

## CHAPTER 4

### RESEARCH RESULTS

This chapter discussed the findings of the survey and the results of the research conducted. There were five main sections in the discussions. The first section reviewed the demographic characteristics of the respondents. The second section discussed the respondents' mobile phone usage consumption base on the average mobile telephone bill per month. The third and fourth section then, analyzed the usage from the demographic and psychographics dimensions respectively. Next, the final section presents the analysis and discussions on the demographic and psychographics profiles of the users.

#### 4.1 RESPONDENTS CHARACTERISTICS

Four hundred and thirty eight survey questionnaires (438) were returned survey out of five hundred (500) distributed, yielding a response rate of 87.6 per cent. Out of these 438 responses, 11 questionnaires were rejected due to incomplete information. Thus, a total of four hundred and twenty six (426) or 85.2 percent responded questionnaires were used in the final analysis for the study.

The demographic profile of respondents who participated in the survey is presented in Table 4.1 below.

Table 4.1: Demographic Profile of the Respondents

Profile		Frequency	Percent
Gender	Male	188	44.1
	Female	238	55.9
	Total	426	100.0
Age	Below 20	36	8.5
	20 – 29	213	50.0
	30 – 39	139	32.6

	40 – 49	23	5.4
	50 – 59	13	3.1
	Above 6	2	0.5
	Total	426	100.0
<b>Ethnicity</b>	Malay	130	30.5
	Chinese	229	53.8
	Indian	52	12.2
	Others	15	3.5
	Total	426	100.0
<b>Marital status</b>	Single	260	61.0
	Married, without children	57	13.4
	Married, with children	106	24.9
	Widow/Widower/Divorcee	3	0.7
	Total	426	100.0
<b>Highest education level</b>	Primary School or less	3	0.7
	PMR/SRP/LCE	22	5.2
	SPM/SPVM/MCE	50	11.7
	STPM/HSC	11	2.6
	College Diploma	79	18.5
	Professional Qualification/ University Degree	261	61.3
	Total	426	100.0
<b>Occupation</b>	Clerical/Production staff	32	7.5
	Sales Personnel	13	3.1
	Supervisor/Executive	102	23.9
	Administration Executive/Teacher	48	11.3
	Managerial/Professional/Lecturer	113	26.5
	Self-Employed	11	2.6
	Retired	4	0.9
	Not working	7	1.6
	Student	53	12.4
	Others	43	10.1
	Total	426	100.0

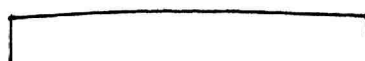
Gross monthly personal income	Less than RM1,000	54	13.1
	RM1,000 - RM1,999	88	21.4
	RM2,000 - RM3,999	186	45.3
	RM4,000 - RM5,999	61	14.8
	RM6,000 - RM7,999	14	3.4
	RM8,000 - RM9,999	2	0.5
	RM10,000 and above	6	1.5
	Total	*411	100.0

\* There is inconsistency in total number of respondents due to missing values and a small number of respondents have deliberately omitted some personal information, which is confidential in nature, for instance personal monthly income.

Of the 426 individuals who participated in the survey, 44.1 percent were men and 55.9 percent were women. Majority of the respondents fell under age group of 20 to 29 years old (50.0 percent), followed by 32.6 percent between 30 to 39 years old, 8.5 percent were below 20 years old and 5.4 percent fell in the 40 to 49 years age groups. Next, 3.1 percent of the respondents were aged 50 to 59 years old and only 0.5 percent was aged above 60 years old.

In terms of ethnicity composition of the respondents, 30.5 percent were Malays, 53.8 percent were Chinese, 12.2 percent were Indians and 3.5 percent were other race groups. It is worth to note that such composition does not reflect the actual overall ethnicity of the population in Malaysia, which should be predominant by Malay communities, however it is still considered as representative of the study as Chinese communities form the major population group in Klang Valley, the urban area where the study was carried out. However, ethnicity remained as one of the underlying basis for the sampling controlling procedure.

As for marital status of the respondents, 61.0 percent of the respondents are single while 24.9 percent are married with children, and 13.4 percent were married without children. The divorced group made up only 0.7 percent of the respondents.



With regards to the highest educational level of the respondents, the majority of the respondents (61.3 percent) possessed a university or professional degree while those with a college diploma represented 18.5 percent of the respondents. 14.3 percent of the respondents had education level up to only high school or STPM/SPM/SPVM/O-Level whereas a small number of respondents, representing 5.2 percent, had an educational level less than high school and 0.7 percent had education up to primary school or less than primary school.

Take into consideration of the occupation of the respondents, majority of the respondents (26.5 percent) are having managerial or professional jobs while respondents who are at the supervisor and executive positions made up 23.9 percent of the total respondents. This result is consistent with the educational profiles as discussed in the previous paragraph, as respondents in these job positions would normally required to obtain university or professional qualifications. Following to these were students, who made up 12.4 percent of the respondents while 11.3 percent of the respondents are those in the positions of administration executive and teaching profession. Next, those respondents with others occupation than as outlined consisted of 10.1 percent of the respondents while 7.5 percent of the respondents were working as clerical staff and production staff. Rounding up the occupation demographic were 3.1 percent of the respondents who were sales personnel, 1.6 percent of the respondents who were not working and 0.9 percent of the respondents were retired.

The statistics on gross monthly personal income showed that 13.1 percent of respondents earned below RM1,000 and 21.4 percent of respondents earned between RM1,000 to RM1,999. The majority group consists of 45.3 percent of the respondents earning a monthly income between RM2,000 to RM3,999. 14.8 percent of the respondents earned a monthly income of RM4,000 to RM5,999. Next at 3.4 percent were those respondents earning the higher monthly personal income level of between RM6,000 to RM7,999 and only 0.5 percent of the respondents were earning RM8,000 to RM9,999 while rounding them off were

respondents earning the highest monthly personal income level RM10,000 and above, represented 1.5 percent of the total respondents.

#### 4.2 DEFINING MOBILE PHONE USAGE

Many managers of packaged goods have attempted to target consumers based on the volume they purchased (Haley, 1968) or consumed (Wansink 1997a, 1998b). In this study, the ratio scale has been chosen in measuring the mobile phone usage consumption based on average mobile telephone bill per month. Ratio scale was typically the highest form of measurement and has all the properties of nominal, ordinal, and interval scales. In addition, the mean and the standard deviation may be calculated and researchers may make comparisons of absolute magnitude because the scale has an absolute zero point. (Zikmund, 2000).

From table 4.2, it was exhibited that the mean and median for the monthly phone bill per user was RM 127.56 and RM 90.00 respectively. Clearly, this showed that there was in existence of more than one usage pattern which further analysis could be done to distinguish them.

Table 4.2: Summary Results of Monthly Phone Bills

Usage in RM				
Mean	Median	Range		Standard Deviation
		Minimum	Maximum	
127.6	90.0	0.0	2500.0	178.4

As a comparison to the industry standard, respondents were analyzing based on their type of subscription service; namely the prepaid service and postpaid service using t-test method. Respondents rated the type of services on nominal

scale, yielding a potential scale of 1 for prepaid service and 2 for postpaid service.

The result ( $p= 0.00$ ) had clearly reflected that there is at least one relationship between service type and their usage. From table 4.3, it was demonstrated that the mean for prepaid and postpaid users was RM 71.81 and RM 183.88 respectively. The result of a lower usage for prepaid service was very much expected as prepaid service provides convenient control of mobile expenses for budgeted users. Interestingly, the result of RM 184.0 for postpaid service was only marginally higher than the ARPU (Average Revenue per User) of telco Maxis and DIGI (Table 4.4), which had reported RM 167.0 and RM175.0 respectively for postpaid. However, the prepaid users had demonstrated an average monthly usage of RM 71.0 that was very much higher than the ARPU reported.

Table 4.3: Average Usage of Postpaid and Prepaid Users

	Prepaid	Postpaid
Mean Usage (RM)	71.0	184.0

P-value = 0.00

Table 4.4: ARPU for Malaysian Mobile Phone Industry in Year 2003

ARPU(RM)	*Maxis	DIGI	Celcom	TM Touch
Postpaid	167	175	121	79
Prepaid	64	55	64	52
Blended	97	N/A	N/A	N/A

\*Source: Maxis Communications- Great Operational Momentum ABN-AMRO: Analyst Report Feb, 27 2004

\*Source: Telekom Malaysia – Mobile Upside ABN-AMRO: Analyst Report Aug, 15 2003

\* Source: Digi. Com – Artificial exuberance ABN-AMRO: Analyst Report June, 12 2003

### 4.3 USAGE PROFILE BY DEMOGRAPHIC GROUPS

This section attempted to differentiate the usage behavior of the mobile phone users with regards to their demographic factors. Previous studies showed that users differed from non-Internet users in age, education and income (Coyle 1998: Hoffman and Novak, 1996; Howard, Rainie and Jones, 2001; Korgaonkar and Wolin 1999).

Seven demographic variables were studied statistically in comparison with the usage by using t-test for gender and ANOVA for the other six demographic variables.

Table 4.5: Usage by Gender (t-test)

	Male	Female	Sig. (2-tailed)
Mean Usage (RM)	146.7	112.0	0.051

There was a marginally significant difference ( $p=0.051$ ) between the gender groups with regards to the mobile phone usage. Male respondents' had showed mean usage of RM146.7, which was RM 34.7 higher than female users mean usage of RM 112.0. This usage variance of 23.5% between the two groups however was not significantly substantial to be differentiated. As with the Internet users and computer gamers, gender gaps among adults were not very much noticeable (Youn et. al, 2003). Earlier studies revealed that men dominated Internet usage (GVU 1998; Raman 1997), but a recent study found that the gender difference became almost invisible (Wells and Chen 2000)

Next, the analysis of the other six demographics variables was done through a comparison of the mean values using ANOVA. The study had found significant relationship between usage and the demographic variables of age, occupation and income.

Table 4.6: Usage summary by Demographics (ANOVA)

<b>Demographics</b>	<b>Mean</b>	<b>Sig.</b>	<b>Comparison of Mean</b>
<b>Age</b>			
Below 20 (I)	71.7	<b>0.004</b>	IV>I
20-29 (II)	121.4		IV>II
30-39 (III)	125.6		IV>III
40 and above (IV)	217.9		IV>III; IV>II; IV>I
<b>Ethnics</b>			
Malay (I)	122.1	0.470	
Chinese (II)	113.0		
India (III)	149.4		
<b>Marital Status</b>			
Single	118.3	0.387	
Married without children	151.5		
Married with children	136.8		
<b>Education</b>			
Secondary School or less (I)	86.0	0.058	
High School/College Diploma (II)	120.5		
Professionals Qualification /University Degree (III)	142.1		
<b>Occupation</b>			
Clerical/Production Staff(I)	77.1	<b>0.026</b>	No significant relationships between the groups.
Sales Personnel(II)	118.4		
Supervisor/Executive (III)	114.4		
Administration Executive/Teacher(IV)	148.7		
Managerial/Professional/ Lecturer(V)	152.9		
Self Employed & Others (VI)	177.5		
Retire & Not Working (VII)	61.8		
Students (VIII)	74.6		
<b>Income</b>			
Less than RM 1,000 (I)	72.4	<b>0.000</b>	V>I



RM 1,000–RM1,999 (II)	93.6		V>II
RM 2,000–RM3,999 (III)	131.1		V>III
RM 4,000–RM5,999 (IV)	145.8		V>IV
RM 6,000 and above (V)	366.5		V>II ; V>I ; V>III ; V>IV

Table 4.6 showed the summary results for the six demographics variables with usage.

Due to the small cell values, the different age groups of 40 to 49 years, 50 to 59 years and above 60 years were combined to form the 40 years and above group. In general, age has been consistently significantly ( $p=0.004$ ) and positively related to attitude towards products. (Schooler, 1971; Tongberg, 1972; Wall, Majorie and Heslop, 1986; Wang, 1978). In this study, it was found that there was a significant difference between usages of mobile phone with respect to age. It was noted from the results that mean usage of mobile phone increased as age increased. There was a huge mean variance of RM 146.2 between the youngest respondents (below 20) with the 40 and above age groups. Interestingly, the mean variance between groups became smaller as the age gap decreased. As exhibited, the variance between age group 40 and above had recorded a smaller mean difference of RM 96.5 for age group 20 to 29 and RM 92.3 for age group 30 to 39. The result was expected. It was in fact in consistent with the group's social and financial status. Besides, it could also be deduced that the users group below 20 were majority prepaid customers as the mean difference between the prepaid group (mean= RM 71.0) with the below 20 age group (mean=RM 71.7) was marginal. Generally, the respondents below 20 years old were either students or the low-income earners who need to budget their expenses.

Among the ethnics, it was exhibited that Indians had the highest mean usage among the ethnics, followed by Malay and subsequently the Chinese. However, there was no significant difference ( $p<0.05$ ) found between the Malaysian ethnic groups in contrast with previous research done by Insight Research Corporation (2003) United States, which discovered that races such as Hispanics, Asians, and

African-Americans tend to spend more on telecommunications than the general population. The "other" group of ethnic was dropped due to its small value.

With regards to marital status, Warren et al. (1990) in their study, found there are significance of difference in heavy investors who tend to reside in households with no children living at home or in households with children of 18 years of age or older. However, in this case, the analysis showed that there was no significant difference ( $p > 0.05$ ) between the marital status groups with regards to their mean usage ( $p = 0.047$ ). The respondents were summarized into three categories, the single, married with children and married without children. Result had shown that married couple without children had the highest usage with singles recorded the least and the married with children in between the two groups. This was in contrast to the expectation that couple with children need to use the mobile phone for the ongoing expressive production of the household, spouse and the children.

In order to obtain a better distribution of education level of the respondents, two new groups were created by combining respondents with "Primary School or less", "PMR/SRP/LCE" with "SPM/SPVM/MCE", and "STPM/HSC" with "College Diploma". This new education level groups were named "High School or less" and "College Diploma" respectively. The analysis showed that there was no significant difference ( $p < 0.05$ ) between the education level groups with usage ( $p = 0.058$ ). It was noted from the results that respondents with the highest level of education showed a higher tendency of higher usage. Within that group, professionals and graduates demonstrated mean difference of RM 56.1 and RM 21.5 with the college or diploma holders and the secondary or lower educated group respectively. In other words, the result reveals that the higher the educational level of consumers, the higher their usage of mobile phone as it was speculated that they are expected to be more positive towards acceptance of technology in helping them with the maintenance of their social network and coordination of everyday activities.

In terms of occupation analysis, the self-employed group was combined with others occupation group to form a new single group. Besides, respondents who were retired or not working were joined up to be a single group. The analysis showed that there was a significant difference ( $p < 0.00$ ) for occupation level groups with regards to the respondent usage ( $p = 0.026$ ). It was noted from the results that the highest users were the self-employed or others group (mean=177.5), followed by the managerial or professional group (mean=152.9). Next, the administration executive or teachers and sales personnel had exhibited mean of RM148.7 and RM114.4 respectively. The lower income group, mainly the clerical or production staff, students and the retired or not working group demonstrated the lowest mean. Clearly, this showed that the usage of mobile phone was related to the professions and occupations of a person. As noted by de Gourney et. al, one distinction between salesperson and other occupation was related to their mobility or traveling attribute. These traveling managers could overcome the effects of distance by using the mobile phone to achieve constant actualization of the real time (De Gourney, (1997). As for the self-employed and managers, they were expected to used mobile phone for their daily organization and coordination of work or business. The rest of the relationships with other occupations were not compared due to limited studies done.

Finally, the analysis of gross monthly personal income with usage showed that there was significant difference ( $p = 0.05$ ). To obtain a better distribution of level of income, the income groups of RM 6000 to RM 7,999, RM 8,000 to RM 8999, RM 9000 to RM 9999 and RM 10,000 above were grouped into one. It was noted that the higher the income, the higher the usage as exhibited by the mean difference which was decreasing as the income gap became smaller. Also, the mean variance between the income group of RM 6,000 and above with the rest of the groups was tremendously huge. As shown in Table 4.6, the mean difference between the income earner of RM 6000 and above in comparison with the less than RM 1000 and the RM 4,000 to RM 5,999 group was reported as RM 294.1 and RM 220.7 respectively. As such, it could be deduced that respondents with the income of RM 1999 and below were the majority users (median=RM 90)

## 4.4 DEFINING LIFESTYLE DIMENSIONS

Factor analysis was performed on the 28 lifestyle statements to identify the underlying patterns or relationships of the lifestyle statements. The analysis will also determine the degree that the statements can be condensed or summarized into smaller set of factors or dimensions.

### 4.4.1 Factor Analysis of the Lifestyle Statements

The study further analyzed the matrix of correlations between lifestyle variables and the appropriateness of the factor analysis by using Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The KMO measure of sampling adequacy and Bartlett's test of sphericity were used to determine whether the study could comfortably be proceed with the factor analysis of the 28 variables of the lifestyle constructs. Table 4.7 showed the results of the KMO measure and Bartlett's test of sphericity.

Table 4.7: Summary Results of KMO Measure and Bartlett's Test of Sphericity on Lifestyle Variables

Kaiser-Meyer-Olkin Measure	0.774
<b>BARTLETT'S TEST OF SPHERICITY</b>	
▪ Approx. chi-square	3209.388
▪ Df	378
▪ Significance	0.000

For Table 4.7 the KMO's measure of sampling adequacy for the sample data set is high at 0.774, which is greater than 0.5 for a satisfactory factor analysis to proceed. The result indicates that the correlations between pairs of variables

can be explained by other variables and hence the factor analysis is appropriate (Norusis, 1985).

In addition, from the same Table 4.7, the study obtained a value of 3209.388 for the Bartlett's test of sphericity. Since the value is large and the associated significance level of 0.000 is small, it is sufficient for the study to reject the null hypothesis that the population correlation matrix is an identity. The result of study confirmed that the correlation matrix is not an identity matrix and concluded that the strength of the relationship among variables is strong.

In short, the high KMO value obtained together with the highly significant level of the test of sphericity, are both very comfortable indications that the given set of data lifestyle variable scores are adequate for factor analysis. Therefore, the study confirmed that it is appropriate to continue the factor analysis for the data.

Next, the principal components analysis that was performed had extracted seven factors having Eigenvalues greater than 1.0. The seven factors accounted for 57.14 percent of the total variance. The orthogonal Varimax rotational approach, was subsequently applied on unrotated factors to obtain simpler and more interpretable factor solutions. As the study collected a sample of 426 respondents, only items with factor loadings of 0.40 and above were considered as significant in interpreting the factors (Hair Anderson and Tatham, 1987).

When analyzing the items in the factors, some interpretable dimensions can be identified (see Table 4.8).

Factor I, labeled "Self-Confident", reflects individuals who are strong believer in their personal ability and are likely to display leadership characteristics. They also tend to be very high confidence in nature.

Factor II, labeled "Impulsive", portrays individuals who prefer to make consumption choices on the spur of the moment. It is also likely that these

individuals consume spontaneously from accidental exposure, curiosity or fad about new things.

Factor III, labeled "Family Orientated" depicts consumers who are very concern with the well being of their family members. They tend to put the importance of their family above everything else.

Table 4.8: Varimax Rotated Factor Matrix of Lifestyle Items

Statements	*Loadings						
	Factors						
	I	II	III	IV	V	VI	VII
1. I think I have more self-confidence that most people	<b>0.761</b>	0.012	0.231	0.015	-0.019	0.063	0.035
2. I am more independent than most people	<b>0.727</b>	-0.173	0.192	0.033	0.039	-0.077	0.022
3. I think I have a lot personal ability	<b>0.701</b>	0.340	0.145	-0.044	0.080	0.028	0.272
4. I will probable get a job promotion in the near future	<b>0.607</b>	0.014	0.062	-0.081	0.366	0.078	-0.031
5. When I set my mind to achieve something, I usually can achieve it	<b>0.682</b>	-0.019	0.061	0.068	0.043	0.091	0.199
18. I frequently buy things when I can't afford them	0.054	<b>0.768</b>	-0.121	-0.012	0.070	0.006	-0.103
19. I pretty much spend for today and let tomorrow bring what it will be	-0.055	<b>0.697</b>	-0.067	-0.057	0.013	0.038	-0.156
20. I am an impulse buyer	-0.122	<b>0.746</b>	0.166	-0.005	0.169	-0.058	0.111
16. I am usually among the first to try new products	0.027	<b>0.631</b>	-0.085	-0.151	0.185	0.062	0.172
25. My family is the most important thing to me	0.098	-0.118	<b>0.811</b>	0.038	0.025	0.053	0.085
26. Youngsters should have more respect for the elders	0.139	-0.003	<b>0.744</b>	0.064	-0.039	0.044	0.025
27. I listen to the advice of elders	0.098	0.016	<b>0.537</b>	0.128	-0.218	0.107	-0.088
28. I am always proud to have a close-knit family	0.237	-0.029	<b>0.736</b>	0.003	-0.017	0.033	-0.009

Statements	*Loadings						
	Factors						
	I	II	III	IV	V	VI	VII
9. I would rather spend a quiet evening at home than go out to party	0.031	-0.053	0.024	<b>0.828</b>	-0.170	0.034	0.151
10. I am a traditional and conservative person	0.072	0.023	0.071	<b>0.569</b>	0.157	-0.010	-0.161
11. I like parties where there is lots of music and talk (R)	-0.130	-0.241	-0.020	<b>0.634</b>	-0.328	0.071	-0.128
12. I am a homebody	-0.025	-0.091	0.119	<b>0.830</b>	0.027	0.034	0.054
6. I am willing to pay higher prices for famous brands	0.099	0.292	-0.126	0.054	<b>0.686</b>	0.022	0.099
7. I care for well-known brands rather than their quality	0.170	0.503	-0.087	-0.114	<b>0.444</b>	0.052	-0.220
8. I prefer to buy foreign brands than local brands	0.162	0.190	-0.148	-0.140	<b>0.622</b>	0.037	0.066
21. I find myself comparing the prices in the grocery stores even for small items	0.162	-0.010	-0.052	0.092	-0.163	<b>0.724</b>	-0.199
22. I usually watch the advertisements for announcement of sales	-0.167	0.033	0.119	-0.091	0.326	<b>0.595</b>	0.130
23. I can save a lot of money by shopping around for bargains	0.084	-0.007	0.126	0.055	-0.026	<b>0.781</b>	0.013
24. I shop a lot for specials	0.036	0.120	0.146	0.045	0.341	<b>0.476</b>	0.385
13. I like to visit places that are totally different from my home	0.375	-0.089	-0.040	-0.019	-0.161	0.032	<b>0.556</b>
14. I like to buy new and different things	0.021	0.444	0.112	-0.051	0.237	-0.070	<b>0.519</b>
15. I am interested in the cultures of other countries	0.346	-0.183	-0.058	-0.007	0.163	-0.018	<b>0.643</b>
17. I am usually among the first to try new products.	0.372	0.377	-0.001	-0.213	-0.343	0.018	0.339
<b>Variance Explained (%)</b>	<b>15.13</b>	<b>13.48</b>	<b>7.74</b>	<b>6.27</b>	<b>5.81</b>	<b>4.44</b>	<b>4.28</b>

\* Only items with factor loadings of 0.40 and above were considered as significant in interpreting the factors.

Factor IV, labeled "Home Orientated" depicts consumers who are very concern with the condition of their home. They tend to put the importance of their home above everything else.



Factor V, labeled "Brand Conscious" portrays those who like experiencing new brands in the market. They are risk takers by nature and love to take chance.

Factor VI, labeled "Economizer" portrays those consumers that pay close attention to prices and special sales to benefit from bargain purchases.

Factor VII, labeled "Variety Seeking" portrays individuals who are innovative enough to try new and different things in life. They are also love to travel and seek adventures outings.

The result of the factor analysis showed some similar lifestyle patterns with the study by Kucukemiroglu (1997) of Turkish consumers. The lifestyle patterns that were identical among Malaysian and Turkish consumers were "Family and Home Concern", "Leadership and Self-Confidence", "Care-Free Personality" and "Health Conscious". The overall variance explained by the factor analysis for the Kucukemiroglu (1997) study of Turkish consumers was 68.5 percent as compared to 57.14 percent in this study. Therefore, the lifestyle patterns extracted will be a better representative for the Turkish consumers.

The result of the factor analysis also showed some similar lifestyle patterns with the study by Kaynak and Kara (1998) of Azerbaijan consumers. The lifestyle patterns that were identical among Malaysian and Turkish consumers were "Family and Home Concern", "Leadership and Self-Confidence", "Adventurous" and "Price Conscious". The overall variance explained by the factor analysis for the Kaynak and Kara (1998) study of Azerbaijan consumers was 56.7 percent as compared to 57.14 percent in this study. Therefore, the lifestyle patterns extracted will be a better representative for the Malaysian consumers.

Besides, based on Table 4.8, it was observed that Factor I comprised 5 variables and explained 15.13 percent of the variance while Factor II, Factor III, Factor IV and Factor VI had 4 variables each and explained 13.48 percent, 7.74 percent, 6.27 percent and 4.44 percent of the variance respectively. Apart from that,



Factor V and Factor VII consisted of 3 variables each and explained 5.81 percent and 0.339 percent of the variance respectively.

Finally, the component items of each factor were tested for internal consistency reliability using Cronbach's coefficient alpha. Table 4.9 summarized the conceptual attributes of items loaded on each of the seven-labeled factors with the alpha scores for each factor. The final Alpha scores for other seven factor were ranging from 0.541 to 0.787. According to Nunnally (1978), these values were quite acceptable in an exploratory research.

Table 4.9: Lifestyle Dimension and Reliability Coefficients

Factor	Dimensions of Lifestyle	No. of Items	*Alpha Score
I	Self-Confident	5	0.787
II	Impulsive	4	0.715
III	Family Oriented	4	0.725
IV	Home Oriented	4	0.727
V	Brand Conscious	3	0.680
VI	Economizer	4	0.610
VII	Variety Seeking	3	0.541

\* The component items of each factor were tested for internal consistency reliability using Cronbach's coefficient alpha.

## 4.2 USAGE PROFILE BY PSYCHOGRAPHIC DIMENSION

An analysis of the lifestyle characteristics with regards to the usage of the mobile was then analyzed. It was executed using the Bivariate Correlation function in SPSS. Bivariate Correlations was a statistical test that allows the measurement of the covariation or association between two variables (Zikmund,2000).

The correlation coefficient ( $r$ ) ranges from +1.0 to -1.0. If the value is 1.0, there is a perfect positive linear relationship and if the value is -1.0, it indicated a perfect

negative linear relationship or a perfect inverse relationship. No correlation is indicated if  $r=0$  (Zikmund, 2000)

Table 4.10 summarize the relationship between the psychographics group with usage.

Table 4.10: Summary of Correlation Analysis

		I	II	III	IV	V	VI	VII	VIII
I	P. Correlation	1	.124*	0.003	-.086	.092	.071	-.005	.001
	Sig.(2-tailed)	.	.012	.953	.082	.065	.155	.920	.983
II	P. Correlation	.124*	1	.181**	-.062	.428**	-.015	.163**	.310**
	Sig.(2-tailed)	.012	.	.000	.203	.000	.764	.001	.000
III	P. Correlation	0.003	.181**	1	-.214**	.298**	.404**	.154**	-.134**
	Sig.(2-tailed)	0.953	.000	.	.000	.000	.000	.002	.006
IV	P. Correlation	-.086	-.062	-.214**	1	-.238**	-.174**	.038	.149**
	Sig.(2-tailed)	.082	.203	.000	.	.000	.000	.443	.002
V	P. Correlation	.092	-.428**	.298**	-.238**	1	.269**	.106*	.062
	Sig.(2-tailed)	.065	.000	.000	.000	.	.000	.031	.207
VI	P. Correlation	.071	-.015	.404**	-.174**	.269**	1	.052	-.071
	Sig.(2-tailed)	.155	.764	.000	.000	.000	.	.285	.144
VII	P. Correlation	-.005	.163**	.154**	.038	.106*	.052	1	.165**
	Sig.(2-tailed)	.920	0.001	.002	.443	031	.285	.	.001
VIII	P. Correlation	.001	.310**	-.134**	.149**	.062	-.071	.165**	1
	Sig.(2-tailed)	.983	.000	.006	.002	.207	.144	.001	.

\*Correlation is significant at the 0.05 level (2-tailed)

\*\*Correlation is significant at the 0.01 level (2-tailed).

I Total Bill /Usage

II Self Confident

III Brand Concious

IV Home Orientation

V Variety Seeking

VI Impulsiveness

VII Econimizers

VIII Family Oreinted

In general, self-confidence individuals were strong believers in their personal ability and they normally displayed leadership characteristics. Thus, they could be early adopters of new technologies and products, as such tend to have higher inclination to use mobile phone. And it was also found that self-confident has the highest positive correlation with variety-seeking ( $r=.428$ ). In comparison to

another online gaming study by Youn et al., (2003), the dimension of variety seeking was found in both Internet users and online gamers, which share some communalities with a mobile phone. In the study, it was observed that nearly seven out of the ten Internet users had the innovative, variety –seeking and risk taking personalities. This group of character users was reported to have a higher tendency to seek fun and varieties in game related promotions to stimulate their experiences in the Web. Thus, the findings could be use to imply that self-confident mobile phone users were very likely also a high variety-seeker besides possessing other characters such as brand conscious, economizer, and family oriented.

No significant differences were found between the mobile phone usage with the other six factors of impulsiveness, family oriented, home oriented, economizer, variety-seeking and brand conscious dimensions. However, within psychographic factors, there were some interesting relationships among the various characters.