CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION
The variables used in this research, were discussed in detail, in the previous chapter. The relationship between the variables is discussed under the theoretical framework. The hypotheses of the research are also developed from relevant literature on the topic of research. Finally, the questionnaire and the statistical analysis are discussed under method and design.

3.2 THEORETICAL FRAMEWORK
It is suggested in the literature review that only effective audit committees can interact with internal auditors in the above-mentioned four areas, thereby enhancing their professional objectivity and independence. The effectiveness of audit committees is attempted to be explained by four independent variables. The first one is the audit committee charter. The audit committees authority, responsibility and resources that they require to carry out their duties, are provided for in the charter, which should be approved by the board.

The second independent variable is the size and composition requirement of the audit committee. This ensures that the audit committee members posses the necessary skills, competencies and independence, to carry out their work effectively.

The third independent variable is a direct channel of communication between the audit committee and both auditors (that is, internal and external auditors). This will ensure that both auditors carry out their duties freely and fairly, thus preserving their objectivity and independence. In the absence of a direct channel of communication between the audit committee and the two auditors, the audit committee will not be aware of their constraints. Thus, both auditors may be subject to management pressures, thereby impairing their objectivity and independence.
Finally, the fourth variable is the audit committee’s responsibility of reviewing the financial statements and internal controls, before the board approves the financial statements. Carrying out this function effectively require the audit committee to have scheduled meetings. Figure 3.1 below shows the dependent (audit committee effectiveness) and the four independent variables.

**Figure 3.1 Variables for Audit Committee Effectiveness**

- Audit Committee Charter
- Size and Composition of Audit Committee
- Direct Channel of Communication between the Audit Committee and the
- Audit Committees Review of the Financial Statements

The main variable of interest to this study is the dependent variable of internal auditors’ professional objectivity. From the literature review, the relationship between effective audit committees and internal auditors professional objectivity, is attempted to be explained by four independent variables.

The first independent variable is audit committee’s approval of the internal audit charter. The internal auditor needs the authority, responsibility, and resources to be able to do his work effectively. These are specified in the internal audit charter. If top management (board or audit committee of the board) approves the charter, the necessary authority, responsibility and resources will be ensured.
The second independent variable is the audit committees' responsibility for the hiring, firing and compensations of the internal auditor. Where management controls the internal auditor's appointment, promotions and other incentives, his objectivity and independence will be impaired. Therefore the internal auditor will be insulated from management influence, if the audit committee has authority for his hiring, firing, and compensation.

The third and perhaps the most important variable is a direct channel of communication between the audit committee and the internal auditor. The internal auditor should communicate to the audit committee through memos, meetings and special reports. By so doing, the audit committee will be aware of the problems impeding the efficiency and effectiveness of the internal auditor and can take the necessary actions to eliminate them.

Finally the audit committee should review the programmes and work of the internal auditor. Through this, they can ensure that the internal auditor does not suffer from any restrictions on the scope of his activities, or management influence in his work. Figure 3.2 shows the relations between the variables.

**Figure 3.2 Variables for Internal Auditors Professional Objectivity**

![Diagram showing variables for internal auditors professional objectivity]

Finally the link between the audit committee effectiveness and internal auditors professional objectivity is looked at, that is how the variables under
audit committee effectiveness influence those of the internal auditors professional objectivity, via audit committees. Figure 3.3 on the next page shows the link.

The following important research questions are inferred from the three models:

1. Will audit committees be effective when the board approves the audit committee charter?
2. Will audit committees be effective when their size and composition are in compliance with the KLSE listing requirements?
3. Are audit committees effective when there is a direct channel of communication between them and the internal and external auditor?
4. Will audit committees be effective when they review the financial statements before being approved by the board?
5. Will the audit committees approval of the internal audit charter, enhances the internal auditors' professional objectivity?
6. Will the internal auditor's professional objectivity be enhanced when the audit committee is responsible for their hiring, firing and determining their incentives?
7. Will the internal auditor's professional objectivity be enhanced when there is a direct channel of communication between them and the audit committee?
8. Will the internal auditor's professional objectivity be enhanced when the audit committee reviews their work and programmes?
9. Will effective audit committees enhance the internal auditors professional objectivity?
Table 3.3: Link Between Figure 3.1 and 3.2

Audit Committee Charter

Size and Composition of Audit Committee

Direct Channel of Communication between the Audit Committee and the External and Internal Auditor

Audit Committees Review of the Financial Statements

Audit Committee Effectiveness

Approval of Internal Audit Charter

Responsibility for Hiring, Firing, and Compensations of Internal Auditor

Direct Channel of Communication with Internal Auditor

Review of Internal Audit Work and Programmes

Internal Auditors Professional Objectivity
3.3 HYPOTHESIS DEVELOPMENT

The KLSE listing requirements (ss. 15.12) require all KLSE listed companies to have audit committees. One of the duties (ss. 15.13e and 13f) of such committees is to oversee the internal audit functions. According to Vanasco (1994), one of the purposes of audit committees is to strengthen the internal auditors independent. However the mere existence of audit committees does not guarantee the strengthening of the internal auditors independence. Audit committees must be effective in order to enhance the internal auditor’s professional objectivity and independence.

3.3.1 Audit committee Charter

The KLSE listing requirements outlined certain conditions, which must be satisfied by audit committees, if they are to be effective. The KLSE listing requirements (ss. 15.12) specified that an audit committee must have a written term of reference, which deals with its authority and duties. According to Vanasco (1994b), the Treadway commission (1987) and the BRC (1999), a written charter for the audit committee should be developed and the full board should approve, review and revise it when necessary. The charter helps the audit committee keep in mind the limits of its responsibility and avoid on taking matters, which ought to be left to management (Katz, 1998). A good charter imposes self-discipline on the audit committee (Mahoney, 1999).

H1: Audit committee are effective when the board approves the audit committee charter.

3.3.2 Size and Composition

The KLSE listing requirements (ss. 15.10a and 10b) also states that the size of the audit committee should not be fewer than three, majority of who should be non-executive directors. The listing requirements (ss.15.11) further state that the chairman of the committee should also be a non-executive (independent) director. Sori et al. (2001b), in their study concluded that institutional investors
perceived that majority of the audit committee members should be independent
directors. The BRC (1999) and the Treadway Commission (1987) as cited by
Vanasco (1994b) emphasized this. Non-executives directors who are
independent from the company can preserve a high degree of independence
from management influence (Vanasco, 1996, Ernst and Young, 1992, Sori et al.
2001c and 2001d). To preserve their independence, the KLSE listing
requirements (ss. 15.21) specify that member’s term of office should be reviewed
every three years. Good governance dictates that audit committees should be
independent (Tsacoumis, 1999). According to the BRC (1999), for audit
committees to be effective, its members must be dedicated interested and
committed to the responsibilities of the audit committee. To be effective, the
KLSE listing requirements (ss. 15.10c) states that members of the audit
committee should be financially literate and at least one of the members must be
a member of the Malaysian Institute of Accountants (MIA). Vinten (1999),
Vanasco (1996) and Sori et al. (2001b), and the BRC (1999) reiterated this.

$H_2$: Audit committees are effective when they comply with the size and
composition requirements of the KLSE.

3.3.3 Direct Communication

Direct channel of communication between the audit committee and both auditors
(internal and external), is another requirement for effective audit committees
(Verschoor and Liotta, 1990, and Vanasco, 1996). According to the KLSE listing
requirements (SS. 15.13.1a ÷ 1d), the audit committee should review with the
external auditor, the audit plan, his/her review of the system of internal controls,
the audit report and the assistance given by the company’s employees to the
auditor. Only through regular, frank, open and confidential dialogue will the audit
committee be able to fully utilize the services of the external auditor Katz, 1998,
and BRC, 1999). According to the BRC (1999), and the KLSE listing
requirements (ss. 15.13e), the audit committee should review the adequacy of
the scope, functions and resources of the internal auditor. The review should be
extended to the internal auditors programs, processes and their results, as well as the actions taken by management on audit recommendations (BRC, 1999 and Vanasco, 1994, KLSE listing requirements, ss.15.13f).

\[ H_3: \text{Audit committees are effective when they have direct channel of communication with the internal and the external auditors.} \]

3.3.4 Financial Statement Review
The KISE listing requirements (ss. 15.13g) also specified that audit committees should review the company’s financial statements before being approved by the board. By reviewing the financial statements, audit committees can effectively attain their objective of enhancing public confidence in the credibility of the financial statements, and at the same time fulfill their role of protecting the interest of the shareholders (Verschoor and Liotta, 1990, Hamid et al., 1999, Simnet, Green, and Roebus as cited by Sori et al., 2001c, McMullen and Raghunandan, 1996, and Tsacoumis, 1999).

\[ H_4: \text{Audit committees are effective when they review the financial statements and interim reports before the board approves them.} \]

3.3.5 Internal Audit Charter
Where audit committees are effective, how can they enhance the internal auditor’s professional objectivity and independence? The audit committees can improve the internal auditor’s objectivity and independence, by approving the internal audit charter and terms of reference, which defines the purpose, authority, responsibilities and resources of the internal auditor (IIA’s Standards, 2001, Cooper, 1993, Vinten, 1999 and Verschoor and Liotta, 1990). According to Vanasco (1996), this is very essential for the enhancement of the internal auditor’s objectivity and independence. The charter facilitates the accomplishment of the internal auditor’s objective of effectively serving the needs of the organisation (Verschoor and Liotta, 1990). The internal audit charter
should also provide the internal auditor with the level of independence necessary
to discharge his duties effectively (Cooper, 1993, Vinten, 1999).

\[ H_5: \text{Internal auditors professional objectivity and independence is enhanced when}
\text{the audit committee approves the internal audit charter.} \]

3.3.6 Hiring, Firing of Internal Auditor

Where the audit committee is responsible for the hiring, firing, compensations
and the incentives of the internal auditor, his/her professional objectivity and
independence will be improved and the chances of his recommendations being
implemented will be greatly increased (Vanasco, 1994b & 1996, Weizhong and
The audit committee should review and approve the budget of the internal audit
department (Braiotta, 1982, Weizhong and Shourong, 1997, Read and
Raghunandan, 2001). Where the audit committee assumes this function, the
internal auditor's authoritativeness and efficiency will be ensured (Weizhong and
Shourong, 1997).

\[ H_6: \text{Internal auditors professional objectivity and independence are enhanced}
\text{when the audit committee is responsible for the chief internal auditor's hiring,}
\text{firing, and determination of the internal auditor's incentives.} \]

3.3.7 Direct Channel of Communication

According to Verschoor and Liotta (1990), Rezaee and Lander (1993), Allison,
(1994), and Vinten (1999), a direct channel of communication between the
internal auditor and the audit committee is crucially important for the
effectiveness of the internal auditing department. This could take the form of
meetings, regular confidential memos, and reports sent only to the audit
committee. Direct communication in the form of meetings between the audit
committee and the internal auditor (without members of management present),
strengthens the internal auditors independence (Verschoor and Liotta, 1990,
Kalbers, 1992, and Vanasco, 1996). A direct channel of communication between the audit committee and the internal auditor, demonstrate to the organisation the independent organisational status of internal auditing, and permits internal auditors to express impartial and unbiased judgment and recommendations (Verschoor and Liotta, 1990, Rezaee and Lander, 1993). Direct channel of communication enhances the probability that the internal auditors recommendations will be implemented, and it works best when the internal auditor attends and participate in those board meetings which relates to its oversight responsibilities for auditing financial reporting, organisational governance, and control (Verschoor and Liotta, 1990, Rezaee and Lander, 1993, and Vanasco, 1994b).

H7: Internal auditors’ professional objectivity and independence are enhanced when the audit committee have a direct channel of communication with them.

3.3.8 Reviewing Internal Audit Work and Programmes

Audit committees should oversee the internal auditor. Thus they should be responsible for evaluating the internal auditors objectives, reviewing their work and performances as well as significant and unexpected internal audit findings and management’s response to them (Thomton, 1996, and Read and Raghunandan, 2001). The audit committee should also assess any difficulties or audit scope restrictions that internal auditors have encountered during the audit (Read and Raghunandan, 2001). These reviews enhance the professional objectivity and independence of the internal auditor, as ell as the image of the audit staff in the organisation (Braiotta, 1982). The most important benefit to be gained from the existence as well as a close working relationship between audit committees and internal auditors is the independence of both the audit committee and the internal auditor (Olivario and Newman, 1993, Gul and Subramaniam, 1994, Rezaee and Lander, 1993, and Cooper, 1993). Thus from the above literature, we came up with the following hypothesis:
$H_8$: Internal auditors professional objectivity and independence are enhanced when the audit committee review the internal audit programmes and work.

The overall opinions of the group are compared as to whether effective audit committees enhance the internal auditors professional objectivity and independence.

$H_9$: Effective audit committees enhance the internal auditors' professional objectivity.

Thus $H_1$ to $H_4$ are tests the effectiveness of audit committees and $H_5$ to $H_8$ tests the influence of effective audit committees (independent variable) on the internal auditors' professional objectivity (dependent variable). $H_1$ to $H_8$ are tested using a one-sample t-test, to test the opinions (mean responses) of the respondents (internal auditors and audit committee chairmen). These tests are conducted at a 95% significance level. The relationship between effective audit committees and internal auditor's professional objectivity is measured by comparing the overall mean rating the respondents on audit committee effectiveness, and audit committees enhancement of the internal auditor's professional objectivity.

3.4 METHOD AND RESEARCH DESIGN

3.4.1 Questionnaire Design

A mail questionnaire is used to collect data. The questionnaire is developed to measure the dependent (internal auditor's professional objectivity) and the independent (audit committees effectiveness) variables. The questions are adapted from Kalbers (1992), Sori et al. (2001), Guidelines for internal auditors of Public Listed Companies, (Securities Commission, 2001), and other relevant literature. The questionnaire is divided into four parts.
Part A:
The questions in this part are about the background of the respondents. The respondents are asked to state their position, and membership of the IIAM, experience (in years), and the sector in which they work (manufacturing, agriculture, Banking and finance, etc).

Part B:
The questions in this section seek information on the companies' audit committees, chief internal auditors and the internal audit department. Thus questions here mainly enquire about compliance with the KLSE listing requirements as well as some of the provisions of the IIA's Standard (2001).

Part C:
Questions in part C enquires as to whether compliance with the KLSE listing requirements and the relevant IIA's Standards, makes their audit committees effective. A seven point Likert scale is use to draw responses from the respondents. Likert scales are suitable for measuring attitudes and opinions. Kalbers (1992), Gul and Subramaniam (1994), Hamid et al. (1999) and Sori et al. (2001) used a seven Point Likert scale. The sequence of the likert scale is as follows:

1 = Not at all effective; 2 = Not effective; 3 = Somehow not effective;
4 = Neutral; 5 = Somehow effective; 6 = Effective; 7 = Highly effective.

Part D:
The questions here are designed to seek information on the issues that in the respondent's opinion enhance or do not enhance the internal auditors professional objectivity. The seven point Likert scales are also used to draw responses from the respondents. The sequence is as follows:

1= Very low likelihood; 2 = Low likelihood; 3 = Some low likelihood; 4 = Neutral;
5 = some likelihood; 6 = High likelihood; and 7 = Very high likelihood.
3.4.2 Population and Sample Size

The membership list of the Institute of Internal Auditors Malaysia (IIAM) is used to select the sample. Members of IIAM are selected because they have the technical knowledge required of internal auditors; and also because of their knowledge of audit committee issues. PLC’s are selected because they are registered on the KLSE and listing requirements addresses the issue of audit committees. Also relatively, large established companies are likely to have strong audit committees. The sample for audit committee chairmen is selected from companies registered on the KLSE.

As at March 2002 there are 197 registered members of IIAM who are working with public listed companies (PLC’S). As at the same date, there are 815 listed companies of the KLSE, and each listed company should have an audit committee that has a chairman. IIAM members who work for public listed companies that are non-financial institutions are the population for this study. All the 197 members of IIAM who work with PLC’s are included in the sample, as well as 200 audit committee chairmen randomly selected from the KLSE listed companies.. This represents 100% of the total IIAM membership who are working with PLC’s and 25% of audit committee chairmen of the KLSE listed companies, at the exchange’s website..

3.4.3 Data Collection Method

A questionnaires was sent to each of the197 members of the IIAM who works for PLC’s that are non-financial institutions and 200 audit committee chairmen. Included in each envelop is a cover letter (which explains the purpose of the study and urges respondents participation), a questionnaire and a self addressed stamped envelop. To ensure confidentiality, no names of respondents or their firms are required and assurance is given in the cover letter that the information collected will be analysed on aggregate basis and will only be used for the purpose of this research.
The responses received are 29 and 35 from audit committee members and the internal auditors respectively. A reliability test was run for the responses for part 3 and 4 of the questionnaire, and the results are 0.935 and .761, respectively. This indicates that the data is reliable (appendix 3.5a & 3.5b).

3.4.4 Statistical Testing
The data is analysed using descriptive analysis as well as testing hypothesis. The eight hypotheses tests the opinions of the respondents, with respect to the effectiveness of audit committees and the effect of effective audit committees (independent variable) on the internal auditor's professional objectivity (dependent variable). All eight hypotheses are tested using a parametric t-test. A sample t-test is suitable when sample means of interval data are to be compared with a population mean, the population is normally distributed and the sample sizes are small (less than or equal to 30).

3.5 CONCLUSION
An explanation of the variables used in this study as well as the link between the variables was covered under the theoretical framework. The hypotheses for the study were also developed based on the variables identified in the theoretical framework. Data for the study had been collected from both the audit committee chairmen/members and the internal auditors, through a questionnaire. A sample t-test is use for testing the opinions of the respondents. The data is analysed in the next chapter, using both descriptive statistics and hypothesis testing.