## CHAPTER 3: RESEARCH METHODOLOGY

## 3.1 RESEARCH METHODOLOGY

This study is an exploratory research. The purpose of the exploratory research process is a progressive narrowing of the scope of the research topic and a transformation of the discovered problems into defined ones, incorporating specific research objectives. It is a useful preliminary step that helps ensure that a more rigorous, more conclusive future study will not begin with an inadequate understanding of the nature of the problem (William G.Zikmund).

The survey was carried out by using structured questionnaire and targeted to all unit trust companies in Klang Valley. The sample was drawn from the 30 unit trust companies as listed in the Directory of Federation of Malaysia Unit Trust Manager (FMUTM). Primary data were obtained through field interviews with a sample of unit trusts companies in Klang Valley. Secondary data were obtained through Internet, journal articles, magazines and reference books.

Thirty or 100 % of companies responded. The survey fieldwork was carried out by a method of personal interview to ensure that valid information about Internet usage was obtained from the appropriate person in each organization. The survey respondents were confined to the chief executive officer (CEO), marketing manager, IT manager, operation manager or executives from each organization who provided information on the characteristics of the organization and the usage of Internet application.

#### 3.2 RESEARCH INSTRUMENTS

A questionnaire was administered and the respondents were asked to evaluate each statement in the questionnaire on a scale of 1 to 4 in about 10 minutes time. The survey instrument was a five pages questionnaire. The questionnaire consisted of

five sections. The survey questionnaire was designed to be quantitative rather than qualitative in nature and was developed to assist in the overall understanding of how unit trust companies view Internet usage in Malaysia in the context of their investment decision.

#### SECTION A : PROFILE OF THE ORGANIZATION

It was designed to collect the data of the unit trust companies. Only seven items were placed in this section. The items were the period of the organization has been established, organization size, ownership of the organization, paid up capital, the annual return/sales for the past one year, the Internet used and the years for organization been using the Internet. All the items were closed-ended and the respondents were only required to tick the appropriate responses.

## SECTION B: INTERNET APPLICATION FOR UNIT TRUST COMPANIES

It was designed to collect the data in order to assess the degree to which Internet applications are being used or will be used by the unit trust for their business transaction. This part look into the general attitude and management support toward Internet application in three different time frame : currently in use, Intend to use within the next two years and do not intend to use within the next two years. All the items were closed-ended and the respondents were only required to tick the appropriate responses. Among the measure were:

- Marketing and advertising
- Marketing research
- Customer support and service

# SECTION C: PERCEPTION ON THE USAGE OF INTERNET IN THE UNIT TRUST COMPANIES

Section C was designed to measure the perception of the respondents on various issues related to the attitude towards the usage of Internet and this section contains

15 statements on four- point Likert scale ranging from 1 (strongly disagree), 2 (disagree), 3 (agree) to 4 (strongly agree).

# SECTION D: PERCEPTION ON THE OPPORTUNITY OF THE INTERNET IN THE UNIT TRUST COMPANIES

Section D was designed to measure the perception of the respondents on various issues related to the attitude towards the opportunity of Internet in the unit trust companies. This section contains 15 statements on 4 point Likert scale ranging from 1 (strongly disagree), 2 (disagree), 3 (agree) to 4 (strongly agree).

# SECTION E: PERCEPTION ON THE BARRIERS OF THE INTERNET IN THE UNIT TRUST COMPANIES

Section E was designed to measure the perception of the respondents on various issues related to the attitude towards the barriers of Internet in the unit trust companies. This section contains 15 statements on 4 point Likert scale ranging from 1 (strongly disagree), 2 (disagree), 3 (agree) to 4 (strongly agree). The survey questionnaire is given in the appendix 2.

## 3.3 RESEARCH MODEL

With reference to the literature review in chapter 2, the following research model were developed. As the scope of study was restricted, only five factors which were considered to be most relevant used in the model Figure 9. The was a variable here to measure the use of Internet by business in unit trust companies – the extent of current Internet usage. The extent of using Internet is defined as the umber of business processes in which Internet is applied.

The adoption of current Internet usage might be dependent not only on the organization size and annual sales revenue but also on the adopters' perception on the usage, perception on the opportunity and perception on the barrier of the Internet. Thus the identification of a relationship used with this research model.

## Figure 9 : Research model for the extent of current Internet usage



## **3.4 RESEARCH HYPOTHESES**

It was generally assign the symbol H0 to the null hypothesis and the symbol H1 to the alternative hypothesis. The purpose of hypothesis testing is to determine which of the two hypotheses is correct. In this study, five hypotheses are proposed here:

#### Hypothesis 1:

H0 : There is no relation between the organization annual sales turnover and the extent of current Internet usage .

H1 : There is a relation between the organization annual sales turnover and the extent of current Internet usage.

#### Hypothesis 2

H0: There is no relation between the organization size and the extent of current Internet usage.

H1: There is a relation between the organization size and the extent of current Internet usage.

#### Hypothesis 3:

H0: Employees with different position from unit trust companies do not differ in their perception on the usage of Internet .

H1: Employees with different position from unit trust companies differ in their perception on the usage of Internet.

#### Hypothesis 4:

H0 : Employees with different position from unit trust companies do not differ in their perception on the opportunity of Internet .

H1: Employees with different position from unit trust companies differ in their perception on the opportunity of Internet .

#### Hypothesis 5:

H0: Employees with different position from unit trusts companies do not differ in their perception on the barriers of Internet.

H1: Employees with different position from unit trusts companies differ in their perception on the barriers of Internet.

#### 3.4 SAMPLING DESIGN

The sample was confined to 30 unit trust companies from three major areas in the Klang Valley. The sample was chosen from five main areas i.e, Damansara Heights, Shah Alam, Jalan Ampang, Jalan Raja Chulan and Jalan Sultan Ismail.

The respondents was confined to the senior management of the unit trust companies concerned which in the majority of case included the managing director/ chief executive officer, marketing manager, IT manager, operation manager and executives. The sampling frame contained 30 names of respondents from 30

different unit trusts companies. To ensure representation from various categories of unit trust companies was taken the sample should contain : (1) staff from various position ( i.e. chief executive officer, managers and executives), (2) staff from different ethnic group and (3) staff from the two sex groups.

## 3.5 DATA COLLECTION PROCEDURES

The duration of the survey was about 10 days (From 6 December'99 to 16 December'99). Almost 90% of the survey was conducted mainly using personal interview. The survey was conducted between 9.30am to 5.00pm on week-days. This time frame were chosen in order to getting a high percentage of the response from chief executive officer, managers, executives.

Another 10 % of the survey was conducted by mail survey. The questionnaire was attached to a cover letter addressed personally by name to each respondent. The letter described in brief the general purpose of the study. The respondents were required to return the completed questionnaire by posting it back before 15 December 1999.

## 3.6 DATA ANALYSIS TECHNIQUES

Responses from the survey were coded in preparation for statistical analysis. Data collected were analysed using Statistical Package for the Social Science (SPSS) computer program.

# The following analysis techniques were used to analyze the data:

Reliability test of data was used to test the reliability of the scale of the research variables. As the research variables comprised many items, a test need to be done to check these items were measuring to a certain extent the research variables. Alpha is used to test the internal consistency of these items and value exceeded 0.6 would be considered significant

Frequency table was used to summarize and display values for the variables in the data file. It contains the number and percentage of the people who gave each response, as well as the number of people for whom response are not available.

Descriptive statistics was used to summarize the information even further by computing summary statistics that describe the " typical" values" or the central tendency, as well as how the data spread out around the value, or the variability. The mean is the reported measures of central tendency here, it is calculated by summing the values of a variable and dividing by the number of cases.

A cross-tabulation was used to show the number of cases that have particular combinations of values for two or more variables. The number of cases in each cell of a cross tabulation can be expresses as the percentage of all cases in that row ( the row percentage) or the percentage of all cases in that column ( the column percentage). To test hypothesis about data that are counts, we use a chi-square statistics and compare its value to the chi-square distribution to see how likely the observed value id if the null hypothesis is true. The observed significant level is less than 0.05 for the Pearson chi-square value.

With the Likert scale for section C, D and E, respondents indicate their attitudes by checking how strongly they disagree or agree with carefully constructed statements that range from very negative to very positive toward the attitudinal object. Respondents generally choose from four alternatives: strongly disagree, disagree, agree and strongly agree. Statements C1 to C15 are designed to capture perception of unit trust companies on the usage of Internet, named as TOTPOU. Statements D1 to D15 aim to capture the perception of the unit trust companies on the opportunities of Internet names as TOTPOO and statements E1 to E15 attempt to capture the perception of the unit trust companies on the barriers of Internet, name as TOTPOB.

One way ANOVA analyses of variance were conducted to determine any significant differences among the three different employees groups – chief executive, managers, executives with respect to their perception on the usage, perception on the opportunities and perception on the barriers on the Internet usage.

Multiple linear regression model was used to predict the values of a dependent variable from a set of independent variables. It identifies the combination of variables which best explain for the statistically significant relationship between the independent variable and dependent variable. In this study, the dependent variable was the current Internet usage which was measured in interval scale. This method was used to test the relationship of the organization size, annual sales for the past one year, TOTPOU, TOTPOO and TOTPOB scale.