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**CORPORATE GOVERNANCE MECHANISMS AND EARNINGS  
MANAGEMENT IN MALAYSIAN GOVERNMENT LINKED  
COMPANIES: THE IMPACT OF GLCS TRANSFORMATION POLICY**

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**Abstract**

As the major shareholder, Malaysian Government in 2004 has embarked on the Government linked Companies (GLCs) transformation policy program that mainly emphasizes on enhancing the corporate governance mechanisms of the State owned Enterprises (SOEs) in order to enhance effectiveness of the board. The paper aims to examine the impact of corporate governance mechanisms as embedded in the transformation program on the practice of earnings management. In particular, the study uses data for two periods of time (pre and post transformation), and examine whether the period of post transformation policy has experienced any improvement of board monitoring role in curbing earnings management activities. The main findings show that there is an increase of earnings management activities in post transformation period. Further, the findings revealed that all corporate governance mechanisms have little impact to curb earnings management activities except for board meetings and leadership structure in the post transformation period. The board meetings and separate role of two top positions in the companies were shown to have negative impact on earnings management post transformation policy and that relationship do not hold for the period pre transformation policy. Although the study has shown positive preliminary impact of tightening corporate governance in GLCs, scope to expand the research was also discussed.

Key words: GLCs, Transformation Program, Corporate Governance, Earnings Management.

## INTRODUCTION

Corporate governance has attracted a considerable attention from regulators, academician and practitioners due to the widely held belief that the corporate governance enhances investor goodwill and confidence and boosting the economic health of listed corporations (Coleman, 2006; Garg, 2007). Moreover, the corporate governance mechanisms have argued to affect the performance of corporate (Chuanrommanee and Swierczek, 2007) and contribute to the integrity of financial reporting process in different context of organizations (Petra, 2007). This is equally important for listed private and listed state owned corporations. Thus, as main mechanism in corporate governance, board has fiduciary responsibility to monitor management against opportunistic behaviors. However, the extent of corporate governance in general and board of directors particularly to safeguards shareholders depends on the effectiveness of the mechanisms. In this regards, many corporate governance recommendations and guidance have been issued to ensure that the board of directors perform its duty effectively.

Malaysia as emerging market has issued with its own code of corporate governance in 2000 which revised by 2007 and should be followed by all listed companies. Nonetheless, Malaysian listed Government Linked Companies have been subject to criticisms concerning their role and performance in the Malaysian economy and have recently come under government scrutiny (Abdul-Aziz et al., 2007). The reason is that GLCs suffered recurring poor financial performance. Thus, the Malaysian government as major shareholder of listed government linked companies has embarked with new transformation policy to strengthen the governance system of its owned listed firms. The underlying principles of the policy are national development, performance focus and good governance as emphasized by Putrajaya Governance Committee. One of the important thrusts of the policy is to upgrade the effectiveness of corporate governance of the GLCs through the improvement in certain board mechanisms that are suggested to have an impact on GLCs' performance. In the GREEN BOOK of transformation policy, PGC has reinforced certain board characteristics such as board size, board meetings and multiple directorships as influential tools to make the board more effective in performing its oversight duties.

The progress report of the transformation policy has shown that GLCs' performance is on track which suggests that the GLCs are performing better in post transformation policy period. However, there is also a question of whether the GLCs are actually performing better or whether the improvement in performance is affected by the limitations of existing performance measurement (i.e. earnings management). With enhanced corporate governance mechanisms in place as clearly stated in the Green Book, it is expected that the GLC's improved performance should commensurate with lower activity of earnings management. Thus, it would reflect the improved quality of reported earnings with strengthening of oversight functions of the Boards. This is the essence of corporate governance initiatives undertaken worldwide. Therefore, this study aims to investigate the impact of the transformation policy on the association between board characteristics and earnings management of the listed GLCs firms in Malaysia. In particular, the study will test whether enhancing corporate governance mechanisms is associated with lowering earnings management in the GLCs.

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The main finding of the study shows that there is a moderate increase of earnings management activities in the post transformation policy year. Thus, this pose question on the quality of reported earnings of the GLCs. Interestingly, the enhanced function of audit committee with the inclusion of financial expert seems to promote greater earnings management than otherwise. Nevertheless, we also find that board meetings and duality are related to lowering earning management and that relationship is stronger post transformation program.

Thus, the paper proceeds as follows. The following section provides a detailed discussion on theoretical framework and hypotheses development. Following a discussion on the research methodology, the results of the study are reported. The final section concludes the paper.

## **Literature Review and Hypotheses Development**

### **Earnings management**

Healy and Wahlen (1999) propose that “Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers”. It is suggested that EM occurs due to various reasons, including influencing the capital market (Beneish, 2001; Healy and Wahlen,1999; Cormier et al.,1998); contracts written in terms of accounting number “lending contracts” (Othman and Zeghal, 2006; Bagnoli and Watts, 2000; Healy and Wahlen,1999); management compensation contract (Guidry et al. 1999; Holthausen et al., 1995); anti trust or other government regulation and political costs (Wilson and Shailer,2007; Key, 1997; Watt and Zimmerman, 1986); effective tax rate and issuing equity; the existence of relative performance evaluation specifically when firms expect their competitor firms to manage earnings (Burgstahler and Dichev, 1997) avoidance of earnings decreases and losses (Daniel et al., 2008) and meeting dividend thresholds, (Goncharoy and Zimmermann, 2006).

As such there is widely belief that firms are motivated to engage in manipulation of their earnings and to involve in opportunistic behaviors (for example, Peasnell et al., 2005; Klein, 2002; Chen et al., 2006; Abdul Rahman, 2006). Park and Shin view that earnings management range from fraud which violates the generally accepted principle to earnings management which can be approached within GAAP. For example, Daniel et al. (2008) illustrate that manipulating earnings though GAAP can be exercised by accelerating the recognition of revenue, deferring the recognition of expenses, altering inventory accounting methods, changing estimates of bad debt, and revising assumptions related to pension assets.

### **Earnings management and Corporate Governance**

Earnings management is viewed as detrimental to firms’ value (Jiraporn et al., 2008) due to impact the on financial reporting quality. This is mainly because information asymmetry between insiders and outsiders will be higher and hence it has the

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potential to decrease shareholders' wealth (Park and shin, 2004) as the information will be less informative to shareholders (Teoh et al., 1998). Thus, the corporate governance mechanisms could mitigate the information asymmetry and reduce the divergence between shareholders and managers. In this regards, a large body of academic literature have examined the impact of corporate governance variables on earnings management (see for examples, Park and shin, 2004; Xie et al., 2003; Dechow et al, 1996; Sarkar et al., 2006 Cornett et al, 2008).

Certainly, the board of directors' effectiveness can be linked to financial reporting quality in a way that the effective and active board can minimize the opportunistic behavior of unscrupulous managers, hence protecting the interest of shareholders. The Malaysian Companies' Act 1965 and MASB statements emphasize the role and responsibility of the board of directors in ensuring that the financial statements are prepared in accordance with applicable accounting standards. Moreover, the board of directors should also perform its function effectively since compliance with accounting standards is not enough to ensure the absence of manipulation in financial statements (Saleh et al., 2005). Therefore, in order to handle its monitoring responsibilities effectively, it might depend in the so called form of Corporate Governance (CG) like structure and composition (Peasnell et al., 2005) or it might rely on the substance of CG such as diligence and busyness of directors (Sakar et al., 2006; Chtourou et al., 2001). All such issues of governance were strongly emphasized in the GLCs transformation policy initiatives (PGC, 2006).

### ***Board composition***

The board of directors at the top of the monitoring system has the role of monitoring the top management (Fama and Jensen, 1983). However, to be an effective monitor, the board needs to include outside director members who are expected to behave independently of managers (Peasnell et al., 1998) and to bring greater breadth of experience to the firm (Cornett et al., 2008) as they are more willing to develop reputation in the labor market which depends basically on their performance on monitoring (Fama and Jensen, 1983). Kelin (2002) and Peasnell et al. (2005) find that board independence provides an essential tool to reduce the magnitude of earnings management. Although the vast majority of the research find negative relationships between board independence and EM suggesting that more NEDs there are as board members, EM activities will reduce, the literature tends to suggest mixed results. For instances, Abdul-Rahman and Ali (2006); Abdullah and Nasir (2004); Saleh et al. (2005) find that board independence has no impact in constraining earnings management. Meanwhile, Osma and Noguera (2007) find positive relationship.

Thus, agency theory assumes that the association of independent directors and non-executive directors' (NEDs) with EM is expected to be negative, and stronger post transformation policy as CG practices are more emphasized following the transformation policy.

*Hypothesis1a: the negative association between the number of independent directors on the board and earnings management is stronger in post transformation policy period than before.*

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*Hypothesis1b: the negative association between the number of non-executive directors on the board and earnings management is stronger in post transformation policy period than before.*

### **Board size**

Despite the role of independence directors in oversight role, the board size is debated to have an impact on curbing earnings management activities, Jensen (1993) argues that a larger board is easier for the CEO to control and it is difficult for it to perform its role effectively due to communication and coordination problems. In such a weak board culture managers can make opportunistic choices to advance their self interests at the expense of shareholders (Vafeas, 2000). He further discusses the possible effect of each board size on financial reporting quality. He proposes that the smaller board can enhance the quality of financial reporting and hence information quality will be higher for those firms with a smaller board. This may be due to the possibility of the discussion of financial reporting numbers among the small board's members compared to the large board. Inversely, the larger board is expected to be less effective as the monitoring responsibility will be diffused among many directors which suggest that the burden will be less on each of them (Vafeas, 2000). This could be because of the less personal responsibility assumed by each director. While several authors find that smaller board size could enhance the quality of earnings (Beasley; 1996; Vafeas, 2000; Ahmed et al., 2006), others find no or negative relationship between board size and earnings management and shareholder welfare (Chtourou et al., 2001; Xie et al., 2003; and Peasnell et al. 2001). Therefore, from the discussion above, the following hypothesis is proposed:

*Hypothesis2: The positive association between board size and earnings management is higher in post transformation policy period than before.*

### **Board Leadership**

Agency theory dictates that having separated people on the top of the decision management function and control function helps in reducing the power of the CEO on the board (Fama and Jensen, 1983). Furthermore, the separation of the CEO and chairman strengthen the checks and balances in the top management of firms (Chen et al., 2006). Thus, it is argued that having two different persons on the top of control function (board) and execution function (management) could mitigate the agency problems and hence safeguards the interest of shareholders by decrement the earnings management activities. Supporting the agency theory perspective, Dechow et al(1996) find that firms with dual role are more subjecting to investigation by SEC. Zarkar et al. (2003) find a positive relationship between duality and earnings management. The expectation is that the earnings management will be higher with combining the role of two top positions of the firms. Therefore, we formulate the following hypothesis:

*Hypothesis3: The negative relationship between the non duality role and earnings management is higher in post transformation policy period than before.*

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### ***Board Meetings***

Vafeas (1999), Conger et al. (1998) and Lipton and Lorsch (1992) suggest that the board of directors' effectiveness is a function of time where board meetings reflect the board activity. From the agency perspective, it is contended that when the board demonstrates more diligence in discharging its responsibility, this will enhance the overall oversight of the financial reporting process (Carcello et al., 2002). Xie et al. (2003) opine that the more board meetings, the more time is devoted to issues such as EM and vice versa. However, it is argued that the board activity is a function of firm size, where the larger the firm, the more complex the firm which, in turn, needs more time consumed in the decision making process due to the information complexity in such organizations (Vafeas, 1999). A positive relationship is found between fraud and multiple directorships (Chen et al., 2006). Other studies (Sarkar et al., 2006 and Xie et al., 2003) find negative relationship with DA. The expectation is that discretionary accruals will be less with an increase in the number of board meetings as agency theory suggests. Therefore the following negative hypothesis is stated:

*Hypothesis 4: the negative relationship between board meetings and earnings management is higher in post transformation policy period than before.*

### ***Board multiple directorships***

There is a growing debate in the corporate governance literature on the membership of directors on multiple boards and its impact on the effectiveness of the monitoring function of the board of directors (Schnake and Williams, 2008). Ferris et al. (2003) advanced the busyness hypothesis which proposes that serving on multiple boards' overcommitted individuals. In such a way, the directors with multiple directorships might serve less on board committees and hence the role of the board in oversight management will be reduced according to the busyness hypothesis. In empirical studies conducted by (Saleh et al. 2005; Chtourou et al, 2001), the results indicate negative relationship between earnings management and boards multiple directorship. In line with the empirical evidence and with the notion that firms whose directors have many directorships on other firms' board are expected to perform less effectively and hence their ability to curb earnings management will be less likely, the following relationship is hypothesized:

*Hypothesis 5: Fewer board directorships lead to lower EM activities in the post transformation policy period than before.*

### ***Audit Committee***

The audit committee has long been seen as a vital institution in assisting the board of directors in overseeing the transparency and integrity of the financial reporting process (Klein, 2002). According to Wild (1996), the primary assumption of the establishment of an audit committee is to enhance earnings and financial reporting quality. Thus, the Blue Ribbon Committee report (1999) and Securities and Exchange Commission report of Sarbanes Oxley Act of 2002 as well as PGC (2006) have emphasized the essential role of the audit committee in the financial reporting process and that can be achieved by improving the effectiveness of audit committee members through certain mechanisms,

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including their independence, financial literacy and expertise and consuming sufficient time to meet regularly and discuss with the related parties. Empirically, Abbott et al. (2002) and Klien (2002) find that audit committee independence has negative relationship with misstatement and earnings management. On the other hand, Dhaliwal et al. (2006) find a positive relationship between only accounting expertise on the audit committee and accruals quality. Meanwhile, Lin et al. (2006) find no evidence on the relationship between financial expertise and meetings of the audit committee members and restatements. From the above discussion, the following hypotheses are proposed:

*Hypothesis 6: The negative relationship between audit committee's independence, financial expertise and frequency of committee meeting, and EM is higher in post transformation policy than before.*

### **Research design and variable measurement**

The sample examined in this study consists of all the Government Linked Companies listed on Bursa Malaysia. The sample period covers periods; the first period covers the year of 2003 and the second period runs over 2006. The first period represents the period before the Malaysian government restructured the companies under its control. The second period reflects the period following the transformation programme of the GLCs that the government launched in order to restructure the GLCs into high performing companies. In total, at the time of the 2006 annual reports there were 53 listed GLC firms. Of the 53 firms, firms in the financial sector were excluded from the sample since the finance industry is a highly regulated industry and the behaviour of earnings in finance sector is different from other sectors which require other methods to calculate the DA that cannot be captured by the modified Jones model (Abdul Rahman and Ali, 2006; Peasnell et al., 2005; Saleh et al., 2005; Abduallah and Nasir, 2004; Park and Shin, 2004; Abdul Rahman and Abu Bakar, 2002; Kelin, 2002). After excluding the finance sector, 43 observations were available, of which, 8 either had missing data on the explanatory corporate governance variables or had insufficient data on Bloomberg database to enable an estimation of DA, this leaving a final sample of 35 firm-year observations.

### **Measuring earnings management**

While there are different models to estimate the discretionary accruals portion, Dechow et al. (1995) assess the performance of five models of calculating EM developed in the literature and conclude that a modified version of the Jones (1991) model by Dechow et al. (1995) provides the most powerful test of EM. Therefore, the modified Jones (Dechow et al., 1995) in its cross sectional version is adopted in this study. According to Peasnell et al. (2000), Bartov et al. (2001), Peasnell et al. (2001), and Subramanyam (1996) using a cross sectional model provides several advantages over the counterpart time series model. While the time series Jones model assumes that coefficient estimates on changes in revenues and plant, property and equipment are stationary over time, the cross-sectional model assumes the changes cannot be stationary over time. Using the cross-sectional model will help to avoid the survivorship; The self reversing property of accruals may introduce specification problems in the form of serially

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correlated residuals (Peasnell et al., 2000); Bartov et al. (2001) evaluate the power of various models of DA and they report that the cross-sectional Jones and the cross-sectional modified Jones models perform better than their counterpart time series models; It generates a greater sample than time series data (Peasnell et al., 2001; Subramanyam, 1996)

Using Ordinary Least Square (OLS) regression, the coefficient parameters for all other non sample firms in each industry are estimated separately using the original version of the Jones model, not from the modified model as shown in equation 1 ( Bartov et al., 2001; Jaggi and Leung, 2007; Ashbaugh et al., 2003). Further, in order to ensure unbiased estimation, each industry includes at least 10 observations which are consistent with prior research (DeFond and Jiambalvo, 1994; Subramanyam, 1996; Klein, 2002). Based on availability of data and industries in which the GLCs operate, the number of firm observations included to compute the coefficient parameters are highlighted in appendix 1.

Equation 1

$$\frac{TA_{itk}}{A_{itk-1}} = \alpha_1 \left( \frac{1}{A_{itk-1}} \right) + \alpha_2 \left( \frac{\Delta REV_{itk}}{A_{itk-1}} \right) + \alpha_3 \left( \frac{PPE_{itk}}{A_{itk-1}} \right) + \varepsilon_{itk}$$

Following Daniel et al. (2008), Hribar and Collins (2002) and Bradshaw et al. (2001),  $TA_{itk}$  is total accruals for firm  $i$  in industry  $k$  in year  $t$ , computed as the difference between net income before extraordinary items and cash flow from operations;  $PPE_{itk}$  is gross property, plant, and equipment for firm  $i$  in industry  $k$  in year  $t$ ;  $\Delta REV_{itk}$  is the change in revenues for firm  $i$  in industry  $k$  between year  $t-1$  and year  $t$ ;  $\varepsilon_{itk}$  is error term for firm  $i$  in year  $t$  for industry and finally  $\alpha_1, \alpha_2, \alpha_3$  are industry specific parameters coefficient. All variables are deflated by lagged assets,  $A_{itk-1}$  to reduce heteroscedasticity.

Using the estimated coefficients  $\alpha_1, \alpha_2, \alpha_3$  from industry division regressions (Eq. (1), the researchers evaluate the non-discretionary components of total accruals, NDA, for each sample firm-year observation using the Jones modified cross sectional model as shown in equation 2;

Equation 2

$$NDA_{itk} = \alpha_1 \left( \frac{1}{A_{itk-1}} \right) + \alpha_2 \left( \frac{\Delta REV_{itk} - \Delta REC_{itk}}{A_{itk-1}} \right) + \alpha_3 \left( \frac{PPE_{itk}}{A_{itk-1}} \right)$$

Finally, the discretionary accruals proxy is obtained by calculating the difference between total accruals and estimated NDA as shown in equation (3) below;

Equation 3

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$$DA_{itk} = TA_{itk} - NDA_{itk}$$

### Data and model on Corporate governance

Data on corporate governance variables are taken from proxy statements. All listed firms are required to disclose the information regarding corporate governance compliance in their annual reports. Beside corporate governance variables, two control variables have been used in the model namely firm size and leverage that are hypothesized by Watt and Zimmermann (1986) to have influence the accounting choices. Firm size is included to control for differences in firm size as the expectation is that firm size could explain to some extent the level of discretionary accruals in order to reduce the political sensitivity of regulators. While financial leverage is expected to influence the earnings management due to debt covenant. Table 1 shows the variables definitions

To measure the strength of association between discretionary accruals and the explanatory variables was tested using a linear regression model. The dependent variable is a measure of discretionary accruals. The independent variables include measures of board corporate governance, and control variables. The model is used to test the association between discretionary accruals and explanatory variables before the period prior transformation and post transformation program as shown below

$$DA = \alpha + \beta_1 IND + \beta_2 NEDs + \beta_6 Dual + \beta_3 Bsize + \beta_4 Bmeet + \beta_5 Dship + \beta_7 Comind + \beta_8 ComMeet + \beta_9 EXP + \beta_{10} Fsize + \beta_{11} LEV + \varepsilon$$

Where, DA is discretionary accruals obtained from cross sectional modified Jones model. IND is independent directors, NEDs is non executive directors, Bsize is board size, Bmeet is board meetings, Dship is the directorships, Dual is the duality role, COMIND is the audit committee independence, ComMeet is the audit committee meetings, EXP is the financial expertise of audit audit committee, Fzie is firm size and LEV is the leverage.

**Table 1: Variables definition**

Variables	Definition	Operationalization	Expected sign
IND	A proxy of Board independence	Independent directors to total number of directors	-
NEDs	A proxy of board independence	Non executive directors to total numbers of director	-
Dual	CEO-Chairman duality	Dummy variable being 1CEO-chariman duality, Zero, otherwise	+
Bsize	Board of directors size	Total number of the directors	+
Bmeet	Board meetings	Number of meetings divided by number of directors	

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			-
Dship	Number of seats on other board held by each directors	Total number of outside directorship divided by number of directors	+
Comind	A proxy of independence	% of independent directors on audit committee to total number of directors	-
ComMeet	Audit committee meetings	Numbers of meetings divided by number of audit committee members	-
EXP	Financial expertise on audit committee	Dummy variable equal 1 if at least one member is expert, Zero otherwise	-
Fsize	Firm size	Total assets	+
LEV	Leverage	Total debt to total assets	-

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Since multivariate regression is used to test the hypotheses, assumptions of normality, multicollinearity and homoscedasticity are also tested. The normality test is conducted using Skewness, Kurtosis and Kolmogorov-Smirnov Z. While Pearson correlation matrix and Variance Inflation Factor (VIF) are used to test the multicollinearity assumption, Levene Test is adopted to test the homogeneity of variances.

### Empirical Results

Since the focus of study is on the impact of transformation program, the model above is employed to examine both period. Table 2 Panel A presents the Pearson correlation matrix for the dependent and explanatory variables for the year 2003 prior transformation program. Meanwhile the Panel B presents the correlation matrix for 2006 post transformation policy. It indicates no multicollinearity problem, as the correlations are relatively low.

The analysis of homogeneity of variances revealed that no problem of homoscedasticity. As a rule of thumb, if the Levene test is significant ( $p < 0.05$ ), the two variances are significantly different. If it is not ( $P > 0, 05$ ), the two variances are not significantly different; that is, the two variances are approximately equal. Results of standard tests on skewness and kurtosis as well as Kolmogorov-Smirnov Z indicate a problem with the normality assumption. Hence, the all variables are transformed into normal scores of van der Warden (Haniffa and Cooke, 2002; Leventis et al., 2005; Leventis and Caramanis, 2005).

**Table 2: Correlation Matrix**

	1	2	3	4	5	6	7	8	9	10	11	12
<b>Panel A Pearson Correlation Matrix for 2003</b>												
1) DA	1											
2) IND	.054	1										
3) NEDs	.124	.179	1									
4) Dual	-.005	.188	-.026	1								
5) Bsize	-.018	-.180	.010	-.254	1							
6) Bmeet	-.249	-.170	.115	-.160	.480	1						
7) Dship	-.014	.289	.297	.170	-.116	.021	1					
8) Comind	.075	.335	.47**	.070	-.008	-.161	.650	1				
9) ComMeet	.080	-.250	.273	-.045	.020	.251	.030	-.078	1			
10) EXP	-.022	.217	.213	.300	.158	.093	.050	.042	.030	1		
11) Fsize	-.060	.100	.050	-.030	.130	.40**	-.030	-.300	-.003	.060	1	
12) LEV	.114	.620*	.030	-.015	-.060	-.004	.510	.330	-.015	.040	0.23	1
<b>Panel B Pearson Correlation Matrix for 2006</b>												
1) DA	1											
2) IND	-.060	1										
3) NEDs	-.010	.183	1									
4) Dual	-.200	.030	-.240	1								
5) Bsize	-.010	-.06	-.120	-.130	1							
6) Bmeet	-.52*	-.001	.120	-.200	.150	1						
7) Dship	-.35**	.164	.120	-.260	-.140	.008	1					
8) Comind	-.120	.521	.070	.020	.060	.20*	.150	1				
9) ComMeet	-.54*	.521	.170	-.070	.050	.55*	.070	-.029	1			
10) EXP	.270	.210	.150	.030	.110	-.150	.110	.090	-.010	1		
11) Fsize	-.160	.231	.020	.002	.120	.55	.010	.180	.40*	.05	1	
12) LEV	-.220	.268	.100	-.020	.020	-.09	.190	.070	.190	.09	.230	1

Table 3 presents descriptive statistics. The Table displays an increase of EM activities in the post transformation policy year with an absolute discretionary accrual (ABSDA)/total assets ratio for 2006 of 8.14% as compared to a lower ABSDA/total asset ratio of 6.86% in 2003. However, the paired sample T-test indicates DA have not experienced any statistically significant changes in post transformation programme as compared to the pre transformation policy year. Despite that, the descriptive statistics indicates that the transformation policy failed to curb EM activities. For explanatory variables relating to compliance to the transformation policy requirements, findings on board size, number of meetings and directorships will be highlighted as these are specific changes required by the policy. It can be seen in Table that the size of the board (Bsize) across the sample in

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year 2003 ranges from 6 to 14 with a mean of 8 directors, whereas the board size for year 2006 ranges from 5 to 12 directors with a mean of 8 directors which meets the requirements made in the transformation programme in 2004. The board requirement indicates that the board size should not exceed 10 directors. On average, the board size for the overall sample is considered the same for the year 2003 and 2006.

The board during the year 2003 on average meets 7 times. The minimum number of meetings held in year 2003 was about approximately four meetings, while the maximum was about 15 meetings. Referring to the year 2006, it is found that the mean number of meetings increased to eight meetings with one more meeting as compared to 2003. It seems from the average that sample firms are in compliance with the PGC requirements of at least six meetings held each year. The maximum number of meetings held for 2006 is about 17 meetings which can be considered very high. However, the minimum meetings held per year indicate that at least one firm met only three times – something which is considered a violation of the requirements. The mean value of non executive directors on the board is about 8 directors, which indicates that board size of the most of companies comprise a majority of non executives directors. However, there is not much difference between 2003 (0.85) and 2006 (0.87). Meanwhile, the statistics about board independence in 2003 indicate the mean value for board independence is about 0.40 which is considered quite similar for the mean 0.41 of 2006. The minimum value of board independence is about 0.29 and 0.33 for 2003 and 2006 respectively and the maximum is about 75% and 63% respectively. This suggests that, the GLCs in 2003 did not follow the requirements of Bursa Malaysia for one-third of directors should be independent. This could be due to the fact that government connected firms have negative relationship with compliance (Ahmed et al., 2008). However, in 2006, the firms met one-third of the regulatory requirement of Bursa Malaysia emphasized in the PGC requirements for transforming the GLCs into high performing firms.

Each director in the sample has on average three board seats on other listed companies in the year 2003. The maximum number of directorships held on other boards is seven seats. Similarly, in 2006 each director held an average of three seats on other listed companies with the maximum of five directorships on other boards. This shows that the directors met the requirement made by the PGC on the maximum cap of directorships on other boards, which are five directorships on listed firms

**Table 3: Descriptive statistics on continuous variables**

Variables	Mean		Std deviation		Maximum		Minimum	
	2003	2006	2003	2006	2003	2006	2003	2006
DA	<b>6.86</b>	<b>8.14</b>	5.4	6.2	24	27	.002	.004
IND	40	41	.091	.075	75	63	29	33
NEDs	<b>85</b>	<b>87.5</b>	11.2	11	100	100	50	50
Bsize	8	8	1.84	1.47	14	12	6	5
Bmeet	<b>6.9</b>	<b>8.5</b>	3.47	3.87	14.9	17.6	3.5	3.25
Dship	<b>3.15</b>	<b>2.91</b>	1.37	1.32	7.11	5.5	0.14	0.75
Comind	<b>69</b>	<b>75</b>	.126	0.13	100	100	33	60
ComMeet	<b>5.3</b>	<b>5</b>	2.21	2.21	13	17.6	2	3.25
Fsize	6821	7939	1459	1699	71479	80148	84.7	94.8
LEV	310	380	684	540	385	2389	-857	102

### Regression Results

Table 4 reports the results from the regression equation linking corporate governance and discretionary accruals. As shown in the left side of the table below, the adjusted  $R^2$  is about 29 % which is an acceptable level. F value 7.51 and the significant level is 0.002. Generally speaking, the findings indicate that all corporate governance variables were not significant in affecting earnings manipulation in the year of 2003. The significant variables were firm size and leverage at 1% level of significance with a positive relationship with DA, which indicates that larger firms are more inclined to engage in EM activities. This finding is not consistent with the negative relationship documented in Abdul Rahim and Ali (2005). The positive sign reported in this study does support the political cost hypothesis of Watts and Zimmermann (1986) in which larger firms are subject to more scrutiny and hence engage in earnings manipulation downwards to reduce the political and regulatory costs. Another possible explanation for positive relationship could be the threat of delisting (Ding et al., 2007) since the GLCs are viewed to perform poorer than other companies (PGC, 2006). Besides, Park and Shin (2004) opine that when unmanaged earnings are below the target earnings, positive abnormal accruals are taken to increase the reported earnings and vice versa.

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**Table 4: Multiple regression result between DA and Corporate governance mechanism variables**

Variable	DA 2003				DA 2006			
	$\beta$	t-value	t-sig.	VIF	B	t-value	t-sig.	VIF
IND	.161	.980	.335	1.209	-.138	-1.286	.209	1.066
NEDs	.034	.221	.826	1.002	.106	.956	.347	1.127
Bsize	-.020	-.130	.897	1.033	.122	1.089	.285	1.158
Dual	.040	-.264	.794	1.009	-3.787	-3.787	<b>.001*</b>	1.060
Bmeet	-.229	-1.516	.140	1.071	-.321	-2.919	<b>.007*</b>	1.102
Dship	.019	.122	.904	1.108	-.152	-1.402	.172	1.102
Comind	.012	.081	.936	1.022	-.095	-.866	.394	1.085
ComMeet	.191	1.155	.258	1.248	.083	.589	.561	1.760
EXP	.020	.131	.896	1.009	2.746	2.746	<b>.010*</b>	1.027
<b>Control var.</b>								
Fsize	.519	3.427	<b>.002</b>	1.031	6.642	6.642	<b>.000*</b>	1.049
LEV	-.361	-2.386	<b>.024</b>	1.031	-.121	-1.145	.262	1.030
<b>Adjusted R<sup>2</sup></b>	<b>.29</b>				<b>.638</b>			
<b>F value</b>	<b>7.51</b>				<b>15.524</b>			
<b>F significant</b>	<b>.002</b>				<b>.000</b>			

In contrast to firm size, leverage is also found to have a significant (5%) negative relationship with earnings manipulation. In other words, higher leverage leads to a lower level of earnings manipulation. The results do not confirm to the debt covenants hypothesis of Watts and Zimmermann (1986) and the findings of DeFond and Jambalvo (1994) which indicates that higher leveraged firms are more motivated to engage in earnings manipulation in order to avoid debt covenant violation. However, this study documented a negative association between leverage and EM. Park and Shin (2004) stated that when the firm is highly indebted, it may become less able to practice EM because they are under the close scrutiny of lenders. In the case of GLCs where the funding comes from the government there should be scrutiny from the government instead of lenders leading to inhibition of EM.

Table 4 also shows the result of regression for 2006 on the left side. At a first glance, the results show a slight improvement in corporate governance effectiveness in 2006 compared to 2003. The adjusted R<sup>2</sup> is about 0.638 which is very high compared to other EM studies. F value is 15.52 and the significance level is 0.000. These statistics indicate the improvement in the documented results. However, the table indicated that board independence; non executive directors, board size, directorships, committee independence, committee meetings have no significant relationship with discretionary

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accruals post transformation policy which suggest that the hypothesized relationship of stronger impact of these variables on earnings management post transformation is not supported. Thus, the related hypotheses are not supported.

Duality has been shown to have a negative significant (1%) impact on EM indicating that separating the role of CEO and chairman of the board has an effective role in curbing EM. The result is similar to Klein (2002) and does have support in the agency theory. The agency theory suggests that the separation of the role of decision making from the control process leads to reduction in the power of the CEO and enables better monitoring by the board (Jensen, 1993). Therefore, this result provides support for hypothesis three.

Another explanatory variable that found to have a significant (1%) negative relationship with DA is board meetings. The result confirms Xie et al. (2003) findings which found that an active board is negatively related to the level of earnings management. This implies that a more active board is associated with a reduced level of DA (Xie et al., 2003). A board that meets more often should be able to devote more time to issues such as EM. A board that seldom meets may not focus on these issues and may perhaps only “rubber-stamp management plan” (Xie et al., 2003). The results are consistent with the expectation; hence, hypothesis five is not rejected.

The presence of financial experts is found to have a significant (1%) positive relationship with EM. The result is in contrast with the wisdom that outside directors may have the intention to curb EM and only those with financial expertise may be able to do so (Park and Shin, 2004). The results of the study are not consistent with Park and Shin (2004), Choi et al. (2007), and Chtourou et al. (2001). The plausible explanation for the positive relationship between the presence of expertise on audit committee and EM is that the establishment of an audit committee in listed companies in Malaysia has yet to achieve success in its monitoring role (Abdul Rahman and Ali, 2006). However, the clear reason for this relationship that is the lack of independence (Defond et al., 2005). Among the control variables firm size is reported to have a positive significant (1%) relationship with EM which is consistent with 2003.

It is noteworthy to report that the relationship between board meetings and DA is negative and that suggests the more meetings the less DA. In the same time, the relationship between firm size and DA is positively related showing that the larger firms have higher DA. Taken these two results together indicates a contradiction since the correlation between board meetings and firm size is positive. Therefore, the researchers partitioned the firms into two groups. The results of the test revealed that board meetings are only negatively significant with small firm size.

To achieve a better understanding of the changes in the results in 2003 compared to 2006, the regression based on the changes in DA and related explanatory variables is ran. The results of the regression model are shown in Table 5 revealing that Adjusted R<sup>2</sup> is 10.3 % and F value is 4.78 at the level of 5 % significance. All variables of corporate governance were reported to have a non significant relationship with EM except for duality. Duality has negative significant (10%) impact on EM. Separation of the role of the CEO and chairperson leads to curbing EM activities due to reducing the power of the CEO. Leverage as a control variable was revealed to have an insignificant association with DA. Firm size is a significant (5%) variable and the relationship is positive with DA. This implies that the larger the firm size, the higher the activity of EM. The underlying

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reason for such a relationship is that the larger firms come under scrutiny as suggested by the political cost hypothesis (Watts and Zimmeramnn, 1986). Moreover, the larger firms may use the manipulation of earnings to reduce the tax burden.

**Table 5: Multiple regression results on changes in DA and Independent variables**

Variable	Changes in DA			
	$\beta$	t-value	t-sig.	VIF
IND	-.122	-.728	.472	1.018
NEDs	-.118	-.694	.493	1.045
Dual	-.287	-1.782	<b>.084***</b>	1.021
Bsize	.005	2.188	.974	1.011
Bmeet	-.260	-1.615	.116	1.001
Dship	-.145	-.806	.427	1.181
Comind	.119	.644	.525	1.236
ComMeet	-.227	-1.348	.188	1.069
EXP	-.276	-1.639	.111	1.100
<b>Control var.</b>				
Fsize	.361	2.188	<b>.036**</b>	1.000
LEV	.126	.758	.454	1.000
<b>Adjusted R<sup>2</sup></b>	<b>10.3</b>			
<b>F value</b>	<b>4.78</b>			
<b>F significant</b>	<b>0.03</b>			

## Conclusion

The objective of the study is to examine the association between earnings management and corporate governance characteristics in Malaysian government linked companies. Along with PGC recommendations on CG, the greatest concern has been directed and attached to board of directors' effectiveness as the main mechanism in corporate governance. The underlying reasoning for such concerns is that following the best practices of corporate governance and board effectiveness, in particular, would result in a lessen EM activities. Many studies conducted in the field of corporate governance practices have shown results that contradicted with the assumption behind the corporate governance as many studies showed that following best practices did not provide an absolute assurance for lesser EM. Similarly, the case can be applied to GLCs, which means that following the transformation programme does not ensure better performance and less EM. Thus, the main objective of this study is to explore the impact of current practices of corporate governance, reflected in the transformation programme on

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corporate performance and EM activities in GLCs to show whether the new government policy has had an impact earnings management activities for the year 2006 compared to the year 2003 before the issuance of the transformation policy.

The study revealed that corporate governance variables and EM have no association with exception for the duality role and board meetings. The duality role has documented a negative relationship with EM which indicated that separating the role of the CEO and chairman leads to curtaining the EM activities. Consistently, board meetings have been revealed to affect EM negatively and the relationship is stronger post transformation policy. Such a relationship holds that any increase in board meetings leads to a reduction in EM activities for small companies only. Therefore, the expectation that is the transformation program is very essential to enhance the governance of GLCs and hence to curb the opportunistic behavior of earnings management seems to inaccurate

This study has recognized some limitations. First, the main limitation of the study is that the data was collected through publicly available data sources such as annual reports and other databases. Other data could be helpful to gain more of an insight. This study opens avenues for future research by considering the impact of corporate governance using different variables such as competence of the directors, CEO tenure, directors' qualifications and the interaction between corporate governance variables. The main implication for this study is that the government involved in regulating corporate governance for GLCs can use the results of the study as empirical support for the development of new regulations, recommendations and take the necessary corrective decisions regarding the effectiveness of the transformation policy.

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## Appendix 1

No.	Industry	N
1	Construction	50
2	Customer service	50
3	Industrial	81
4	Plantation	18
5	Properties	60
6	Trade	24
	Total	283

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