Chapter 5   ANALYSIS OF RESULTS AND DISCUSSION

5.0   Introduction

The mainstream research methodology, views reality is understood by empirical and analytical methods. Hence, following previous chapter (Chapter 4) that explains on the research design and method of analytical procedures, this chapter discusses the analysis from both proxies of financial reporting quality (fraudulent financial reporting and earnings management). This chapter explains each analysis of each proxies starting with the univariate analysis and followed by the multivariate analysis. Subsequently, will be followed with discussion on findings, and summary of findings at the end of the chapter.

5.1.   Fraudulent Financial Reporting

5.1.1   Descriptive Analysis

Descriptive analysis uses the paired t-tests to determine whether there are any significant differences for the sample and the control sample. The analysis includes the univariate tests and Pearson's correlation tests between the dependent variable (fraud and no fraud companies) and independent variables consisted of AC members with professional accounting affiliations, AC members with senior managerial experience, AC members with postgraduate qualifications, audit committee size, board's size, audit committee independence, agelisted, leverage, firm size, and management ownership.

5.1.1.1 Sectors in Sample

Table 5.1, shows the sectors that are involved under the sample, and findings are consistent with Ismail *et al*. (2008). Where highest occurrences are in Trading and Services sector at 28.6 percent for current study, and 25.9 percent for Ismail *et al*. (2008)[13].

Table 5.1 Sectors in Fraud Sample

Sectors	This Study Frequency (%)	Ismail *et al*. (2008) (%)
Construction	8 (7.1)	10 (9.3)
Consumer Products	15 (13.4)	8 (7.4)
Finance	7 (6.3)	20 (18.5)
Industrial Products	25 (22.3)	22 (20.4)
Plantations	9 (8.0)	12 (11.1)
Properties	4 (3.6)	8 (7.4)
Technology	12 (10.7)	Nil
Trading and Services	32 (28.6)	28 (25.9)
N	112	108

Table 5.2 Fraud Frequency for 2001-2007

Year	Frequency	Total Firms' Population	Percentage (%)
2001	4	812	0.49
2002	4	868	0.46
2003	5	906	0.55
2004	4	963	0.41
2005	2	1021	0.19
2006	6	1027	0.58
2007	3	987	0.30
TOTAL	**28**		

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[13] Ismail *et al*. (2008) measures corporate reporting quality from the companies selected in the NACRA (National Annual Corporate Report Award) for having good financial reporting.

Table 5.2, shows the frequency of fraud occurrences from 2001-2007, with the total of 28 fraud cases and giving final sample at 112. This is consistent with Sharma *et al*. (2009) who has final sample of 96 firm years in examining determinants of audit committee meetings in New Zealand, and Owens-Jackson *et al*. (2009) that show small number of fraud firms according to the SEC AAER from 1994 to 2001, when they recorded 50 fraud firms. The percentage of fraud occurences since 2001, consistent with many previous research in fraud (see Beasley, 1996, Owens-Jackson *et al*., 2009 and O'Connor *et al*., 2006). The relative infrequency of fraudulent financial reporting consistent with O'Connor *et al*. (2006) that reported in the US, 65 fraud firms from 9600 US public companies.

5.1.1.2 Univariate Analysis

Table 5.3 shows univariate analysis. Panel A represents whole sample, and Panel B shows the descriptive of mean, standard deviation, median, minimum and maximum. Assets are in Ringgit Malaysian (RM)[14].

Panel A shows that mean for audit committee members with senior managerial experience, EXP, is higher than those with accounting affiliations (ACC) and postgraduate qualifications (PG). Board size has a mean of 7, consistent with Zhang *et al*. (2007), and Abbott *et al*. (2004) at 6.98, but slightly lower than Abdullah (2004) who recorded at 7.68 in a year 1996 sample of main board companies prior the regional asian crisis in 1997-1998, and Rahman and Ali (2006) at 8.89. Consequently, the average board size in this study is consistent with other studies in the US and Malaysia.

Audit committee independence (ACINDP) reached the required 2/3 majority of independence as proposed in the MCCG, and a mean of 0.6914, which is consistent

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[14] As at 31st December 2009, Malaysia Ringgit to US dollar is, RM1.00=USD 0.292.

with Bliss *et al*. (2007) at 0.64, that utilised Malaysian companies too. However, it is lower than Zhang *et al*. (2007) at 0.92, because the former utilises US companies that may have stronger legal requirements. LEVERAGE's mean is 0.5556 which is consistent with Bliss *et al*. (2007), but higher than Sharma *et al*. (2009) and Rahman and Ali (2006). FIRMSIZE is recorded at 11.985, higher than Rahman and Ali (2006) at 6.25.

Table 5.3 Univariate Analysis for Fraud Sample

Panel A : Overall Sample
N = 112

Variable	Mean	Standard deviation	Minimum	Median	Maximum	Mean difference	F tests	p value
FRAUD	0.25	0.435	0	0	1			
ACC	0.3403	0.1674	0	0.3333	1	-0.089	1.148	0.286
EXP	0.8403	0.2279	0	1	1	0.064	1.909	0.170
PG	0.2699	0.2414	0	0.3333	1	0.028	3.319	0.071*
ACSIZE	3.24	0.651	2	3	5	-0.024	0.364	0.547
MGTOWN	16.9384	19.8225	0	8.002	88.76	-9.455	6.675	0.011**
BODSIZE	7.17	1.907	3	7	12	-0.369	0.005	0.944
ACINDP	0.6914	0.1177	0.33	0.6914	1	-0.009	6.446	0.013**
AGELIST	11.1339	10.864	0	9	51	-0.131	0.010	0.922
FIRMSIZE	11.9852	2.3871	0	11.9747	16.15	-0.887	1.514	0.221
LEV	0.5556	0.9195	0	0.3707	7.31	0.202	0.535	0.466

**,*, significant at 5% and 10% level.
Note : **ACSIZE**=Number of AC member; **BODSIZE**=Number of directors on board; **ACINDP**=Proportion of independent AC members to size of AC; **AGELIST**=Total number of years the company had been listed; **LEV**=Total liabilities to total assets; **FIRMSIZE**=Natural log of firm' total assets; **MGTOWN**=Percentage of shares owned by directors; **ACC**=Proportion of AC members with professional accounting affiliations; **EXP**=Proportion of AC members with senior managerial experience; **PG**=Proportion of AC members with postgraduate qualifications.

For the t-test as in Table 5.3, the ACINP has a significant p value at 5 percent level, suggesting there is a difference between fraud and non-fraud firms where audit committees independence, is concerned. This is consistent with Abbott *et al*. (2004), and Bronson *et al*. (2009) that show significant audit committee independence between going concern reports and clean reports firms. Audit committee independence shows differences in the minimum and maximum values. Where the fraud sample ranges from 0.60 to 0.80. Whereas the non-fraud sample shows a wider range from 0.33 to 1. Suggesting that the fraud firms audit committee independence is limited between 60 to 80 percent of the audit committee size only, as compared to the control sample that has a more flexible dispersion of independent audit committees.

MGTOWN is significant, where, the mean differences between fraud and non-fraud firms show that fraud firms have lower managerial ownership at 9.85 percent, as compared to the control firms at 19.3 percent. This may suggest that the control firms or non-fraud firms have higher management ownership than the fraud firms, which is consistent with Abbott *et al*. (2004) and Abdullah (2006) that documented a significant difference between non-distressed and distressed firms in 2001, where the managerial ownership showed 28.17 and 14.59 consecutively for non-distressed and distressed firms. The result shows a non-significant board size and firms' size between fraud and non-fraud firms' consistent with Carcello and Nagy (2004a). Suggesting that board's size has no influence on FFR.

Table 5.4 Univariate Analysis for Fraud and Non Fraud Firms
Fraud = 28, Non Fraud = 84

Variables	Mean	Std Dev	Median	Minimum	Maximum
ACC					
Fraud	0.273	0.139	0.333	0	0.67
Non-fraud	0.363	0.171	0.333	0	0.67
EXP					
Fraud	0.889	0.220	1	0	1
Non-fraud	0.824	0.229	1	0	1
PG					
Fraud	0.292	0.294	0.292	0	1
Non-fraud	0.263	0.223	0.333	0	0.75
ACSIZE					
Fraud	3.32	0.612	3	3	5
Non-fraud	3.35	0.668	3	2	5
MGTOWN					
Fraud	9.847	16.108	4.1	0	75
Non-fraud	19.30	20.456	11.31	20.456	88.76
BODSIZE					
Fraud	6.89	1.912	7	4	10
Non-fraud	7.26	1.908	7	3	12
ACINDP					
Fraud	0.684	0.042	0.667	0.60	0.80
Non-fraud	0.694	0.133	0.667	0.33	1
AGELIST					
Fraud	11.036	10.727	7.5	0	45
Non-fraud	11.167	10.972	9	0	51
FIRMSIZE					
Fraud	11.324	3.328	11.772	0	15.18
Non-fraud	12.211	1.942	12.204	0	16.15
LEV					
Fraud	0.707	1.013	0.493	0	5.11
Non-fraud	0.505	0.887	0.327	0	7.31

Note : **ACC**=Proportion of AC members with professional accounting affiliations; **EXP**=Proportion of AC members with senior managerial experience; **PG**=Proportion of AC members with postgraduate qualifications; **ACSIZE**=Number of AC member; **BODSIZE**=Number of directors on board; **ACINDP**=Proportion of independent AC members to size of AC; **AGELIST**=Total number of years the company had been listed; **LEV**=Total liabilities to total assets; **FIRMSIZE**=Natural log of firm' total assets; **MGTOWN**=Percentage of shares owned by directors.

5.1.1.3 Correlation

Test of correlation is used to test the degree of relationships between the variables under study. The objective of the test is to see if there are any multicollinearity problems among the variables. The problem exists if independent variables are highly correlated at each other with correlation values exceeding 0.9 according to Tabachnick and Fidell (2007). However, none of the variables found to be more than 0.5.

Table 5.5, shows the correlation matrix between fraud and other variables. From the table, ACC has a negative and significant association with fraud, suggesting that audit committee with professional qualification is negatively associated with fraud, or the higher the number of accounting affiliated audit committees, the lower the incidence of fraud. This association helps to answer the second research question on the association of audit committee experts with financial reporting quality. However, ACC is positively significant with management ownership, suggesting as management ownership increases, the number of accounting affiliated audit committees increases too.

ACSIZE, is positive and significantly associated to board size, consistent with Baxter and Cotter (2009). This is because as the number of board size increases, the number of audit committee increases too since, audit committee members are also among the board members. MGTOWN has a negative and significant relationship with fraud, firmsize and age listed in public, consistent with Mitra *et al*. (2007) that managers with high ownership interest are less likely to misreport financial results. This may also suggest that, higher number of management ownership may help to reduce the likelihood of fraud and is consistent with the t-test shown in Table 5.3, that management ownership is lower on fraud firms, as compared to their control firms.

Table 5.5 Pearson's Correlation for Fraud Sample

	FRAUD	ACSIZE	BODSIZE	ACINDP	AGELIST	LEV	FIRMSIZE	MGTOWN	ACC	EXP	PG
FRAUD	1	-0.016	-0.084	-0.037	-0.005	0.0096	-0.163	-0.207*	-0.233**	0.123	0.052
ACSIZE		1	0.417**	-0.067	0.324*	0.019	0.084	-0.127	-0.271**	-0.017	0.117
BODSIZE			1	0.154	0.026	-0.178	0.123	-0.003	-0.178	-0.143	0.043
ACINDP				1	0.079	0.068	-0.003	0.042	-0.079	0.111	0.172
AGELIST					1	0.022	0.180	-0.240*	-0.169	0.164	0.159
LEV						1	-0.017	-0.044	0.085	0.045	0.0094
FIRMSIZE							1	-0.209*	-0.002	-0.030	-0.136
MGTOWN								1	0.195*	0.117	-0.047
ACC									1	0.014	-0.169
EXP										1	0.308**
PG											1

*,**significant at 5% level (2-tailed and 1% level (2-tailed).

Note : **ACSIZE**=Number of AC member; **BODSIZE**=Number of directors on board; **ACINDP**=Proportion of independent AC members to size of AC; **AGELIST**=Total number of years the company had been listed; **LEV**=Total liabilities to total assets; **FIRMSIZE**=Natural log of firm' total assets; **MGTOWN**=Percentage of shares owned by directors; **ACC**=Proportion of AC members with professional accounting affiliations; **EXP**=Proportion of AC members with senior managerial experience; **PG**=Proportion of AC members with postgraduate qualifications.

5.1.2 Multivariate Analysis

In order to determine if the results of the univariate tests adequately distinguished between the fraud and non-fraud firms when alternative control mechanisms are considered. A series of logistic regression of the sample on the control variables are conducted. A binary logistic regression is performed on fraud as the outcome, with ten predictors namely, accounting affiliates AC, AC with postgraduate qualification, AC with experience at senior managerial position, boardsize, leverage, firm's size, age listed, management ownership, audit committee size, and audit committee independence. The analytical procedure is applied to answer the second research question on the association or relationship of the audit committee experts on financial reporting quality, and to test the following hypotheses:

H_1:   Firms with a higher proportion of audit committee members with professional accounting affiliations, are less likely to experience fraudulent financial reporting.

H_2:   Firms with a higher proportion of audit committee members with postgraduate qualification, are less likely to experience fraudulent financial reporting.

H_3:   Firms with audit committee members who have experiences in senior managerial positions, are less likely to experience fraudulent financial reporting.

Table 5.6, shows the logistic regression analysis for the fraudulent financial reporting. Pseudo R square for Model 1 and Model 2, are 0.173 and 0.198 respectively, consistent with prior studies Krishnan and Lee (2009) at 0.083, Raghunandan and Rama (2007) at 0.08, Aier *et al*. (2005) at 0.0533 and Carcello and Nagy (2004a) at 0.13. The Hosmer and Lemeshow Test show all models with non significant results indicating that the models are good models (Tabachnick and Fidell, 2007), consistent with Carcello and Nagy (2004a; 2004b). Model 1 and 2 are correctly classified at 78.2 percent.

Model 1, shows the control variables with the variables of interest, i.e. ACC, EXP and PG. Four variables are significant. Other than MGTOWN and FIRMSIZE, ACC and EXP are significant. ACC, audit committee members with professional accounting affiliates is negatively significant at 5 percent level, consistent with Abbott *et al*. (2004). While, EXP, audit committee members with managerial experiences is positively significant at 10 percent level.

Model 2, introduces the interaction variables of the variables of interests namely the ACC, EXP and PG. MGTOWN and FIRMSIZE continue to be significant. Management ownership is significant, consistent with Chen *et al*. (2006) that document management ownership to be a significant determinant of corporate performance, where management ownership is negative and significant to corporate performance. The ACC variables are found to be negatively correlated and significant at 10 percent level with the incidence of fraudulent financial reporting in both models, consistent with Abbott *et al*. (2007), Abbott *et al*. (2004) and Lin *et al*. (2006). ACC denotes for accounting affiliated directors, are significant, thus supports the hypothesis (H_1) that firms with higher proportion of audit committee members with professional accounting affiliations, are less likely to experience financial reporting.

Board size is negatively correlated though not significant, with fraudulent financial reporting, consistent with Karamonou and Vafeas (2005), and Beasley (1996) that noted certain characteristics of outside directors and board size, significantly affect the likelihood of fraudulent financial reporting. Larger boards may suggest that they acquire more diverse skills and opinions among its members, and are better equipped to acquire and evaluate information about the firm (Amason and Sapienza, 1997). While age listed has a negative association with the likelihood of fraud, consistent with Beasley (1996),

Carcello and Nagy (2004a) and Abbott *et al*. (2004). And leverage has a positive relationship, consistent with the coefficients in Owens-Jackson *et al*. (2009), Raghunandan and Rama (2007) and Aier *et al*. (2005).

Table 5.6 Logistic Regression Analysis of Audit Committee Expertise Composition and Fraudulent Financial Reporting

Regression Model

Model 1 : FRAUD = α + β_1ACSIZE + β_2BOARDSIZE + β_3ACINDP + β_4AGELIST + β_5LEVERAGE + β_6FIRMSIZE + β_7MGTOWN + γ_1ACC + γ_2EXP + γ_3PG + ε_i

Model 2 : FRAUD = α + β_1ACSIZE + β_2BOARDSIZE + β_3ACINDP + β_4AGELIST + β_5LEVERAGE + β_6FIRMSIZE + β_7MGTOWN + γ_1ACC + γ_2EXP + γ_3PG + γ_4ACC*EXP + γ_5ACC*PG + γ_6 EXP*PG + ε_i

Independent Variable	*Predicted Relation*	Model 1 *Coef.*	Model 1 *p-value*	Model 2 *Coef.*	Model 2 *p-value*
Intercept	None	3.8579	0.1540	5.3870	0.0842
ACSIZE	-	-0.2264	0.6206	-0.1035	0.8267
BOARDSIZE	-	-0.0456	0.7776	-0.0505	0.7648
ACINDP	-	-1.6995	0.4378	-0.9866	0.6541
AGELIST	-	-0.0205	0.4184	-0.0202	0.4230
LEVERAGE	-	0.2714	0.2630	0.3259	0.2085
FIRMSIZE	-	-0.2008	0.0460**	-0.2109	0.0347**
MGTOWN	-	-0.0408	0.0252**	-0.0394	0.0288**
ACC	-	-4.4256	0.0174**	-12.909	0.0985*
EXP	-	2.2434	0.0723*	-1.2749	0.6215
PG	-	-0.7396	0.4801	-2.854	0.6402
ACC*EXP	-			12.266	0.1642
ACC*PG	-			-6.7558	0.3400
EXP*PG	-			4.3463	0.5149
N		112		112	
Pseudo R		0.173		0.198	
Hosmer and Lemeshow test		0.847		0.564	
Correct prediction		78.2%		78.2%	

**, * significant at 5% , 10% level (2-tailed).
Dependent variable =1, if fraudulent financial reporting, 0 otherwise.

Note : **ACSIZE**=Number of AC member; **BODSIZE**=Number of directors on board; **ACINDP**=Proportion of independent AC members to size of AC; **AGELIST**=Total number of years the company had been listed; **LEV**=Total liabilities to total assets; **FIRMSIZE**=Natural log of firm' total assets; **MGTOWN**=Percentage of shares owned by directors; **ACC**=Proportion of AC members with professional accounting affiliations; **EXP**=Proportion of AC members with senior managerial experience; **PG**=Proportion of AC members with postgraduate qualifications.

Model 2 shows interactions among the variables of interests, showing that the interactions of ACC and EXP is marginally significant. (Difference between the fraud and non-fraud on one treatment variable varied depending on the level of the second treatment variable.) A partial F test is carried out on the coefficients of ACC, EXP and the interaction of ACC and EXP (Dielman, 2006; Hair *et al*., 2006).

$$FRAUD = \alpha + \beta_1 ACSIZE + \beta_2 BODSIZE + \beta_3 ACINDP + \beta_4 AGELIST + \beta_5 LEV + \beta_6 FIRMSIZE + \beta_7 MGTOWN + \gamma_1 ACC + \gamma_2 EXP + \gamma_3 PG + \gamma_4 ACC.EXP + \gamma_5 ACC.PG + \gamma_6 EXP.PG + \varepsilon_i$$

To find out if ACC has a significant effect on the probability of fraud, thus the differentiation is :

$$FRAUD = \alpha + \beta_1 ACSIZE + \beta_2 BODSIZE + \beta_3 ACINDP + \beta_4 AGELIST + \beta_5 LEV + \beta_6 FIRMSIZE + \beta_7 MGTOWN + \gamma_1 ACC + \gamma_2 EXP + \gamma_3 PG + \gamma_4 ACC.EXP + \gamma_5 ACC.PG + \gamma_6 EXP.PG + \varepsilon_i$$

$$\frac{\delta FRAUD}{\delta ACC} = \gamma_1 + \gamma_4 EXP + \gamma_5 PG$$

Hence, to test if the coefficients are significantly different than zero;

$H_0: \quad \gamma_1 + \gamma_4 EXP + \gamma_5 PG = 0$

Table 5.7 Coefficents Test (Wald Test)

Test Statistic	Value	df	Probability
F-statistic	5.429725	(1, 96)	0.0219
Chi-square	5.429725	1	0.0198

Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
$\beta_1 + 0.8403*\gamma_1 + 0.2699*\gamma_2$	-4.425497	1.899211

From Table 5.7, using the mean values (e.g. Gul *et al*., 2009) of EXP = 0.8403 and PG = 0.2699, it is found that the coefficients are significant and negatively different than zero (p-value = 0.0219), suggesting that ACC with the presence of EXP, under the average number of directors with EXP and PG, has a small diminishing effect on the probability of fraud (value = -4.42549). The findings are robust to the different ways of measuring ACC, similar to Zhang *et al*. (2007) supported by Qin (2006), where accounting literate professionals are related to good quality of reported earnings.

The expected change in fraud might be lower for firms with more ACC. Without the interaction it is assumed that ACC had a constant effect on fraud, but the interaction term tells that this relationship changes depending on EXP. It does not mean that the effects of ACC or EXP by themselves are unimportant, but instead the interaction term complements their explanation of fraud.

Additionally, to find out if EXP has any significant effect on the probability of fraud, thus the differentiation is :

$$FRAUD = \alpha + \beta_1 ACSIZE + \beta_2 BODSIZE + \beta_3 ACINDP + \beta_4 AGELIST + \beta_5 LEV + \beta_6 FIRMSIZE + \beta_7 MGTOWN + \gamma_1 ACC + \gamma_2 EXP + \gamma_3 PG + \gamma_4 ACC.EXP + \gamma_5 ACC.PG + \gamma_6 EXP.PG + \varepsilon_i$$

$$\frac{\delta FRAUD}{\delta EXP} = \gamma_2 + \gamma_4 ACC + \gamma_6 PG$$

Hence, to test if the coefficients are significantly different than zero;

$$H_0 : \quad \gamma_2 + \gamma_4 ACC + \gamma_6 PG = 0$$

Table 5.8 Coefficents Test (Wald Test)

Test Statistic	Value	df	Probability
F-statistic	0.175763	(1, 96)	0.6760
Chi-square	0.175763	1	0.6750

Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
0.3403*C(9) + C(10) + 0.2699*C(11)	-2.925589	6.978308

Restrictions are linear in coefficients.

From Table 5.8, using the mean values (e.g. Gul *et al.*, 2009) of ACC = 0.3403 and PG = 0.2699, it is found that the coefficients are not significantly different than zero (p-

value = 0.676), suggesting that EXP, under the average number of directors with ACC and PG, has no effect on the probability of fraud.

5.1.2.1 Supplementary Analysis

Table 5.9 and Table 5.10, are supplementary analysis performed for 28 fraud firms matched with 28 non-fraud firms, matched at 1:1 similar to Beasley (1996). In Table 5.9, management ownership, audit committee independence and leverage are significant, suggesting that there are differences between the fraud and non-fraud firms. Two of these variables, i.e. management ownership and audit committee independence, are also significant in the 1:3 sample as shown in Table 5.3. Therefore, suggesting that these variables are robust whether they are matched at 1:1 or 1:3 procedures.

Table 5.10 shows the regression analysis performed for 28 fraud firms with 28 control firms. The model is correctly predicted at 73.2 percent. The results show that leverage and accounting affiliates audit committee are significant, hence are important determinants to the likelihood of fraud. The negative coefficient of ACC, predicts that the higher the number of accounting affiliated audit committees, the lower the incidence of fraud. This is also consistent with results shown in Table 5.6, that ACC are negatively significant with FFR. Consequently suggests ACC, that denotes for accounting affiliated audit committees measurement is prevalent and consistent whether the match pairs is performed 1:1 or 1:3. In addition to Table 5.10, leverage is positive and significant. It is consistent with the result in the t-test shown in Table 5.9 where leverage is significant. The regression analysis explains further, as the leverage is larger, the higher the likelihood of fraud. However, leverage is not significant in Table 5.6 regression analysis for the 1:3 sampling procedure.

Table 5.9 Univariate Analysis for Fraud Sample

Panel A : Overall Sample
N = 56

Variable	Mean	Standard deviation	Minimum	Median	Maximum	Mean difference	F tests	p value
FRAUD	0.5	0.505	0	0	1			
ACC	0.315	0.159	0	0.3333	0.67	0.0845	0.682	0.412
EXP	0.875	0.195	0	1	1	0.0268	0.02	0.968
PG	0.277	0.254	0	0.3333	1	0.0286	2.746	0.103
ACSIZE	3.38	0.648	3	3	5	-0.107	1.072	0.305
MGTOWN	14.31	19.384	0	5.96	75	-8.923	6.532	0.013**
BODSIZE	7.05	1.752	4	7	10	-0.321	0.808	0.373
ACINDP	0.684	0.094	0.33	0.667	1	-0.0006	4.121	0.047**
AGELIST	10.786	10.03	0	8	45	0.50	0.435	0.512
FIRMSIZE	11.819	2.599	0	11.927	16.15	-0.990	1.172	0.284
LEV	0.527	0.757	0	0.4025	5.11	0.360	3.269	0.076*

*,**, significant at 10% and 5% level.
Note : **ACC**=Proportion of AC members with professional accounting affiliations; **EXP**=Proportion of AC members with senior managerial experience; **PG**=Proportion of AC members with postgraduate qualifications; **ACSIZE**=Number of AC member; **BODSIZE**=Number of directors on board; **ACINDP**=Proportion of independent AC members to size of AC; **AGELIST**=Total number of years the company had been listed; **LEV**=Total liabilities to total assets; **FIRMSIZE**=Natural log of firm' total assets; **MGTOWN**=Percentage of shares owned by directors.

Table 5.10 Logistic Regression Analysis of Audit Committee Expertise Composition and Fraudulent Financial Reporting

Regression Model

FRAUD $= \alpha + \beta_1 ACSIZE + \beta_2 BODSIZE + \beta_3 ACINDP + \beta_4 AGELIST + \beta_5 LEV + \beta_6 FIRMSIZE + \beta_7 MGTOWN + \gamma_1 ACC + \gamma_2 EXP + \gamma_3 PG + \varepsilon_i$

	Model 1	
Independent Variable	*Coef.*	*Wald* χ^2
Intercept	6.137	2.442
ACSIZE	-0.825	1.817
BODSIZE	-0.231	0.828
ACINDP	-0.199	0.004
AGELIST	0.000	0.000
LEV	2.504	2.773*
FIRMSIZE	-0.203	1.512
MGTOWN	-0.021	1.108
ACC	-6.937	4.438**
EXP	2.542	1.909
PG	-0.091	0.004
N	56	
Pseudo R	0.393	
Hosmer and Lemeshow test	0.507	
Correct prediction	73.2%	

**,*,#, significant at 5%, 10%, and 15% level (2-tailed).
Dependent variable =1, if fraudulent financial reporting, 0 otherwise.

Note : **ACSIZE**=Number of AC member; **BODSIZE**=Number of directors on board; **ACINDP**=Proportion of independent AC members to size of AC; **AGELIST**=Total number of years the company had been listed; **LEV**=Total liabilities to total assets; **FIRMSIZE**=Natural log of firm' total assets; **MGTOWN**=Percentage of shares owned by directors; **ACC**=Proportion of AC members with professional accounting affiliations; **EXP**=Proportion of AC members with senior managerial experience; **PG**=Proportion of AC members with postgraduate qualifications.

5.1.3 Discussion on Fraudulent Financial Reporting

Table 5.3, shows the univariate tests for 112 firms or fraud and non-fraud firms, showing that postgraduate qualification of audit committee members, management ownership and audit committee independence are significant to differentiate between the sample and control sample. However, postgraduate qualification and audit committee independence are not significant in the regression analysis. While, the univariate tests of the 56 firms show leverage, management ownership and audit committee independence, are significant. The correlation analysis supports the univariate analysis for management ownership and accounting affiliated audit committees where, they are found to be negative and significantly related to fraud.

Subsequently, in both the regression models for 112 firms and 56 firms, for 1:3 and 1:1 sampling procedure, management ownership and accounting affiliated directors continue to have negative and significant relationships with fraudulent financial reporting. Thus consistent with the expectation on the control variables that is utilised on the number of management ownership and it's association with the incidence of fraudulent financial reporting. When more managers own more shares or stocks, they may help to alleviate fraud because of the interest they have with the company. Hence, to maintain the good name of the company, managers feel responsible to overcome any incidence that might lead to fraud. The result also lends support to earlier research by Baek *et al*. (2009) that the level of managerial ownership influences the level of discretionary disclosure activities of the firm, and O'Connor *et al*. (2006), where large CEO stock option grants were sometimes associated with a lower incidence of fraudulent financial reporting, and Morck *et al*. (1988) where firms' market value increases when board ownership increases.

In addition to Jensen and Meckling (1976) that posited higher level of managerial ownership aligns the interests of managers and shareholders, lowers the agency costs and increases the firm's value. The result also lends support to prior researches such as O'Connor *et al*. (2006), Chen, Guo and Mande (2006), Gul *et al*. (2003) and Gul and Tsui (2001). Whereby, Gul *et al*. (2003) show a negative and significant interaction between discretionary accruals (DAC) and management ownership. Thus suggesting that the positive association between DAC and audit fee is weaker from firms with higher management ownership, and supported by Chen, Guo and Mande (2006) that document corporate value is impacted by management ownership. The study also supports earlier study by Gul and Tsui (2001) that document management ownership is negative and significant when there is interaction between free cash flow and directors ownership of shares, suggesting that directors ownership is an important variable that mitigates the agency cost of free cash flow. Additionally, the study complements prior study such as Abdullah (2006) that document a significant difference between non-distressed and distressed firms in Malaysia, where distressed firms was shown to have lower managerial ownership percentage. The study shows that, with higher management ownership, incidence of fraudulent financial reporting could be lowered. This could be because the larger shares they owned, the more they feel at risk if the value of the shares dropped because of FFR. Hence, in order to secure the value of these shares, managers will try to reduce any incidence of fraud that might occur in the organisation.

The ACC variables, or audit committee with accounting affiliations found to be negatively correlated with the incidence of fraudulent financial reporting in all the models. This supports the hypothesis (H_1) that theorise firms with higher proportion of audit committee members with professional accounting affiliations, are less likely to experience fraudulent financial reporting. Consequently provide answers to second

research questions, that there is a relationship between the audit committee expertise and financial reporting quality. Subsequently, confirms that resource dependence theory (RDT) and behavioural decision theory (BDT), that professional qualification may act as external resources to the firm (RDT), that are identified as skills and knowledge (BDT). The application of these two theories, in addition to the dominant agency theory (AT), help to explain that the accounting affiliated audit committee experts, can act as an effective monitoring mechanism to have lower incidence of fraudulent financial reporting.

The significant p-value of ACC is consistent with Abbott *et al.* (2007), Abbott *et al.* (2004) and Lin *et al.* (2006). It also lends support to earlier study by Beasley (1996), Defond *et al.* (2006), Qin (2006), Gendron and Bedard (2006) and Krishnan and Visvanathan (2009), where accountants have the responsibility to identify situations where financial statement fraud has a greater likelihood of occurring (Beasley, 1996). Supported by Qin (2006) that accounting literate expert is more likely to secure high quality of reported earnings than without such expertise. It also confirms the theory in Defond *et al.* (2005) if the specialised skills possessed by accounting financial experts make directors more effective, in executing the audit committee's primary responsibilities of ensuring high quality financial reporting, market would react favourably to the appointments. Consequently, supports a recent research by Krishnan and Visvanathan (2009), where they documented accounting expertise contributes to greater monitoring by the audit committee, and Gendron and Bedard (2006), that document the more professional accountants on audit committees, the more effective is the audit committee is the audit committee in terms of adhering to best practices. The results also support prior literature such as Bonner and Lewis (1990), that an expert is at least required to have general domain knowledge and subspecialty knowledge, such as

the accounting and auditing fundamentals and the professional recognition from professional accounting bodies, supported by Chen *et al*. (2008) that noted reliable accounting and financial reporting could aid society in allocating resources efficiently. Subsequently, conforms prior study by Sharma *et al*. (2009) that accounting experts on audit committee have an important role in monitoring, and better financial reporting quality (Jaggi and Leung, 2007). It may be conclude that accounting affiliated audit committee is an important factor to financial reporting quality. It supports the theories applied, agency theory, RDT and BDT. Audit committee as monitoring mechanism that had acquired skills and expertise as qualified accountants, helped the organisation with better monitoring skills by being more vigilant and effective.

5.2 Earnings Management

5.2.1 Descriptive Statistics

Table 5.11, provides the descriptive statistics for the variables in the model. Panel A shows the financial variables used in the calculation of the discretionary accruals. It gives the summary of the statistical properties of the model's coefficients. The β_2 coefficient (change in revenues) on average positive as expected. The β_3 (property, plant and equipment) is negative as expected. Thus, consistent with Davidson *et al*. (2005). Therefore, it appears that the model is well specified and has produced plausible estimates for partitioning total accruals into their discretionary and non discretionary components.

Table 5.11 Univariate Analysis for Discretionary Accruals

Panel A : Descriptive statistics for estimated regression coefficients
N=267

Cash flow approach	Mean	Standard deviation	Minimum	Median	Maximum
A	-0.1301	0.1554	-0.3240	-0.117	0.2620
β_1	0.1252	0.1163	-0.1650	0.1950	0.2640
β_2	-0.1219	0.0789	-0.3730	-0.1320	0.0580

Panel B : Financial variables

Variable	Mean	Standard deviation	Minimum	Median	Maximum
Total assets (RM'000)	1285578.5	4084205.1	35145.62	306113	32780741
Net income (before extraordinary items) (RM'000)	93887.803	311262.87	-75894.69	17476.5	2399256.1
Cash flow from operations (RM'000)	72901.04	272919.27	-273773.6	11912.5	1940350.1
Property, plant and equipment (net) (RM'000)	458284.04	1494351.1	1203.56	89885.5	11852838
Discretionary Accruals	0.0374	0.1365	-0.59	0.029	0.75

5.2.1.1 Univariate Analysis

Table 5.12, shows the sector representation of the earnings management sample. The sample for earnings management is consistent with Hashim (2009), where the study is at 267, and the former at 277, and Baxter and Cotter (2009) at 283. Table 5.13, shows the univariate analysis of the sample. The study finds that average number of board is between 7 to 8 boards which is consistent with Ning *et al*. (2007) and Raghunandan and Rama (2007). And mean size for audit committee at 3.36 members consistent with Raghunandan and Rama (2007), that document a mean for audit committee size at 3.6 members that utilised US companies. The average board size and audit committee size for developed nation such as in the US is almost similar to Malaysia an emerging economy.

The mean for audit committee financial expert is 0.0425, while the accounting financial expert at 0.2521 higher than Krishnan and Visvanathan (2008). But the latter has maximum of 0.67 percentage of financial expert, higher than the study at 0.40. Which tells that nearly two third of their sample consist of financial expert, consistent with the companies that they utilised are from US companies, from a develop nation. As compared to this study, Malaysia is an emerging economy where pool of resources are limited as compared to the US as shown in Table 2.6.

Table 5.12 Sectors in Earnings Management

Sectors	Frequency	Percentage
Construction	16	6
Consumer Products	49	18.4
Industrial Products	68	25.5
Plantations	18	6.7
Properties	34	12.7
Trading and Services	74	27.7
Technology and Infrastructure	8	3
Total	**267**	**100**

Table 5.13 Univariate Analysis for Earnings Management

Continuous regression variables
N=267

Variable	Mean	Standard deviation	Minimum	Median	Maximum
DAC	0.0604	0.1146	-0.156	0.050	0.522
A	0.0425	0.1089	0.00	0.00	0.40
B	0.2521	0.2132	0.00	0.2500	1.00
C	0.0284	0.08761	0.00	0.00	0.33
D	0.1977	0.2085	0.00	0.2500	0.75
ACSIZE	3.36	0.617	1	3	6
BODSIZE	7.87	1.873	5	8	13
INED	0.4410	0.1167	0.2	0.4286	0.83
ROA	0.1056	0.125	-0.05	0.0799	1.58
FIRMSIZE	13.78	1.186	11.69	13.62	17.2
LEV	0.0969	0.1553	0	0.0151	1.01
AGELIST	18.86	13.337	2	14	47
MGTOWN	9.048	14.799	0	1.13	56.44

Note: **A**=Proportion of AC members with accounting professional affiliation, postgraduate qualification, and managerial experience; **B**=Proportion of AC members with accounting professional affiliation and managerial experience; **C**=Proportion of AC members with any professional affiliation qualification, postgraduate qualification and managerial experience; **D**=Proportion of AC members without any professional affiliation, but only postgraduate qualification and managerial experience; **ACSIZE**=Number of AC member; **BODSIZE**=Number of directors on board; **INED**=Proportion of independent directors to size board; **ROA**= Earnings before interest and taxes divided by total assets; **FIRMSIZE**=Natural log of firm' total assets; **LEV**=Total liabilities to total assets; **AGELIST**=Total number of years the company had been listed; **MGTOWN**=Percentage of shares owned by directors.

5.2.1.2 Correlation

Table 5.14, shows the correlation of the variables with discretionary accruals. It shows that discretionary accruals is negative and significantly correlated to accounting expert, consistent with Lin *et al*. (2006) that has negative association between financial expert and restatement as a proxy to earnings management.

The type A, audit committee financial expert is negatively and significantly correlated with accounting expert and leverage, suggesting that lower leverage may be associated with the presence of financial experts on board. On the other hand, type B, accounting expert is significantly and negatively correlated with type C and D, the non-accounting experts, consistent with Baxter and Cotter (2009), accounting experts have negative association with audit committee size. However, non-accounting experts are found to have positive and significant relationship with audit committee size and firm's size, consistent with Baxter and Cotter (2009). Thus the result suggests that larger audit committee size may consist of more non-accounting experts, than the accounting experts.

Consistent with Baxter and Cotter (2009), audit committee size has a positive association with leverage. And also larger firms are significant positively correlated with leverage and age listed in the market, suggesting older firms have larger assets. Consistent with Baxter and Cotter (2009), Davidson *et al*. (2005) and Rahman and Ali (2006), but contradicts with Jaggi *et al*. (2009) and Saleh *et al*. (2005). All the experts (A, B, C and D) are positively correlated to independence, consistent with Karamanou and Vafeas (2005) document board independence and committee expertise to be positively related to voluntary financial disclosure practices, suggesting these measures as complements in disciplining management.

Management ownership is negative and significant with firms' size and agelist. Suggesting that higher management's ownership is more prevalent in smaller firms and the percentage of ownership reduces as firms' are listed longer in the market. However, board independence is positive but non significant to ROA. This is similar to Abdullah (2004) that found positive and significant correlations between board independence and ROA, suggesting that board independence is associated with firms' high performance.

Table 5.14 Pearson Correlation for Earnings Management

	DAC	A	B	C	D	ACSIZE	BODSIZE	INED	ROA	FIRMSIZE	LEV	AGELIST	MGTOWN
DAC	1	0.080	-0.122[*]	0.035	-0.079	0.097	-0.005	-0.028	0.089	0.053	0.115	-0.074	0.067
A		1	-0.276[**]	-0.043	-0.043	-0.061	-0.166**	0.049	0.153*	-0.086	-0.016	-0.039	-0.008
B			1	-0.171[**]	-0.171[**]	-0.112	0.079	0.048	-0.075	0.082	0.064	0.031	0.065
C				1	-0.091	0.038	-0.005	0.083	-0.069	0.066	0.131*	-0.031	0.141*
D					1	0.201[**]	0.045	0.074	-0.031	0.174**	0.017	0.086	-0.156*
ACSIZE						1	0.322**	0.046	-0.021	0.209**	0.108	0.075	-0.115
BODSIZE							1	-0.280**	-0.013	0.275**	-0.027	0.060	-0.095
INED								1	0.030	-0.019	0.085	0.090	-0.011
ROA									1	-0.155*	-0.089	-0.122*	-0.030
FSIZE										1	0.091	0.320**	-0.261**
LEV											1	-0.074	0.033
AGELIST												1	-0.178**
MGTOWN													1

**,*, significant at 1% and 5% level (2-tailed).

Note: **A**=Proportion of AC members with accounting professional affiliation, postgraduate qualification, and managerial experience; **B**=Proportion of AC members with accounting professional affiliation and managerial experience; **C**=Proportion of AC members with any professional affiliation qualification, postgraduate qualification and managerial experience; **D**=Proportion of AC members without any professional affiliation, but only postgraduate qualification and managerial experience; **ACSIZE**=Number of AC member; **BODSIZE**=Number of directors on board; **INED**=Proportion of independent directors to size board; **ROA**= Earnings before interest and taxes divided by total assets; **FIRMSIZE**=Natural log of firm' total assets; **LEV**=Total liabilities to total assets; **AGELIST**=Total number of years the company had been listed; **MGTOWN**=Percentage of shares owned by directors.

5.2.2   Multivariate Analysis

Multivariate analysis or multiple regresion, is performed to this sample that consists of 267 listed companies. The sample size at 267 is considered large, because it is more than 200, and concerns about nonnormal variables can be relaxed (Hair *et al*., 2006), where the detrimental effects of nonnormality is negligible. This multiple regression analysis helps to answer the second research question, on the association of audit committee expertise with financial reporting quality (FRQ), where FRQ is proxied by earnings management and to tests the following hypotheses:

H_4 :   Firms with audit committee members with type A are negatively related to earnings management.

H_5 :   Firms with audit committee members with type B are negatively related to earnings management.

H_6 :   Firms with audit committee members with type C are negatively related to earnings management.

H_7 :   Firms with audit committee members with type D are negatively related to earnings management.

Table 5.15 shows the results from the multiple regression on earnings management. The adjusted R^2 are 0.017 and 0.031 in Model 1 and Model 2 respectively, consistent with Baxter and Cotter (2009) at 0.033, Raghunandan and Rama (2007) at 0.08 and Aier *et al*. (2005) at 0.0533. The F values are significant at 1.648 and 1.781 for Model 1 and 2, almost similar to Baxter and Cotter (2009) at 1.977.

Model 1, shows that type B audit committees is found to be negative and significant at 5 percent level, consistent with Qin (2006) that documents firms with accounting literate professionals are likely to have high quality of reported earnings than firms without

these experts. Type D audit committees is also found to be significant and negatively related to DAC. Hence, the results support the hypotheses that theorise; (1) firms with audit committee members with type B, are negatively related to earnings management (H_5) and (2) firms with audit committee members with type D are negatively related to earnings management (H_7). Type B denotes for proportion of AC members with accounting professional affiliation and managerial experience, whilst type D denotes for proportion of AC members without any professional affiliation, but only postgraduate qualification and managerial experience.

Table 5.15 Regression Analysis With Discretionary Accruals

Model 1 :
DAC $= \alpha + \gamma_1 B + \gamma_2 C + \gamma_3 D + \beta_1 ACSIZE + \beta_2 BODSIZE + \beta_3 INED + \beta_4 ROA + \beta_5 FIRMSIZE + \beta_6 LEV + \beta_7 AGELIST + \beta_8 MGTOWN + \beta_j DUMINDUSTRY + \varepsilon_i$

Model 2 :
DAC $= \alpha + \gamma_1 A + \gamma_2 B + \gamma_3 C + \gamma_4 D + \gamma_5 A*B + \beta_1 ACSIZE + \beta_2 BODSIZE + \beta_3 INED + \beta_4 ROA + \beta_5 FIRMSIZE + \beta_6 LEV + \beta_7 AGELIST + \beta_8 MGTOWN + \beta_j DUMINDUSTRY + \varepsilon_i$

Variables	Prediction	Model 1 Coef.	Model 1 t-stat	Model 2 Coef.	Model 2 t-stat
Intercept			-1.034		-0.928
Independent Variables					
A	-			-0.047	-0.623
B	-	-0.139	-2.196**	-0.177	-2.555**
C	-	-0.011	-0.168	-0.003	-0.051
D	-	-0.120	-1.864*	-0.105	-1.633[#]
A*B	-			0.156	2.170**
Control Variables					
ACSIZE	-	0.100	1.475[#]	0.091	1.356
BOSIZE	-	-0.048	-0.686	-0.044	-0.632
INED	-	-0.032	-0.493	-0.042	-0.654
ROA	+	0.101	1.625[#]	0.101	1.625[#]
FIRMSIZE		0.128	1.806*	0.126	1.800*
LEV		0.108	1.718*	0.105	1.694*
AGELIST		-0.061	-0.936	-0.056	-0.866
MGTOWN		-0.086	1.322	0.087	1.343
DUMINDUSTRY		Yes		Yes	
N		267		267	
Adj. R^2		0.031		0.042	
F value		1.648*		1.781**	

**, *,\# *significant at 5%, 10% and 15% level (2 tailed). Dependent variable, DAC.*

Note: **A**=Proportion of AC members with accounting professional affiliation, postgraduate qualification, and managerial experience; **B**=Proportion of AC members with accounting professional affiliation and managerial experience; **C**=Proportion of AC members with any professional affiliation qualification, postgraduate qualification and managerial experience; **D**=Proportion of AC members without any professional affiliation, but only postgraduate qualification and managerial experience; **ACSIZE**=Number of AC member; **BODSIZE**=Number of directors on board; **INED**=Proportion of independent directors to size board; **ROA**= Earnings before interest and taxes divided by total assets; **FIRMSIZE**=Natural log of firm' total assets; **LEV**=Total liabilities to total assets; **AGELIST**=Total number of years the company had been listed; **MGTOWN**=Percentage of shares owned by directors.

ROA is positively correlated to DAC, consistent with Wahab *et al.* (2007) that document a positive and significant ROA with stock performance. While board size is negatively associated to DAC but non significant, consistent to Xie *et al.* (2003) that document lower level of earnings management is associated with greater board independence. Srinivasan (2005) document a negative relation of board's size with income-increasing sample companies with accounting restatements.

ACSIZE is found to be marginally significant and positively related to DAC. LEV and FIRMSIZE are positive and significant at 10 percent level. Thus, suggesting that, audit committee size is important only when there is an insufficient audit committee financial experts or accounting experts. Eventhough, there is a presence of type C experts, but the presence is not significantly related to DAC. Subsequently, suggesting that presence of audit committees with accounting affiliations or type B, are sufficient to reduce the magnitude of earnings management. In addition, the presence of non accounting and non-affiliated directors on audit committee (type D audit committees), with prior senior managerial experiences and postgraduate qualifications, has significant effect and negative association to the magnitude of earnings management. Consistent with Krishnan and Visvanathan (2009) who document presence of non-accounting experts with the existing financial experts may reduce the magitude of earnings management. Hence, suggesting that tertiary or continuing education on human capital on audit committee, improves the quality of financial reporting. Thus, gives support to the behavioural decision theory that is applied to measure experts.

The Model 2, shows interactions between type A and B audit committees experts. While other control variables continue to be positive and significant (ROA, FIRMSIZE and LEV), but ACSIZE becomes non significant, suggesting that, with the presence of

accounting affiliates audit committee, with and without postgraduate qualification can be relaxed, consistent with Qin (2006) and Bedard *et al*. (2004). The type B audit committees continue to be significant at 5 percent level, consistent with prior studies (see Krishnan and Visvanathan, 2009; Mangena and Tauringana, 2008, and Qin, 2006), and also the interaction between accounting affiliates and accounting affiliates with postgraduate qualifications (A*B) is significant at 5 percent level, consistent with Baxter and Cotter (2009). Subsequently the interaction suggests that the presence of experts as prior studies had adopted are sufficient on those directors with accounting affiliations. The results show that accounting affiliated audit committees, without any postgraduate qualification, is sufficient to contribute to the financial reporting quality. Type D audit committees is negative and significant in all models, suggesting that this measure for non-accounting experts is robust, and complement prior studies on audit committees' expert such as Baxter and Cotter (2009), Krishnan and Lee (2009) and Aier *et al*. (2004).

5.2.2.1 Supplementary Analysis

In Model 2, the interaction terms are significant, thus to find out if type A complements type B experts in the interaction terms, a partial F test is carried out on the coefficients of B and A*B. The expected change in discretionary accruals (DAC) might be lower for firms with more Bs. Without the interaction it is assumed that type B audit committees had a constant effect on DAC, but the interaction term tells that this relationship changes depending on type A. It does not mean that the effects of B or A by themselves are unimportant, but instead the interaction term complements their explanation of DAC.

To find out if type B audit committees has significant effect on the magnitude of discretionary accruals, thus the differentiation is :

$$EM = \alpha + \gamma_1 A + \gamma_2 B + \gamma_3 C + \gamma_4 D + \gamma_5 A*B + \beta_1 ACSIZE + \beta_2 BOARDSIZE + \beta_3 INED + \beta_4 ROA + \beta_5 FIRMSIZE + \beta_6 LEV + \beta_7 AGELIST + \beta_8 MGTOWN + \beta_j DUMINDUSTRY + \varepsilon_i$$

$$\frac{\delta EM}{\delta B} = \gamma_2 + \gamma_5 A$$

Hence, to test if the coefficients are significantly different than zero;

H_0 : $\gamma_2 + \gamma_5 A = 0$

Table 5.16 Partial F Test on Coefficients Type B

Test Statistic	Value	df	Probability
F-statistic	3.378334	(1, 251)	0.0672
Chi-square	3.378334	1	0.0661

Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(12) + 0.042500000000000012*C(15)	-0.064907	0.035314

Using the mean values of A= 0.0425, it is found that the coefficients are significantly different than zero (Table 5.16), suggesting that type B, with the average number of type A, has a negative effect (value = -0.0649) on the magnitude of earnings management, whereby at the presence of average A (audit committees with accounting

affiliations and postgraduate qualifications) with B on board, had a diminishing effect to the magnitude of earnings management and mitigate the agency problem. Thus, it may be conclude that the presence of both directors in the audit committees may help to reduce the earnings management. Subsequently improve the quality of financial reporting, consistent with Beasley *et al*. (2009) that document audit committee with accounting background are more likely to state their audit committee drives the content of information and discusses alternative accounting treatment under GAAP, and discusses specific judgment, estimates and assumptions involved in implementing new accounting policy.

5.2.3   Discussion on Earnings Management

In Table 5.15, three control variables show consistent behaviour with discretionary accruals: ROA, firms' size and leverage. All are positive and significant with the dependent variable. However, they are not significant in the correlation analysis, though are positively correlated. ROA and leverage supports the hypothesis, where they are expected to have a positive association with DAC. But firms'size is inversely associated with DAC, unexpectedly. Suggesting that firms with greater leverage and higher growth are associated to higher magnitude of earnings management. While, FIRMSIZE suggests that smaller firms are not associated to the magnitude of earnings management, as has been theorised by many studies in earnings management literature (Gul *et al*., 2002; Klein, 2002b; Krishnan, 2003; Balsam *et al*., 2003; Xie *et al*., 2003).

ROA, a proxy for firms' performance shows a positive coefficient, suggesting that firms that performed better are likely to be engaged in earnings management, which is consistent with Gul *et al*. (2009) that document positive but non significant relationship to discretionary accruals, and Lee *et al*. (2006) that show positive and significant to

restated earnings. FIRMSIZE, which is positive and significant to the dependent variables, is in contrast with prior literature that suggest a negative association with DAC (Xie *et al*., 2003; Krishnan, 2003; Balsam *et al*., 2003; Gul *et al*., 2002). However the positive coefficient of firms size is consistent with Bauwhede *et al*. (2003) and Saleh and Ahmed (2005), suggesting larger firms are likely to engage in earnings management. This inconsistency could be due to the nature of the sample utilised in the study. In Bauwhede *et al*. (2003), the study utilised Belgium companies, while Saleh and Ahmed (2005) utilised Malaysian companies. As suggested in the political cost theory (Watts and Zimmerman, 1978) it argues corporate sector that is vulnerable to wealth redistribution, have incentive to employ devices to avoid attention from various parties. Therefore, earnings management can arise from managements' discretion over accounting procedures because the numbers are generated by those procedures are used to evaluate and reward management (Watts, 1988). Thus, under the strict regulation (Bursa Malaysia Listing Rules, SIA 1983, SCA 1993, CMSA 2007) and government intervention in Malaysia such as Corporate Debt Restructuring Committee (CDRC) and Pengurusan Danaharta Nasional Berhad, larger companies are more susceptible into earnings management perhaps due to the amount of pressure they faced.

Leverage, has shown to be prevalent under the two models, where they are consistent to be positive and significant to discretionary accruals suggesting that, higher leverage increases the magnitude of earnings management. Consistent with Loebbecke *et al*. (1989) that show poor financial performance increases the likelihood of management to engage in actions that require restatement. The result supports earlier studies such as Dechow *et al*. (1996), Palmrose (1987), Klein (2002b), Lee *et al*. (2006), and Loebbecke *et al*. (1989) that firms with greater leverage are more likely to involve in earnings management.

Another interesting control variable is audit committee size, it is positive and marginally significant to discretionary accruals, are consistent with Saleh *et al*. (2007) that noted audit committee size has a significant impact on the monitoring of earnings management, and Baxter and Cotter (2009). The result fails to support the hypothesis that theorised a negative association of audit committee size with discretionary accruals. Thus, contradicts with prior studies such as Yang and Krishnan (2005), and Lin *et al*. (2006) where audit committee size has a negative association with earnings management. The result here suggests that, larger audit committee size might not be appropriate, therefore in agreement with Rahman and Ali (2006) that board's size to be positively related to earnings management. Subsequently, the results support Jensen (1993) that board's size influence the ability of board to monitor and control management, hence explain why larger boards are inefficient. The results also confirms Cheng (2008) that document larger boards might have communication or coordination problems and agency problem. However, interestingly, audit committee size is not significant when there are presence of both the financial experts and accounting experts in the audit committee as shown in Table 5.15, of Model 2. When there exists financial experts and accounting experts, in the committee, the size of audit committee is not important. Perhaps the presence of at least one of them is merely to fulfill the requirements by the authority, and adherence to the Bursa Malaysia Listing Rules Chapter 15. Where, the audit committee must be composed of no fewer than three members, and a member of one of the associations of accountants specified in Part II of the 1st Schedule of the Accountants Act 1967.

The results show that accounting affiliated audit committee members are negative and significant to discretionary accruals, thus supports the second hypothesis (H5) that firms

with accounting affiliated directors and managerial experiences, are negatively related to the magnitude of earnings management. Hence provide the answer to the second research question; there is a negative relationship between the audit committee experts and financial reporting quality. This suggest that higher number of accounting affiliated audit committees on board, may help to reduce the magnitude of earnings management. Thus, confirms the agency theory (AT) that explains audit committee as a monitoring mechanism in the organisation. More importantly, the results confirm the resource dependence theory (RDT) and behavioural decision theory (BDT) that are applied to explain that audit committee accounting experts bridge the organisation with the knowledge, skills and experience acquired from external resources or outside the organisation. The acquired skills and experience made these audit committees experts to become effective monitoring mechanism.

Subsequently, the results are similar to few studies such as, Abbott *et al.*, (2004), Aier *et al.* (2005) and Lin *et al.* (2006) that document accounting affiliated audit committees are associated to better financial reporting quality, and Defond *et al.* (2005) and Krishnan and Visvanathan (2009), that accounting expertise contributes to greater monitoring by the audit committee. Eventhough the introduction of academic qualification as one of the financial experts' criteria is not supported, but the results support the theory on the presence of experienced and academically qualified non-accounting directors on audit committee, it is negative and significant to the dependent variable. Hence, this lends support to Kim *et al.* (2006) that advanced education and managerial experience are significantly associated with entrepreneurial attempts, where here the entrepreneurial attempts is looked upon being a successful mitigating factor to reduce the agency problems. The result suggests that, non-qualified non-accounting directors but with some background in managerial experience and postgraduate studies,

are also an important factor to financial reporting quality. These directors are associated with lower earnings management, signifies that their knowledge, experise and experience, helped to mitigate any agency conflicts that may present.

Furthermore, the significant and negative coefficient of type D experts to DAC, support prior literature on experts' studies that document, *work experience* as among the attributes of expert, such as Bonner and Lewis (1990), Abdolmohammadi and Shantaeu (1992), Choo (1996), Hertz and Schulz (1999) and McAulay *et al*. (1999). This complements Fich (2005) that document CEOs are also sources of unique expertise, whereby the result shows that senior managerial experience, is relevant to be used as an expert's criteria. Therefore, confirms the information processing view of the BDT, that experiences is a measurement for an expert.

Consequently, the significant coefficients of type B and D audit committees experts, confirm that education is important to an individuals' ability. Therefore, confirms that BDT can be applied in measuring experts and education is also a relevant criteria for an expert. This is also documented in Anderson and Keys (2007), where education contributes significantly to future earning capacity (B and D audit committees, both have minimum qualification of a tertiary education). Therefore, it may be conclude that audit committee should be composed of highly efficient directors with relevant expertise, supported by Dalton *et al*. (1999) that board should be ideally of sufficient size to be comprised of members with various expertise and skills.

5.3   Conclusion

The univariate tests of FFR, have pointed out the areas where differences exist between the fraud and non-fraud firms. It showed that management ownership, postgraduate qualifications and audit committee independence, have significant differences between the sample and the control firms. However, in the multivariate analysis as shown in Table 5.16, management ownership and firmsize are found to be an important determinants to the likelihood of fraudulent financial reporting, in addition to accounting affiliated audit committee that shows negative and significant association to fraud. Most importantly, the findings extend prior literature, and support that accounting affiliated audit committee is important to reduce the incidence of fraud.

Additionally, in the second proxy (i.e. earnings management), guided by prior literatures, control variables are introduced in the empirical model for potential influences that are likely to affect the audit committees experts' composition. Three control variables are prevalent in a series of regression as shown in the Table 5.16, namely, leverage, ROA and firms' size where they are shown to be positive and significant to discretionary accruals. Leverage and firm's performance or growth (ROA) are consistent with the hypothesis. However, firms' size is significant but inversely related to DAC, not as expected and suggested by prior literature. But is consistent with prior studies carried out in a Malaysian and Belgium context (see Saleh and Ahmed, 2005; Bauwhede *et al*., 2003). Perhaps, a possible explanation because Malaysia, an emerging economy has other factors such as politically connected firms, and ethinicity and culture influences on the economies, as compared to most prior studies that were related to developed countries such as Australia, UK and US. In Malaysia, political influences exist in the corporate sectors that is also influencing the internal mechanism and ownership structure of the companies. This is substantiated further with

concentrated ownership that may suggest why Malaysian has different results than the developing nations. Furthermore, under a different economic environment, managers are pressured to expropriate assets for the benefit of controlling stockholders.

Table 5.17 Summary of Findings

Dependent Variables	Fraudulent Financial Reporting (coefficient)	Earnings Management (coefficient)
Independent Variables	(H$_1$) Accounting Affiliates Audit Committee (negative)	(H$_6$) Type B Audit Committees (negative)
		(H$_8$) Type D Audit Committees (negative)
Control Variables	Managerial Ownership (negative) Firms' Size (negative)	Leverage (positive) Perform (positive) Firms' Size (positive)*

*inversely related to dependent variable.