be negatively related to the earnings management (Abdullah et al. 2014; Chu & Song, 2012; Cornett et al. 2008). This occurs when profit is adjusted so that the desired directors' remuneration will be met. Earnings management may be manipulated so as to show that the firm is performing well thereby, qualifying directors with a higher remuneration. In that regard, this study assumes that the association between firm performance and the directors' remuneration is influenced by earnings management. Thus, the second hypothesis conjectured is:

H2: The association between firm performance and directors' remuneration is influenced by earnings management.

# BOARD OF DIRECTORS' INDEPENDENCE

Most studies (i.e., Abdullah 2006; Cornett, Mcnutt & Tehranian 2009; Foo & Mat Zain 2010) covering corporate governance regime have considered the perspective of board composition, irrespective of whether or not, they are independent. According to Jouber and Fakfakh (2012), agency problems in the company are at their peak when the board is not independent. Their research suggests that boards should be free from the domination of affiliated members of the company so that the board can act independently.

However, there are mixed findings with regard to the board of directors' independence and directors' remuneration. Theeravanich (2013) pointed out that in Thailand, independent boards have no influence over the directors' remuneration in listed companies. In contrast, Abdullah (2006) found that in Malaysia, board independence is negatively related to the directors' remuneration. While, Cornett et al. (2009) found that CEO pay-for-performance sensitivity and board independence are positively related. Based on these, the hypothesis generated is: H3: There is a significant negative association between board independence and directors' remuneration.

### EXECUTIVE DIRECTORS' INFLUENCE

When the board of directors is not effective, the executive directors may be able to influence the board's decision-making process. Here, the executives have the upper hand over the independent directors because they have more information about the company's growth and performance as well as company activities (Mace 1971). Due to their dual role as management and as executive directors on the board, these directors are less capable of giving objective decisions (He, Wright, Evans & Crowe 2009). Therefore, this reason serves as a very good one for regulators such as those in Malaysia, to develop a regulation for firms/ companies to increase the number of independent directors on their board (MCCG 2007).

The current study considers the executive directors' influence as one of the factors that could affect the directors' remuneration which can be adjusted by modifying the figures in the earnings management. As a part of the management, the executive directors are more likely to adjust the reported accounting numbers in the company's annual report. This kind of adjustment may affect firm performance and subsequently, affect the directors' remuneration. In this regard, it is assumed that firms with a higher number of executive directors on the board are more likely to have directors who draw a higher remuneration. Based on this assumption, the hypothesis generated is:

H4: There is a significant positive association between executive directors' influence and directors' remuneration.

#### **RESEARCH METHOD**

#### SAMPLE

This study utilized information gathered from the annual reports of 678 public listed companies (PLCs) in Malaysia, an approach that is consistent with prior studies (see Abdullah 2006; Abdullah et al. 2014; Aripin et al. 2012; Yatim 2012). The annual reports were utilized because they are the major medium by which most companies communicate with shareholders, stock market and the society at large (Firth 1978). Table 1 indicates that 708 companies were listed on the Main Board of Bursa Malaysia for the period of 2009, 2010 and 2011 respectively. Due to lack of information, the final sample arrives to 678. Focusing only on the non-financial firms, data were manually extracted from the annual reports and Datastream. The samples served as the latest data set available at the point when the study was conducted. Finance-related companies were excluded from the sample due to the different legislations applied by the companies, a justification that is in tandem with prior studies (Jouber & Fakhfakh 2012; Theeravanich 2013).

TABLE 1. Sample Selection

Industry	Number of listed companies
Consumer Product	125
Industrial Product	230
Construction	42
Trading and Services	162
Infrastructure	7
Technology	24
Properties	76
Plantations	42
Total	708
Less: Companies with insufficient	
information	30
FINAL SAMPLE	678

### DEPENDENT VARIABLE

The dependent variable being observed in this study include all the major components of the executive and non-executive directors' remuneration which include salary, bonus, fees and benefits-in-kind, a measure that is consistent with prior studies (Abdullah 2006; Abdul Rahman & Abdul Wahab 2009; Lee & Isa 2015; Yatim 2012;). The reward for the directors which is in the form of remuneration (salaries, bonuses, fees and benefits-in-kind) is usually paid up by most Malaysian listed companies and this is also known as Total Cash Compensation (Abdullah 2006; Chu & Song 2012; Shuto 2007) a term which will also be applied in this study.

# INDEPENDENT VARIABLES

In this study, four factors will be considered as the independent variables.

#### EARNINGS MANAGEMENT

Earnings management serves as the first factor to be considered as the independent variable. Using the modified Jones model, from Kothari, Leone and Wasley (2005), the earnings management of firms will then be calculated as the moderating variable. The reason for using this model is because the measurement can also disclose firm performance when the discretionary accruals model is computed. Jones' model has been the main choice of recent studies which look at earnings management (see Cornett et al. 2008; Dhole, Manchiraju & Suk 2015; Jouber & Fakhfakh 2012; Sun, Selama, Hussainey & Habbash 2010). Figure 1 shows that earnings management acts as the moderating variable. A moderating variable is one that affects the direction and/or strength of the relation between an independent/predictor variable and a dependent/ criterion variable (Baron & Kenny 1986). Hence, a moderating variable is represented as the interaction between an independent variable (firm performance) and a factor (earnings management) that influences the directors' remuneration.

In the context of this study, the total accruals are determined first. The total accruals (TACC) are then measured, showing the difference between the net income (before taxes, extraordinary income and discontinued operations plus depreciation and amortization) and cash flow from the operations, deflated by the lagged total assets. The equation is stated as follows:

$$TACC_{i,t} = EARN_{i,t} - CFO_{i,t}$$
(1)

$$\begin{aligned} TACC_{i,t}/TA_{i,t-1} &= \beta_1(1/TA_{i,t-1}) + \beta_2(\Delta REV_{i,t} - \\ \Delta REC_{i,t}/TA_{i,t-1}) + \beta_3(\Delta PPE_{i,t}/TA_{i,t-1}) \\ &+ \beta_4 ROA_{i,t-1} + \epsilon_{i,t} \end{aligned}$$
(2)

In this formula, TACC is the total accruals for the company *i* at time *t*; EARN<sub>i, t</sub> is the net income (before taxes, extraordinary income and discontinued operations plus depreciation and amortization); CFO<sub>i,t</sub> is the cash flow from operations. TACC<sub>i,t</sub>/TA<sub>i,t-1</sub> is total accruals deflated by lagged total assets;  $\Delta \text{REV}_{i,t}$ <sup>-</sup>  $\Delta \text{REC}_{i,t}$  is the change in sales adjusted by the change in accounts receivables to avoid bias and  $\beta_1, \beta_2, \beta_3, \beta_4$  represents each sectorial classification for the years (i.e. 2009, 2010, 2011). Nondiscretionary accruals (NDACC) are then determined by including the values, as shown in the following equation:

$$NDACC_{i,t} = \beta_1(1/TA_{i,t-1}) + \beta_2(\Delta REV_{i,t} - \Delta REC_{i,t}/TA_{i,t-1}) + \beta_3(\Delta PPE_{i,t}/TA_{i,t-1}) + \beta_4 ROA_{i,t1}$$
(3)

Discretionary accrual (DACC) or earnings management is calculated as  $\epsilon$ :

$$DACC_{i} = TACC_{i} / TA_{i+1} - NDACC_{i} / TA_{i+1}$$
 (4)

#### FIRM PERFORMANCE

The second independent variable to be considered in this study is firm performance. Consistent with prior studies, the study uses return on assets (ROA) as the proxy for firm performance (see Canarella & Gasparyan 2008; Theeravanich 2013; Yatim 2012). Some of the findings noted in previous literature (Abdul Rahman & Abdul Wahab 2009; Conyon 1997; Lee & Isa 2015) indicate that directors receive huge remunerations when the company is performing well financially. Thus, the directors in the data of the current study were expected to adjust firm performance through earnings management in order to qualify themselves for better remunerations. ROA was used, instead of other measurements, for firm performance because it has been widely used in prior studies (Chen et al. 2015; Hagel, Brown, Samoylova, Lui, Damani & Grames 2013).

# BOARD INDEPENDENCE

The third independent variable to be considered in this study is board independence. Numerous studies (Jouber & Fakhfakh 2012; Mace 1971) which look at board compositions have stated that independent boards are more effective in governing the company. A higher number of external and independent directors on the board can harness more power that can control the executive directors' ability to influence the boards' decision-making process (Mace 1971). This is verified by Jouber and Fakhfakh (2012) who found that board independence is significant and negatively associated with earnings management. This finding suggests that boards which have more external and independent directors can mitigate the earnings management behavior within firms. In the current study, board independence will be determined through the proportion of the independent directors which is derived by comparing the external and independent directors with the total number of directors on the board.

## EXECUTIVE DIRECTORS' INFLUENCE

The fourth independent variable to be considered in this study is the executive directors' influence. This is included because it is deemed to be able to exert control over the board's decision in the remuneration process particularly when the executive directors are big in number. Since these executive directors were expected to use the earnings management mechanism to adjust firm performance in order to obtain their preferred remunerations, the current study thus utilizes the managerial hegemony theory (Mace 1971) to determine the existence of the executive directors. To do this, the proportion of the executive directors is compared to the total number of directors and the outcome of this, is used as the proxy. To date, there is limited literature which focuses on the executive directors' influence. Most literature tend to focus on the determinants of executive directors' remuneration by looking at industrial environment and investment strategies

(Bergstresser & Philippon 2006; Chu & Song 2012; Jing et al. 2010). Therefore, the outcome derived from this study can add to literature.

### CONTROL VARIABLES

The current study utilizes four control variables which encompass: firm size, leverage, remuneration committee and CEO quality. These are further summarized in Table 2 below. Past studies (Cybinski & Windsor 2013) have shown that firm size is one of the influential factors that can determine firm directors' remuneration. Larger firms may pay their directors more as a result of the level of complexity which directors need to face when making decisions about the firms where they work. In this regard, the log of total assets will be used as a proxy for firm size (see Abdullah 2006; Hassan & Ahmed 2012).

Leverage is used as a control variable in this study to control the effect of debts over the directors' remuneration. Abdul Rahman and Abdul Wahab (2009) had argued that firms with higher debts will be riskier and because of this, firm directors often want higher remunerations to compensate for such risks. Yatim (2012), on the other hand, mentioned that firms with a higher leverage may pay less to the directors. Leverage, based on earlier studies (Johl, Johl, Subramaniam & Cooper 2013; Marra, Mazolla & Precipe 2011; Yatim 2012) is computed as total debts over total assets.

With regards to the remuneration committee as a variable, past studies (Johl et al., 2013; Marra et al., 2011; Yatim 2012) had only measured the existence of the remuneration committee by using a dummy variable of 1, if the firm has stated the remuneration committee in their annual report, and 0 for otherwise. Taking a different route, this study will include the independence of the remuneration committee as well as its existence as a variable (Niap & Taylor 2012). The proportion of the independent members within the committee will be computed against the total number of committee members

TABLE 2. Summary	of	variables
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Variable	Operational Measure
Dependent Variable	e
TDIREM	Log of total directors' remuneration. Includes directors' salary, bonus, fee and benefits-in-kind.
Independent Variab	bles
ABDACC ROA	Absolute discretionary accruals using model by Kothari et al. (2005). Measuring firm performance. Ratio of EBIT to total assets.
ABDACC.ROA BIND	Interaction between ABDACC and ROA. Board independence, measured by the proportion of independent directors on the board.
EDINF	Executive directors' influence, measured by the proportion of executive directors on the board.
Control Variables	
FSIZE	Log of total assets.
LEV	Ratio of total liabilities to total assets.
RCIND	The proportion of independent directors on the remuneration committee.
CEODUAL	Binary variable: 1 if the CEO is also the chairman, 0 if otherwise.

available and the difference will be used as the proxy for RCIND (Remuneration Committee Independence).

The RCIND is well noted in literature which focuses on corporate governance. Such literature (Lee & Isa 2015) states that CEO duality can result in less board effectiveness and an ineffective board will lead to a reduction in board control over the directors' remuneration. Due to this, the current study will use CEO duality as one of the control variables in determining the directors' remuneration. The measurement for CEO duality is 1 if the CEO is also the board's chairman and 0 if the CEO and board's chairman positions are held by two different individuals. This measurement is consistent with prior studies (Kakabadse et al. 2004; Yatim 2012).

### THE REGRESSION MODEL

Based on the above discussions which state that the dependent variable would comprise the total of the directors' remuneration and the independent variables would consist of the firm's earnings management, firm performance, board independence, and the executive directors' influence, the following model is thus developed for this study:

Since this study focuses on the factors that can affect the executive directors' remuneration (which can be accomplished through the power and control held by the board) and on how the directors can use the earnings management to adjust firm performance so as to be able to receive the desired amount of remuneration, the main variables noted for this study are formulated as ABDACC for earnings management, ROA for firm performance, ABDACC.ROA for interaction of earnings management on firms performance. Two additional variables of interest - board independence (BIND) and executive directors' influence (EDINF) are also included. To further explain the moderating effect of earnings management, the equation above is written as ABDACC.ROA. This moderating effect is also known as the interactive effect which is similar to the interaction effect in any variance analysis methods (Hair, Black, Babin, Anderson & Tatham 2006).

The regression model applies the panel data analysis as an approach. The panel is constructed by using the available data (see Table 1) which span over three years (2009, 2010 and 2011). An ordinary least square (OLS) estimation is employed to obtain a single coefficient and a single slope coefficient, for each of the explanatory variables. The panel data analysis approach will provide this study with more informative data, more variability, less collinearity among the variables, more degree of freedom and more efficiency (P. de Jager 2008). As suggested by Gujerati (2003), when N, the number of sample, is large and T, the time is small, and where statistical inference is conditional on the observed cross-sectional units in the sample, it is strongly believed that the individuals, or cross-sectional units in the sample, are drawn randomly from a larger sample. Alternatively, they may be regarded as random drawings. Based on this, the error components model (ECM) or the random effects model (REM) will thus be appropriate for the current study. Table 2 summarizes the operational measures which have been discussed above.

# RESULTS AND DISCUSSION

# DESCRIPTIVE ANALYSIS

The descriptive analysis drawn from the outcome provides an overview of the dependent and independent variables: total directors' remuneration (TDIRREM), ABDACC or absolute discretionary accruals as a proxy for earnings management, ROA or return on assets as a proxy for firm performance, board independence (BIND) and executive directors' influence (EDINF). The control variables are also included in the table: FSIZE for firm size, using a proxy of log total assets, leverage (LEV), remuneration committee independence (RCIND) and CEO duality (CEODUAL).

The descriptive statistics noted for all the variables used in this study are presented in Table 3. As can be seen, the mean total of the directors' remuneration is RM2.52 million. This result is consistent with the research done by Jaafar, James and Abdul Wahab (2012) who studied companies in Malaysia for the years 2007 - 2009. They calculated the directors' remuneration separately for the executive and non-executive directors and they arrived at the mean of RM2.12 million. In this study, the mean of RM2.52 million is less than the amount noted by Lee and Isa (2015) who documented the mean of the directors' remuneration for Malaysian banks, from 2003 to 2011, to be at RM5.19 million. In another study, Abdul Rahman and Abdul Wahab (2009) unravelled that the mean for the directors' remuneration of Malaysian public listed companies, for the years 1999 to 2003, was only RM1.83 million. In comparison, the findings of the current study showed that the directors' remuneration in Malaysia's public listed companies had increased from RM1.83 million to RM2.52 million, on average. In contrast, the mean of the current study (i.e. RM2.52 million) is however, lower than the mean noted by Hearn (2013) who recorded the mean for the directors in North African Initial Public Offering (IPO) companies to be RM49.31 million.

In addition, the earnings management (ABDACC) noted in the current study was found to be 0.06 which is positive and very close to zero. In this regard, the finding is consistent with the findings of Bergstresser and Philippon (2006) who observed 0.062 for firms with total assets above US1 billion. This finding is also consistent with the outcome noted by Chu and Song (2012) whose figure was 0.059. Further, the mean noted for firm performance (ROA), in this study, is approximately 0.06 or 6%, and positive. The range was between -1.24 and 1.39 and this indicates that some listed companies had performed better than other companies that had reported a loss during the years from 2009 to 2011. The lowest ROA, which is -1.24 was from *Nagamas* International *Berhad* which had actually reported a loss of RM23,922,000 before interest and tax in 2010.

# TABLE 3. Descriptive statistics for the years 2009 - 2011

	TDIRREM (RM)	ABDACC	ROA	BIND	EDINF	FSIZE (RM)	LEV	RCIND
Mean	2.52 million	0.064	0.056	0.458	0.358	1,390 million	0.40	0.64
Median	1.57 million	0.042	0.057	0.428	0.375	309 million	0.39	0.67
Maximum	113 million	1.145	1.387	1.000	0.833	7,460 million	4.66	1.00
Minimum	603.00 million	0.000	-1.242	0.166	0.000	7.5 million	0.00	0.00
Std. Dev.	5.05 million	0.078	0.116	0.129	0.164	4,970 million	0.25	0.27

Panel A: Continuous Variables

Note:

TDIRREM= Total Directors' Remuneration, ABDACC= Absolute Discretionary Accrual, ROA= Return on Assets, BIND= Board Independence, EDINF= Executive Directors' Influence, FSIZE= Firm Size, LEV= Leverage, RCIND= Remuneration Committee Independence

CEODUAL		
Frequency	%	
1,751	82.4	
373	17.6	
2124	100.0	
	Frequency 1,751 373	

Note: 0 =If the CEO is NOT the board's chairman, 1 =If the CEO IS the board's chairman

In suggesting that Malaysian companies follow the recommendations of the MCCG (2007) which states that at least one-third of the board should be independent, the findings of the current study indicate that 36% of the boards in Malaysian public listed companies already adhere to that recommendation with 46% of the boards in Malaysian public listed companies (PLC) being independent directors. In fact, all the board of directors in some companies are 100% independent.

Next, the mean for firm size was observed to be RM1,390 million which is a huge amount for the reported total assets. The leverage for Malaysian PLCs was 40%. More than half or 64% of the remuneration committee on the board was deemed to be independent whilst the minimum amount was 0%. This means that some remuneration committees were not independent. The MCCG (2007), nonetheless, did not specify that the remuneration committee members should be independent. Here, it merely stated that the remuneration committee members have to be either majority or wholly non-executive directors. Majority non-executive directors occurs when at least two-thirds of the directors are non-executive directors while the total number of members required for a remuneration committee is just three. In contrast, wholly non-executive directors means that all the members in the remuneration committee are non-executive directors.

The descriptive statistics highlighting the dichotomous variables showed that about 17% of the boards in Malaysian PLCs have dual roles: as the CEO and Chairman. Most of the boards were satisfied with different persons holding the posts of CEO and Chairman, which is in accordance with the recommendation set by the MCCG (2007). The result noted from this study is also consistent with the findings noted by Yatim (2012) who found that

in 2008, only 16.4% of Malaysian PLCs did not separate the CEO-Chairman functions. This is in contrast to Lee and Isa (2015) who observed that a total of 90% of Malaysian banks had CEOs-Chairman who assumed dual roles. This outcome suggests that Malaysian banks may have followed different regulations unlike the PLCs. The mean noted in this study was also far lower than the findings of Shiah-Hou and Cheng (2012) whose result showed that 69% of the boards of 500 companies in the US, for the years 2002 to 2006, were practising the CEO-Chairman roles separately.

### CORRELATION ANALYSIS

Table 4 presents the Pearson correlation analysis for the years 2009 to 2011. Here, the total directors' remuneration, in log terms, is significant and negatively associated with the absolute discretionary accruals and board independence while the other variables in the study were found to be below 0.5, indicating that there was no serious multicollinearity problem between the variables (Tabachnick & Fidell 2007).

It was also noted that TDIRREM (log10) is significant and positively related to ROA, firm size (FSIZE) and remuneration committee independence (RCIND). The findings thus suggest that large companies performed better from receiving a higher ROA, and that independence existed in the remuneration committee. Moreover, big companies with huge amounts of total assets will have to increase the directors' pay due to the complexity of decision-making with regards to the allocation of resources as compared to companies with lower total assets.

The positive association of TDIRREM and FSIZE in the results is consistent with the findings of Abdul Rahman and Abdul Wahab (2009) and Jaafar et al. (2012). It appears

TABLE 4. Pearson Correlations for the years 2009 - 2011

Variables	TDIRREM (log10)	ABDACC	ROA	BIND	EDINF	FSIZE	LEV	RCIND
TDIRREM (log10)	1.00							
ABDACC	-0.025	1.00						
ROA	0.091***	-0.113**	1.00					
BIND	0.000	0.036	-0.059***	1.00				
EDINF	0.021	-0.006	0.024	-0.390***	1.00			
FSIZE	0.401***	-0.144**	0.155***	0.053***	-0.170***	1.00		
LEV	-0.021	0.033*	0.012	0.019	0.013	0.007	1.00	
RCIND	0.062***	0.001	-0.015	0.272***	0.077***	0.072***	0.014	1.00

Note: TDIRREM= Total Directors' Remuneration, ABDACC= Absolute Discretionary Accrual, ROA= Return on Assets, BIND= Board Independence, EDINF= Executive Directors' Influence, FSIZE= Firm Size, LEV= Leverage, RCIND= Remuneration Committee Independence.

\*\*\*\*, \*\*, \*, significant at 1%, 5%, 10% level

that the executive directors have a significant control over the board's independence as is indicated by the negative figure of 0.170, significant at the 1% level. This implies that the executive directors may use their ability to influence the board's decision making to their advantage. This is evidenced by the findings which showed a significant and positive association between BIND and RCIND. In addition, RCIND may also be influenced by firm size since results showed a positive relationship between FSIZE and RCIND. This outcome thus suggests that the larger the size of firms, the more independent the remuneration committee is.

### PANEL REGRESSION ANALYSIS

As stated earlier, the objective of this study was to examine the company boards' influence on the executive directors' remuneration for the years of 2009 to 2011. The study utilized a panel data analysis approach which embodies information across time and space as the study was interested in describing change over time. Technically, the panel data, also known as longitudinal or cross-sectional time-series data, are dataset which allow the behavior of entities to be observed across time (Gujerati 2003).

In this study, the standard panel regression method was adopted. It involves computing three different models including pooled ordinary least square, random effect and the fixed effect. These are shown in Table 5. The Breusch and Pagan LM test was used to determine which of the two models of pooled ordinary least square (OLS) and random effect (RE) served as the robust model. The Hausman test was used to determine which of the two models of the random effect (RE) and the fixed effect (FE) served as the robust model. Subsequently, the RE was considered to be the most robust model for the study when the pooled OLS and RE were compared with the Breusch and Pagan test. The result showed that it is statistically significant at the 1% level. In comparison, the Hausman test showed that the FE is not statistically significant when compared to the RE. Therefore, the random effect (RE) was considered to be the most robust model, as is illustrated in Table 5

Both Tables 5 and 6 show the results for the panel regression analysis for the years of 2009, 2010 and 2011. The adjusted  $R^2$  for both tables was about 0.15, showing that the independent and control variables used in the current study were able to justify about 15% of the variance in the total directors' remuneration. The low  $R^2$  noted in this study was consistent with Cheng, Lee and Shevlin's (2016) finding as well as Dhole et al.'s (2016) outcome.

Table 5 shows the panel regression with earnings management serving as the moderating variable. The result shows that the association between ROA and TDIRREM is not significant. Hypothesis 1 (H1) predicts that firm performance and total directors' remuneration have a significant and positive relationship, hence H1 is not supported.

Further, Hypothesis 2 which is extended from Hypothesis 1 assumes that earnings management is a factor that influences the association of firm performance and the directors' remuneration. Hypothesis 2 (H2) projects that the association between TDIRREM and ROA is moderated by ABDACC. Nonetheless, this study finds no significant and negative relationship between TDIRREM and the interaction of earnings management and ROA. Thus, H2 is also not supported.

Hypothesis 3 (H3) expects a significant negative association between board independence and total directors' remuneration. Results show a positive marginal p-value of 0.0576 which is significant at the 10% level. This indicates a weak association. Thus, H3 is not supported. The outcome of this study is to some extent, also consistent with Theeravanich's (2013) outcome which noted that board independence played no role in the level of directors' remuneration for companies in Thailand. This may suggest that a similar culture practice is currently being applied among companies in this region.

Hypothesis 4 (H4) also expects that there is a positive relationship between the executive directors' influence and the directors' remuneration. In this study, the finding shows that the EDINF is positive and significantly associated with the directors' remuneration at the 5% significant level. Therefore, the outcome suggests that the executive directors were likely to influence the decision of the board in determining the directors' remuneration. Prior studies such as those conducted by La Porta, Lopez-de-Silanes and Shleifer (1999) suggest that dominant shareholders were likely to collude with the management and influence decisions for their own interests. This contradicts with Ben-Ali and Teulon (2017) who documented a positive and significant relation between the CEO's compensation and the proportion of the independent directors on the compensation committee.

Table 5 shows that Hypothesis 1, 2 and 3 were not supported. Only Hypothesis 4 was supported, where there is a positive relationship between the executive directors' influence and the directors' remuneration Hence suggesting

that earnings management has no influence on pay-based performance. Subsequently, leads to the next table that shall exclude the earnings management as moderating variable. This is to investigate the relationship of firm performance and directors' remuneration, without the presence of earnings management.

Table 6 shows the regression analysis without the earnings management moderating, hence no interaction. The result highlights that the association between ROA and TDIRREM is not significant. Hypothesis 1 (H1) predicts that firm performance and total directors' remuneration have a significant and positive relationship. In this regard, H1 is also <u>not supported</u>. Since Table 6 shows the panel regression without the earnings management acting as the moderating variable, thus, H2 is not relevant here.

Hypothesis 3 (H3) expects a significant negative association between the board's independence and total directors' remuneration. Results show a positive marginal p-value of 0.0577, which is significant at the 10% level. This outcome indicates a weak association. Thus,

	Pooled OLS	Random Effect	Fixed Effect
Constant	0.1554	0.0679	0.2627
	(-1.421)	(1.826)	(1.120)
ABSDACC	0.0508	0.4842	0.3414
	(1.954)	(0.699)	(0.951)
ABDACC_ROA	0.0170**	0.2585	0.1082
	(-2.389)	(-1.130)	(-1.607)
ROA	0.0067***	0.4877	0.3110
	(2.712)	(0.694)	(1.013)
BIND	0.7203	$0.0576^{*}$	0.2923
	(0.358)	(1.899)	(1.053)
EDINF	0.0001***	0.0132**	0.5149
	(3.948)	(2.479)	(0.651)
FSIZE	0.0000****	0.0000***	0.0000***
	(19.459)	(32.460)	(11.158)
LEV	0.1912	0.9477	0.7958
	(-1.308)	(0.065)	(0.258)
RCIND	0.2820	0.0839	0.1932
	(1.076)	(1.729)	(1.301)
CEODUAL	0.4195	0.0002***	0.0003***
	(0.807)	(-3.797)	(-3.635)
R-squared	0.18	0.16	0.98
Adjusted R-squared	0.17	0.15	0.98
F statistics	47.39	41.78	190.42
Breusch and Pagan LM Test (Pooled vs RE)		20.326 0000)	
Hausman Test (RE vs FE)		0.00 (9.00	

TABLE 5. Panel regression analysis (With EM Moderating)

Note: Dependent variable =Total Directors Remuneration. ABDACC = Absolute Discretionary Accrual, ROA = Return on Assets, ABDACCROA, Interaction of absolute discretionary accrual and return on assets, BIND= Board Independence, EDINF = Executive Directors' Influence, FSIZE = Firm size in log term, LEV = Leverage, RCIND = Remuneration committee independence, CEODUAL = CEO duality.

\*\*\*\*, \*\*, \*, significant at 1%, 5%, 10%

	Pooled OLS	Random Effect	Fixed Effect
Constant	0.1307	0.0601	0.2702
	(-1.5118)	(1.881)	(1.103)
ABSDACC	0.0580	0.5022	0.3725
	(1.869)	(0.6711)	(0.8921)
ROA	0.1545	0.9293	0.8576
	(1.424)	(-0.0887)	(-0.1794)
BIND	0.7829	0.0577*	0.2991
	(0.2755)	(1.899)	(1.039)
EDINF	0.0001***	0.0124**	0.5064
	(3.957)	(2.502)	(0.6646)
FSIZE	0.0000***	0.000***	0.000***
	(19.681)	(30.336)	(10.316)
LEV	0.1882	0.9537	0.8029
	(-1.316)	(0.0581)	(0.2497)
RCIND	0.2663	0.0771*	0.1548
	(1.112)	(1.768)	(1.423)
CEODUAL	0.4610	0.000***	0.000***
	(0.7374)	(-3.839)	(-3.567)
Observation	2021	2021	2021
R-squared	0.1726	0.16	0.989
Adjusted R-squared	0.1694	0.15	0.984
F statistics	52.481		
Breusch and Pagan LM Test	1924	.972	
(Pooled vs RE)	(0.000	0)***	
Hausman Test		0.0000	000
(RE vs FE)		(1.000	)0)

TABLE 6. Panel regression analysis (Without EM Moderating)

Note: Dependent variable =Total Directors Remuneration. ROA = Return on Assets, BIND = Board Independence, EDINF = Executive Directors' Influence, FSIZE = Firm size in log term, LEV = Leverage, RCIND = Remuneration committee independence, CEODUAL = CEO duality.

\*\*, \*\*, \*, significant at 1%, 5%, 10%

Hypothesis 3 is not supported. This outcome is similar to the previous regression as displayed in Table 5.

In comparison, it seems that EDINF has a significant positive association with the directors' remuneration. This implies that the executive directors have some influence on the directors' remuneration. The role the executive directors play and their influence on the board is expected to have a positive association with the directors' remuneration as is expected in Hypothesis 4 (H4). Hence, Hypothesis 4 is supported.

In this study, firm size (FSIZE) and remuneration committee independence (RCIND) are significant and positively related to the directors' remuneration. This is shown by the 1% and 10% level of significance although RCIND shows a weak association thereby, suggesting a very mild positive relationship with directors' remuneration. It is difficult to suggest that the higher level of remuneration independence will increasingly influence a higher amount of the directors' remuneration. This outcome is in line with the works of Yatim (2012), and Jaafar et al. (2012) who highlighted that the existence of the remuneration committee may not have contributed to the efficiencies in the remuneration contracts. It can also be argued that larger firms would most likely have larger boards therefore, the total remuneration for directors would also be as large as those noted in documented books, as seen by Lee and Isa (2015). CEODUAL shows a negative and significant result at 1% level suggesting that when the CEO-Chairman holds dual positions the directors remuneration can be controlled and reduced. However, this contradicts with Brick, Palmon and Wald (2006) who documented that if the CEO is also the Chairman, the directors would receive a larger total compensation package which may reflect an environment of weak governance. Hence, the outcome of this study suggests that the Malaysian PLCs have strong governance.

All the four hypotheses formulated for this study are summarized and shown under two circumstances in Table 7: with earnings management acting as the moderating variable and without earnings management acting as the moderating variable in the regression. When earnings management is present to moderate, none of the hypotheses conjectured were supported except for H4 where in both regressions, it documented a significant association between the executive directors' influence on

# TABLE 7. Hypotheses Summary

	Hypotheses	With EM moderating	Without EM moderating
H1	There is a significant positive relationship between firm performance and directors' remuneration	Not supported	Not supported
H2	The association between firm performance and directors' remuneration is influenced by earnings management.	Not supported	Not relevant
H3	There is a significant negative association between board independence and directors' remuneration.	Not supported	Not supported
H4	There is a significant positive association between executive directors' influence and directors' remuneration.	Supported	Supported

the directors' remuneration. Hence, it may be suggested that the determination of the directors' remuneration may be directly influenced by the executive directors even without the presence of earnings management. This warrants a further investigation on the role of executive directors in influencing boards' decision.

# CONCLUSION

Past literature (such as Abdullah 2006; Foo & Mat Zain 2010; Yatim 2012) had concluded that the emphasis on the directors' remuneration had not received enough attention particularly in the Malaysian context. In some of these literature, it was noted that firm performance did not determine the directors' remuneration while in others, the opposite occurred. These kinds of mixed outcomes noted in the directors' remuneration have encouraged the current study to examine the relationship of pay-performance type of remuneration by utilizing earnings management as the interaction factor with firm performance. The findings documented from the current study highlight that earnings management may no longer be used by directors to alter their own remuneration, especially when there are a large number of executive directors on board. This implies that executive directors may have more power over the boards' decision-making process. Subsequently, they are also able to positively influence the boards' decisions towards their monetary benefits. Hence, it is important to be able to provide an answer to previous research questions which asked if directors do or do not necessarily manage earnings so as to achieve the targeted firm performance for a paybased performance. As can be noted from this study, there is evidence to suggest that the executive directors could be most influential in determining the firms' pay-based performance, even when there exist strong governance among Malaysian listed firms.

Supporting the Managerial Hegemony theory, the outcome drawn from this study also implied that board directors may not be using the earnings management to adjust their company's performance which will then impact on their remuneration. Since the association of the executive directors' influence and the directors' remuneration was found to be positive and significant, this study indicates that the executive directors have a significant influence over their own remunerations hence, a larger number of executives on the board can ensure a better influence on the decision of getting a higher remuneration.

#### IMPLICATIONS

This study expands on current literature by looking at the executive directors' remuneration and the role executive directors play in the board. Since previous literature tend to focus on the directors' remuneration structure in developed countries such as the US and the UK and few have concentrated on Asian countries like Malaysia. Since every country adopts a different set of regulations, the current study was only able to focus on public listed firms in Malaysia thus, findings are restricted and cannot be generalized. In aiming to fill a research gap, this study had also examined the relationship of pay-performance on directors' remuneration by incorporating the influence of earnings management as a moderating variable through analyzing the annual reports of 678 public listed companies from the year 2009 to 2011. In this regard, the trend is only representative of the past occurrences. However, since history tends to repeat itself, the outcome of this study can be used as a measurement to gauge future PLCs in Malaysia and in that regard enable the Malaysian regulatory boards an option to be more vigilant of the practices of firms and directors. The outcome may also be used by other Asia regions as a measurement to monitor their PLCs while the outcome of this study may also be used to make comparisons with other non-financial companies so as to better understand how the two sectors operate.

# SUGGESTION FOR FUTURE RESEARCH

Future research may apply an interpretive study by interviewing the directors or the remuneration committee members in order to engage in a more authentic discussion which can shed light on the situation of each PLC. Future research may also examine companies which had been omitted by the current study such as the finance related industry. Furthermore, the years of study for future research may include five to ten years of observations (i.e. longitudinal study) as a longer observation may also provide a different analysis from the current study which had only focused on certain corporate governance variables that were related to directors' remuneration. Future research may focus on the roles and influence that executive directors have on firm performance. In addition, future research may also expand on the current study by using other variables to examine earnings management, for example, by using various discretionary accruals models or by using the calculation of real earnings management. Thus far, no research has yet uncovered one unique way of determining earnings management hence, using another model that is different from Kothari et al.'s (2005) may provide different results.

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