# CORPORATE GOVERNANCE AND EARNING MANAGEMENT: EVIDENCE FROM 200 MALAYSIAN LISTED FIRMS FROM THE PERIOD OF 2007 TO 2011

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**Abstract**

This study examines the effectiveness of some corporate governance variables to monitor management behavior with the respect to their incentives to manage earnings. A set of 200 Malaysian listed firms for the year 2007 to 2011 in Bursa Malaysia have been investigated to analyze the relationship between corporate governance and earnings management. The corporate governance variables examined are CEO duality (when the chairman and the CEO is the same person), the proportion of independent non-executive directors and board size. We find discretionary accruals as a proxy for earnings management is negatively related to the board size and ROA, but positively related to the existence of CEO-Chairman duality, size of the firms, and operating cash flow. However, the results do not show a significant association between the proportion of independent non-executive directors on the board and earnings management.

**Keywords:** Corporate Governance, Earning Management And Public Listed Firm

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## 1. Introduction

This paper studies the effect of board structure of corporate governance on earning management of the firms. In particular, we investigate the board structure of Malaysia listed firms. At the beginning twenty first century, the important of corporate governance become more clear because of a series of meltdowns arising from managerial fraud, misconduct and negligence caused a huge loss of shareholder wealth. Corporate governance framework becomes widest control mechanism for both, internal and external to encourage the efficient use of corporate resources and equally to require accountability for the stewardship to those resources. Corporate governance define as the process and structure that use to direct and manage the business and affairs toward business prosperity and accountability with realizing shareholder value as main objective without ignore the interest of other stakeholders (*Malaysian code of corporate governance, 2002*).

Corporate governance could help to align the interests of individual, corporation and society through a fundamental ethnical basic and it will fulfill the long term strategic goal of the owners, which after survival may consist of building shareholder value, establishing a dominant market share or maintaining a technical lead in a chosen sphere. The practice of corporate governance will not be the same for all organization but it will take in the account the expectation of shareholders in particular, considering and caring for the interest of others stakeholder. It becomes important element of achieving efficiency in allocate the firm resources and mobilization of the fund in effective way. Good governance affected the performance of firm in positive way, study by *Shleifer and Vishny (1997)* found that corporate governance mechanisms assure investor will receive adequate returns in their investments. Furthermore, effective corporate governance leads to a greater accountability and implies a more transparent corporate reporting. Reductions in earnings manipulation will result in greater transparency and improve confidence of investors. Increase transparency has been identified as one of the most important aims of corporate governance reforms worldwide (*OECD, 1999*).

The liquidity problems face by huge corporations, especially during financial crisis's in 1997-1998 (Asian financial crisis) and 2007-2008(Global financial crisis) raised awareness among firms to unlock the valuable cash that is tied up in the working capital cycle. A firm's net working capital position influences its ability to obtain debt financing as many loan agreements with institutions require a firm to maintain a minimum net working capital position (McGuigan et al 2012).Despite the overall working capital performance improvement in Asia in 2006, Malaysia was the countries where overall working capital performance degraded (with days' working capital increasing by 27.5 compared to the previous year. The situation did not improve in 2007 where 850 of the Asia-Pacific region's top firms had $833 billion in total working capital 2009, in 2010, most firms reported improvement in their working capital management although the improvements were made more in the area of payables compared to receivables and inventories.

The global crisis which also effected in most of Asian country seeking to strengthen on their corporate governance, transparency and disclosure levels to attract and increasing confidence level of investors. In Malaysia, it was suggested that the poor corporate governance standards and lack of transparency in the financial system may bring the affect the confidence of investors. Therefore, an effective system of corporate governance controls is considered crucial in aligning the interest of investors and shareholders. Malaysia has been developing and improving its corporate governance practice since 1998 after the Asian financial crisis. The reform in corporate governance included the introduction of a Code on Corporate Governance (MCCG) in 2000 as part of the Kuala Lumpur Stock Exchange (KLSE) Listing Rules, and changes in the composition and role of the Board of Directors. MCCG provides principles and recommendation for best practice for corporate governance and disclosure requirement to serve as a general guideline for the Malaysian public listed firms in ensuring their accountabilities towards all its investors as well as stakeholders.

The Malaysian corporate scene has made significant strides in corporate governance standards after MCCG released. The establishment of the corporate governance code has proven successful in improving corporate governance practices in Malaysian firms (*Abdul Wahab, How and Verhoeven, 2007*). In year 2007, the Code as revised to further strengthen the corporate governance practices in line with developments in the domestic and international capital markets. The amendments are aimed at strengthening the roles and responsibilities of the boards of directors and audit committees, and ensuring they discharge their duties effectively. The eligibility criteria for the appointment of directors, the composition of the board of directors and the role of the nominating committee are now clearly outlined.

Objectives of this paper is to examine the relationship between CEO duality, Independence non-executive directors and board size with earnings management and to examine whether the implementation of the principles of the Malaysian Code of Corporate Governance impacts firm's earnings management. Earnings management usually involves the artificial increase (or decrease) of revenues, profits or earnings per share figures through aggressive accounting tactics. Earning management occurs went managers alter financial report by structuring transaction either to mislead stakeholder for underlying economic performance or influence contractual outcomes (*Healy & Wahlen, 1999*). Many firm wishing to show earning at certain level loopholes in financial reporting standard that allow them to adjust the numbers as far as practicable to achieve their desired aim or to satisfy projections by financial analysts. These adjustments amount to fraudulent financial reporting when they fall 'outside the bounds of acceptable accounting practice. This issue is seen as a pressing issue in current accounting practice. Part of the difficulty lies in the accepted recognition that there is no such thing as a single 'right' earnings figure and that it is possible for legitimate business practices to develop into unacceptable financial reporting. It is relatively easy for an auditor to detect error, but earnings management can involve sophisticated fraud that is covert.

The most relevant question to analyzing earning management, is there any impact of corporate governance mechanism on the earnings management? Problems concerning corporate governance are associated with the growth of the modern corporation, with the core being the agency relationship generated by the separation of the ownership and management right and the ensuing inconsistent interests between owners and managers and one manifestation of poor corporate governance is the likelihood of aggressive earnings management. A number of studies have investigated linkages between corporate governance variables and earnings management in developed economies (*Healy, 1985; Warfield et al., 1995; Beasley, 1996; Klein, 2002; Xie et al., 2003; Bédard, Chtourou and Courteau, 2004; Davidson, Steward and Kent, 2005; Peasnell et al., 2001*), while limited research has been conducted on emerging

markets (*Chen and Jaggi, 2000; Fan and Wong, 2002; Fan and Wong, 2005*). At the international level, there is growing recognition of the importance of the board characteristics for the success of a firm which push many countries to issue guidelines for best governance practices (*MCCG, 2000; MCCG, 2007; Cadbury, 1992*). However, the concern is about whether firms adopting the best practices of corporate governance will improve the board's oversight role to be better than others. This question is to be examined in the context of Malaysia public listed firms with respect to the impact of the Malaysian Code on Corporate Governance on public listed firms.

In our study, we have study the role of various corporate governance variables in earnings management in the case of 200 Malaysia public listed firms during the period 2007 to 2011. During our study, there will be included global crisis periods, which 2007 and 2008. We observe the relationship between cooperate governance mechanism and earning management. We find that CEO duality firms are more likely to engage in earnings management because with excessive power over board make them easily to manipulate earnings). This finding support the argument that when the positions of board chairman and CEO are held by the same individual, the board is less independent and therefore less effective in monitoring managerial behavior of earnings management.

The reminder of this paper is organized as follows. Section 2 describes the theoretical framework and hypothesis development on corporate governance mechanism. The data selection procedures and research methodology are outlined in section 3. Section 4 presents our results and analysis. Section 5 summarizes and concludes.

## 2. Theoritical Framework And Hypothesis Development

This section details the corporate governance mechanism are use to test the impact and relationship with earning management in the case Malaysian listed firms. Study by *Ashbaugh, Collins and LaFond (2004)*, state that corporate governance mechanisms are intended to mitigate agency costs by increasing the monitoring of management's action and limiting managers' opportunistic behavior.

### *2.1 CEO Duality*

CEO duality happened in firms when same people hold two positions; as Chief Executive Officer (CEO) and as Chairman. CEO responsible for execute the firm policies, running day-to-day operation and act as firm's representative to stakeholders *(Arlman, 2004).* Chairman responsibility to ensure functioning of the board and information of the firm delivered timely, clearly and accurately. The Chairman also must ensure the views of shareholder are known to the board member. There have two schools of thought about the impact of CEO duality on firm performance. MCCG recommend the role of CEO and Chairman must be separate to ensure the CEO would not be in a position with have too much power in firm. Agency theory suggests separation duty of CEO and chairman may lead to efficient monitoring over the board process *(Fama and Jensen, 1983; Jensen 1993).* As the CEO is monitor by board of director, in interest of CEO tend to present to good information. Therefore, having a CEO who is also the chairman of the board gives a situation where the CEO is basically "marking his own exam papers" *(Arlman, 2004).*

Study by *Mulgrew and Forker (2006)* found that earnings management is more likely in the firms where the CEO is also the chairman of the board. As a chairman, CEO can create the opportunity for them to use their power to make a decision based on their personal interest rather than to achieve the organizations' goals. CEO duality attracts a positive and significant relationship only when corporate performance is low, thus, stimulating increase usage of discretionary accruals to inflate income. Based on the study of *Kam (2007)* finds that CEO duality firms are more likely to engage in earnings management. Thus these findings support the argument that when the positions of board chairman and CEO are held by the same individual, the board is less independent and therefore less effective in monitoring managerial behavior of earnings management.

In contrast, stewardship theory argues that the unity of command it presents, so CEO duality may be good for firm performance. Role duality will improve firm performance because the management's compensation is tied to the firm performance, and that the CEO's strategic vision can shape the destiny of the firm with minimum board interference *(Rechner and Dalton, 1991).* The manager will take less time in making decision when chairman and CEO is same person. Some boards are more prefer CEO duality because there may have coordination problem if separate the role of CEO and Chairman *(Finkelstein and*

*D' Aveni, 1994).* On the basis that the lack of independence in a CEO duality board will constrain its monitoring effectiveness of managerial behavior of earnings management, it is anticipated that:

*$H_1$: Firms with CEO duality are more likely to engage in earnings management.*

## 2.2 Independence non-executive directors

Independence non-executive directors are the members of board of directors in the firm which are not employees of the firm and does not form part of executive management team *Higgs (2003).* They are appointed in the board of directors only because of their wisdom and knowledge. They also have the knowledge about legal aspects and technical know-how. MCCG recommends that at least one-third of the board should consist of independent directors. Study by *Beasly (1996),* found that at least one third non executive directors are preferred in the effective working of board. The Listing Requirements stipulate that at least 2 directors or one-third of the board, whichever is higher, must be independent. In practice, most boards have about 7 to 9 directors.

Previous study shows conflict result of relationship between independent non-executive directors and earnings management. Firms with high percentage of independent non-executive directors on board have less chance to committing fraud *(Beasly, 1996).* In case of China, independent non-executive directors play an effective role as a corporate governance mechanism in reducing income-smoothing earnings management. *Lai and Tam (2007)* find firms that have larger fraction of independent directors have less serve practice of income smoothing. *Peasnell, Pope and Young (2000)* states that independent non-executive directors, being senior executive managers of other firms and being aware with financial reporting issues, have the potential to detect earnings management. This leads to reduced level of earnings management in their presence on board.

Independent boards and independent audit committee help reducing the earnings manipulations by managers. With the presence of independent non-executive directors increase the effectiveness in monitoring the managerial behavior of earning management *(Kam, 2007). Xie, Davidson and DaDalt (2003)* agree that a greater proportion of outside directors are associated with better monitoring. Base on their study found the proportion of independent non-executive directors is negatively related to earnings management. By contrary, the studies of *Chtourou et.al (2001), Park & Shin (2003) and Choi et.al. (2004)* are showed that there is no significant relationship between proportions of outside directors with earnings management. Hence, previous empirical findings seem to suggest that board which are structured to be more independent of directors are effective in monitoring the corporate financial accounting process, thus leading to the following hypothesis:

*$H_2$: There is a significant negative relationship between the proportion of independent non-executive directors and earnings management.*

## 2.3 Board size

There is no specific number of board of directors in firm required by firm act1965. The MCCG and the KLSE Listing Requirement were silent on the number of directors that should sit on board. , it was recommended that the board size should not be too big nor too small but sufficient enough to allow for active and effective participation and that they should be able to perform their duties effectively. The effectiveness of the board does not depend on how many directors sit on it, although a minimum number of directors with adequate experience and knowledge are vital to ensure tasks are carried out efficiently.

The theoretical perspective argue that larger boards may create free rider problem among directors and the possibility of a lack of cohesiveness with larger boards. In the case of earnings management, a larger board may be more likely to have independent directors with corporate or financial experience. Larger board are claimed to have information and expertise advantage over small boards and be better at preventing earnings management *(Pierce& Zahra, 1992). Dalton, Daily, Johnson and Ellstrand (1999)* in their study found, larger board has more external linkage and ability to extract critical resource such as funding and expertise in running business and these attributes could lead to higher performance. In bankruptcy context, survivor firms are found to have a larger board than failed firms *(Chaganti et.al., 1985).*

In contrast, a smaller board in a firm may be less burdened with bureaucratic problems and may be more functional and provide better financial reporting oversight. *Jensen (1993) and Yermack (1996)* argue that small boards are more effective in monitoring managerial behavior as the smaller group forces members to be more engaged. Fraud more easy to occur in firms with larger board size compare to firm with small board size *(Beasley, 1996*). Larger boards can result in a free-rider problem due to directors may rely on other directors to monitor managers and cause the overall monitoring to decrease.

Based on the study of *Xie, Davidson and DaDalt (2002) and Chtourou et al. (2001)* investigate and find that larger boards are associated with a lower level of earnings management. An explanation suggested is that a larger board is more likely to have independent directors with financial accounting expertise and is therefore likely to be better at preventing earnings management. Hence, this study hypothesizes the following:

*$H_3$: There is relationship between the size of firm's board of directors and earnings management.*

## 3. Research Design

To analyze the relationship between earnings management and corporate governance in this study, the sample has been selected from the Bursa Malaysia (formerly known as KLSE) for the years 2007 to 2011. Data required for cross-sectional discretionary accruals model was collected from DataStream, while corporate governance data was collected based on actual published annual report from the Bursa Malaysia announcement website. The sample comprises of 200 public listed firms from different sectors and excluded the firms on the basis of following criteria:
a) Financial firms as they are subjected to a different regulatory framework which does not apply to other listed firms.
b) Firms for which the data could not be found.

### *3.1 Methodology*

We investigate the relationship between firm earning management and board characteristic and various control variables. A fundamental proxy for earnings management is a measure of management's discretion over earnings *(McNichols, 2000).* The unsigned (absolute value of) discretionary accruals are used as a proxy for earnings management (*Becker, DeFond, J.Jiambalvo and Subramanyam, 1998 and Bartov et al., 2001*).

We shall attempt to explain how earning management measure to be calculate. Total discretionary accruals (TDA) are calculated using the cross-sectional discretionary accruals model suggested by Jones (1991) and modified later by Dechow et al. (1995). Total discretionary accruals (TDA) are calculated as the difference between total accruals (TA) and non-discretionary accruals (NDA). The total accruals (TA) are the difference between net income and cash flow from operations.

$$TA_{it} = NI_{it} - OCF_{it}$$

Where,
$TA_{it}$ = total accruals for firm i in year t,
$NI_{it}$ = net income for firm i in year t,
$OCF_{it}$ = operating cash flow for firm i in year t

Total accruals are not earnings management. Earnings management is created where management has the discretion to manipulate the earnings. So there are two types of accruals which are discretionary accruals and non discretionary accruals. From the total accruals, first non discretionary accruals are calculated and difference of total and non discretionary accruals is known as discretionary accruals.

According to *Modified Cross Sectional Jones Model (1995),* discretionary accruals are calculated by deducting non discretionary accruals from total accruals. The Non- discretionary accruals are estimated during the event year (i.e. the year in which earnings management is hypothesized) as:

$$NDA_{it} = \alpha_1 (1/TA_{it-1}) + \alpha_2 [(\Delta REV_{it} - \Delta REC_{it})/TA_{it-1}] + \alpha_3 (PPE_{it}/TA_{it-1}) + \varepsilon_{it}$$

Where,

| | | |
|---|---|---|
| $TA_{it-1}$ | = | Total assets for firm i at the end of year t-1, |
| $\Delta REV_{it}$ | = | Change in net revenue for firm i in year t, |
| $\Delta REC_{it}$ | = | Change in net receivables for firm i in year t, |
| $PPE_{it}$ | = | Gross property plant and equipment at the end of year t, |
| $\alpha_1, \alpha_2, \alpha_3$ | = | Firm specific coefficient parameters, |
| $\varepsilon_{it}$ | = | Residual which represent the firm specific discretionary portion of total accruals / error term for firm i in year t. |

Consistent with other recent studies, change in the net receivables is not included in estimating the parameters but is included in calculating non-discretionary accruals *(Ashbaugh, LaFond and Mayhew, 2003).*

Finally, $TDA_{it}$ are calculated as the difference between $TA_{it}$ and $NDA_{it}$

$$TDA_{it} = TA_{it} - NDA_{it}$$

Where,

| | | |
|---|---|---|
| $TDA_{it}$ | = | Total discretionary accruals, |
| $TA_{it}$ | = | Total accruals, |
| $NDA_{it}$ | = | Non-discretionary accruals. |

The primary issue here is the relationship between earning management with CEO duality, Independence non-executive directors and board size. To find the result, regression model is applied to evaluate the association between earnings management, proxy by total discretionary accruals and the corporate governance variables of CEO duality, independent non-executive directors and board size, and different control variables:

$$TDA_{it} = \alpha + \beta_1 CEO_{it} + \beta_2 PENED_{it} + \beta_3 BDSIZE_{it} + \beta_4 ROA_{it} + \beta_5 SIZE_{it} + \beta_6 OCF_{it} + \varepsilon_{it}$$

Where,

| | | |
|---|---|---|
| $TDA_{it}$ | = | Total discretionary accruals for firm *i* in year t, |
| $CEO_{it}$ | = | Dummy variable: *1* if the CEO and the chairman of the board of directors are the same person an *0* otherwise, |
| $PENED_{it}$ | = | Proportion of independent non-executive directors on the board of directors, |
| $BDSIZE_{it}$ | = | Numbers of directors on the board, |
| $ROA_{it}$ | = | Return on assets, |
| $SIZE_{it}$ | = | Natural log of total assets, |
| $OCF_{it}$ | = | Operating cash flow (scaled by lagged total assets), |
| $\varepsilon_{it}$ | = | Residual which represent the firm specific discretionary portion of accruals / error term for firm i in year t. |

CEO duality is measured by use of a binary variable which is equal to 1 if an individual holds both the positions of chairperson and CEO and 0 otherwise. A positive association between total discretionary accruals and CEO duality is expected due to weaker governance control from entrenchment.

Consistent with prior research *(Weisbach, 1988; Brickley et al., 1994),* directors are classified as insiders or outsiders. Insiders include current employees of the firm and persons affiliated with the firm who are either former employees or relatives of the CEO. Outsiders (independent non-executive directors) have no ties to the firm beyond being a board member. A negative association between total discretionary accruals and the proportion of independent non-executive directors on the board of directors is expected due to more effective monitoring of managerial behavior by an independent board.

However, board size is the total directors in the board. A negative association between total discretionary accruals and board size is expected due to larger board is more likely to have independent directors with financial accounting expertise and is therefore likely to be better at preventing earnings management.

Therefore, CEO duality, the proportion of independent non-executive directors on the board and the board size are determined by an examination of the profile of directors included in the annual reports.

## 4. Research Findings

We have considered the role of corporate governance and earning management in the context of Malaysian public listed firms. We have examine the issue of the impact of corporate governance toward earning management practice in Malaysia and determine whether the corporate governance mechanism and others control variables contribute to decrease the wrong doing practice.

### *4.1 Descriptive statistics*

As shown in Table 1, mean TDA is 14316659.6798 with median of 4148723.75. *CEO* is defined as a dummy variable: *1* if the CEO and the chairman of the board of directors are the same person and *0* otherwise. Therefore, the minimum value and maximum value for *CEO* is 0 and 1 respectively, whereas the mean is 0.37. In the overall samples for this study, have 36.90% of the sample of firms has CEO duality and 63.10% has no CEO duality, which it means most of the firms appointed individuals to assume the Chairman and CEO roles separately. This result is lower if compared to the results in the studies of *Brickley, Coles, J.L., and Xie et. al. (2003)* that found more than 80% of their sample firm-years has CEO duality.

For the proportion of PENED in this study, the mean is 0.43This result is comply with the requirement made by Malaysian Code on Corporate Governance which require at least one third (33.33%) of independent directors in a board. For BDSIZE, the minimum value and maximum value are 4 and 13 respectively. Therefore, it shows that the sample of firms has around 4 to 13 of directors and with the mean of 8 directors in a board. There is no any requirement which strictly determine the number of directors in a board. Public Listed Firms in Malaysia just have to ensure have sufficient number of directors in a board to conduct monitoring jobs.As can be seen in Table 1, the mean and median of ROA are 0.038 and 0.0379 respectively. For SIZE, the mean is 19.7786 and median is 19.6133. Lastly, the mean and median for OCF are 0.0579 and 0.0502 respectively which implies on average, net cash used in operating activities is positive.

**Table 1.** Descriptive Statistic

| Variable(s) | Firms (200)<br>Mean<br>Median<br>(Std. deviation) | Observation |
|---|---|---|
| **TDA** | 14316659.68<br>4148723.75<br>-1.7535 | 1000 |
| **CEO** | 0.37<br>0<br>-0.482 | 1000 |
| **PENED** | 0.43<br>0.4<br>-0.1136 | 1000 |
| **BDSIZE** | 7.55<br>8<br>-1.684 | 1000 |
| **ROA** | 0.0383<br>0.0379<br>-0.0766 | 1000 |
| **SIZE** | 19.7786<br>19.6133<br>-1.2615 | 1000 |
| **OCF** | 0.0579<br>0.0502<br>-0.0806 | 1000 |

This table present, for each empirical proxy in selected sample of 200 firms, the number of observation, the mean and median of the proxies for an average of five years from year 2007 to year 2011.

### 4.2 Pearson's correlation analysis

In Table 2, shows the correlation between TDA with others variables. The correlated result indicate that the TDA is significantly positively associated with CEO duality, SIZE and OCF, but only significantly negatively associated with ROA for firm. Results suggest, earning management is relatively higher in larger firms, when the economics performance (proxied by the OFC of firm) is positive, and CEO and the chairman of the board of directors is the same person. In contrast, it shows that as the ROA of the firm is low, it will lead to the increases in the earnings management. The result in this study is inconsistent with prior studies of *Becker et. al. (1998) and Dechow et.al. (1995)*, which indicated is a significantly negatively associated between TDA and OCF. Therefore, it also explains that there is no significant effect of the proportion of independent non-executive directors and the number of directors in firms.

The result shows PENED is significantly negatively associated with the BDSIZE which correlation -0.271 (at significant level 1%) and ROA which is -0.086 (at significant level 5%). These results suggest that the proportion of independent non-executive directors on the board is relatively higher in firm that has fewer directors in the board or low ROA. In. On the other hand, it shows that there are no significant for the relationship between earnings management, CEO duality, size of firms and operating cash flow with the proportion of independent non-executive directors.

In addition to the above analysis, the number of directors in the board is significantly positively associated with the SIZE with correlation coefficient 0.231 at significant level of 1%. These results suggest that number of directors in the board is relatively higher in larger firms than in smaller firms. Besides that, from the correlation coefficient analysis also shows that the number of directors in the board is the significantly negatively correlated with the proportion of independent non-executive directors, which is correlation coefficient -0.271 at significant level of 1%. It is the highest correlation in this study, which suggesting that increase in the number of directors in the board will no increase in the number of independent non-executive directors in firm.

In examining the ROA and OCF, it shows that the return on assets is significantly positively associated with operating cash flow with the correlation coefficient of 0.339 at significant level of 1%. This correlation shows that as the return on assets increases will also lead to the increase of operating cash flow. In other hand, there is a significantly positively association between SIZE and BDSIZE with correlation coefficient 0.231 at significant level of 1%. This correlation shows that as the number of directors in the board is relatively higher in large firm than small firms. Further analysis shows there are no any significant relationship between CEO duality, the proportion of independent non-executive directors, ROA and operating cash flow with the size of firms.

**Table 2.** Pearson's correlation matrix

| | TDA | CEO | PENED | BDSIZE | ROA | SIZE | OCF |
|---|---|---|---|---|---|---|---|
| TDA | 1 | - | - | - | - | - | - |
| CEO | .085* | 1 | - | - | - | - | - |
| PENED | .013 | -.070 | 1 | - | - | - | - |
| BDSIZE | -.074 | -.026 | -.271** | 1 | - | - | - |
| ROA | -.238** | .006 | -.086* | .073 | 1 | - | - |
| SIZE | .112** | -.078 | .024 | .231** | .082 | 1 | - |
| OCF | .200** | .047 | -.053 | .006 | .339** | -.023 | 1 |

*This table shows the Pearson's correlation among the variables for the period sample from 2008 to 2012.*
**. Correlation is significant at the 0.05 level (2-tailed).*
***. Correlation is significant at the 0.01 level (2-tailed).*

### 4.3 Regression analysis

Based on the multiple regression analysis, it shows the F-statistics and adjusted R-squared is 17.4% indicating that only a marginal portion of the variability of earnings management (proxied by TDA) is explained by the independent variables. These figures are normal for any earnings management studies which utilizing discretionary accrual as proxy (Peasnell et.al 2000). In our analysis, there is a positive relationship between CEO duality with earnings management which is t-statistic is positive at 2.096 at

significant level of 5% with beta of 0.082. This analysis implies that firm with the CEO duality are likely to be engaged in earnings management which similar with the first hypothesis ($H_1$) in this study. These result is consistent with the studies of *Klein (2002)* found that total discretionary accruals is positively related to the CEO who holds a position on the board's nominating and compensation committee. Besides that, the study of *Kam (2007)* finds that CEO duality firms are more likely to engage in earnings management. Thus these findings support the argument that when the positions of board chairman and CEO are held by the same individual, the board is less independent and therefore less effective in monitoring managerial behavior of earnings management.

There is evidence that is no significant relationship between the proportion of independent non-executive directors with the earnings management. Thus, this result is contrary to the second hypothesis ($H_2$) in this study that states that is a significant negative relationship between the proportion of independent non-executive directors and earnings management. This findings is in contrast to the found by *Klein (2002), Xie et.al (2003) and Peasnell, P.F. Pope & S. Young (2001)* where showed that the proportion of independent non-executive directors is negatively related to the earnings management. Nevertheless, this result is similar to the studies that found by *Chtourou et.al. (2001), Park & Shin (2003), Choi, Jeon & Park (2004) and Norman.M.S (2005)* where there is no significant relationship between independent non-executive directors and earnings management.

The result in Table 3 also shows that the t-statistics between the numbers of directors in the board with earnings management in this study is -2.287 at significant level of 5%, which indicates that there is a negative relationship between the board size and earnings management. Thus, this result is implies that larger boards are associated with lower levels of total discretionary accruals, which similar to the third hypothesis ($H_3$) in this study. This finding is counter to the recent findings that small boards are better monitors. One possibility is that since board size is positively correlated with the size of firms. Hence, this result also consistent with the studies of *Jensen (1993)* argues that small boards are more effective in monitoring a CEO's actions, as large boards have a greater emphasis on "politeness and courtesy" and therefore are easier for the CEO to control it. Besides that, from the research of *Yermack (1996)* also concludes that small boards are more effective monitors than large boards. These studies suggest that the size of a firm's board should be inversely related to performance. If small boards enhance monitoring, they would also be associated with less use of earnings management.

The relationship between ROA and earnings management is significant at the significant level of 1%. While, it also shows that is a negative relationship between ROA and earnings management because the t-statistics is -8.584. Thus, this result is indicates that any increase in the ROA will lead to decrease in earnings management. In addition, the relationship between operating cash flow and earnings management is positive and significant with t-statistics of 7.752 at the significant level of 1% indicates that as the operating cash flow of the firm increases, it will lead to the earnings management increases.

**Table 3.** Panel regression on earning management and corporate governance mechanism

| | Coefficient | t-Statistic | p-value |
|---|---|---|---|
| (Constant) | | -3.602 | .000 |
| CEO | .082 | 2.096 | .037 |
| PENED | -.025 | -.615 | .539 |
| BDSIZE | -.095 | -2.287 | .023 |
| ROA | -.357 | -8.584 | .000 |
| SIZE | .178 | 4.409 | .000 |
| OCF | .321 | 7.752 | .000 |
| Adj $R^2$ | | 0.174 | |
| F | | 20.217 | |

*This table shows the relationship between earning management and corporate governance mechanisms (CEO duality, number of independent BOD and BOD size) while controlling for firm characteristics such as ROA, operating cash flow and risk (firm size).*

## 5. Conclusions

In this paper, we have study the role of various corporate governance variables in earnings management in the case of 200 Malaysia public listed firms during the period 2007 to 20011. We examine the relationship between cooperate governance mechanism and earning management. Finding provided CEO duality firms are more likely to engage in earnings management because with excessive power over board make them easily to manipulate earnings *(Klein, 2002).* This finding support the argument that when the positions of board chairman and CEO are held by the same individual, the board is less independent and therefore less effective in monitoring managerial behavior of earnings management *(Healy and Wahlen, 1985 and Kam, 2007).*

In investigate the corporate board's effectiveness in monitoring the managerial behavior of earnings management when the independent non-executive directors are present. The results do not show a significant associated between the proportion of independent non-executive directors and earnings management. Even with higher proportion of independent non-executive directors on the board, it not provides effective monitoring mechanism in constraining management behavior of earnings management *(Core et al. 1999; Chtourou et.al. 2001; Park & Shin 2003, Choi, Jeon & Park 2004 and Norman.M.S 2005).* Research by *Yermack (1996)* concludes that small boards are more effective monitors than large boards. Finding suggests, the size of a firm's board should be inversely related to performance. If small boards enhance monitoring, they would also be associated with less use of earnings management. *Beasley (1996)* found firms with larger board sizes are more prone to fraud compared to those with smaller boards.

The limitation of this study is the size of the sample is small and the result of this study is based on data for the period 2007 to 2011. In our periods of study, included crisis periods, in year 2007 and 2008. Besides that, the crucial limitation of this research was the cross-sectional analysis of the data does not determine causality of association (example change's proportion independent BOD). Furthermore, this study only examines the corporate governance variables of CEO duality, independent non-executive directors and board size. Many of other corporate governance variables has no covered or examined such as audit committees, audit committees meetings, ownership structure, concentrated ownership and compensation of committees, which may also affect the managerial behavior of earnings management.

For further research, it would be of interest to find out if there is any correlation between changes in board composition. We recommended expanding the size of the sample or timing period for sample, which analyzing between before, during and after crisis periods. Also, we will be recommended by including the other corporate governance variables in the study to test the relationship between corporate governance and earnings management.

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