

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

This chapter encompasses the methodology employed for the purpose of the research which parts covered includes research instruments and the design of the questionnaire. The sampling procedure employed has been delineated along with primary data collection methods. Finally, a brief elaboration on the statistical techniques adopted for data analysis is incorporated.

#### **3.1 RESEARCH INSTRUMENT**

The survey instrument consisted of an eight-page questionnaire (please refer to Appendix III), which was used to collect necessary data from the respondents. It was originally prepared in English and translated to Bahasa Malaysia by using back-to-back translation technique. This undertaking of back-to-back translation was carried out to avoid foreseeable ambiguities of statements and possible cultural incompatibility.

The questionnaire was designed by segregating it into two sections. In brief, Part A measured lifestyle patterns mobile phone services of the respondents and Part B was aimed to collect demographic and mobile usage of the participating respondents. In Part A, all of the questions were randomly mixed in respective sections in order to avoid any probable provision of hints to the respondents. The respondents' lifestyle or psychographic characteristics were measured by 28 independent statements on a seven point Likert-type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). For each of the statements, respondents were required to indicate their level of agreement to the statements.

The statements utilized were derived from several consumer lifestyle research studies that were deemed relevant to measuring mobile phone user lifestyles. The relevant lifestyle constructs employed to cover respondents' involvement of this study are "self-confidence", "brand consciousness", "home orientation",

“variety seeking”, “impulsiveness”, “economizer”, and “family orientation” (Table 3.1). Items measuring economizer and self confidence were taken from Well and Tigert study on eye make-up usage (1971), from Gilbert and Warren (1995) whereas home orientation were adopted from Tai and Tam (1997) study on lifestyle of female consumers in Greater China. Economizer construct was chosen because it is deemed important in discriminating the two-subscription group of postpaid and prepaid service. Self-confidence and home orientation were chosen as it was expected that people with high self-confident and home oriented could be heavy users, as they need to be constantly connected and be available to their families. Next, from Youn, Lee and Doyle (2003) study on lifestyles of online gamers, ten items measuring variety seeking, impulsiveness and home orientation were adopted. These three items were extracted from the study because online gaming was deemed to have some commonalities with mobile phone as both are interactive ICT (Information, Communications Technology) gadgets.

The construction of certain items were modified to reflect the local situation, for instance from “A person can save a lot of money by shopping around for bargain” to become “I can save a lot of money by shopping around for bargain”

Table 3.1: Details of Lifestyle Items involved in the study

Item No.	AIO Statement	Source	Measuring Construct
27	I think I have more self-confidence than most people.	Wells and Tigert (1971); Tai and Tam (1997)	Self-Confident Factor
1	I am more independent than most people.		
5	I think I have a lot personal ability.		
3	I will probably get a job promotion in the near future.		
23	When I set my mind to achieve something, I usually can achieve it.		
24	I am willing to pay higher prices for famous brands.	Tai and Tam (1997)	Brand Conscious

Item No.	AIO Statement	Source	Measuring Construct
4	I care for well-known brands rather than their quality.		Conscious Factor
6	I prefer to buy foreign brands than local brands.		
8	I would rather spend a quiet evening at home than go out to party.	Wells and Tigert (1971); Gilbert and Warren (1995); Tai and Tam (1997)	Home Orientation Factor
12	I am a traditional and conservative person.		
7	I like parties where there is lots of music and talk.		
9	I am a homebody		
13	I like to visit places that are totally different from my home.	Youn, Lee and Doyle (2003)	Variety Seeking Factor
10	I like to buy new and different things.		
11	I am interested in the cultures of other countries.		
17	I am usually among the first to try new products.		
14	I am the kind of person who would try anything once.		
15	I frequently buy things when I can't afford them.	Youn, Lee and Doyle (2003)	Impulsiveness Factor
20	I pretty much spend for today and let tomorrow bring what it will be.		
16	I am an impulse buyer.		
18	I find myself comparing the prices in the grocery stores even for small items.	Wells and Tigert (1971); Gilbert and	Economizers Factor
21	I usually watch the advertisements for announcement of sales.		

Item No.	AIO Statement	Source	Measuring Construct
23	I can save a lot of money by shopping around for bargains.	Warrant (1995)	
25	I shop a lot for specials.		
25	My family is the most important thing to me.	Tai and Tam (1997)	Family oriented Factor
28	Youngsters should have more respect for the elders.		
19	I listen to the advice of elders.		
2	I am always proud to have a close-knit family.		

Source: Wells and Tigert (1971); Gilbert and Warren (1995); Tai and Tam (1997); and Youn, Lee and Doyle (2003).

Finally, Part B of the questionnaire gathered demographic data and mobile phone usage related information from the participating respondents, which were used to interpret the responses on other questions. This section covered gender, age, ethnicity, marital status, highest education level, occupation, gross monthly personal income, number of mobile phones that respondent personally carries, type of service used. Most importantly, the usage of mobile phone was measured using parametric statistics. Respondent's usage was indicated in ringgit value according to their average bill per month. Parametric statistics are statistical procedures that use interval-scaled or ratio scaled data and assumes populations or sampling distributions with normal distributions (Zikmund, 2000)

All the demographic variables were measured using a close-ended multiple-choice format. The demographic section was intentionally placed at the last section of the questionnaire so as to help to reduce the response bias and minimize resistance from respondent to participate in the survey. This arrangement is crucial due to the fact that respondents generally view demographic particulars such as income and age as sensitive and confidential information in its nature.

The completed questionnaire was pre-tested for content clarity, ease of understanding and consistency through a pilot survey of 20 respondents from the same target population. The questionnaires were refined based on the constructive comments and feedbacks from the respondents to eliminate potential problems in subsequent analysis stage. After the pilot survey conducted, data was coded and analyzed in order to ensure its relevance to the requirements of the study in general. This analysis aimed to ascertain all data collected were utilized and that the questionnaire obtained all the necessary data without occurrence of ambiguity or confusion to the respondents participating in the survey. This is important due to the fact that the success of surveys depends to a large extent on the careful formulation of questions in advance, the recognition of response bias, the thoroughness in conducting the questionnaire and the systematic recording and analysis of results obtained (Andreasen, 1983).

### **3.2 SAMPLING DESIGN**

As this research is exploratory in nature, a convenience sampling was adopted in the study. Respondents comprised mainly MBA course mates, friends and colleagues who are residents in Klang Valley area, Malaysia. Klang Valley has been generally viewed as the largest cosmopolitan area in Malaysia with remarkable economic influence and sizable affluent middle-class population who are the most suitable target for the study as supposedly people who lived in the big city are more responsive to questionnaires survey. A sample size of 500 respondents was targeted. Every effort was exerted to ensure respondents have answered all questions in the questionnaire at the same time to provide adequate level of confidence of the study.

### **3.3 DATA COLLECTION PROCEDURE**

Data were collected using self-administered questionnaire survey. A total of 250 hardcopies and 250 softcopies of the questionnaire were distributed to MBA course mates, friends and colleagues. Completed questionnaires were collected

within a month commenced from February 2004. Numerous MBA course mates were given 5 sets of questionnaire and acquaintances were given 10 sets to 20 sets of questionnaires for them to distribute to their friends or colleagues. Care was exercised to ensure that the ethnic composition of respondents reflected the population composition in the urban areas chosen in this study. In addition, the respondents were generally targeted based on gender composition, age, ethnicity, marital status and highest education level. This is important in order to obtain realistic data to the study in general and the relationship between psychographic segments with demographic profiles of urban Malaysian consumers in particular.

### **3.4 DATA ANALYSIS TECHNIQUE**

The survey data was analyzed using the Statistical Package for Social Sciences (SPSS) version 11.0 software program. The analysis comprised five major parts, namely:

Summary of respondent demographic and socio-economic profiles was tabulated using frequency and percentage counts.

Determination of respondents' usage of mobile phone statistically according to their monthly phone bill and type of service subscription was tabulated using frequency analysis.

t-test and Anova analysis was use to relate mobile phone usage to various demographic variables by identifying the comparison of respective Pearson Chi-Square significance values.

Bivariate data analysis was used to simultaneous measure the association between usage and the psychographic dimension and within the psychographics.

Factor analysis technique was used to identify important dimensions of lifestyle items in Part A of the questionnaire.

### **3.5 LIMITATIONS OF THE SAMPLING PROCEDURE**

Firstly, the survey was confined to consumers residing in the vicinity of Klang Valley area only whereby consumers from other parts of the country were excluded from the research due to time and cost constraints. Consequently, the study is subject to the limitations concerning possible biases exist when only one geographic area is selected as well as the sampling method may not be representative of the actual target market as a whole.

Secondly, the convenience sampling employed in this study has its shortcoming in which this sampling method cannot be viewed to be an actual representation of the total market.

Thirdly, the psychographics dimensions chosen in this study might be inadequate in delineating between mobile phone users. There could be other psychographics variables that were excluded in this study, which may be important in the Malaysian context.

Finally, respondent bias and errors could not be avoided in this study. Even though clear instructions and explanations in both English and Bahasa Malaysia languages were provided, there is no instrument available to ensure that all respondents truly understood the questions in the survey and questions have been answered by the respondents according to their level of interpretation and understanding.