

## The Influence of Board Independence, Competency and Ownership on Earnings Management in Malaysia

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### ABSTRACT

This paper examines the roles of independent members on the board, chief executive officer who also serves as a chairman of the company, board competency and management's share ownership on earnings management practices. Different from prior research, it also investigates whether independent board competency (an interaction of independence and competency) and independent board share ownership (an interaction of independence and management ownership) would lead to better monitoring over earnings management. It also examines whether board competency and share ownership could compensate the missing role of monitoring when CEO duality exists. The results indicate that excessive shareholding beyond 25% by managers may induce managers to manage earnings, and a combined chairman-CEO roles (CEO duality) does not influence the practice of earning management in Malaysian firms. The results also indicate that the minimum composition of one-third independent director, as suggested by the Code of Corporate Governance in Malaysia is not adequate to monitor the management from earnings management practices.

**Keywords:** Board of Directors, Independence, Expertise, Management Ownership, Earnings Management.

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## INTRODUCTION

An effective monitoring mechanism on the management is essential to ensure manager's action is in accordance with shareholder's interest. Conflict of interest between managers and shareholders becomes apparent when there is a separation between the people who own a firm and the people who manage the firm (Jensen & Meckling, 1976). In the current business ownership structure, this separation is unavoidable particularly in large listed firms i.e. the owners are more dispersed among shareholders and the appointed management may have very minimal shareholding. In these firms, failure to monitor the management may lead to inefficient resource allocation and to some extent, corporate scandals. These acts are often followed by non-transparent and misleading reporting to camouflage the effect of the scandals from known by the shareholders. The case of Enron, Worldcom and some other firms in the U.S. and recently, Transmile Bhd.<sup>1</sup> in Malaysia, lead many stakeholders to question the effectiveness of monitoring mechanisms on the management.

This paper investigates the issue of board independence, competency and ownership in monitoring management particularly in providing more transparent and non-misleading performance information. A lack of independence, competency and management share ownership may lead to inefficient resource allocation, which subsequently may be followed by financial misrepresentations. Financial misrepresentation (in this study indicated by earnings management proxy, discretionary accruals), should have been detected by an effective board before financial results are being released to the shareholders.

In particular, this paper examines the roles of independent members on the board, chief executive officer who also serves as a chairman of the company (hereinafter called CEO duality), board competency and management's share ownership on earnings management practices. Despite the fact there are many prior studies that have investigated the issue of earnings management and board independence (Peasnell *et al.*, 2005; Klein, 2002; Chtourou *et al.*, 2001; and Park & Shin, 2004), CEO duality (Bowen *et al.* 2002; and Carapeto *et al.*, 2005), board competency (Xie *et al.*, 2003; and Agrawal & Chanda, 2005) and manager share ownership (Gul & Wah, 2002; Palenzue *et al.*, 2003; Kim & Yi, 2005; and Cheng & Warfield, 2005), only a few studies such as Mohd Saleh *et al.* (2005; and 2007), Abdul Rahman and Mohamed Ali (2006) and Johl *et al.* (2007) have investigated the issue in Malaysian context. We extend their study by making an in-depth investigation on the issue.

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<sup>1</sup> Transmile Bhd (an air cargo listed company in Bursa Malaysia) was reported to have accounting irregularities in overstatement of revenues in 2004, 2005 and 2006 by RM622 million. This case has led several more listed companies in Malaysia being investigated such as Megan Media Holdings Bhd and Welli Multi Corp Bhd (Starbiz, 30 June 2007, p.B5)

This paper contributes to the body of literature when it investigates whether independent board competency (an interaction of independence and competency) and independent board share ownership (an interaction of independence and management ownership) would lead to better monitoring over earnings management. Following prior studies, the existence of CEO duality is expected to have a negative impact on management's monitoring role because the power of the chairman of the board is now centered in the CEO who makes the overall board process less independent. Therefore, another contribution to the literature is an examination on whether board competency and share ownership could compensate the missing role of monitoring when CEO duality exists.

The focus of this study is on the attributes of the board. This study excludes attributes of audit committee since members of audit committee are also members of the board. Therefore, some attributes of the board would, to some extent, determine attributes of audit committee. This would lead to endogeneity problem. In addition, the role of audit committee attributes in relation to earnings management has been investigated in other studies such as Abdul Rahman and Mohamed Ali (2006) and Mohd Saleh *et al.* (2007).

This paper is organized as follows. The next section describes the theoretical background that forms the basis for empirical predictions. Subsequently, hypotheses are developed in the same section. The third section explains the research methods used to test the predictions and variables used in the study. Research results are presented and discussed in section four, followed by the conclusion.

## **LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **Theoretical Background**

Earnings management has been defined in many ways. Schipper (1989) defines this practice as "purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain". The question is why are managers managing earnings? Based on this definition, it appears that earnings are manipulated to the extent where the accounting figure can help managers meet some of their personal interest (Watts & Zimmerman, 1986; Eccles, 2001; and Patten & Trompeter, 2003). The interests, among others, are bonus incentive and avoidance of debt covenant violations (Healy, 1985; Sweeney, 1994; DeFond & Jiambalvo, 1994; Holthausen *et al.*, 1995; Guidry *et al.*, 1999; and Eccles, 2001).

The concerns are that this practice was becoming more widespread and the methods have become more sophisticated (Levitt, 1998). Managers may manage earnings to hide the true financial position of business organisations and relevant

information that investors ought to know (Loomis, 1999). This non-alignment of interest is resulting from the separation of owners (who are the shareholders) and managers in a firm. According to agency theory (Jensen & Meckling, 1976), managers may take an action which can maximize their utility but at the same time would reduce the shareholders' (owners') claim on the firm. Since the separation of managers and owners creates a room for the management to provide misleading information to the shareholders, this gives rise to agency costs i.e. the cost of additional monitoring and the cost of using the information that would result in inappropriate decisions.

### **Earnings Management: An Ethical Issue**

Earnings management practice has attracted attention among regulators, standards setters and accounting profession (Rafik, 2002). Although it is not new in accounting profession (Levitt, 1998), it has been a secret strategy among corporate executives (Rafik, 2002). Earnings management practices with the intention to manage users' perception are considered unethical even though no accounting standards are violated. Dechow and Skinner (2000) report that accounting practitioners and regulators view earnings management as a problem that needs an immediate control action. Rafik (2002) provides evidence that majority of the respondents in the study do not believe that earnings manipulation is ethical.

On the other hand, some believe that earnings management is practiced by firms for the benefit of their investors. Healy and Wahlen (1999) argue that financial reporting can increase firm value if economic earnings and firms' performance is reliable and available on time. Therefore, approved accounting standards should provide the managers, with the alternatives needed (in methods and in applying judgment to estimates) to signal private information on firms' performance i.e in applying their own assumptions based on general principles described in the standards.

Therefore, given these two completely conflicting arguments, it is not proper to control managerial accounting choices by virtue of rule-based standards as it would limit private information signalling to the market. Rather, the selection of accounting choices and estimates has to be monitored. One of the ways to monitor this practice is through corporate governance mechanisms. Previous studies provide evidence that board's independence, competency and management ownership are effective mechanisms in monitoring the management (Beasley, 1996; Chtourou *et al.* 2001; Bowen *et al.* 2002; Xie *et al.* 2003; Peasnell *et al.* 2005; and Peasnell *et al.* 2006).

Efforts to develop better governance to monitor firms in Malaysia have been intensified after the Asian financial crisis. With the objective of enhancing accountability and transparency by the management of company the government sets out the Malaysian Code on Corporate Governance. The Code on Corporate

Governance was gradually enforced on the listed firms by Bursa Malaysia in 2001.<sup>2</sup> There are five main characteristics of board of directors referred to in the Code i.e. board composition, board size, directors' ownership, number of directorships and duality status of the chairman and CEOs. Recently, the Malaysian Securities Commission has issued the revised Code on Corporate Governance which takes effect from 1<sup>st</sup> October 2007 with more stringent requirements in line with international standards. However, data for this study only covers period before the issuance of the latest requirements on corporate governance and the effectiveness of the new requirements is beyond the scope of this study.

## **Board's Independence and Earnings Management**

A balanced board's composition is important for the board to function effectively. A balanced board means that the composition is not dominated by board members with executive power, and consists of members who are independent from the management and shareholders (Shamsul Nahar, 2001). Independent board is one of the effective mechanisms in monitoring the accounting process (Klein, 2002). Therefore, board of directors should consist of independent members i.e. non executive and/or external directors. External directors are able to increase board's independence and able to monitor top management effectively (Ching *et al.*, 2002).

Previous studies provide evidence that non executive and external directors are effective mechanisms in monitoring financial reporting. Beasley (1996) provides evidence that board composition is important to reduce fraud. Xie *et al.* (2003), Peasnell *et al.* (2005; 2006), and Liu and Lu (2007) indicate that external directors are negatively related to earnings management. The more the firms have external directors, the more effective they monitor managers. This is because they are able to stand pressures from the firm's management to manage earnings because they do not have self interest in the firm. In an earlier study using a sample of firms listed on Bursa Malaysia as in year 2001, Mohd Saleh *et al.* (2005) found a positive relationship between discretionary accruals and the ratio of non-executive and independent directors in firms with negative unmanaged earnings due to big bath activities in sample firms. They found that the non-executive and independent directors successfully limit big bath and hence the higher the proportion of non-executive and independent directors to total directors, the higher (less negative) the discretionary accruals.

Consistent with this, the Malaysian Code on Corporate Governance requires firms to have at least one-third of the members on the board to be independent and non-executive. This is to ensure that there is enough independence in the board process that can act on behalf of the shareholders.

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<sup>2</sup> KLSE was renamed as Bursa Malaysia in 2004.

However, there are also studies that do not support the above contention (Chaganti *et al.*, 1985; Agrawal & Knoeber, 1996; Chtourou *et al.*, 2001; Weir *et al.*, 2002; Agrawal & Chadha, 2005 and Park & Shin, 2004). Agrawal and Knoeber (1996) indicate that board's independence is negatively related with firms' performance. Other studies, such as Chaganti *et al.* (1985) and Weir *et al.* (2002) do not find any relationship between board's independence and firms' performance. In addition, Chtourou *et al.* (2001), Park and Shin (2004), Agrawal and Chadha (2005), and Siregar and Utama (2008) also do not find any relationship between board's independence and earnings management.

Although there is no consensus in studies examining the relationship between board's composition and earnings management, consistent with theory the current study hypothesize that:

*H1: Independent board composition is negatively related with earnings management.*

## **CEO Duality and Earnings Management**

Chaganti *et al.* (1985) suggests that to make the board of directors more independent, the CEO should not serves as a chairman of the company. The board may not be effective and independent when the chairman is also the CEO of the company. According to Shamsul Nahar (2001) when the same individual dominates the decision making and firms' operation, it may cause conflict of interest and higher business risk. A CEO is a full time post and he/she is responsible for the operation of the company and strategic implementation, whereas the chairman of the company is responsible to monitor and evaluate the executive directors including the CEO (Weir & Laing, 2001). In addition, he/she is responsible to chair the meeting and monitor the appointment process, termination, evaluation and provide compensation for senior management (Beasley & Salterion, 2001). Therefore, the separation of the post between CEO and chairman of the company is important for effective monitoring. However, the advantage of the same person serves both post is that he/she will have a better understanding and knowledge on the firm operation and environment (Weir *et al.*, 2002).

Bowen *et al.* (2002) indicates that separation of roles between CEO and chairman is important to prevent earnings management activities. In their study, Bowen *et al.* indicates that earnings smoothing activities are higher for firms with CEO duality. This is consistent with a Malaysian study using year 2001 data conducted by Mohd Saleh *et al.* (2005). Mohd Saleh *et al.* (2005) provides evidence that firms with CEO duality is positively related with earnings management. Their study was conducted using data in the first year of the Malaysian Code of Corporate Governance implementation. Mohd Saleh *et al.* (2005) report that nearly 45% of the sample firms have the chairman also acts as a CEO. The effect of a lack of monitoring by having

a unified role of CEO and chairman is consistent with Abdul Rahman and Haniffa (2005) that find Malaysian companies with CEO duality did not perform well compared with their counterparts. We re-examine this issue to see whether the best practice benchmark set forth by the Malaysian Code of Corporate Governance after its full implementation in year 2002 and 2003 that requires a clear separation between the roles of chairman and chief executive directors is effective in limiting earnings management. Therefore we hypothesize that:

*H2: CEO duality is positively related with earnings management.*

## **Competency of the Directors and Earnings Management**

The Cadbury report 1992 emphasizes that the non executive directors' competency is an important factor for the board to be effective. Among others, directors should have knowledge on managing company and corporate governance processes (Chtourou *et al.*, 2001). Directors with accounting and finance background would have a better understanding of the implication of earnings manipulation, compared to managers who do not have that knowledge. Managers without appropriate competency in accounting and finance field may be able to monitor business processes but they may not be able to understand earnings management practices (Xie *et al.*, 2003).

Board of directors who are competent are expected to be able to minimise earnings management activities. Chtourou *et al.* (2001) provides evidence that firms with experienced external directors show significantly lower level of income increasing earnings management compared to other firms. This is consistent with Xie *et al.* (2003) who found that the relationship between experienced board of director (directors with corporate and finance background), with discretionary accruals is low. Similarly, Agrawal and Chadha (2005) indicate that the probability of earnings manipulation is low for firms with board of directors who have knowledge in accounting and finance. Therefore, our next hypothesis is:

*H3a: The existence of at least one board members with knowledge in accounting and finance is negatively related with earnings management.*

Years of experience serving as a board member provides an opportunity for the member to understand the company. This experience would help them developing better governance (Park & Shin, 2004). Chtourou *et al.* (2001) provides evidence that the length of directorship is negatively related with earnings management. However, in our study experience is measured according to director's experience in accounting and finance field. This measure is used because directors with accounting and finance experience may have a better understanding of the implication of earnings management on financial reporting than other directors. Therefore, we

predict that as the number of years they work in the field increases, the probability of earnings management will occur decreases. Therefore, our next hypothesis is:

*H3b: The length of experience in accounting and finance is negatively related with earnings management.*

## **Management Ownership and Earnings Management**

Management ownership may become an important characteristic in influencing the effectiveness of monitoring function in the financial accounting process (Palenzuela, 2003). Consistent to agency theory, if the management also holds a portion of equity ownership in a firm, the interest of the management and the shareholders starts to converge (Warfield et al, 1995).

Prior studies provide inconsistent results on the relationship between management ownership and the effectiveness of financial reporting monitoring. Warfield *et al.* (1995), Shivaram *et al.* (1999), Palenzuela (2003) and Mohd Saleh *et al.* (2005) provide evidence that management ownership is negatively related with earnings management. Unlike the above, Kim and Yi (2005) and Cheng and Warfield (2005) provide evidence that earnings management can be positively related with management ownership. This is because, according to the entrenchment hypothesis (Morck *et al.*, 1988), when the directors' equity ownership is so significant, particularly among the executive directors, more opportunities for them to make decisions that benefit themselves at the expense of other stakeholders. Therefore, an increase in the director equity ownership would decrease the convergence of interests. This is a competing explanation to agency theory i.e. convergence of interest explanation to management behaviour. Consistent with Claessens *et al.* (2000) that found ownership structure in Malaysian firms is highly concentrated, we expect that this effect could dominate if the director equity ownership is significant. However, based on agency theory and prior research such as Warfield *et al.* (1995) and Mohd Saleh *et al.* (2005), we expect that there is a negative relationship between earnings management and management ownership. Therefore, our next hypothesis is:

*H4: Management ownership is negatively related with earnings management.*

## **Management Competency as a Moderating Variable**

Management competency in the field of accounting and finance, as well as the number of years they are in that field may effects the relationship between board's independency and earnings management. As discussed above, we expect management competency will moderate the relationship between board's



independency and earnings management. For example, if at least one member of the board member has accounting and/or finance knowledge, the effectiveness of the independent board becomes more apparent. This is because the board has the competency (ability) to detect such unethical behavior and willingness (by virtue of being independent) to report the behavior. As such, the negative relationship between the independence of the board composition earnings management proxy is expected to be stronger if a board member with accounting and/or finance knowledge exists. Therefore, our next hypotheses are:

*H5a: The negative relationship between board's composition and earnings management is stronger if at least one member of the board of directors has knowledge in accounting and/or finance.*

Similarly, we also expect that if at least one member has accounting and/or finance knowledge, the board has the competency (ability) to detect earnings management to the extent that it can replace the missing monitoring function of a separate CEO and Chairman. Therefore, when there is a competent member on the board, the CEO-Chairman may no longer has the freedom in managing earnings. Therefore, the positive relationship between CEO duality and earnings management proxy may be weaker if there is a competent member in the board.

*H5b: The positive relationship between CEO duality and earnings management is moderated if at least one member of the board of directors has knowledge in accounting and/or finance.*

Hypothesis 5c is similar to hypothesis 5a, but we replace the measurement of competency construct from the existence of a member with accounting and/or finance knowledge to the working experience of the board members.

*H5c: The negative relationship between independent board's composition and earnings management is stronger when the board of directors have vast working experience in accounting and finance field.*

Consistent with hypothesis 5c, hypothesis 5d replaces the measurement of competency construct in hypothesis 5b to working experience of the board members. The prediction remain the same.

*H5d: The positive relationship between CEO duality and earnings management is moderated by the number of years board of directors has served in accounting and finance field.*

## RESEARCH METHOD

Consistent with prior research, we use discretionary accruals as a proxy for financial misrepresentation or earnings management. Most prior literature uses Modified Jones (1991) model because it was found to be superior than other extant methods at the time in detecting abnormal accruals i.e discretionary accruals (Dechow *et al.*, 1995). Later, Bartov *et al.* (2001) found that the cross-sectional version of the model to be superior than the time-series version of the model because of larger sample size and it solves the problem of survivorship bias (Peasnell *et al.*, 2000). The cross-sectional model can also adjust the effect of changes in economic environment that affects particular industry in a particular year.

Nevertheless, we use the original Jones model because the modified Jones model requires an identification of a set of sample which can be classified as ‘clean’ from accounting manipulation (Abdul Aziz, 2004). This process is problematic because we do not make any assumption on which set of sample is managing earnings and which are not. In this study, we only detect abnormality in the reporting of accruals according to industry norms in a particular year.

The model is described as follows:-

$$\frac{TAC_{ijt}}{A_{ijt}} = \alpha_j \left( \frac{1}{A_{ijt-1}} \right) + \beta_{1j} \left( \frac{\Delta REV_{ijt}}{A_{ijt-1}} \right) + \beta_{2j} \left( \frac{PPE_{ijt}}{A_{ijt-1}} \right) + \varepsilon_{ijt} \quad (1)$$

Where,

- $TAC_{ijt}$  = Total accruals i.e working capital minus depreciation and changes in short term debt for firm  $i$ , industry  $j$  and year  $t$ ,  
 $A_{ijt-1}$  = Total assets for firm  $i$ , industry  $j$  and year  $t-1$ ,  
 $\Delta REV_{ijt}$  = Changes in revenue for firm  $i$ , industry  $j$ , from year  $t-1$  to year  $t$ ,  
 $PPE_{ijt}$  = Property, plant and equipment for firm  $i$ , industry  $j$  and year  $t$ ,  
 $\alpha_j \beta_{1j} \beta_{2j}$  = Specific parameters for industry  $j$ , and  
 $\varepsilon_{ijt}$  = Errors for firm  $i$ , industry  $j$  and year  $t$ .

Property, plant and equipment ( $PPE$ ) and changes in revenues ( $\Delta REV$ ) are included to control for changes in non discretionary accruals caused by normal business activities. All variables are deflated by prior year’s total assets to reduce the problem of heteroscedasticity.

Non-discretionary accruals ( $NDA$ ) is defined as the fitted value of regressions using the parameter of estimates obtained in equation (1) for each industry and year portfolio:-

$$NDA_{ijt} = \alpha_j \left( \frac{1}{A_{ijt-1}} \right) + \beta_{1j} \left( \frac{\Delta REV_{ijt}}{A_{ijt-1}} \right) + \beta_{2j} \left( \frac{PPE_{ijt}}{A_{ijt-1}} \right) \quad (2)$$

Since the discretionary accruals (*DAC*) can be obtained as  $TAC_{ijt} - NDA_{ijt}$ , the discretionary accruals are estimated as follows:-

$$DAC_{ijt} = \frac{TAC_{ijt}}{A_{ijt}} - \left[ \alpha_j \left( \frac{1}{A_{ijt-1}} \right) + \beta_{1j} \left( \frac{\Delta REV_{ijt}}{A_{ijt-1}} \right) + \beta_{2j} \left( \frac{PPE_{ijt}}{A_{ijt-1}} \right) \right] \quad (3)$$

We analyzed annual reports of firms listed on Bursa Malaysia Main Board for the financial year ended in 2002 and 2003. Consistent with all prior research utilizing Jones type model, we exclude finance related firms because the nature and behavior of accruals are different from other firms. This is because the industry is highly regulated and the behavior of accruals is subject to tight control and monitoring from the authorities.<sup>3</sup> To get the sample size, we use a procedure described in Sekaran (2001) and Garson (2004):-

$$\text{Sampel size, } ss = \frac{Z^2 \times (p) \times (1-p)}{c^2} \quad (4)$$

Where,

$Z$  = z value, for example, 1.96 for 95% confidence level.

$p$  = percentage of selection in points (0.5)

$c$  = confidence interval, in points e.g.: 0.05 = ± 5

For known population, the sample size is adjusted as follows:-

$$ss^* = \frac{ss}{1 + \frac{ss-1}{\text{population}}} \quad (5)$$

Using the above procedures, and the size of population of 598 observations i.e. the number of listed firms on the first board of Bursa Malaysia, the final sample is 234 firms. The sample firms were selected among listed firms (sorted alphabetically) according to random numbers generated by *Excel*. However, when regression analysis is run, another 10 observations were dropped from the sample due to extreme value of residuals.

Independent variables are defined and shown in Table 1. Most measurements and expected relations are consistent with prior research (indicated as italics in the table). Some conventional control variables are included to control for some variance in discretionary accruals which may be caused by extreme financial performance

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<sup>3</sup> Requirements such as minimum capital adequacy ratio and regulated time period to classify loan assets as non-performing (and hence the percentage for bad debt provisioning) have a great impact on accruals in finance industry.

**Table 1 Independent variables**

<i>Test Variables</i>	<i>Operationalization</i>	<i>Expected relation</i>
Directors independence ( <i>IND</i> )	Percentage of independent non-executive directors from total number of directors. <i>Agrawal and Knoeber(1996), Peasnell et al. (2005), Xie et al. (2003), and Chtourou et al. (2001)</i>	-
CEO Duality ( <i>DUAL</i> )	Coded 1 if the firm has a CEO who is also serving as the chairman, 0 otherwise. <i>Chtourou et al. (2001) and Mohd-Saleh et al. (2005)</i>	+
Directors competency ( <i>COMP TEN</i> )	Equals 1 if a firm has at least 1 director who has professional qualification in accounting or finance, and 0 otherwise. <i>Francis and Krishnan (1999)</i>	-
Directors experience ( <i>EXPR</i> )	Average years of experience of directors in finance or accounting field. <i>Park and Shin (2004)</i>	-
Managerial ownership ( <i>OWN</i> )	Percentage of direct ownership by directors with managerial capacity. <i>Palenzuela et al. (2003), Warfield et al. (1995), and Kim and Yi (2005)</i>	-
<b><i>Control variables</i></b>		
Return on assets ( <i>ROA</i> )	Changes in earnings divided by total assets <i>Klein (2002) and Bartov et al. (2001)</i>	+
Size ( <i>SIZE</i> )	Natural logarithm of total assets <i>Warfield et al. (1995)</i>	-
Operating cash flows ( <i>CASHFLOW</i> )	Operating cash flows over total assets <i>Peasnell et al. (2005)</i>	-
Leverage ( <i>LEV</i> )	Long term liabilities over total assets <i>Peasnell et al. (2005)</i>	+
Audit quality ( <i>AUDIT4</i> )	Coded 1 if the firm is audited by Big- 4 and 0 otherwise. <i>DeAngelo (1981), Becker et al. (1998), Francis et al. (1999) and Gul et al. (2001)</i>	-

(*ROA*), political costs (*SIZE*), proximity to violate debt covenants (*LEV*) and some misspecification errors (*OCF*).

Control variables are included in these models as earnings management represented by *DAC* are found to be related to profitability (Klein, 2002, and Bartov

*et al.*, 2001), operating cash flows and leverage (Peasnell *et al.*, 2005). Consistent with political cost hypothesis (Watts & Zimmerman, 1986), larger firms are expected to adopt more income decreasing accruals to reduce political vulnerability. Thus, *DAC* is predicted to have a negative relationship with size (Warfield *et al.*, 1995). We also include audit quality as one important control variable because prior research found this variable significantly influences the magnitude of earnings management (DeAngelo, 1981; Becker *et al.* 1998; Francis *et al.* 1999; and Gul *et al.* 2001).

The empirical models used to test the hypotheses are as follows:-

$$DAC_{it} = \beta_0 + \beta_1 IND_{it} + \beta_2 DUAL_{it} + \beta_3 COMPTEN_{it} + \beta_4 EXPR_{it} + \beta_5 OWN_{it} + \beta_6 ROA_{it} + \beta_7 LEV_{it} + \beta_8 SIZE_{it} + \beta_9 CASHFLOW_{it} + \beta_{10} AUDIT4_{it} + \epsilon_{it} \quad (6)$$

$$DAC_{it} = \beta_0 + \beta_1 IND_{it} + \beta_2 COMPTEN_{it} + \beta_3 EXPR_{it} + \beta_4 OWN_{it} + \beta_5 IND_{it} * COMPTEN_{it} + \beta_6 IND_{it} * EXPR_{it} + \beta_7 IND_{it} * OWN_{it} + \beta_8 ROA_{it} + \beta_9 LEV_{it} + \beta_{10} SIZE_{it} + \beta_{11} CASHFLOW_{it} + \beta_{12} AUDIT4_{it} + \epsilon_{it} \quad (7)$$

$$DAC_{it} = \beta_0 + \beta_1 DUAL_{it} + \beta_2 COMPTEN_{it} + \beta_3 EXPR_{it} + \beta_4 OWN_{it} + \beta_5 DUAL_{it} * COMPTEN_{it} + \beta_6 DUAL_{it} * EXPR_{it} + \beta_7 DUAL_{it} * OWN_{it} + \beta_8 ROA_{it} + \beta_9 LEV_{it} + \beta_{10} SIZE_{it} + \beta_{11} CASHFLOW_{it} + \beta_{12} AUDIT4_{it} + \epsilon_{it} \quad (8)$$

$$DAC_{it} = \beta_0 + \beta_1 IND_{it} + \beta_2 DUAL_{it} + \beta_3 COMPTEN_{it} + \beta_4 EXPR_{it} + \beta_5 OWN_{it} + \beta_6 IND_{it} * COMPTEN_{it} + \beta_7 IND_{it} * EXPR_{it} + \beta_8 IND_{it} * OWN_{it} + \beta_9 DUAL_{it} * COMPTEN_{it} + \beta_{10} DUAL_{it} * EXPR_{it} + \beta_{11} DUAL_{it} * OWN_{it} + \beta_{12} ROA_{it} + \beta_{13} LEV_{it} + \beta_{14} SIZE_{it} + \beta_{15} CASHFLOW_{it} + \beta_{16} AUDIT4_{it} + \epsilon_{it} \quad (9)$$

Where,

$DAC_{it}$	=	Discretionary accruals
$IND_{it}$	=	Directors independence
$DUAL_{it}$	=	CEO duality
$COMPTEN_{it}$	=	Directors' competency
$EXPR_{it}$	=	Directors' experience
$OWN_{it}$	=	Managerial ownership
$ROA_{it}$	=	Return on assets
$LEV_{it}$	=	Leverage
$SIZE_{it}$	=	Size
$CASHFLOW_{it}$	=	Operating cash flows
$AUDIT4_{it}$	=	Audit quality
$\epsilon_{it}$	=	Error term

As mentioned earlier, this study purposely excludes an examination of the impact of audit committee characteristics on earnings management because of

endogeneity problem. If these variables are included, more tests on the impact of audit committee and board variables dependency are needed and the discussion on this is beyond the scope of the paper.

## RESULTS

### Descriptive Analyses

Table 2 presents the distribution of sample companies according to nine (9) industry classifications. The majority of the sample companies (46%) come from the services and trading sectors (23.2%) and industrial product sector (22.8%). Since there is some industry concentration in the sample, we control for industry differences that may affect the accruals behavior by (1) estimate the discretionary accruals according to industry-year portfolio (as described in the research method section), and (2) including industry dummies in the regression.

**Table 2 Sample distribution based on industry classification**

<i>Industry</i>	<i>No. of companies</i>	<i>Percentage (%)</i>
Consumer Product	29	12.9
Industrial Product	51	22.8
Construction	15	6.7
Technology	12	5.4
Infrastructure	2	0.9
Property	40	17.9
Services and Trading	52	23.2
Hotels	2	0.9
Plantation	21	9.4
Total	224	100.0

Cross-sectional regression of model (1), (2) and (3) using all available data from *Datastream* in each industry-year portfolio, results in a mean of *DAC* for sample firms 0.021. This mean is achieved after we deleted extreme observations mentioned earlier. Although the mean appears higher than prior research utilizing the same model in the U.K i.e. *DAC* = -0.001 (Young, 1999), our measure is more conservative than Mohd Saleh and Ahmed (2005) i.e. *DAC* in Malaysian distressed firms ranges between -0.235 to -0.219, and Johl et al. (2007) i.e. *DAC* between -0.144 and -0.187. This is because the latter two studies are using sample firms with extreme financial conditions.

## Directors' Independence

Table 3 presents the percentage of independent non executive directors of the sample companies. The table shows that the majority of these companies (177 companies or 79%) have proportion of independent non executive directors of more than 33%. Therefore, these 177 companies have complied with the requirement of the Code on Corporate Governance that required the proportion of independence non executive directors, should be at least one third (1/3) from the total number of directors.

**Table 3 Percentage of Independence Non Executive Director of Sample Companies**

<i>Range of percentage (%)</i>	<i>No. of Companies</i>	<i>Percentage (%)</i>
0 - 32	47	21.0
33 - 50	152	67.9
More than 50	25	11.1
Total	224	100.0

Our study also found a small percentage of companies (10.3%) where the Chief Executive Officer is also the Chairman of the company. The majority of the sample (89.7%) had separated the role of the two positions among different individuals. Mohd Saleh *et al.* (2005) found that in 2001 nearly 45% of firms analysed have their CEO-Chairman roles combined. The result in this study shows that significantly more firms comply with the best practice benchmark in 2002 and 2003 compared to 2001.

## Directors' Competency

Directors' competency is based on whether they have a professional accounting qualification (a member of MIA or other professional bodies) and number of years they are in the finance and accounting field. Table 4 indicates that about 92.5% of the directors are considered competent since they are a member of at least one professional body. The percentage of independent non executive director that meet the stated criterion is 53.3%. There are about 7.6% of the directors that is considered as not competent since they do not comply with our criterion.

**Table 4 Competency of Directors**

Type of Director	Percentage (%)
Independent non executive (Competent) <sup>a</sup>	53.3
Non independent non executive (Competent) <sup>a</sup>	16.1
Non independent executive (Competent) <sup>a</sup>	23.0
No professional qualification (Not competent)	7.6
<b>Total</b>	<b>100.0</b>

<sup>a</sup> Competent director, in this table is defined as a director who is a member of at least one professional body.

Table 5 shows that the majority of directors have a vast relevant working experience in the field of accounting, finance and banking. The majority of them have more than 10 years of working experience. In fact, no directors have less than ten years of working experience in the area of finance. Therefore, it can be concluded that the majority of director are competence in the line of work.

**Table 5 Experience of Independence Non Executive Director in the Relevant Field**

Years of Experience	Percentage (%)		
	Accounting	Finance	Banking
0 – 10	36.0	0.0	10.3
11 – 20	15.0	45.4	13.8
21 – 30	23.5	27.3	41.4
31 – 40	21.1	27.3	34.5
More than 40	4.4	0.0	0.0
Total	100.0	100.0	100.0

#### *Managerial ownership*

Table 6 presents descriptive information on managerial equity ownership. It seems that the majority of company (189 or 84.4%) where the management equity ownership is less than 25%. Only 5 companies (2.2%) where the managers owns a significant share ownership. According to agency theory (Jensen & Meckling, 1976), share ownership by managers is expected to reduce conflict between managers and shareholders of companies.

#### *Audit quality*

We measure audit quality based on type of audit firm. Following previous studies indicated in Table 1, a score 1 is given if the firm is audited by Big 5, and 0 otherwise.



**Table 6 Managerial Share Ownership**

Range of managerial ownership (%)	No. of companies	Percentage (%)
0 – 25	189	84.4
26 – 50	30	13.4
51 – 75	5	2.2
Total	224	100.0

Based on our observation, majority of our sample was audited by the Big 5 audit firms (69.2%). This is consistent with previous studies which reported that the majority of listed companies inclined to be audited by big audit firm. This is to ensure the effective reporting monitoring by the audit firms.

## Multiple Regression Results

Normality of the data will be a problem if the value of skewness and kurtosis of the variables are between +2 and -2 (Garson 2004). To overcome the issue, the dependent variable data were transformed using normalization procedure described in Cooke (1998) and Young (1998).<sup>4</sup> Without transformation, OLS regression assigns high weight to outlying observations, thus estimation is sensitive to the inclusion or exclusion of outliers.

Table 7 presents the correlation matrix among the independent variables used in this study. The association between two continuous variables is assessed using Pearson correlation, between a continuous variable and a binary variable using point biserial correlation and between two binary variables using Phi correlation (Welkowitz, Ewen & Cohen, 1991). The table indicates the existence of multicollinearity problem in some variable. The *centered mean* method to the respective independent variables with high correlation was employed in this study (Aiken & West, 1991) to overcome the problem.

Table 8 indicates that conventional variables that are consistently being reported as having a significant association with discretionary accrual (at least at 10% level) in all four models are accounting performance (ROA), leverage (LEV), cash flows (CASHFLOW), and two industries namely consumer products (CONSUMER) and property (PROPERTY). All signs for these variables are as expected earlier.

Table 8 also exhibits the board independence variable (IND) is marginally significant (at least at 10% level, one tailed) in all models. Therefore,  $H_1$  is supported. Therefore, more independent board members would lead to better monitoring over

<sup>4</sup> Van der Waerden's approach of normal transformation can be achieved by dividing the rank of actual observations (r) into the number of observations (n), plus one region  $[r/(n+1)]$ .

**Table 7 Correlation Matrix**

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 <i>DAC</i>	1.00	0.06	-0.04	-0.08	-0.40	0.01	-0.12	0.07	-0.01	-0.02	0.14	-0.08	-0.07	0.03	0.04	-0.01	0.13
2 <i>ROA</i>		1.00	0.07	0.07	0.29	0.03	0.00	0.03	0.12	0.10	0.14	0.09	0.11	0.00	0.10	0.10	0.13
3 <i>LEV</i>			1.00	0.31	-0.08	-0.03	0.03	0.00	-0.01	-0.07	-0.04	0.03	-0.04	-0.02	0.01	-0.05	-0.01
4 <i>SIZE</i>				1.00	0.12	0.11	-0.07	-0.02	0.08	0.00	-0.17	0.01	0.01	-0.01	0.04	0.00	-0.17
5 <i>CASHFLOW</i>					1.00	0.12	0.01	0.01	-0.01	0.05	0.06	-0.01	0.06	-0.02	0.00	0.07	0.07
6 <i>AUDIT5</i>						1.00	-0.10	0.07	0.03	0.06	0.09	-0.04	0.03	-0.10	0.05	0.09	0.08
7 <i>IND</i>							1.00	-0.04	0.13	0.15	-0.04	0.75	0.45	0.19	0.07	0.13	-0.05
8 <i>DUAL</i>								1.00	-0.01	-0.05	0.12	-0.03	-0.02	-0.02	0.66	0.26	0.36
9 <i>COMP TEN</i>									1.00	0.28	0.06	0.73	0.28	0.04	0.71	0.27	0.05
10 <i>EXPR</i>										1.00	-0.02	0.28	0.82	0.02	0.17	0.92	-0.04
11 <i>OWN</i>											1.00	0.00	-0.03	0.06	0.12	0.01	0.94
12 <i>IND*COMP TEN</i>												1.00	0.49	0.15	0.50	0.26	0.00
13 <i>IND*YEARS</i>													1.00	0.03	0.19	0.78	-0.04
14 <i>IND*OWN</i>														1.00	0.01	0.01	0.04
15 <i>DUAL*COMP TEN</i>															1.00	0.39	0.28
16 <i>DUAL*YEARS</i>																1.00	0.06
17 <i>DUAL*OWN</i>																	1.00

Notes:

*DAC* = Discretionary accruals

*ROA* = Return on assets

*LEV* = Leverage

*SIZE* = Size of companies

*CASHFLOW*

*AUDIT4*

*IND*

*DUAL*

= Operating cash flow

= Audit quality

= Independence

= CEO duality

*COMP TEN*

*EXPR*

*OWN*

= Directors' competency

= Directors' Experience

= Managerial Ownership

the management and would result in less earnings management. This result is different from Indonesian context where board independence is not effective as a monitoring mechanism (Siregar and Utama, 2008). These differences could be due to the competence of independent board members in detecting earnings management. We also found that the duality role of CEO and chairman is not significantly related to discretionary accruals i.e.  $H_2$  is rejected. Our result is different from Mohd Saleh *et al.* (2005) that report a positive association between CEO-chairman duality and discretionary accruals in 2001. The reason for this discrepancy is that there is a significant reduction in the duality function of CEO-chairman in our sample compared to Mohd Saleh *et al.*'s to the extent that their roles in promoting earnings management is diminishing. This explanation is consistent with Liu and Lu (2007) that small variations in CEO-chairman duality had caused the relation between this variable and earnings management proxy to become insignificant. We conclude that compliance to the best practice by separating the roles of chairman and CEO in this regard has shown its positive impact.

The results also present non-significant relationships between knowledge as well as the experience of the board members to earnings management activities, thus  $H_{3a}$  and  $H_{3b}$  are rejected. Our result is different to Xie *et al.* (2003) and Agrawal and Chada (2005) who found earnings manipulation in the U.S. is low in firms with board members who have accounting and finance knowledge. Part of the explanation is that the awareness about accounting manipulation is relatively new in Malaysia,<sup>5</sup> and most directors do not involve directly in the preparation and examination of accounts except if they are involved in the audit committee within the board. To this extent, an examination into the roles of knowledge and experience in the different stages of board process is subject to future research.

We found that managerial ownership and directors' independence are significantly related to discretionary accruals. However, the result shows that managerial ownership is positively related with discretionary accrual at  $p < 0.01$  in all models. This indicates that the more manager own companies share, the more they manage earnings. This is in contrast to our hypothesis four ( $H_4$ ) that predict more managerial ownership would align the interest of managers and shareholders and this would lead to less earnings being managed. Therefore, we reject  $H_4$ .

Our result is however consistent with Kim and Yi (2005) and Cheng and Warfield (2005). The explanation to this result could be the effect of entrenchment hypothesis dominates i.e. large ownership by managers may induce managers to act opportunistically and extract wealth from minority shareholders. Our explanation is consistent to Morck *et al.* (1998) study that found a positive relationship between

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<sup>5</sup> Only in 2007, scandals related to accounting manipulation involving multi million ringgit was discovered in Malaysia. There are some minor accounting misrepresentation were discovered much earlier and properly announced in Bursa Malaysia, but received less media attention.

managerial ownership and firm performance at the level of 0%-5% and more than 25% managerial ownership. We perform further analysis by examining the relationship between managerial ownership and discretionary accruals according to three levels of ownership, i.e. (1) 0% - 25%, (2) above 25%-50% and (3) above 50%. We found that although only 30 firms has managerial ownership level between 25% - 50% (Table 6), the effect of their ownership is significantly positively related to discretionary accruals (after controlling for other conventional variables). This effect dominates the non-significant relationship between managerial ownership and discretionary accruals recorded in sub-sample firms with less than 25% and more than 50% managerial ownership. Therefore, we conclude that the excessive managerial ownership (more than 25%) may induce managers in control to act opportunistically in order to extract wealth from other shareholders.

On the issue of whether independent board competency (an interaction of independence and competency) and independent board share ownership (an interaction of independence and management ownership) would lead to better monitoring over earnings management, we found insignificant result. Thus,  $H_{5a-d}$  are not supported.

### **Further Analysis on the Board's Independence**

The initial analysis (presented in Table 8) shows that board's independence influence the level of discretionary accrual, consistent with prior studies by Peasnell *et al.* (1995), Peasnell *et al.* (2006) and Xie *et al.* (2003). These studies provide evidence that board's independence is negatively related with the accruals. To confirm the above finding and to find an answer whether the minimum level of independence suggested by the code is effective, additional analysis to investigate this issue was conducted.

We grouped the board's independence into two groups based on level of independence; i.e. above than 33.3% and above than 50%. The 33.3% cut off point is the minimum level of independence as suggested by the Malaysian Code on Corporate Governance. Moreover, Keong (2000) suggests that as a good corporate governance practice, a company should have at least half of its total directors as independent directors. A dichotomous variable 1 is allocated to each group (each time, separately) when the level of board independence is above 33.3% or above 50%, and 0 for less than 33.3% and 50%.

Table 9 presents results for additional analysis. Table 9 indicates that board's independence is negatively associated with the variation in the level of discretionary accrual when the independence is more than 50% at  $p < 0.05$ . This is consistent with Klein (2002). Our results indicate that the minimum composition of independent director, 1/3 or 33.3%, as suggested by the Code of Corporate Governance is not adequate to monitor the management from earnings management.

Table 8 Regression Results

Variables	Model 1		Model 2		Model 3		Model 4	
	Without Interaction		Interaction With Independence		Interaction With CEO Duality		All Interaction	
	Coefficient	Sig. (p)	Coefficient	Sig. (p)	Coefficient	Sig. (p)	Coefficient	Sig. (p)
Constant	0.657	0.493	0.341	0.699	0.194	0.826	0.328	0.712
<b>Control Variables</b>								
ROA	0.199	0.061	0.208	0.051	0.208	0.052	0.206	0.055
LEV	-0.690	0.063	-0.767	0.038	-0.761	0.044	-0.770	0.041
SIZE	0.027	0.546	0.032	0.474	0.038	0.400	0.032	0.476
CASHFLOW	-5.358	0.000	-5.487	0.000	-5.414	0.000	-5.444	0.000
AUDIT4	-0.011	0.924	0.021	0.858	0.026	0.821	0.017	0.881
CONSUMER	-1.045	0.000	-1.100	0.000	-1.064	0.000	-1.097	0.000
INDUSTRIAL	-0.253	0.140	-0.279	0.109	-0.251	0.148	-0.255	0.149
PROPERTY	-0.659	0.000	-0.724	0.000	-0.697	0.000	-0.694	0.000
<b>Test Variables</b>								
IND	-1.061	0.054	-0.872	0.108	-	-	-0.855	0.117
DUAL	0.214	0.214	-	-	0.241	0.191	0.230	0.208
COMP TEN	-0.198	0.336	-0.154	0.502	-0.237	0.250	-0.146	0.529
EXPR	0.000	0.904	0.001	0.856	0.000	0.889	0.000	0.889
OWN	0.010	0.008	0.011	0.004	0.010	0.010	0.010	0.008
IND*COMP TEN	-	-	0.697	0.778	-	-	0.906	0.717
IND*YEARS	-	-	0.008	0.795	-	-	0.006	0.845
IND*OWN	-	-	0.074	0.080	-	-	0.073	0.088
DUAL*COMP TEN	-	-	-	-	0.477	0.475	0.459	0.490
DUAL*YEARS	-	-	-	-	-0.004	0.701	-0.004	0.749
DUAL*OWN	-	-	-	-	-0.007	0.569	-0.005	0.677
	R <sup>2</sup> =0.403		R <sup>2</sup> =0.420		R <sup>2</sup> =0.404		R <sup>2</sup> =0.426	

Notes:

DAC = Discretionary accruals CASHFLOW = Operating cash flow COMP TEN = Directors' competency SIZE = Size of companies  
 ROA = Return on assets AUDIT4 = Audit quality EXPR = Directors' experience DUAL = CEO duality  
 LEV = Leverage IND = Independence OWN = Managerial Ownership \* sig (p) based on two-tailed test.

**Table 9 Directors Independence and Discretionary Accrual at 33.3% and 50% Level**

	More than 33%		More than 50%	
	Coefficient	Sig. (p)	Coefficient	Sig. (p)
Constant	0.810	0.411	0.642	0.498
<b>Control Variables</b>				
<i>ROA</i>	0.370	0.002	0.359	0.002
<i>LEV</i>	-0.555	0.181	-0.512	0.216
<i>SIZE</i>	-0.021	0.666	-0.017	0.722
<i>CASHFLOW</i>	-5.557	0.000	-5.496	0.000
<i>AUDIT4</i>	0.130	0.306	0.113	0.372
<b>Test Variables</b>				
<i>IND</i>	-0.192	0.183	-0.286	0.043
	R <sup>2</sup> = 0.212		R <sup>2</sup> = 0.221	

## CONCLUSION

This paper investigates the issue of the board's independence, competency and ownership in monitoring the management. In particular, this paper examines the roles of independent members on the board, CEO duality, board competency and management's share ownership on earnings management practices. Our results indicate that CEO duality do not influence the practice of earning management in Malaysian firms. However, results of additional analysis indicate that directors are able to discourage the earning management practice when the composition of independence directors is more than 50%. Our results indicate that the minimum composition of 1/3 or 33.3% independent director, as suggested by the Code of Corporate Governance is not adequate to monitor the management from earnings management practices.

The directors knowledge in the field of accounting and finance, and the number of years they are in the field, do not make any difference in the earning management practice. However, not as expected, manager ownership is associated positively with the earning management practice. Our results also indicate that the interaction effect between board's independence and CEO duality with all test variables (directors' competency, years of experience, and managerial ownership) are not significant. Therefore, the interactions between these variables do not strengthen or weaken the relationship between directors' independence and earnings management practices. Further research is needed to explore the roles of directors' knowledge and experience in the stages of processes of monitoring financial reporting.

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