CHAPTER 3
RESEARCH METHODOLOGY

This chapter encompasses the methodology employed for the purpose of the research. The major parts covered include the research instruments and the design of the questionnaire which were utilized. 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 a six-page questionnaire (see 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 (Zikmund, 2000). 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 three sections. In brief, Part A measured the ranking of eight ICT gadgets and equipments in terms of its importance to respondents' personal and business related daily activities; Part B measured lifestyle patterns of the respondents. Finally, Part C aimed to collect demographic information of the respondents participating in the study.

To elaborate further, Part A was developed to identify the attitude and perception of Malaysian mobile phone users to eight specific ICT gadgets and equipments in terms of its importance to respondents' personal and business related daily activities. These gadgets and equipments comprised traditional phone, mobile phone, television set, video games, computer with Internet access, digital camera, Compact Disc (CD) player and Digital Versatile Disc (DVD) or Video Compact Disc (VCD) player. The respondents were asked to rank the above eight gadgets and equipments in respondents' daily activities scaling from rank number one for the most important ICT equipment to rank number eight for the

least important ICT equipment. Based on the responses in ranking of these gadgets and equipments in terms of its importance which believed will reflect the usage dependencies towards respective ICT equipments, two mobile phone user groups comprising dependent and non-dependent mobile phone users would be developed.

The concept adopted in this study to categorized mobile phone users into dependent and non-dependent user groups is in accordance with similar framework adopted by other researchers in segmenting users in terms of different adoption and usage rates of ICT equipments. Given that the result of the study will be based on mobile services, the question arises on how the findings can be extrapolated to the dependencies of urban Malaysians' mobile phone usage.

Part B was formulated to measure lifestyle patterns of the respondents. All of the questions were randomly mixed in respective sections in order to avoid any probable provision of hints to the respondents. In Part B, respondents' lifestyles 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 statement.
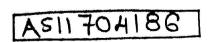
The lifestyle statements utilized for this study were derived from several consumer lifestyle research studies in which formulated based on the basic and widely used approach of AIO statements developed by Wells and Tigert (1971). These statements measured lifestyle constructs that were deemed relevant in measuring mobile phone user lifestyles and fairly applicable to Malaysian culture. These statements included AIO statements developed by Wells and Tigert (1971), as well as items developed by other researchers, namely Gilbert and Warren (1995), Tai and Tam (1997), and Youn et al. (2003). Seven items consisted of items measuring Price Conscious and Self-Confident lifestyle patterns were taken from Well and Tigert's (1971) study on eye make-up usage. Besides, from Gilbert and Warren's (1995) study on psychographic constructs and demographic segments, a total of 10 items measuring Economizer, Self-Confident and Home Oriented lifestyle patterns were adopted. Economizer

construct was chosen because it is deemed important in discriminating the two subscriber groups of postpaid and prepaid service. Self-Confident and Home Oriented lifestyle constructs were chosen as it is expected that individuals who are possessed high self-confidence and are home oriented tend to be dependent users of mobile phone services, as the former will likely to present as technology literate persons while the latter could desire to be constantly connected and be available to their family members.

In addition, from Tai and Tam's (1997) study on lifestyle of female consumers in Greater China, 15 items measuring Family Oriented, Home Oriented, Self-Confident and Price Conscious lifestyle constructs were adopted; and from Youn et al.'s (2003) study on lifestyles of online gamers, 10 items measuring Variety Seeking, Impulsiveness and Home Oriented lifestyle constructs were adopted. These items were extracted for the current study because online gaming adoption is deemed to have some commonalities with mobile phone usage as both are interactive ICT gadgets or equipments.

In addition, one item among all derived from Gilbert and Warren's (1995) study was modified 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" in order to reflect the local situation. The relevant lifestyle constructs eventually employed to cover respondents' involvement in this study are "Self-Confident", "Brand Conscious", "Home Oriented", "Variety Seeking", "Impulsive", "Economizer", and "Family Oriented" (see Table 3.1).

Finally, Part C of the questionnaire gathered demographic data and mobile phone usage patterns related information from the participating respondents which were used to interpret the responses on other aspects. This section covered gender, age, ethnicity, marital status, highest education level, occupation, gross monthly personal income, number of mobile phones that a respondent personally carries, type of services used and average mobile telephone bill per month for personal related and business related usage respectively. These 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

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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.

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 that 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 probable 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 Factor
4	I care for well-known brands rather than their quality.		
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 Oriented Factor
12	I am a traditional and conservative person.		
7	I like parties where there is lots of music and talk. (R)		
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)	Impulsive 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 Warrant (1995)	Economizer Factor
21	I usually watch the advertisements for announcement of sales.		
23	I can save a lot of money by shopping around for bargains.		
25	I shop a lot for specials.		

Item No.	AIO Statement	Source	Measuring Construct
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).

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 quota and 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 habituated to survey questionnaires with practically better response. 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 500 questionnaires 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 six major parts, namely:

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

- Determination of usage dependencies of mobile phone of the respondents by comparing the ranking of eight ICT gadgets and equipments in terms of its importance to respondents' personal and business related daily activities.

- Cross tabulation to relate mobile phone usage dependencies to various demographic variables was generated together with comparison of respective Pearson Chi-Square significance values.

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

- T-test was used to identify the relationship between the lifestyle dimensions with the mobile phone usage dependencies.

- One-way ANOVA and t-test were used to identify the relationship between the lifestyle dimensions with demographic variables.

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 lifestyle dimensions chosen in this study might be inadequate in delineating between mobile phone users. There could be other lifestyle 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.