

CHAPTER FOUR

RESEARCH FINDINGS

4.1 INTRODUCTION

This chapter presents the findings of the questionnaire survey. In addition to presenting the descriptive statistics, inferential statistics using multiple regressions analysis using stepwise selection method, General Linear Model Univariate analysis, multiple regression analysis, ANOVA and Post- Hoc tests were performed to tests the hypotheses on the effectiveness of audit committee and how it affects the professional objectivity of internal auditors of BIs in Malaysia.

4.2 DESCRIPTIVE STATISTICS

The descriptive statistics summarize the respondents' feedback to the survey instrument as follows.

Part II of Survey Instrument

This part required respondents to provide information on their audit committee and its relationship with management and auditors.

- a. all respondents confirmed that audit committees exist in their BIs and they have a minimum of three AC members as required by BNM/GP1 guidelines .
- b. all respondents confirmed that their Chief Internal Auditor(CIA) reports directly to Audit Committee(AC).
- c. 28 respondents or 74% said that AC is responsible for appointment of CIA and his remuneration and department's budget indicating that BNM/GP1 is not fully complied with.
- d. almost 50% of the respondents said that AC chairman and CIA met privately at least quarterly.
- e. All respondents confirmed that AC meetings were held at least on quarterly basis as required by BNM/GP1 guidelines.
- f. 32 respondents or 84% said that the chairmen of AC are independent directors while six others felt otherwise indicating that BNM/GP1 is not fully complied with.

- g. 31 respondents or 86% said that board of directors had reviewed AC members' terms of office and their performance at least every three years.
- h. 34 respondents or 92% confirmed the existence of AC charter and 25 (71%) respondents claimed that the charter was reviewed at least once in four years.
- i. all respondents confirmed the existence of internal audit charter and at least 29 (78%) respondents said that the internal audit charter has been reviewed at least once in four years.
- j. all respondents confirmed that AC had reviewed annually the audit plan, performance, independence, scope and activities of internal and external auditors.
- k. 37 respondents or 97% confirmed that their AC actively monitors the corrective actions taken by management on audit findings.
- l. more than 80% of respondents confirmed that their AC members were involved and reviewed their BI's risks, controls and financial performance.
- m. all respondents confirmed that their executive management gives full support to the AC and internal auditors in discharging their duties.

Part III of Survey Instrument

This part requested feedback on audit committee effectiveness. Likert scale of 1 to 7 was used where '1' means 'not effective at all' and '7' means 'highly effective'. The mean score for each question is shown in table 2 below.

Table 2
Mean Score on Audit Committee Effectiveness

	Mean Score
1 AC size and composition	6.23
2. Competence of AC members	6.31
3. Review of AC's terms of office	6.00
4a. Existence of AC charter	6.40
4b. Board review/approval of AC charter	6.26
5. AC's evaluation of auditors'	

	performance and independence	6.26
6.	AC 's review of external audit work	6.14
7.	Monitoring management's corrective action	6.23
8.	AC's review of internal audit work	6.23
9.	AC's communication with auditors	6.26
10.	Review of accounting & financial control	5.57
11.	Review of alternative accounting principles	5.09
12.	Review of year-end adjustments, estimates etc	5.91
13.	Review of financial reports	6.31
14.	Frequency of AC meetings on AC's effectiveness	6.31
15.	Compliance with BNM/GP1 & GP10.	6.34

Part IV Of Survey Instrument

This part requested feedback on relationship between audit committee(AC) effectiveness and internal auditors'(IA) professional objectivity. Likert scale of 1 to 7 was used where '1' means 'very low likelihood' and '7' means 'very high likelihood'. The mean score for each question is shown in table 3 below.

Table 3

Mean Score On Relationship Between Audit Committee Effectiveness and Internal Auditors' Professional Objectivity

	<u>Mean Score</u>
1. IA having direct channel of communication with AC	6.64
2. IA department is established by a charter	6.61
3. IA charter reviewed by AC	6.33
4. AC responsible hiring/firing/compensation of CIA	6.31
5. AC decides IA departments' budget, remunerations etc.	6.22
6. IA have private meetings with AC	5.78
7. Management acts when IA has direct access to AC	6.44
8. AC reviews IA's work and performance	6.17
9. AC assesses audit scope restrictions	6.36
10. Impairment of IA objectivity when management does not endorse IA	6.28
11. Chief executive officer pressure IA not to audit an area	6.17
12. Chief executive officer asks IA not to inform AC on certain audit findings	6.28

13.	Audit restriction by senior management	6.67
14.	Reporting to AC a material disagreements with management	6.64

4.3 DATA SUMMARY OF RESPONSE

The tables 4 and 5 provide the summary of respondents' perception based on the Likert scale from 1 to 7 in the survey instrument. In regard to audit committee effectiveness the respondents were asked to state how effective is their audit committee with 1 being not effective at all and 7 being highly effective. For this, all the 16 questions in Part III of the survey instrument were regrouped into the four independent variables as shown in Table 4 below. The mean response for each variable were above the average of four in the Likert scale with audit committee charter having the highest score of 6.21 while audit committee review of financial statements scored 5.74 only.

Table 4
Mean Score For Independent Variables Affecting Audit Committee Effectiveness

	Mean	Std. Deviation
Size and composition of audit committees	6.21	0.664
Audit committee charter	6.37	0.723
Direct channel of communication between audit committee and the external and internal auditor	6.21	0.542
Audit committee review of financial statements	5.74	0.844

Similarly the respondents were asked to state the likelihood of their internal auditors professional objectivity based on their relationship with audit committee. The 15 questions from Part IV of the survey instrument were regrouped into the four variables as shown in the table below. The Likert scale was used with 1 indicating 'very low likelihood' while 7 indicating 'very high likelihood'. Based on the perception of the respondents all the average score for all the four variables were slightly above six in the Likert scale, with audit committee's approval of internal audit charter and the direct channel of

communication between audit committee and internal auditors having higher scores.

Table 5
Mean Score For Independent Variables Affecting Professional Objectivity Of Internal Auditors

	Mean	Std. Deviation
Direct channel of communication between audit committee and internal auditors	6.38	0.578
Audit committee's approval of internal audit charter	6.39	0.602
Audit committee's responsibility for hiring, firing and compensation of internal auditors	6.26	0.838
Audit committee's review of internal audit work and programmes	6.26	0.667

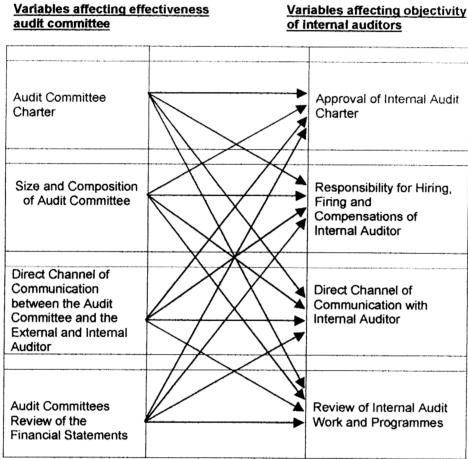
4.4 RELIABILITY ANALYSIS

Specific questionnaire items were aggregated to form composite observations for the variables under study. Reliability was assessed and found to be satisfactory using guidelines stated by Nunnaly (1967) who suggested that reliability measures in the range 0.50 to 0.80 are normally satisfactory.

The Cronbach's Alpha for part III and part IV of the survey instrument were 0.9116 and 0.8164 respectively, which are considered very satisfactory. Details are shown in Appendix B. Therefore, the survey questionnaires have measured reliably what they are supposed to measure.

In view of the high reliability, all questions from Part III of the survey instrument were regrouped into the four variables that affect the audit committee effectiveness, and subsequently tested their impact on each of the four variables affecting the professional objectivity of internal auditors as shown in figure 4.1 below.

Figure 4.1:



The correlation matrix in the table 6 shows that only the audit committee charter is positively correlated with all the four variables affecting the objectivity of internal auditors. While, the direct channel of communication between the audit committee and the external and internal auditors is positively correlated with only one variable affecting the objectivity of internal auditors i.e. direct channel of communication with internal auditor. The other variables have no significant correlations.

Table 6
Correlation Matrix

	DCC	ACIAC	HFC	IAPW	SIZECOM	ACCHART	DIRECTCO	FSR
DCC	1.000							
ACIAC	.261	1.000						
HFC	.531*	.645*	1.000					
IAPW	.557*	.649*	.679*	1.000				
SIZECOM					1.000			
ACCHART					.525*	1.000		
DIRECTCO					.689*	.570*	1.000	
FSR					.626*	.385*	.731*	1.000

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

4.5 UNIVARIATE AND MULTIPLE REGRESSION ANALYSIS

(Impact Of Audit Committee Effectiveness On Each Variable Affecting Professional Objectivity Of Internal Auditors)

The purpose of the test was to determine the association between each of the four variables affecting the professional objectivity of internal auditors and all the four variables affecting the audit committee effectiveness as shown in the diagram in the preceding section.

4.5.1 Objective 1

Dependent Variable: Direct Channel of Communication with Internal Auditor (DCC)

The objective is to determine the association between DCC and audit committee charter(ACCHART), size and composition audit committee(SIZECOM), direct channel of communication between the audit committee and the external and internal auditors(DIRECTCO) and audit committee review of financial statements(FSR).

Method 1

The General Linear Model (GLM) Univariate analysis was performed with DCC as the outcome (dependent) variable and ACCCHART, SIZECOM, DIRECTCO and FSR as the predictor (independent) variables.

Table 7
Univariate Tests On Direct Channel Of Communication
With Internal Auditors

Source	Parameter Estimate	Sum of Squares	df	Mean Square	F	Sig.	Observed Power
Intercept	3.054	2.176	1	2.176	8.980	.005	.828
ACCCHART	.365	1.569	1	1.569	6.560	.015*	.700
SIZECOM	-.168	.212	1	.212	.876	.356	.149
DIRECTCO	.211	.156	1	.156	.642	.429	.122
FSR	.129	.188	1	.188	.768	.387	.136
Error		7.753	32	.242			
Total		1519.472	37				
Corrected Total		12.048	36				

R Squared = .357 (Adjusted R Squared = .276)

Based on Table 7, the variables of ACCCHART, SIZECOM, DIRECTCO and FSR explain 36% of the variation in DCC. Of the four, ACCCHART shows a significant association with DCC. The observed power for the variable ACCCHART is 70%, which is quite commendable.

Method 2

Also performed multiple regression analysis using the stepwise selection method. Based on Table 8, only ACCCHART is significant in explaining DCC. The R-square value is 29%.

Table 8
Multiple Regression Analysis on Direct Channel
Of Communication With Internal Auditors

	Regression Coefficients	Std. Error	t	Sig
(Constant)	3.636	.724	5.021	.000
ACCCHART	.433	.113	3.818	.001

Thus, ACCHART has a significantly positive influence on DCC.

4.5.2 Objective 2

Dependent Variable: Audit Committee's Approval of Internal Audit Charter (ACIAC)

The objective is to determine the association between ACIAC and audit committee charter(ACCCHART), size and composition audit committee(SIZECOM), direct channel of communication between the audit committee and the external and internal auditors(DIRECTCO) and audit committee review of financial statements(FSR).

Method 1

Performed the General Linear Model (GLM) Univariate analysis with ACIAC as the outcome (dependent) variable and ACCCHART, SIZECOM, DIRECTCO and FSR as the predictor (independent) variables.

Table 9
Univariate Analysis on Audit Committee's Approval of Internal Audit Charter

Source	Parameter Estimate	Sum of Squares	df	Mean Square	F	Sig.	Observed Power
Intercept	3.917	3.579	1	3.579	10.849	.002	.891
ACCHART	.204	.495	1	.495	1.500	.230	.221
SIZECOM	.321	.769	1	0.769	2.332	.137	.316
DIRECTCO	0.39	0.053	1	0.003	.016	.899	.052
FSR	-.182	.369	1	.369	1.119	.298	.177
Error		10.556	32	.330			
Total		1526.889	37				
Corrected Total		13.075	36				

R Squared = .193 (Adjusted R Squared = .092)

Based on Table 9, the variables of ACCHART, SIZECOM, DIRECTCO and FSR explain 19% of the variation in ACIAC. Of the four, none of the variables show any significant association with ACIAC.

Method 2

Also performed multiple regression analysis using the stepwise selection method. From Table 10, we can see that ACCHART is significant in explaining ACIAC. The R-square value is 12%. Thus, ACCHART has a significantly positive influence on ACIAC.

Table 10
Multiple Regression Analysis on Audit Committee's
Approval of Internal Audit Charter

	Regression Coefficients	Std. Error	t	Sig.
(Constant)	4.547	.841	5.407	.000
ACCCHART	.291	.132	2.214	.033

4.5.3 Objective 3

Dependent Variable: Audit Committee's Responsibility for Hiring, Firing and Compensation (HFC) of internal auditors

The objective is to determine the association between HFC and audit committee charter(ACCCHART), size and composition audit committee(SIZECOM), direct channel of communication between the audit committee and the external and internal auditors(DIRECTCO) and audit committee review of financial statements(FSR).

Method 1

Performed the General Linear Model (GLM) Univariate analysis with HFC as the outcome (dependent) variable and ACCCHART, SIZECOM, DIRECTCO and FSR as the predictor (independent) variables.

From Table 11 below, ACCCHART, SIZECOM, DIRECTCO and FSR explain 20% of the variation in HFC. Of the four, ACCCHART shows a significant association with HFC. The observed power for the variable ACCCHART is 58%.

Table 11
Univariate Analysis on Audit Committee's Responsibility
for Hiring, Firing and Compensation of Internal Auditors

Source	Parameter Estimate	Sum of Squares	df	Mean Square	F	Sig.	Observed Power
Intercept	3.405	2.705	1	2.705	4.248	.048	.516
ACCCHART	.516	3.164	1	3.164	4.969	.033	.580
SIZECOM	0.017	0.0022	1	0.0023	.004	.953	.050
DIRECTCO	-.213	.159	1	.159	.250	.621	.077

FSR	.137	.208	1	.208	.327	.572	.086
Error		20.379	32	.637			
Total		1473.750	37				
Corrected Total		25.311	36				

R Squared = .195 (Adjusted R Squared = .094)

Method 2

From the multiple regression analysis using the stepwise selection method (Table 12), only ACCHART is found to be significant in explaining HFC. The R-square value is 19%.

Table 12
Multiple Regression Analysis on Audit Committee's Responsibility for Hiring, Firing and Compensation of Internal Auditors

	Regression Coefficients	Std. Error	T	Sig
(Constant)	3.099	1.128	2.748	.009
ACCHART	.497	.176	2.817	.008

Thus, ACCHART has a significantly positive influence on HFC.

4.5.4 Objective 4

Dependent Variable: Review of Internal Audit Work and Programmes (IAPW)

The objective is to determine the association between IAPW and audit committee charter(ACCCHART), size and composition audit committee(SIZECOM), direct channel of communication between the audit committee and the external and internal auditors(DIRECTCO) and audit committee review of financial statements(FSR).

Method 1

Performed the General Linear Model (GLM) Univariate analysis with IAPW as the outcome (dependent) variable and ACCCHART, SIZECOM, DIRECTCO and FSR as the predictor (independent) variables.

Table 13
Univariate Analysis on Review of Internal Audit
Work and Programmes

Source	Parameter Estimate	Sum of Squares	df	Mean Square	F	Sig.	Observed Power
Intercept	4.543	4.815	1	4.815	10.556	.003	.883
ACCHART	.279	.923	1	.923	2.022	.165	.281
SIZECOM	-0.065	0.032	1	0.032	.071	.792	.058
DIRECTCO	0.083	0.024	1	0.024	.053	.819	.056
FSR	-0.028	0.089	1	0.893	.020	.890	.052
Error		14.598	32	.456			
Total		1466.556	37				
Corrected Total		16.030	36				

R Squared = 0.089

Based on Table 13, the variables of ACCHART, SIZECOM, DIRECTCO and FSR explain 9% of the variation in IAPW. Of the four, none of the variables show any significant association with IAPW.

Method 2

The multiple regression analysis using the stepwise selection method also did not show any significant association with IAPW. Thus, IAPW does not depend on any of the four variables.

4.6 Split Analysis

(Differences in Perceptions Between Domestic/Foreign Banks and Between Audit Committee Chairmen/Chief Internal Auditors/Deputy chief internal auditors)

In order to ascertain the specific effect of the four variables affecting the audit committee effectiveness on the four variables affecting the professional objectivity of internal auditors, a split analysis was performed. Its objective was to determine whether there are any differences in perceptions between the respondents from local and foreign banks as well as between

audit committee chairmen, chief internal auditors and deputy chief internal auditors.

For these two groups, this test will show which of the four variables affecting the audit committee effectiveness (audit committee charter, size and composition audit committee, direct channel of communication between the audit committee and the external and internal auditors and audit committee' review of financial statements) has a greater effect on each of the four variables affecting the professional objectivity of internal auditors (approval of internal audit charter, responsibility for hiring, firing and compensations of internal auditor, direct channel of communication with internal auditor and review of internal audit and work programmes).

4.6.1 Audit Committee Approval of Internal Audit Charter

The existence of audit committee charter has greater influence compared to other variables on audit committee's approval of internal audit charter in domestic banks but not in foreign banks as shown in Table 14.

Table 14
Regression Result on Audit Committee Approval of Internal Audit Charter

	Regression Coefficients	Std. Error	t	Sig.
(Constant)	3.823	1.214	3.148	.004
Audit committee charter	.400	.189	2.112	.046

- a. Dependent Variable: Audit Committee's approval of internal audit charter
- b. Banking institution = domestic

4.6.2 Responsibility For Hiring, Firing and Compensations of Internal Auditor

Table 15 shows that the existence of audit committee charter in domestic banks has greater influence on the above variable.

Table 15
Regression Result on Hiring, Firing and Compensations
For Internal Auditor

	Regression Coefficients	Std. Error	t	Sig.
(Constant)	2.234	1.506	1.483	.152
Audit committee charter	.631	.235	2.688	.013

- a. Dependent Variable: AC's responsibility for hiring, firing and compensation of internal auditors
b. Banking institution = domestic

4.6.3 Direct Channel Of Communication With Internal Auditor

Table 16 and Table 17 show that the existence of audit committee charter has greater influence on the above variable in both domestic and foreign banks.

Table 16
Regression Result on Direct Channel Of Communication
With Internal Auditor (Domestic Banks)

	Regression Coefficients	Std. Error	t	Sig.
(Constant)	3.775	1.035	3.648	.001
Audit committee charter	.407	.161	2.524	.019

- a. Dependent Variable: Direct channel of communication with internal auditors
b. Banking institution = **Domestic Banks**

Table 17
Regression Result on Direct Channel Of Communication
With Internal Auditor (Foreign Banks)

	Regression Coefficients	Std. Error	t	Sig.
(Constant)	3.412	.962	3.546	.005
Audit committee charter	.475	.152	3.132	.011

- a. Dependent Variable: Direct Channel Of Communication With Internal Auditor
b. Banking institution = **foreign**

Table 18 shows that in the perception of chief internal auditors, both the existence of audit committee charter and the size and composition of audit committees have greater impact on the direct channel of communication with internal auditors.

Table 18
Regression Result on Direct Channel Of Communication
With Internal Auditor (Chief Internal Auditor)

	Regression Coefficients	Std. Error	t	Sig.
(Constant)	1.473	1.063	1.386	.187
Size and composition of audit committees	.462	.162	2.856	.013
Audit committee charter	.329	.144	2.276	.039

- a. Dependent Variable: Direct Channel Of Communication With Internal Auditor
b. Position = **chief internal auditor**

4.7 Effect Of Executive Management Support On Internal Auditor's Professional Objectivity

Survey question 10 from Part IV of the instrument (marked as D10) measures the effect of executive management support on internal auditors' objectivity.

On a scale of 1 to 7, more than eighty percent of the respondents marked either 6 or 7, with a mean score of 6.27. From figure 4.1, the 95% confidence interval for this measure was [5.87, 6.67]. All these results indicate a very high degree of agreement as shown in Figure 4.1 below.

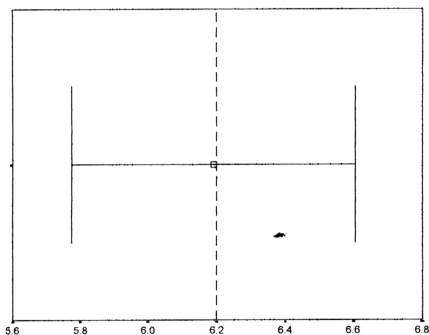


Figure 4.1 : 95% Confidence Interval for Professional Objectivity

Thus, both audit committee chairmen and internal auditors felt that professional objectivity of internal auditors will be highly affected if executive management does not treat the internal audit department equally as other business function and give necessary support.

4.8 Gap Analysis For Two Conflicting Positions

The two questions (Question 11 and 12 of Part IV of survey instrument) were posed to the respondents to determine the extent to which the internal auditors will remain objective in pursuing their audit objectives, in spite of restrictions or undue interference in the course of their work by their bank's Chief Executive Officer. The table 19 shows the descriptive summary.

Table 19
Descriptive Summary

Position	N	Mean	Std. Deviation	95% Confidence Interval	
				Lower Bound	Upper Bound
audit committee chairman	13	6.923	0.188	6.810	7.037
chief internal auditor(CIA)	17	6.000	1.075	5.447	6.553
Deputy CIA	7	5.286	1.976	3.458	7.113
Total	37	6.189	1.244	5.775	6.604

The objective is to test if there are any significant differences among the combined positions of these two scenarios. Using One-way ANOVA test the results are shown in table 20:

Table 20
ANOVA Results

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	13.324	2	6.662	5.348	.010
Within Groups	42.352	34	1.246		
Total	55.676	36			

The p-value from the ANOVA table is 0.01, which is less than 0.05. Therefore, at least one group's mean is different. The homogeneity principle is very important in testing means using parametric methods. The Levene's test for homogeneity gave a p-value of 0.008. Thus, the variances among the different groups are not the same. Thus, the Dunnett's T3 non-parametric Post-Hoc multiple comparison test was used to identify homogenous subgroups.

Table 21
Post Hoc Tests

		Mean Difference (I-J)	Std. Error	Sig.
(I) Position	(J) Position			
audit committee chairman	chief internal auditor	.9231*	.26594	.008
	internal auditor	1.6374	.74869	.179
chief internal auditor	audit committee chairman	-.9231*	.26594	.008
	internal auditor	.7143	.79110	.752
internal auditor	audit committee chairman	-1.6374	.74869	.179
	chief internal auditor	-.7143	.79110	.752

* The mean difference is significant at the .05 level.

From Table 21, the Dunnette T3 test gives the following summary.

- Audit committee chairmen differ from chief internal auditors;
- Chief internal auditors are no different from deputy internal auditors; and;
- Deputy chief internal auditors are no different from audit committee chairmen and chief internal auditors.

Therefore, there are differences in perceptions between audit committee chairmen and chief internal auditors in respect of the extent of objectivity exercised by chief internal auditors in the above-mentioned conflicts.

4.9 Impact Of Compliance With BNM/GP1 and BNM/GP10 Guidelines On Audit Committee Effectiveness

Survey question 15 from Part III of the instrument (marked as C15) measures the variable of interest.

On a scale of 1 to 7, more than ninety three percent of the respondents marked either 6 or 7, with a mean score of 6.36. From figure 4.2, the 95% confidence interval for this measure was [6.16, 6.56]. All these results indicate a very high degree of agreement as shown in Figure 4.2 below.

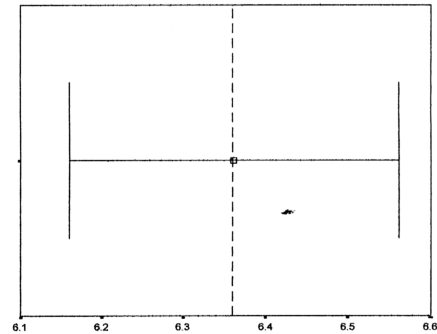


Figure 4.2 : 95% Confidence Interval for audit committee effectiveness

Thus, compliance with BNM/GP1 and BNM/GP10 Guidelines has a positive impact on audit committee effectiveness.

4.10 CONCLUSION

This chapter reports results of statistical tests based on the feedback given by audit committee chairmen, chief internal auditors and their deputies of banks in Malaysia on the topic of this study.

The results show that banks have complied with the directives of the Central Bank on formation, function and duties of audit committee. The audit committees are perceived to be effective, thus, has contributed to the enhancement of professional objectivity of internal auditors in the Malaysian banking system.

Of the four variables affecting the audit committee effectiveness, the existence of audit committee charter has the most significant impact in the enhancement of internal auditors objectivity, particularly in local banks. However, the Univariate analysis and the multiple regression analysis revealed that in the Malaysian banking system the audit committee effectiveness has no impact on audit committee's review of internal auditors' work and programmes. The Split Analysis revealed that the local banks viewed that the existence of Audit Committee charter affects significantly the approval of internal audit charter by audit committees, hiring, firing and compensations of internal auditors, and, the direct channel of communication between audit committee and internal auditors. While foreign banks perceived that the audit committee charter relates significantly to the direct channel of communication between audit committee and internal auditors

The Dunnett's T3 non-parametric Post-Hoc multiple comparison test revealed that there is a gap in perceptions between audit committee chairmen and chief internal auditors of local banks with regard to the ability of internal auditors in maintaining their objectivity when they are subject to pressures from the chief executive officer of their banks.

Also, all respondents viewed that internal auditors' objectivity is highly affected if the executive management does not give the necessary support to the internal auditors. The results also support the notion that compliance with BNM/GP1 and BNM/GP10 guidelines has a positive impact on audit committee effectiveness.

The next chapter will provide the conclusion and recommendations for future research.