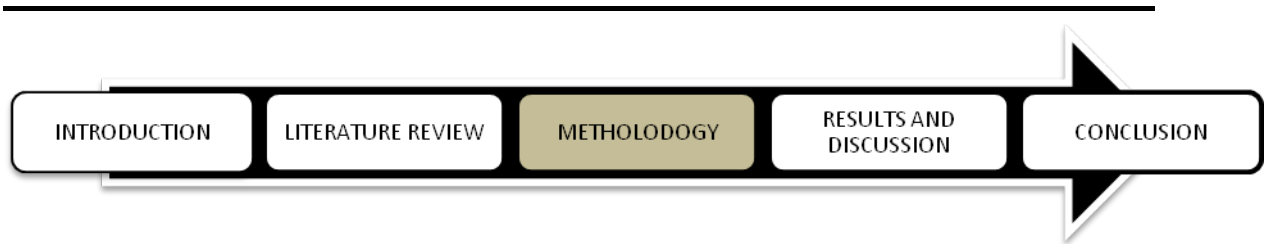


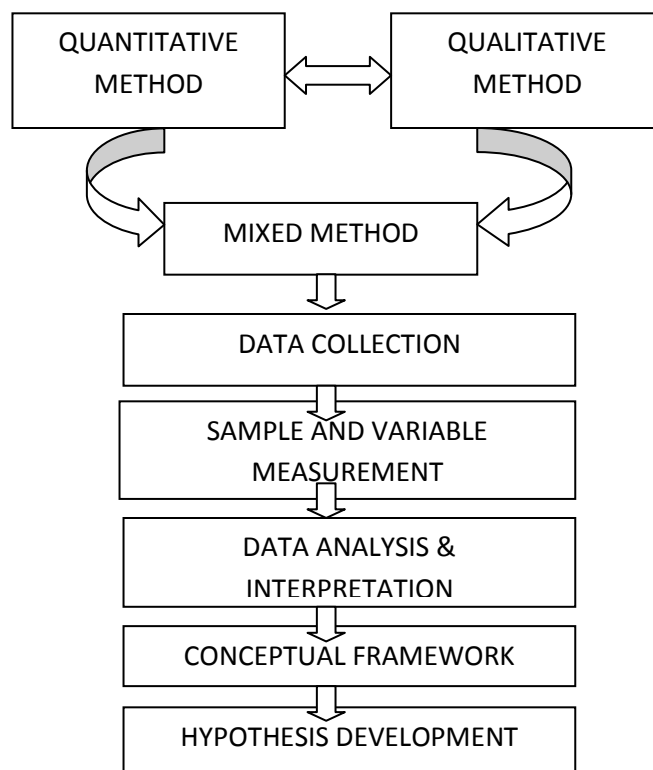
3 RESEARCH METHODOLOGY



INTRODUCTION

The purpose of this chapter is to introduce the research methodology as well as the empirical technique applied. The chapter defines the reason of using qualitative and quantitative method, followed by the main data collection techniques used in this research study; secondary data from annual report Bursa Malaysia and interviews. Next, it defines reason for selection of sample, data analysis and interpretation, followed by conceptual framework and finally the hypothesis.

FLOW OF RESEARCH METHODOLOGY SECTION



3.1 QUANTITATIVE METHOD

Quantitative research often improves on the validity of research instruments which uses traditional statistical and mathematical methods for measuring results conclusively (Winter, 2000). In addition, quantitative studies allow other people to repeat a certain experiment to able get similar results. In short, benefits from this approach are as follows;

- Summarize large information – Easy to obtain fact and figures from Bursa Malaysia website and enable to run an analysis on the company's financial position from published annual report. Enable to summarize huge information during the year 2010 as well as facilitate good comparisons across the samples.
- Greater accuracy – Information drawn from Bursa Malaysia is trustable because it is one of the largest bourses in Asia with just under 1,000 listed companies offering a wide range of investment choices to the world. It assists Malaysian capital market and boost global competitiveness. Bursa Malaysia is devoted to maintain an efficient, secure and active trading market for investors (www.bursamalaysia.com).
- Time and cost saving – (www.bursamalaysia.com), this website provides a complete database for users to access the information on financial data and disclosures made in company's annual report. Audited financial statements readily available and free of charge, offers greater convenience, otherwise the researcher would have to collect the data from Registrar of Companies, ROC which of obviously not cheap in cost.

3.2 QUALITATIVE METHOD

Qualitative data, on the other hand, captures people's experiences hence enabling contextualisation of the analysis of phenomena (Winter, 2000). Data obtained through methods such as interviews, on-site observations, and focus groups that are in narrative rather than numerical form. Besides that, the researcher has designed open ended questions for interview to satisfy qualitative method. The interview with auditors and auditees went on well and has helped the researcher in explaining the results obtained in secondary data from annual report. Individuals who did not make it for interview sessions shared their views via email. The output derived is analyzed by looking for themes and patterns. Table below exhibit the interviewees for this study;

<u>RESPONDENT DETAIL</u>	<u>RESPONDENT POSITION</u>	<u>METHOD OF QUALITATIVE</u>
Mr Steven Lim	Senior Manager Ernst Young	Open ended questions via email
Mr Eddie	Group Finance Manager, Gefung Berhad	Open ended questions via email
Ms Shanti Mathaneswaran	Former Auditor and Accountant in Listed company	Face to face Interview
Mr Amir	Accountant, Seacera Tiles	Face to face Interview
Mr Afizul	Accountant, Sapura Holdings	Face to face Interview
Ms Vidya	Former Auditor non-Big 4	Telephone Interview

Interview Introduction

In order to make the respondent feel comfortable, the researcher have started the session with small talk about the course offered in University Malaya, the work load currently faced by the respondents. When the atmosphere became relaxed and informal, the researcher started to explain the necessity of the interview; the respondents were briefed on the background and the purpose of the study. Before the interview starts, the researcher made the respondents to feel that his/her opinion is important and valuable because he/she is the 'expert' and 'informed' in the field.

Language

The interview session was conducted in English.

Length of interview

Since all the respondents are tied up with their routine task, they have requested researcher to keep the interview short and brief. Most of the interview last in between 30 minutes to 40 minutes.

Confidentiality

The researcher assured that the interview result will not reveal to any official organization and it is purely used for academic purposes.

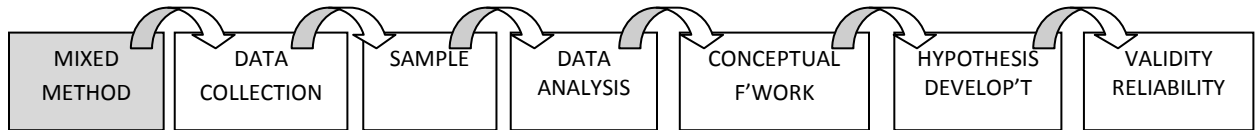
Closing interview

Once all relevant subjects have been covered, the researcher shows her gratitude for interviewer time for given the appropriate customary farewell.

Interview recording

The best interviewing is pointless if it has not been adequately recorded. In an open-ended interview it is difficult to make notes on everything during the interview. The best approach to write down the key points however some of the details from an interview can be forgotten so it is best to record the conversation. A tape recorder facilitates the researcher to give full attention to her respondents during the interview. Taping is contemplated the respondents' permission first.

3.3 MIXED METHOD



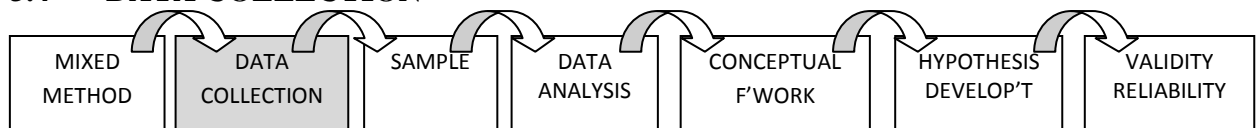
A mixed method design is a kind of research which comprises collecting, analyzing and combining both quantitative and qualitative data at some stage of the research process within a single study. This is also used to understand a research problem more completely (adapted from Creswell and Plano Clark, 2007). Mixed method approach ties together the power of quantitative and qualitative method. In addition, study by Bryman (2006) supports mixed method due to its;

- Validity – data become more accurate and precise when both secondary data and interview result is combined. It become more credible
- Weakness offset - combination data from both method will weaken the weaknesses than when they stand alone
- Differentiation - both method answers different questions arises and make a useful findings. Explanation can be broad up the findings.

- Unexpected result - using both methods provide more complete picture which drive researcher to do more future plans based on the unexpected results.

Since, quantitative method used are not able to answers some specific research questions particularly on the perception of auditees and auditors on fees charged in Malaysia, it disallows thorough understanding of audit pricing structure in Malaysian companies. To minimize reliance on one method, this study has blended in qualitative methods which is more elastic, spontaneity and greater adaptation between the respondents. Qualitative methods request mostly “open-ended” questions whereby respondents are free to respond in their own words with greater detail than is typically the case with quantitative methods. The above characteristics, consequently, makes an increasing number of researchers to develop mixed method designs in undertaking their studies (Onwuegbuzie and Leech, 2005).

3.4 DATA COLLECTION



3.4.1 ANNUAL REPORTS

The primary data of this study is annual reports extracted from Bursa Malaysia website.

As for the secondary data, details below are collected from published annual report **Year**

2010;

- i) Total assets
- ii) Total revenue
- iii) Total receivables

- iv) Total inventories
- v) Long term debt (excludes deferred taxation)
- vi) Non Audit Services fees
- vii) Audit fees
- viii) Total equity
- ix) Opinion (Qualified or unqualified)
- x) Auditors
- xi) Number of subsidiaries

Data Collection Method using Annual Report for Selected Companies in Year 2010

Total assets	Data extracted from Statement of Financial Position Year 2010. Sum of Non Current Assets and Current Assets.
Number of subsidiaries	Data extracted from Notes to Financial Statement. Total subsidiaries held by a company including local and overseas subsidiaries.
Total revenue	Data extracted from Comprehensive Income Statement. Looked for Net Sales Revenue for the Year 2010.
Total receivables	Data extracted from Statement of Financial Position Year 2010. Total trade receivables and other receivables as at 2010.
Total inventories	Data extracted from Statement of Financial Position Year 2010. Number of closing inventories held by the company in Year 2010.
Long term debt (excludes deferred taxation)	Data extracted from Statement of Financial Position Year 2010. Summation of all long term obligations that a company owes.
Non Audit Services (NAS)	Data extracted from Notes to Financial Statements. Ringgit and cents paid for NAS is collected.
Audit fees	Data extracted from Notes to Financial Statements. Ringgit and cents paid for NAS is collected.

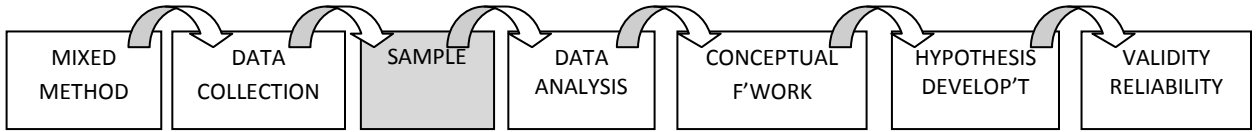
Total equity	Data extracted from Statement of Financial Position Year 2010. Total equity as at 2010.
Opinion (Qualified or unqualified)	Data extracted from Independent Auditor's Report. Auditors expressed their opinion the report. Researcher segregate the results into qualifies and non qualified
Auditors	Data extracted from Independent Auditor's Report.

All this information is analyzed using two types of method, analysis on existing dataset from annual report and multiple regressions. The total collecting time of information was almost three weeks.

3.4.2 INTERVIEW

Questions for semi structured interview were designed before the interview took place, basically the questions divided into three sections, the first section is refer to respondents positions, work experience and etc.; the second section is concerning their opinion on audit fees charged in Malaysia and the third section focuses on how they felt about the audit pricing and recommend improvements. The researcher has designed open ended questions for interview (Appendix 1). The interviews were done through face to face, telephone, and for those who did not spare their time have submitted their comments via email. They have provided their opinion by filing up comments box. Interviews were originally done in English. Face to face conversation was tape recorded. It enables the researcher to give the respondent his/her full attention during the interview. Taping was contemplated the respondents' permission first.

3.5 SAMPLE AND VARIABLES MEASUREMENT



Sample

A total of 100 companies listed in Bursa Malaysia for the year 2010 are included in the study. Companies are selected from Industrial Product Sector to conduct the survey. The reason of using the same industry is to avoid confounding effect between industry specializations. Moreover, this study tests few variables on the selected companies and it would be probably better to withdraw sample under the same industry or sector in which the result is more rational.

Besides that, a short interview has been conducted and questionnaires were distributed to some professionals who were not available to be present for an interview session. This will be further explained in this chapter under qualitative method. Table 7 presents the quantitative method samples collected for the study and Table 5 explains the variables and proxies used in this study.

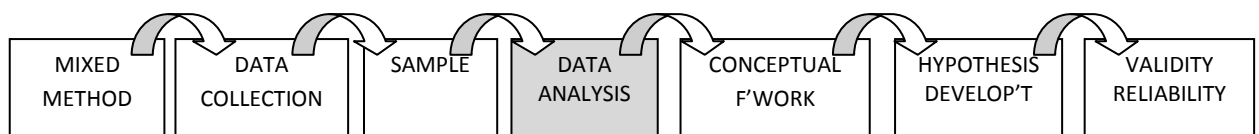
Table 7: Sample Description

Sample	N
Listed Industrial Products companies – source Bursa Malaysia Bhd	100

Table 8: Variables and Its Proxy/Proxies

Variables	Proxy/Proxies
(1) Auditees size	i) Total Assets
(2) Auditees complexity	i) Number of subsidiaries
(3) Risk of auditees operations	i) Leverage (Long term debt (excludes deferred taxation / total assets) ii) Proportion of receivables and inventory (Sum of receivables + Sum of inventory / Total assets)
(4) Auditors Opinion	Qualified and Unqualified opinion
(5) Auditors' size	Auditors' size; Big 4 or non-Big 4
(6) Non Audit Services	Sum of Non Audit Services acquired

3.6 DATA ANALYSIS AND INTERPRETATION



3.6.1 QUANTITATIVE RESEARCH : ANALYSIS ON EXISTING DATASET FROM ANNUAL REPORT

In this study, secondary data will be analyzed in two ways; in tabulated form and regressions. As for tabulated form, audit fees are arranged based on a reasonable range. This is to study the pattern of audit fee charged from a smaller scale to Bigger scale. To

explain the nature of information given in the table, it is designated by appropriate range of variables values extracted from annual report where the presentation became simple, planned, unambiguous and logical (further explain in Chapter 4) whereas regression result shows the significant relationship between the variables and audit fees.

3.6.2 QUANTITATIVE RESEARCH: MULTIPLE REGRESSION

By having the data analyze with multiple regressions, it is easy to obtain a clear and scientific view on the results. This is done using Microsoft Excel.

3.6.2 (A) Model Specification

In order to test the relationship between independent variable and dependent variable, all variables are included in the fee model. This is the replication and modification of previous research (Craswell et al., 1995; Ferguson et al., 2003; Giroux and McLelland, 2008). The significant level was set at $p < 0.05$. The objective is to test their potential influence on external audit fee. The explanation of model revealed in Table 9.

$$\text{LogFEE} = b_0 + b_1\text{LogTA} + b_2\text{AUDITOR} + b_3\text{OPINION} + b_4\text{LEV} + b_5\text{INVREC} + b_6\text{SUBS} + b_7\text{NAS}$$

Table 9: Explanation of Audit fee Model

LOGFEE	Log_{10} total audit fees
LOGTA	Log_{10} of total assets
LOGSUBS	Log_{10} of the number of subsidiaries
LEV	Total long-term debt (excluding deferred tax) to total equity
INVREC	Total inventories and account receivables to total assets
OPINION	Indicator variable having a value of 1 if the firm receives a qualified audit opinion and 0 if otherwise
AUDITOR	Indicator variable having a value of 1 if the auditor is the Big Four firm and 0 if otherwise
LOGNAS	Log_{10} of the non-audit services fees

3.6.2 (B) Expected Results - The expected results of this study is revealed in Table 10

Table 10: Expected Sign of Independent variables

No	Variables	Expected Sign
1	LOGTA	Positive
2	LOGSUBS	Positive
3	LEVERAGE	Positive
4	INVREC	Positive
5	OPINION	Positive
6	AUDITORS (If Big 4)	Positive
7	LOGNAS	Negative

3.7 CONCEPTUAL FRAMEWORK

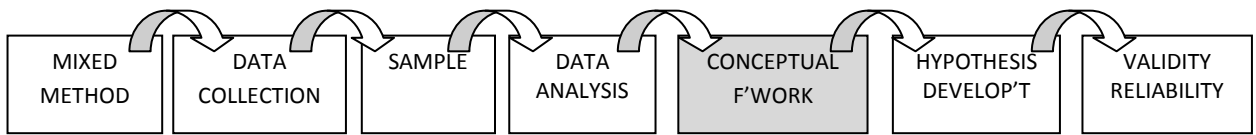
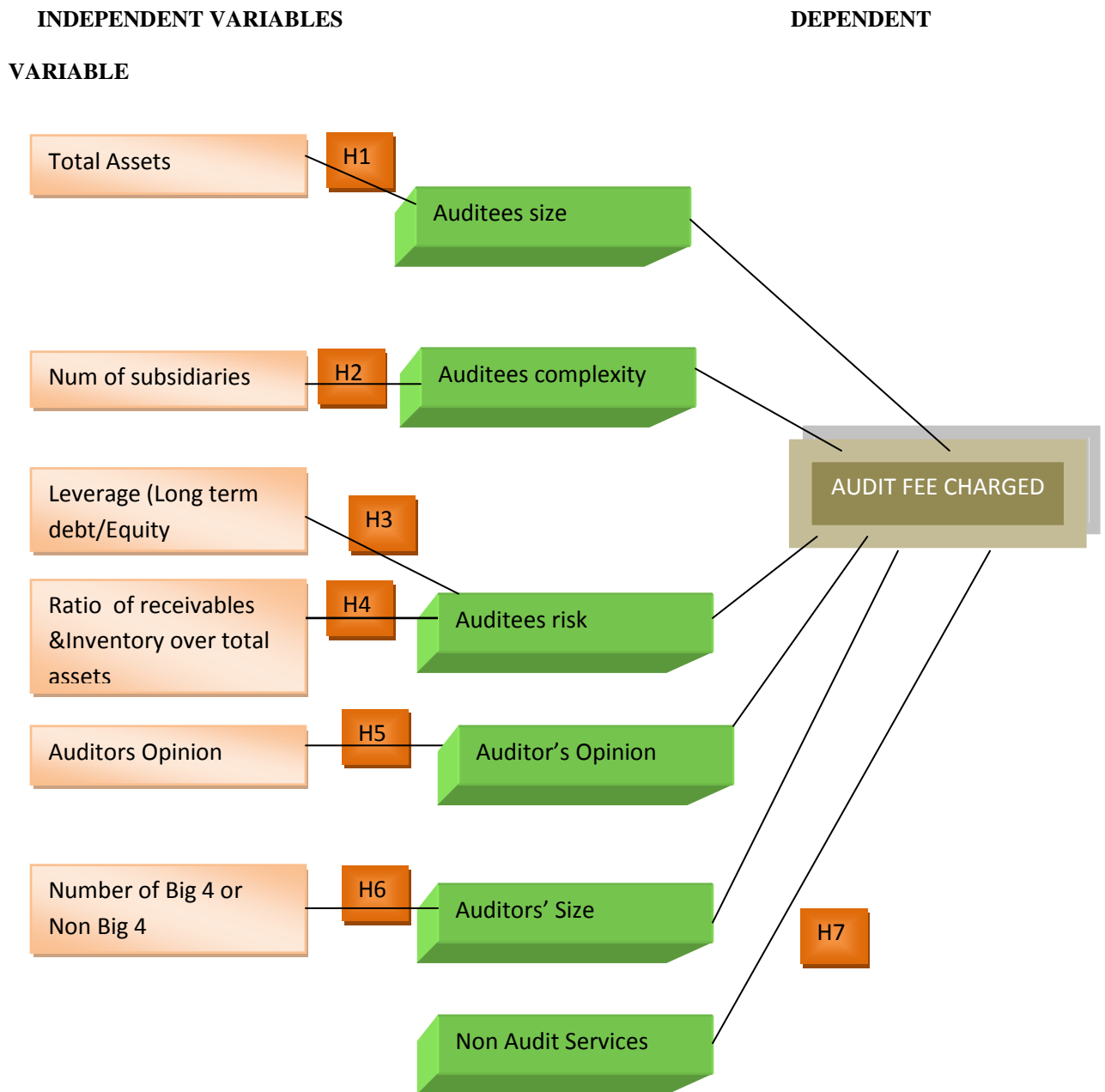
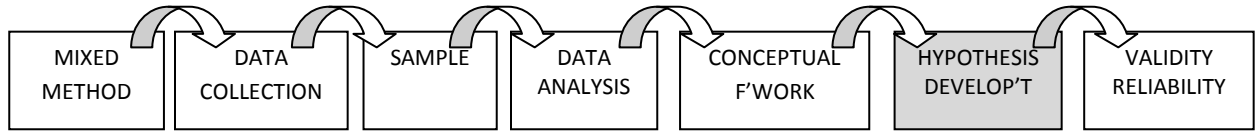


Table 11: Conceptual Framework



(Source : Adopted and modified from Giroux and McLelland , 2008)

3.8 HYPOTHESES DEVELOPMENT



Auditees size

H₁ : Total assets positively related to audit fees

Prior researchers found size of auditee has a direct impact on the auditors' work and resulted in positive association between audit fees and auditee size (Simunic, 1980; Che Ahmad and Houghton, 2001; and Maher et al.,1992).

Auditees complexity

H₂ : : Number of subsidiaries positively related to audit fees

Auditee complexity and auditee size commonly resulted in positive correlation with audit fees (Francis and Stokes,1996; Maher et al.,1992; Carcello et al.,2002). Hypothetically, this study expects that as complexity of auditees financial reporting resulted in, more effort. The more hours spent by auditors, the higher the audit fees.

Auditees risks

H₃ : Leverage positively related to audit fees

H₄ : The ratio 'accounts receivable and inventory over total assets' is positively related to audit fees

Most of researchers from western revealed that leverage has gotten a positive association with audit fees (Simon and Francis, 1988; Palmrose, 1996) unlike in Malaysia, Che

Ahmad et al., (2006) found a significant negative relationship between debt ratio and audit fees.

Auditor's Opinion

H₅ : Auditor's opinion has a positive relation with audit fees

Many previous studies have found that audit opinion has a significantly positive relationship with the audit fees (Palmrose, 1986; and Francis & Simon, 1987). In this study, it is expected to have a positive sign for the relationship between auditor's opinion and audit fees.

Auditor's size

H₆ : Auditor's size has a positive relation with audit fees

Auditor's size, Big 4 and non-Big 4 are always link with audit fee charged. Big 4 are perceived to provide quality audit and therefore they are paid more. Furthermore, the Big Four brand name which known internationally gives advantage to auditees to trust on its expertise to provide a better audit job on their financial matters (Palmrose, 1986; Francis & Simon, 1987 and Che Ahmad, 2001).

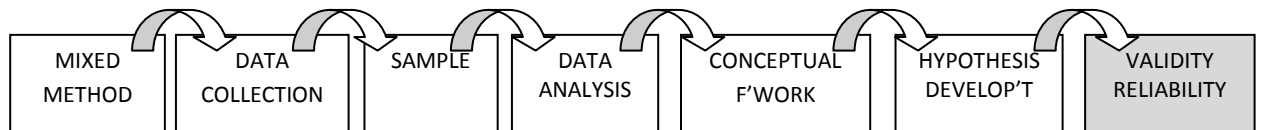
Non- Audit Services

H₇: Non Audit Services has a negative relation with audit fees

Bell et al., (2001) find non-audit fees significantly influence audit fees in U.S.. Similarly, using Australian data (Butterworth and Houghton, 1995), and UK data (Craswell and Francis, 1999) find this variable directly influence audit fees. Hence, a negative

relationship between audit fees and non-audit fees is expected in this study. This is consistent Malaysia studies done by Halil et al., (2012) and Che Ahmad et al.,(2006).

3.9 VALIDITY AND RELIABILITY ANALYSIS



Reliability is about the results that will not change every time when testing it in the same way with the same subject. Reliability cannot be measured only can be estimated. Validity is about the accuracy which is important for the results to be accurately applied and interpreted. Validity isn't determined by a single statistic, but by a body of research that demonstrates the relationship between the test and the behavior it is intended to measure (Golafshani, 2003, pp. 599 & 602). In this study, the data collected from reliable website which is Bursa Malaysia, and supported with the interviews, all the respondents are corporate individuals who make important decisions, knowledgeable and practitioner which makes the results reliable. Multiple regressions are also used to analyze the results through the frequency and percentages tables which increases the reliability of the results.

SUMMARY

This chapter describes the advantages of using mixed method in this study. Besides, it also explains data collection, sample size, variable measurement, data analysis through tabulation form and multiple regressions and interviews. Findings of these data will be next explained in Chapter 4.