Does Audit Committee Constraint Discretionary Accruals in MESDAQ Listed Companies?

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Abstract

The role and responsibility of audit committee towards credible financial reporting is still much the same, but the issue of selecting appropriate people with the right mind is often challenged. The usual tripartite, namely independence, diligence and knowledge of audit committee is further refined in the recently revised Malaysian Code of Corporate Governance 2007. The study examines the determinants of discretionary accruals in MESDAQ companies. The central issues are the key aspects of audit committee, namely independence, expertise and diligent including the issue of former senior auditor and audit alumni on audit committee and its effect on discretionary accruals. Based on OLS regression on cross-sectional data of 2007, the results suggest that audit committee with higher proportion of financial expertise (former senior auditor or former CFO) and more diligent audit committee are significant for the said purpose. As such, it is argued that audit committee with higher proportion of financial experts would lead to credible financial reporting. However, audit committee with former senior auditor and audit alumni are associated with larger discretionary accruals. In addition, total independent audit committee is positively associated with larger discretionary accruals which lead to possible limited access to pertinent financial information compared to audit committee with an insider.

Keywords: Audit committee, discretionary accrual, audit alumni, MESDAQ

1.0 Introduction

Insofar, evidence on earnings management suggest that motives to engage income increasing or decreasing accounting policies are dissimilar across size and industries (Dechow & Sloan, 1991 on industry model; Teoh, Wong & Rao, 1998 on IPO; Beaver & Engel, 1996 and Liu & Ryans, 1995 on banks). Recently, Ahmad Zaluki (2008), based on a univariate analysis, reports that there are instances of earnings management of Malaysian IPO from 1990 to 2000 at the time of the IPOs (initial public offerings). To some extent, this implies that Malaysian IPOs would try to entice potential investors at the time of IPO similar to Teoh, Wong and Rao. Prior to Ahmad Zaluki's work, another local study by Abdul Rahman and Mohamed Ali (2006) document some determinants of discretionary accruals including audit committee characteristics for top 100 Malaysian companies. On a larger scale, Mohd Saleh, Mohd Iskandar and Rahmat (2007) investigate some audit committee attributes on earnings management for more than 500 Malaysian public listed companies the year after the introduction of Malaysian Code of Corporate Governance (MCCG) in 2000. However, both studies have not documented prima facie evidence on audit committee establishment possibly due to the initial years of the MCCG. Thus, the study revisits the relationship between audit committee and discretionary accruals in view of the revised MCCG in October 2007.

The study investigates several pertinent audit committee characteristics and its relationship with discretionary accruals. First, the study examines whether audit committee characteristics including having former senior auditor and audit alumni would reduce absolute discretionary accruals. Second, the study examines whether such relationships exist in both income-increasing and decreasing discretionary accruals.While discretionary or abnormal accruals are inevitable, there are practical consequences of earnings management in Malaysia. For instance, Johl, Jubb and Houghton (2006) find some evidence on qualified audit opinion and abnormal accruals when the auditors are Big Five in the pre and post Asian Financial Crisis in 1997-1998. While the results seem suggestive, treating all kinds of audit qualification as the same as in Johl et al. is noisy as this will introduce measurement bias.

As discussed in great length in Healy and Wahlen (1999) on previous studies, earnings management to some extent affect resource allocation as it is found that alleged or detected earnings management affect stock price. Such behavior is not evident in Malaysian IPO as documented in Ahmad Zaluki, Campbell and Goodacre (2009). Ahmad Zaluki et al. (2009, p. 31) state that "Earnings management is less likely during more normal economic conditions and then aggressive earnings management companies do not underperform their more conservative counterparts".

The finding implies that there are no penalties from the market on aggressive earnings management over the more conservative earnings management especially in normal economic condition in pre and post 1997-1998 or there could be lack of prudence by the investing public under normal economic condition due to hypes of promising return from IPOs especially in 1990s. Whether the market would correct the situation after three years, as tested in Ahmad Zaluki et al., is still unknown and would be difficult to measure as many other variables may confound the effect, if any.

This study examines discretionary accruals in another sub-board of the Bursa Malaysia, namely the Malaysian Exchange of Securities Dealing & Automated Quotation (MESDAQ) board. Generally, MESDAQ companies belong to technology-based or technology incubators and other high growth industries (Bursa Malaysia, 2009). Arguably, this is similar with Ahmad Zaluki's in the sense that MESDAQ companies are relatively new though the study does not intend to study earnings management of MESDAQ companies at the time of IPO. MESDAQ companies are relatively risky since most of them are newly established and more importantly, there is no requirement of profit track record to be listed on MESDAQ unlike the main board or the second board (Bursa Malaysia, 2009). There were 12 companies listed in 2002 and it grew to 124 at the end of 2007 with the highest number of new listings in 2005 (46 companies). Hence, the establishment of audit committee is only few years old even for the oldest listed MESDAQ companies. This setting offers a good opportunity for empirical works especially on the effect of corporate governance on earnings management.

Recent works have attempted to explain discretionary accruals, a proxy of earnings management, using corporate governance variables such as CEO stock compensation (Meek, Rao & Skousen, 2007), board of directors (Peasnell & Young, 2005; Niu, 2006), audit committee (Bedard, Chtourou & Courteau, 2004; Piot & Janin, 2007) and auditors (Myers, Myers & Omer, 2003; Piot & Janin, 2007; Dowdell & Krishnan, 2004). It is worth noted that some evidence on such effects were also documented on earnings restatement (Lin, Li & Yang, 2006). However, Abdul Rahman and Mohamed Ali (2006) find no evidence on the influence of various aspects of Malaysian audit committee on earnings management in a multivariate setting using more recent data sets of 2003. While it seems premature to reach some solid conclusion, the authors noted that such findings are sufficient to suggest that "…the establishment of an audit committee in listed companies in Malaysia has yet to achieve success in its monitoring role" (Abdul Rahman & Mohamed Ali, 2006, p. 799). Surprisingly, the results belong to top companies after ten years of mandatory requirement of audit committee in Malaysia in 1993. In contrast, Mohd Saleh et al. (2007) find some evidence that independent audit committee and to some extent financial knowledge are relevant in constraining discretionary accruals.

This study extends the previous literature in several ways. Firstly, the study refines the definition of independent audit committee to all independent members rather than majority independent members. Secondly, the study refines the definition of financial expertise to only audit committee members who are previously audit managers/partners and chief financial officer rather than simply a member of Malaysian Institute of accountant (MIA) or any relevant experience. The study also introduces a relatively new variable, namely audit committee members who are formerly senior audit managers/partners and audit committee who are formerly audit alumni of the incumbent audit firm. These variables have been tested in other settings (Iyer & Raghunandan, 2002; Lennox, 2004).The study revisits these pertinent issues to provide fresh evidence since research on related issues shows that audit committee with such characteristics are different (McDaniel, Martin and Maines, 2002; Menon and Williams, 2004). While the study follows Abdul Rahman and Mohamed Ali (2006) and Mohd Saleh, Mohd Iskandar and Rahmat (2007) on the number of audit committee meetings as a proxy of audit committee diligence, the study differs from both local studies on audit committee independence and audit committee expertise.

Specifically, the study employs a stricter definition of independence and expertise to firstly mitigate potential insignificant findings (as reported in both studies) since most companies with high or low discretionary accruals have similar or complied with audit committee establishment required by the Bursa Malaysia, and secondly the refined audit committee variables may contribute to a finer policy or best practices of corporate governance. For instance, it is argued that audit committee member who was previously a senior auditor (senior manager or partner) is deemed to be more knowledgeable in current accounting standards than a common MIA member with a minimum of three years experience though the former is also an MIA member.

The organization of the paper is as follows. The following section describes the relevant literature on audit committee and its relationship with earnings management, and followed by a section on research method. The subsequent section discusses the findings of the study and the paper is concluded in the final section.

2.0 Literature Review and Hypotheses Development

Literature on earnings management mostly revolves around agency theory that proposes that managers (agent) would not work at all times in the best interest of their shareholders (principal). While financial reporting is a mechanism to ensure that most economic activities are recorded and thus serves as some form of indicators of managers' effort, managers have additional price-sensitive information, and at the same time control the dissemination of such information. This is where accounting standards play their utmost roles. The very idea is that what matters to the business should be disclosed according to limited sets of accounting treatments so that we can compare two companies alike, though this is not the usual case especially of large and diversified corporations. Still, the management can adopt allowable accounting policies such as accounting estimates at their discretion and can be perceived as of lower quality since it will mislead investing publics from the actual situation. Thus, the requirement of an audit committee that was mandated to all Malaysian public listed companies starting from 1993 is thought to be the answer to higher quality financial reporting. Later, the Malaysian High Level Finance Committee proposed in 1999 to formulate a new corporate governance framework, the Malaysian Code of Corporate Governance, emulating the UK's Cadbury Code to enhance the role of audit committee. Recently, the code is revised for the first time after seven years from its inception.

At present, the Malaysian Code of Corporate Governance (MCCG, 2007) outlines three aspects of audit committee, namely independence, financial knowledge and active monitoring or diligence. Recently, the code was revised on the requirement of independence of audit committee. MCCG (2007, p. 14) states that "The board should establish an audit committee comprising at least three members, a majority of whom are independent. All members of the audit committee should be non-executive directors". Prior to the recent MCCG (2007), there are three kinds of audit committee. The most common is three-person audit committees with one executive director, followed by all outsiders but only two are independent, and all independent directors. It is argued that the latter would provide the best structure of independent audit committee. Thus, there is no surprise when Abdullah and Shaikh Mohamed Al-Murisi (1997) find no support for the proportion of outside directors in audit committee in Malaysia to enhance its effectiveness in Malaysia based on 43 respondents. Their study however, did not differentiate respondents to independent director and affiliate director.

Abdul Rahman and Mohamed Ali (2006) report no association between discretionary accruals and the proportion of independent directors on audit committee and board of directors. However, Mohd Saleh, Mohd Iskandar and Rahmat (2007) find that audit committee with no executive is associated with lower discretionary accruals. Abbot et al. (2003) find that completely independent audit committee and having at least one financial expert were positively associated with statutory audit fees that suggest for demand for higher quality audit works. In another local setting, Md Yusof et al. (2002) find that audit committee without an executive is positively associated with the issuance of modified going-concern audit opinion based on a sample of 167 distressed companies on the Kuala Lumpur Stock Exchange (KLSE). Though these are separate issues, it is argued that an independent audit committee would contribute positively to the overall financial reporting. Based on the above discussion, the study hypothesizes that:

H1: Ceteris paribus, total independent audit committee are associated with smaller discretionary accruals

At present, the MCCG (2007, p. 14) states that, "All members of the audit committee should be financially literate and at least one should be a member of an accounting association or body". Though the MCCG requires all financial literate members on audit committee, the issue is whether the requirement of at least one from accounting association fits the definition of having a financial expert. In another survey, five hundred audit committee members from 134 randomly selected companies listed on the NYSE, the AMEX and the NASDAQ indicated that they appreciate "the importance of *all* committee members possessing sufficient expertise in areas related to accounting, auditing and the laws" (DeZoort, 1997, p.224).

McDaniel, Martin and Maines (2002) find that financial expertise and financial literacy have different effects on audit committee effectiveness. They find that financial experts i.e. having a member, who has sound skills in accounting and finance, is better at analyzing complex accounting issue and improving financial reporting quality than those who are finance literates i.e. a member who understand basic accounting and finance issues. However, Abdul Rahman and Mohamed Ali (2006) find no association between audit committee with at least one member is a qualified accountant with lower earnings management. Their results are based on top 100 companies based on market capitalization that may exhibit a different behavior compared to smaller and younger companies such as MESDAQ listed companies. Moreover, bigger companies are more exposed to public scrutiny and tracked by financial analysts, and even more so if they are also index-linked companies. In addition, similar result is documented in Mohd Saleh, Mohd Iskandar and Rahmat (2007) with the exception if such audit committee held more frequent meetings suggesting an interacting effect between frequent meetings and knowledgeable audit committee, though in separation both are not significant. Based on the above discussion, the study hypothesizes that:

H2: Ceteris paribus, audit committee with financial experts are associated with smaller discretionary accruals

Abbott and Parker (2000) find that audit committees that meet at least twice per year are more likely to use auditors who are industry specialist and thus suggest for demand of higher audit quality. Andersen, Mansi and Reeb (2004) provide additional evidence on the effects of diligence of audit committee. They find that the frequency of audit committee meetings is negatively associated with yield spreads suggesting that active monitoring by audit committee (AC) is quite important to creditors. However, Abdul Rahman and Mohamed Ali (2006) and Mohd Saleh, Mohd Iskandar and Rahmat (2007) find no evidence that more audit committee meetings is associated with smaller discretionary accruals. Based on the above discussion, the study hypothesizes that:

H3: Ceteris paribus, more diligent audit committee are associated with smaller discretionary accruals

Iyer and Raghunandan (2002) conducted a survey to 83 alumni and find that alumni who previously works in the area of auditing may not be able to resist disagreement with their former CPA employers. Thus, while the alumnus is familiar with the inner-workings of the incumbent CPA firms, they might not be able to resist probably due to non-senior position held in the incumbent audit firm before departure. However, this issue is also tested in Iyer and Raghunandan. They report that there is no significant association between auditor's rank and the perception of be able to resolve disagreement. In contrast, Lennox (2004) finds that alma mater affiliations companies are more likely to receive clean opinion especially when the alma mater held a senior position i.e. partner or senior manager. This is in line with social exchange theory (Thibaut and Kelly, 1959) that explains that social change and stability as a process of negotiated exchanges between parties.

As the former audit partners may have played some role in the promotion of the current engagement audit partner, the sense of respect and anticipated reciprocity may jeopardize an objective audit. Similarly, Menon and Williams (2004) find that firms having a former audit partner as executives or directors are associated with larger accruals suggesting a potential threat on audit independence. Thus, while it is argued that having an alumnus on audit committee may constraint accruals since an alumnus is well-versed in the audit strategy and inner-workings of the incumbent audit firms but it could also work against the incumbent auditor. This is a difficult and delicate issue though some safeguards are already in place as stated recently under the MIA By-Laws (MIA, 2007). The MIA By-Laws (2007, p. 28) outlines examples that could create familiarity threat of an audit including "A former partner of the firm being a director or officer of the client or an employee in a position to exert direct and significant influence over the subject matter of the engagement".

As an extension, this study proposes to focus on former senior auditor (senior manager or partner) on audit committee and its influence on discretionary accruals. Based on the above discussion, the study hypothesizes that:

> H4: Ceteris paribus, audit committee having a member formerly held a senior audit practitioner position are associated with larger discretionary accruals
>
> H5: Ceteris paribus, audit committee having a member formerly held a senior position of the incumbent audit firm are associated with larger discretionary accruals

3.0 Research Method

The study examines the population of MESDAQ companies listed on Bursa Malaysia as at 31 December 2007. From 124 listed companies, two companies are dropped from the analysis since they were newly listed on Bursa Malaysia in 2007 and did not have financial information in 2006 which is required in the calculation of the cross-sectional modified Jones model (Dechow, Sloan & Sweeny, 1995). All data are hand-collected from the annual reports. As stated earlier, the measurement of discretionary accruals follows Dechow et al. (1995) without using the coefficients from Jones (1991).

$$\frac{TACC}{ASSET_{t-1}} = \frac{1}{ASSET_{t-1}} + \frac{(\Delta REV - \Delta REC)}{ASSET_{t-1}} + \frac{PPE}{ASSET_{t-1}} + e \qquad (1)$$

Where,

TACC = total accruals measured by net income – cash flows from operation
$ASSET_{t-1}$ = prior total asset
ΔREV = change in sales/revenue
ΔREC = change in trade receivables
PPE = property, plant and equipment
DACC = discretionary accruals from the residual estimated from model 1

There are some important discussions in Bedard, Chtourou and Courteau (2004) with regards to modified Jones model, in particular of measurement errors if it is correlated with omitted variables based on Klein (2002) and Jeter and Shivakumar (1999), among others. In addition, Barth and Kallapur (1996) warn the usage of deflation at mitigating coefficient bias. This concern is apparent in modified Jones model as in Dechow et al. (1995). The idea of deflating dependent variable and independent variable to mitigate heteroscedasticity problem as in model 1 fits this concern. However, such omitted variable bias may be context specific, and as to make the findings comparable especially of local studies, the absolute DACC is then used as the dependent variable in model 2 following Dowdell and Krishnan (2004), Peasnell, Pope and Young (2005), and Abdul Rahman and Mohamed Ali (2006), among others.

The study also conducts further analysis on subsamples of income increasing (INCDACC) and income decreasing DACC (DECDACC) as both discretionary accruals may not share the same underlying characteristics or be treated the same as tested in Mohd Saleh et al. (2007). Mohd Saleh et al. (2007), however, use the non-absolute DACC in their main analysis.

The research model is as follows,

$$|DACC| = b_0 + b_1ACIND + b_2ACEXPERT + b_3ACDILIGENCE + b_4ACSENIORAUD + b_5ACALUMNI + b_6LGASSET + b_7ROA + b_8BIG4 + b_9LGAFEE + e \qquad (2)$$

variable	Expected sign	explanation
lDACCl		Absolute discretionary accrual using modified Jones model (Dechow et al. 1995)
Hypothesis		
ACIND	-	Audit committee with all independent members (dummy)
ACEXPERT	-	Proportion of financial experts on audit committee
ACDILIGENCE	-	Number of audit committee meetings
ACSENIORAUD	+	Audit committee with former audit manager/partners (dummy)
ACALUMNI	+	Audit committee with audit alumni (dummy)
control		
LGASET	-	Natural log of total assets
ROA	+	Return on assets
BIG4	-	Big Four auditors (dummy)
LGAFEE	-	Natural log of audit fee

Expected direction for hypothesis variables are as argued under hypotheses development while control variables (LGASET, ROA and BIG4) follow previous theoretical direction as in Bedard et al. (2004), Abdul Rahman and Mohamed Ali (2006), and Fargher, Lee and Mande (2008). To control for audit efforts, the study introduces LGAFEE and argues that higher fees represent additional audit efforts to constraint discretionary accruals including provision of bad debts and doubtful revenue recognition, among others.

4.0 Results and Discussion

4.1 Descriptive Analysis

Table 1 shows that the mean and the standard deviation of absolute discretionary accruals are, on the surface, higher than Abdul Rahman and Mohamed Ali (2006) and Dechow et al. (1995) but lower than Dowdell and Krishnan (2004). Abdul Rahman and Mohamed Ali (2006) report a mean of 0.0132 and a standard deviation of 0.07, Dechow et al. (1995) report a mean of 0.002 and a standard deviation of 0.119, and Dowdell and Krishnan (2004) report a mean of 0.209. However, the results are not comparable since all these studies and many others use different modified Jones models. For instance, Abdul Rahman and Mohamed Ali do not include PPE in estimating non-discretionary accruals, Dechow et al. use coefficient from the original Jones (1991) and Dowdell and Krishnan (2004) do not include change in receivable in estimating DACC. Mohd Saleh et al. (2007) report non-absolute discretionary accruals with a mean of -0.013.

About 29 percent appointed all independent audit committee members and since it is a stricter definition than the current regulation, it is lower than 68 percent reported in Abdul Rahman and Mohamed Ali (2006) and Mohd Saleh, Mohd Iskandar and Rahmat (2007) which are basically following the previous recommendation of two-third majority independent directors of the old MCCG (2000). Still, 43 percent appointed an executive on audit committee but this will change from 2008 onwards as the new MCCG (2007) only allows non-executives on audit committee. The remaining 28 percent are not having any executives but are not fully independent. It is still early to guess the breakdown of the new dichotomy of total independent and all outsiders audit committee would be, as many have not released their 2008 annual reports. Some have made changes on their audit committee as the new MCCG (2007) was revised in October 2007 especially those with December financial year-end.

The average proportion of former senior auditor and chief financial officer on audit committee is only 23 percent. This is even lesser than one expert on audit committee (should be 33 percent on a three-person audit committee). A more logical interpretation is that most MESDAQ companies appoint an MIA member who is not a formerly senior auditor or a chief financial officer but this is still within MCCG (2007). Even with more than 20,000 MIA members as at the end of 2003 (MIA annual report, 2008), Abdul Rahman and Mohamed Ali (2006) find 10 companies that did not appoint any qualified accountant on audit committee. Similar evidence is also documented in Haron, Jantan and Eow (2005) on eleven companies that did not comply with the requirement of having at least one financial literate member.

TABLE 1

***Descriptive Statistics*, n= 122**

variables	Min	Max	Mean	S.D.
lDACCl	.0003	1.0981	.1652	.1695
ACIND*	0	1	.29	
ACEXEC*	0	1	.43	
ACEXPERT	0	1	.23	.217
ACDILIGENCE	0	7	4.62	.856
ACSENAUD*	0	1	.32	
ACALUMNI*	0	1	.02	
ASET (RM)	3,667,326	527, 518, 777	61,383,146	73,224,275
LGASET	15.11	20.08	17.55	.8451
ROA	-6.29	.31	-.0588	.6082
BIG4*	0	1	.28	
AUDFEE (RM)	5,500	1,298,000	63,031.57	119.118.74
LGAFEE	8.61	14.08	10.676	.7404
PROFIT	-45,473,287	27,243,000	1,798,065	9,383,781.879

*for dummy variables, the mean reported is the frequency

Admittedly, this is not a requirement under the present Malaysian Code of Corporate Governance that implicitly still hold on the notion of financial literacy rather than financial expertise of audit committee. Arguably, they are in better position to evaluate accounting policies; some are new, complex and controversial; under the Malaysian Accounting Standard Board (MASB) regime than just any member with few years experience in banking or finance related industries or an MIA member who are admitted on the basis of a minimum 3 years experience in accounting practice or more doubtfully, the commercial sectors.

As expected, the average number of meetings is about four to five times in a year, and this is no different than Abdul Rahman and Mohamed Ali (2006) and Haron, Jantan and Eow (2005). However, there is potential measurement error since the number of audit committee meetings should not be based on meetings during financial year but should extend to the day of audit report or about three to four months after financial year-end in Malaysia. Interestingly, about 32 percent appoint former senior auditor (senior manager and audit partner) on audit committee. While all of them are members of the MIA and some hold other professional accounting membership such as the MICPA and ICAEW, an MIA member may not necessarily hold such senior position prior to appointment on audit committee. There is however, only one case of former senior manager, all others are former partners. There are two cases of audit alumni on audit committee. One of them is formerly managing partner of Big Four.

The size of the company ranges from as small as 3 million to as large as 500 over millions. On average, MESDAQ firms are reporting small profits (an average of about two millions). As also documented in Md Yusof (2007) based on 2006 datasets, Big Four auditors are not dominating MESDAQ companies since more than 70 percent are audited by other international and local audit firms. Previous local studies as in Che Ahmad and Derashid (1995) find that the Big Six audit about 80 percent of the population of the KLSE in 1991 and Abdul Rahman and Mohamed Ali (2006) documented an 81 percent dominance of the Big Four in top 100 companies in 2003. Interestingly, more local firms including single proprietors are auditing MESDAQ companies along with other international audit firms. This is similar to Krishnan (2001) argument. She argues that, "Small auditors may not be able to compete with bigger auditors for larger clients, and might decide to concentrate within an industry on smaller companies" (Krishnan, 2001, p. 132). For example, a local firm, Tan Chin Huat & Co. is auditing seven MESDAQ companies and Horwarth, an international firm, is auditing nineteen companies. It is also noted that, PriceWaterhouseCoopers is the only Big Four that audit one MESDAQ company. As expected, the mean of audit fee is lower than Che Ahmad, Shafie and Mohamad Yusof (2006) or the older evidence in Che Ahmad and Derashid (1995), since MESDAQ companies are smaller, and size is a significant determinant of audit fee (Che Ahmad and Derashid, 1995).

4.2 Regression Diagnostics

The study examines classical OLS assumptions including the threat of heteroscedasticity, wrong functional form, and normality, among others.

There is no significant threat of heteroscedasticity using a general test on heteroscedasticity based on White test (1980). Still, if such threat exists, the standard errors reported in Table 3 are White's heteroscedasticity-corrected standard errors. Residual is found to be normally distributed using the Doornik-Hansen test (χ^2 of 47.61 with a $p < 0.01$) which does not require an asymptotic assumption (Doornik & Hansen, 1994).

Since the study tests the population, multicollinearity threat is minimal (see discussions in Gujarati, 2006 and Wooldridge, 2003 on multicollinearity as a feature of the sample and not the population).
Furthermore, multicollinearity does not violate any of the classical linear regression assumptions. Still, Variance Inflation Factor (VIF) yields results ranging from 1.01 to 1.56 which is not far different than 1 for perfect no multicollinearity (Gujarati, 2006). Since multicollinearity is a question of degree, and though some suggest the rule of thumb of VIF exceeding 10 should be investigated carefully, the regression analysis does not suffer from huge swings in variances of any strong correlated independent variables, the highest being ACEXPERT and ACSENAUD with a spearman rho of 0.512 (correlation matrix is shown in Table 2).

While there are some outliers, only few (five) of them are influential points using the DFFITS measure suggested by Belsley, Kuh and Welsch (1980). The study defines influential point based on observations exceeding 95% confidence interval of DFFITS. Thus, such observations are excluded from the main analysis though Bedard, Chtourou and Courteau (2004) dropped all outliers to minimize bias. This however, must be carefully examined. While dropping outliers may seem prudent, it may also introduce bias, loss of degree of freedom and potential explanation. Results using all observations are provided in the appendix for comparison. Due care on correct functional forms of the independent variables are tested using Ramsey RESET test (Ramsey, 1969). No significant findings are found to suggest potential model misspecification due to functional forms. As asset and audit fee are transformed to logarithmic forms, this will also reduce threats of outliers if any (see Wooldridge, 2003 p. 312-316 on discussion of benefits of logarithmic transformation on outliers).

Correlations

	|DACC|	ACIND	ACEXPERT	ACDILIGENCE	ACSENIORAUD	ACALUMNI	LGASET	ROA	BIG4	AUDFEE
|DACC|	1	.276**	-0.06	-.040	.132	-.037	-.174	-.539**	-.012	-.088
		.002	.519	.661	.149	.688	.056	.000	.893	.337
ACIND		1	-.049	.067	.031	.026	.004	-.167	-.121	-.039
			.593	.463	.736	.779	.967	.065	.183	.666
ACEXPERT			1	-.064	.512**	.155	.152	.143	-.007	-.040
				.483	.000	.089	.095	.116	.937	.659
ACDILIGENCE				1	-.047	-.054	-.149	-.015	.018	-.056
					.605	.555	.103	.872	.848	.540
ACSENIORAUD					1	.232*	.032	.058	-.073	-.019
						.010	.728	.529	.423	.837
ACALUMNI						1	.066	.028	.137	.038
							.470	.761	.131	.677
LGASET							1	.309**	.220*	.167
								.001	.015	.066
ROA								1	.040	.033
									.665	.719
BIG4									1	.269**
										.003
AUDFEE										1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

4.3 Regression Analysis

Table 3 shows that the model explains about 46 percent of the variation in |DACC| compared to about 26 percents in Abdul Rahman and Mohamed Ali (2006) and 30 percent in Mohd Saleh et al. (2007) albeit this study employs fewer predictors or determinants. This issue was noted by the authors stating that their adjusted R^2 is small (12%).

Though Abdul Rahman and Mohamed Ali and Mohd Saleh et al. do not originally report the unadjusted R^2, our calculation suggests that their unadjusted R^2 should be 26.42% and 30.1% respectively which are comparable with previous studies. A significant drop from unadjusted R^2 of 26% to adjusted R^2 of 12% in Abdul Rahman and Mohamed Ali (2006) shows that there are some irrelevant/insignificant predictors in the specified model, in particular by the many board of director variables. However, one question remains, do all these variables jointly explain the variation though individually they are not statistically significant.

For instance, the coefficient of CEO duality (b = -0.37), concentrated ownership (b = 0.89), and proportion of independent directors (b = 1.42) on board of directors in Abdul Rahman and Mohamed Ali can be argued as fairly moderate though they might have high standard errors or low t-values (not originally reported as well). A joint-hypothesis test would be able to answer whether these variables do not jointly explain the variation. For the sake of brevity, t-value is also not reported in Table 3 but it can be calculated with ease.

TABLE 3
OLS Regression

DV IV	Expected direction	|DACC| Coefficient (std. error)	INCDACC Coefficient (std. error)	DECDACC Coefficient (std. error)
const		0.264	0.521	-0.325
		(0.212)	(0.404)	(0.270)
ACIND	-	0.010	0.048*	0.046**
		(0.027)	(0.034)	(0.027)
ACEXPERT	-	-0.009	-0.076*	-0.043
		(0.045)	(0.052)	(0.068)
ACDILIGENCE	-	-0.002	-0.021*	-0.025**
		(0.010)	(0.015)	(0.013)
ACSENIORAUD	+	0.044**	0.063**	-0.003
		(0.024)	(0.030)	(0.036)
ACALUMNI	+	-0.145***		0.077**
		(0.037)		(0.035)
LGASET	-	-0.006	-0.035*	0.010
		(0.012)	(0.024)	(0.014)
ROA	+	-0.142***	0.265**	0.164***
		(0.012)	(0.126)	(0.007)
BIG4	-	0.026	0.070*	-0.017
		(0.030)	(0.054)	(0.029)
LGAFEE	-	-0.002	0.028	0.0146
		(0.020)	(0.024)	(0.016)
n		117	53	64
R^2		0.457	0.258	0.725
Adjusted R^2		0.411	0.123	0.679
F		24.289***	2.527**	236.77***

***/**/* Significant at 1%, 5% and 10% respectively at 1-tailed

As the result shows an R^2 of 46%, this implies that more variation can be explained in the case of MESDAQ companies compared to top 100 companies and this is even more evident in DECDACC model (R^2 of 73%). This is expected considering that top 100 companies are usually conglomerates and such diversity would include different accounting policies adopted at subsidiaries' level that later form the consolidated accounts at holding companies. Hence, larger variation would be difficult to be captured using fewer control variables. With proper controls, this issue can be mitigated. It is noteworthy that Abdul Rahman and Mohamed Ali (2006) tested six control predictors to isolate size, liquidity, leverage, profitability, Big Five auditor and growth effects in their main analysis. Among the three models in Table 3, the predictors explain highest variation in income decreasing discretionary accruals model and this is particularly contributed by profitability (ROA) and diligent audit committee.

In |DACC| model, ROA explains about 30 percent of the variation in a single predictor OLS regression. While it is expected that independent audit committee will be able to constraint discretionary accruals holding other factors fixed as documented in Mohd Saleh et al. (2007), the study finds a controversial and positive direction between independent audit committee with discretionary accruals in both INCDACC and DECDACC models. As such, this may reflects some concerns that independent audit committee may not be able to access all pertinent financial information as documented in PricewaterhouseCoopers (2002). PricewaterhouseCoopers Malaysia (2002) reveals that:

> The majority of PLCs indicate that they provide to their INEDs, extensive access to senior management followed by access to company's documents, information and reports, access to quality information and access to independent professional advice. However, *INEDs felt that they have slightly lesser access to all the above mentioned areas* (emphasize added).

With possible limited access to financial data, independent audit committee may not be able to discharge their function optimally, in this case, to constraint discretionary accruals. Such setting would allow large discretionary accruals to escape the scrutiny of independent audit committee. Conversely, audit committee with an executive or non-independent non-executive director is associated with lower discretionary accruals. There is a need to further investigate this issue since there are quite a number of MESDAQ companies that have the CEO or the finance director on audit committee. Thus, there is an information asymmetry between independent audit committee and the management on financial matters which suggest that there should be some trade-off between having fully independent audit committee and audit committee with one executive director since the executive member can provide a bridge between audit committee and the management. However, this is no longer an option under the current MCCG (2007). The study tests the alternative, audit committee with no executive as outlined in the revised MCCG and also tested in Mohd Saleh et al. (2007) and find similar result.

There is no evidence to suggest that audit committee with financial expertise and more diligent audit committee are significant in the absolute DACC model but further analysis in INCCDACC and DECDACC show that such findings do not hold. There is weak evidence ($p < 0.10$) in INCDACC model and stronger evidence in DECDACC model ($p < 0.05$) that more diligent audit committee would constraint larger income increasing or decreasing discretionary accruals respectively. Similarly, audit committee with financial experts is significant in INCDACC with the expected direction. Arguably, such audit committee may curb excessive manipulation of financial performance in MESDAQ companies.

Interestingly, having former senior auditor on audit committee is associated with larger accruals and this is in line with Menon and Williams (2004). At least two explanations can be deduced from this finding. Firstly, they may exerts some influence on incumbent auditors at constraining accruals or secondly, as suggested by Menon and Williams (2004, p.1116), they may be also "…attracted to firms that share some characteristics that is also associated with high accruals". Audit committee with an alumnus is significant in DECDACC model suggesting the possibility of taking a "big bath" or building "cookie jars" or alternatively, a more conservative accounting adoption by such alumni.

While company size is negatively significant in Abdul Rahman and Mohamed Ali (2006), there is no evidence that size does matter in MESDAQ. Though Abdul Rahman and Mohamed Ali (2006) find no evidence of ROA with a positive theoretical direction, this study finds that ROA is significant and negative in absolute discretionary model. While a crude explanation would be that more profitable MESDAQ companies are engaging in lesser discretionary accruals, a more plausible explanation is that profitable MESDAQ firms may have predicted their accruals fairly accurately or in other words, lesser timing problems. Conversely, a less profitable and loss-making MESDAQ companies would compel to engage in larger discretionary accruals in order to minimize unfavourable market reaction, at least from the |DACC| model.

In similar vein, Menon and Williams (2004) find that distressed firms using Zmijewski Financial Condition score (Zmijewski, 1984) are more associated with larger discretionary accruals. This warrants further investigation. Both models (INCDACC and DEC DACC) show that the direction is positive suggesting that more profitable MESDAQ companies engage in more aggressive discretionary accruals similar to Mohd Saleh et al. (2007).

Thus, this reinforces the need to test discretionary accruals separately into income increasing or decreasing accruals rather than the absolute value as in Bedard et al. (2004). This test is absent in Abdul Rahman and Mohamed Ali. However, Bedard et al. employ a non-random procedure based on an arbitrary definition to separate aggressive earnings management and low earnings management that may induce sample selection bias. As such, their results should be cautiously viewed within this context. A joint hypothesis test on ACIND, ACEXPERT and ACDILIGENCE shows that all three do not explain significant variation of |DACC| but as discussed earlier, using unsigned discretionary accruals is problematic (Hribar and Nichols, 2007). Unlike Francis, Maydew and Sparks (1999) and Menon and Williams (2004) that find evidence of Big Five auditors with lower discretionary accruals, audit firm size and their efforts (as proxied by audit fees) are not significant suggesting that audit quality dimension to some extent is not evident in constraining discretionary accruals, though limited to MESDAQ companies.

Abdul Rahman and Mohamed Ali (2006) also find similar finding in top 100 Malaysian companies. However, there is weak evidence ($p < 0.10$) that Big Four auditor is associated with income increasing discretionary accruals. Consequently, one would argue that Big Four auditors may not be able to constraint upward opportunistic earnings management. Alternatively, there are also possibilities of omitted variable bias i.e. one that explain upward discretionary accruals and correlated with Big Four auditor as also argued in Menon and Williams (2004) on the positive sign of former audit partners and discretionary accruals. Still, while one would argue that endogeneity problem may plague Big Four effect, factors such as audit fee and company size that are previously associated or correlated with Big Four auditor in audit fee literature, and at the same time may explain discretionary accruals are already included. Nevertheless, theoretically, there is a need to revisit the existing discretionary accruals models as in Abdul Rahman and Mohamed Ali (2006) or Menon and Williams (2004) as such threat exists. One practical implication from this finding is whether audit firms in Malaysia, big or small, are able to withstand aggressive earnings management in a more difficult situation, such as potential delisting, bankruptcy or potential violation of going-concern assumption as partly documented in Johl et al. (2006) and Menon and Williams (2004). Replication in this area is warranted in view of incoming economic recession.

5.0 Conclusion and Way Forward

The study finds some evidence that having all independent audit committee may not bode well to constraint earnings management. The study suggests that this move should be supported with free or unlimited access to financial information similar to executive directors. Otherwise, an independent audit committee is handicapped and is limited to available resource that may not be effective in monitoring discretionary accruals. There is weak evidence that audit committee with financial expertise i.e. former senior auditor and former CFOs would be able to constraint upward earnings management. A more puzzling result is the issue of having senior auditor on audit committee. While their existence constitutes a higher expertise compared to an average MIA member, discretionary accruals are larger. The study also finds that more profitable firms engage in larger earnings management. To some extent, this is also in line with findings in Menon and Williams (2004) who document that distress companies are more likely to engage in larger discretionary accruals. Obviously, more replications are needed before we can reach any solid conclusion.The study is limited to MESDAQ companies. Still, the results give insights on prevalent characteristics that may not surface in larger and well-established public listed companies. It is noted that there are competing measurements of discretionary accruals and some are promising as recently documented in Francis, LaFond, Olsson and Schipper (2005) and Cohen, Dey and Lys (2008) on real and accrual earnings management. Nevertheless, the search for true measurement is an on-going expedition and may not escape the “Scylla and Charybdis” of earnings management.

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