CHAPTER 2
LITERATURE REVIEW

In this chapter, we will review literatures with regards to some background of the ICTs inclusive of mobile phone influence and proliferation into people's day-to-day activities. Next, is an overview of the various market segmentation concepts, specifically on consumers' lifestyle and demographic characteristics. More significantly, we also explore on how previous empirical research findings pertaining to demographic and psychographic characteristics as well as the relationship between the demographic and psychographic characteristics, could be best employed to identify the differences of the consumer attitude and perception towards a product and service.

2.1 Adoption of Information and Communication Technologies

Previous research has suggested that all ICTs gadgets and equipments such as television, video games, personal computer, the plain old telephone and so forth, have distinctive uses and meanings to people's lives. In fact, the entry of other ICTs and services into people's everyday life also has implications for the mobile phone (Haddon, 1997). For example, the increasing prevalence of answering phones, faxes and e-mail have helped familiarize people with the practice of asynchronous telecommunications. Against a backdrop of increasing sensitivity to the pressures of time, such ICTs options have provided the facility to control the timing of communication better and in certain ways to communicate more effectively.

Lengel, Draft and Trevino (1990) have presented a hierarchy of media technologies, based on the idea that technologies have variable richness. For instance, interactive medias such as telephone and e-mail have higher richness than impersonal media such as flyers or bulletins. As a matter of fact, the whole range of portable ICTs now available, have established a habit of carrying around a technological infrastructure with us so that we could access not only information but entertainments whenever and wherever we wish and no longer dependent on

place in a variety of senses. In this regard, the mobile phone is starting to be considered by people as something to be seen with in public (DeSwarte,1996).

The point is that, such practices, which are developing in relation to ICTs, would also mean that each individual has different needs for ICTs including mobile phone usage. Hence, the underlying lifestyle of an individual might become important in signaling the different in ICTs usage patterns and dependencies. As ICTs began to weave themselves into part of a person's identity, such knowledge of individual's lifestyle could be a big asset in explaining the behaviour of certain group of users (Silverstone and Haddon, 1996; Marx, 1994).

2.2 Adoption and Usage of Mobile Phone

Mobile phone is the first technology, which clearly defines itself as a possession for personal use. Prior to mobile phone, other ICTs such as the telephone, radio, television and so on, were for common use by various members of a family (Fortunati, 1995). Mobile phone has followed the path of product introductory of a number of previous ICTs such as personal computer, in the manner of becoming more established as a work technology first, before finding personal applications and reaching a mass market.

A mobile phone is, in principle used for real-time conversation over a distance. A study by Tannenbaum (1991) found that people perceived mobile phones as advantageous when they want to exert control over their work environment or to manage their family responsibilities. Haddon (1997) and de Gournay (1997) pointed out, mobile phone is part of an ensemble of specifically portable technologies which collectively and individually provides new option as regards to how to organize work and private life both when people are in transit as well as when they are away from the home base. With the introduction of the mobile phone, there is an advantage of increased flexibility and minimizing the need to be physically present at a workplace. People can be reached anywhere (Ling, 1997a; Ling 1997b). Thus, the portable nature of this Information and Communication Technology (ICT) has moved the locus of attention beyond the home and office to the other sites of people's everyday lives.

de Gournay (1997) in his investigation have reported that traveling professionals now have a more intense collaboration with colleagues remaining at the company base in order to filter and exploit information, as well as to involve them in any negotiations from a distance. These traveling managers also overcome the effects of distance by a constant actualization of the real time. They have the capacity to condense their workload as well as their social lives, into perfectly bounded and synchronized sequences. Hence, these traveling managers' usage of mobile phones is corresponding with their job related needs, objectives, and priorities, which integrate personal activities once and for all (de Gournay, 1997).

Most studies of mobile phone use focus on the needs of business users (Carlson, Kahn and Rowe, 1999). These studies suggest that most mobile communicators have to deal with business on the road, changing time schedules, making appointments, or serving the urgent needs of clients. Given the focus on business related mobile phone usage, a number of studies of mobile phone use have examined the question of utility and impact of task-related attributes (Hsu, 1992). However, a growing number of studies suggest that people are likely to adopt mobile phones not just as a business tool, but also as a result of social pressure, as a perceived security device or even as a source of enjoyment (Kwon, 1994; Davis, 1993). Today, most households and individuals purchase mobile phones for their own significance (Haddon, 1998).

de Gournay (1997) showed how business users are establishing the principle of using the mobile phone for accessing information and for data communications. If this work related use becomes more common, it can be expected a future market for using the mobile to access data more for personal related matters as well as multimedia services. For instance, upon arrival in a new location, individuals would be able to download a map, seek information about the surroundings from a remote database, or send e-mails.

2.3 Market Segmentation

Since Smith's (1956) introduction of market segmentation, marketing practitioners and academics have adopted the concept enthusiastically. The benefits of market segmentation seem appealing, this may include a full understanding of a market; the ability to predict behaviour accurately; and an increased likelihood of detecting and exploiting new market opportunities (Kotler, 1988).

Segmentation is particularly useful in developing marketing objectives because it identifies important subgroups in the population as more efficient marketing targets than others (Yankelovich, 1964). In other words, to effectively plan marketing strategies, marketers must select appropriate target segments and reach them with appealing messages in appropriate media. However, the existence of inconclusive segmentation studies and the fact that managers have made poor decisions based on segmentation outcomes (Martin, 1986; Wind, 1978) suggest that important decisions ought to be guided by something more substantial than intuition or the vested interests of market research suppliers (Hoek, Gendall and Esslemont, 1996).

However, as Bass, Tigert and Lonsdale (1968) asserted, the issue of segmenting markets is a problem area with immense practical consequences. The most discussed dimension of market segmentation theory is the bases to be used in forming segments. The evolution of the theory could also be described according to the different criteria suggested. The first criterion was a natural one. The early merchants divided their market geographically. Namias (1959) studied how their intentions to purchase household durables correlated with actual purchases and found out that people living in town or small cities were more likely to carry out their intentions to buy durable household goods than consumers in large cities. However, as companies grew nationwide while the transportation and distribution systems have been well developed, geographic segmentation lost its importance.

The next criterion suggested was that of demographic variables. In 1957, Friend and Kravis announced that they have found some interesting patterns of

consumption among American consumers representing different demographic characteristics. Their hypothesis was that families could be segmented according to occupation, race, income class and other socio-economic characteristics. Martineau (1958) conducted a study involving 3,880 households in the Chicago area and found a connection between social class and purchasing behaviour. He found that lower and middle classes prefer totally different types of retail stores.

On the other hand, motivation research encouraged marketers to find reasons for consumer behaviour from personality and lifestyle characteristics and set the foundations for psychographic segmentation. Psychographic research was defined by Wells (1975) as the basic premise of lifestyle research. This research findings would provide useful consumer information in which the more the marketers know and understand about their customers, the more effective they could communicate and market to them (Plummer, 1975). In other words, the focus has shifted from the external person-oriented characteristics to the understanding of consumer behaviour. Thus, motivation research encouraged marketers to find reasons for consumer behaviour from personality and lifestyle characteristics and set the foundations for psychographic segmentation. However, psychographic data are costly to assemble and difficult to interpret objectively (Wells, 1975). For example, Katz and Lancaster (1989) cited the lack of adequate audience data as one of the primary drawbacks for advertising on cable television programs.

Under the influence of buyer behaviour theory, market segmentation researchers focused on the behavioural characteristics. Behavioural segmentation was first introduced by Twedt (1964), who suggested that the users of a product or service could be divided into heavy users and light users. He analyzed the degrees of purchase concentration of 700 households in 18 product categories and arranged the purchasing households in order of their purchase volume and separated the households at the median into halves. He found out that one household from the heavy purchase group as much as nine households in the light purchaser group, and that the heavy and light users could be distinguished on the basis of their demographic characteristics. Although the study showed that the correlation between demographic variables and the purchasing volume was not strong,

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Twedt (1964) forecasts optimistically that volume of product purchase would replace demographic measures in marketing surveys.

2.4 Consumer Behaviour and Demographics

Demographic variables refer to a broad spectrum of personal characteristics including intellectual abilities, domain-specific knowledge, gender, age experience, education background, professional orientation, and so forth. The validity of using demographic variables as important information leverage the marketing intelligence is very well supported in some literatures (Frank, Massy and Wind, 1972).

In fact, demographic variables have long been used as a foundation for segmenting the market for financial services (Warren, Stevens and McConkey, 1990; Lim 1992). Some studies found that active or heavy investors generally have higher income when compared to passive or light investors (Barnewell, 1987; Warren et al., 1990; Lim, 1992). In addition, Warren et al. (1990) in their study, found that heavy investors tend to reside in households with no children living at home or in households with children of 18 years of age or older. These investors or their spouses tend to be full-time homemakers, in terms of education, have at least one to three years of college. As for light investors, it was found most of them are singles or widows, or if married, still have children at home.

In a study on the role of demographics in influencing consumer expenditures, income and savings by Friend and Kravis (1957), it was found that American families could be segmented according to occupation, race, income class and other socio-economic characteristics. On the other hand, Namias (1959) found correlation between family life cycle, intention to buy household durables and actual purchases. Besides, in examining the role of demographics in influencing consumer ethnocentrism, several studies have found that males, better educated consumers with higher incomes tend to be less ethnocentric (Good and Huddleston, 1995; Sharma, Shimp and Shin, 1995).

On the other hand, several studies showed that Internet users differed from non-Internet users in age, education and income (Hoffman and Novak, 1996; Coyle, 1998; Korgaonkar and Wolin, 1999; Howard, Rainie and Jones, 2001). Regarding offline gaming behaviours, Youn and Lee (2002) found that adult computer game players tend to be young and well educated people with above average income while gender gaps among computer gamers were not noticeable.

In general, age has been consistently, significantly and positively related to attitude towards products or services. Some researches showed younger consumers have more open attitudes about or are more positive towards foreign products (Schooler, 1971; Tongberg, 1972; Wang, 1978; Wall, Majorie and Heslop, 1986). On top of that, Han (1988) examine consumer patriotism and its relationship with choice of domestic versus foreign products. He found that patriotic consumers are older than less patriotic consumers.

Besides, studies on the holding of credit card conducted by Plummer (1971) and Awh and Waters (1974), found that the holders of credit card tend to have higher education as compared to the non-holders. Credit card holders are more likely to be professionals (Plummer, 1971; Kinsey, 1982). With respect to age, Plummer (1971) and Awh and Waters (1974) found that card holders tend to be younger when compared with non-holders. Kinsey (1982), however, found that the probability of holding cards increased with age until age 50 and then declined.

Apart from that, the concept of sex-role identity has enjoyed a relative success in explaining some aspects of consumer behaviour (Debevec and Iyer, 1986; Jaffe and Berger, 1988; Leigh, Rethans and Whitney, 1987). The results of gender as correlate in marketing studies have produced remarkable results. Several studies found that females tend to rate foreign-made products more favourable than men (Schooler, 1971; Wang, 1978). Nevertheless, Mclain and Sternquist (1991) found no relationship between gender and degree of ethnocentrism of consumers.

Youn, Lee and Doyle (2003) conducted a study to profile adult online gamers with regards to demographic, motivational and attitudinal characteristics by using 2002 DDB Needham Lifestyle Survey data. They managed to determine

demographic and pyschographic differences and similarities between online gamers and non-gaming Internet users. The results showed that online gamers and non-gaming Internet users are liable to be younger, more educated, and better off financially than non-Internet users.

In the Malaysian context, a research by Kaur (1990) found that income increases the incidence of holders of credit card increases, while greater percentage of cardholders comes from the high education group. In terms of marital status, higher percentage of cardholders tends to come from married with children group. When the education level is compared, greater percentage of cardholders comes from the high education group. The study also found that professionals, managers and businessmen tend to own credit card more than the other occupational groups. Nevertheless, no significant difference was found between age and ethnicity with credit cardholding.

Ezlika (2000) found that active and passive investors of Kuala Lumpur Stock Exchange (KLSE) were significant different in terms of investor's age, gender, occupation, monthly personal income and monthly household income. Besides, no significant difference was found in terms of ethnicity, marital status and education level between the two investor groups. The study also found active investors tend to be males, in their age of 25 years old or below, and 36 years old and above, who owned business or are professionals with higher personal and household income.

In general, demographic dimensions have received broader acceptance because of its easy quantification and consumer classification (Plummer, 1974). Some researchers believed demographic profiles of heavy users provide safe surrogates for psychographic profiles (Assael and Poltrack, 1994; Grounhaug and Zaltman, 1981). However, many researchers have criticized demographic segmentation (Levitt, 1960; Sissors, 1966; Barnett, 1969) and argued that demographic characteristics are too general to be meaningful in identifying market segments. Barnett (1969) pointed out that Friend and Kravis (1957) have used general and independent purchase categories such as food and housing, and that data used on them are too general in order to show any real

consumption patterns. According to Sheth (1974), demographic variables have been shown to be poor predictors of brand choice behaviour, partly because of narrowing differences in income, education and occupational status in an affluent mass consumption society.

Clearly, a defined segment could be identified using demographics variables, but entire markets could not usually be segmented by this method alone (Beane and Ennis, 1987). Thus, lifestyle or psychographic study has been used as a complementary tool to demographic profiling by some marketers to captivate their customers.

2.5 Consumer Behaviour and Lifestyle

The concept of lifestyle and its relationship to marketing was first introduced by Lazer (1963). He defined lifestyles as distinctive characteristics which constitute the living of individuals in the whole society or a segment thereof. The attempt to develop quantitative measures of lifestyle was initially referred to as psychographics (Demby, 1994). In fact, the terms psychographics and lifestyle are frequently used interchangeably (Demby, 1994).

Lifestyle is basically how a person lives. It is how one enacts his or her self-concept. It is determined by the person's past experiences, innate characteristics and current situation which would influence all aspects of one's consumption behaviour. One's lifestyle is a function of inherent individual characteristics that have been shaped and formed through social interaction as the person evolves through the life cycle (Hawkins, Best and Coney, 2004).

Generally, the focus of marketers and consumer researchers would be on identifying the broad trends that influence how consumers live, work and play. It allows a population to be viewed as distinct individuals with feeling and tendencies, addressed in compatible groups or segments to make more efficient use of mass media.

Commonly, researchers tend to equate psychographics with the study of lifestyles. Psychographics research is used by market researchers to describe a consumer segment so as to help the market operators to reach and understand its customers better. Hence, lifestyle patterns provide broader, more three-dimensional views of consumers so that marketers can know about them more intelligently, as the more you know and understand your customers the more effectively you can communicate and market to them (Plummer, 1974). It reveals useful information to justify why consumers would choose a particular product or service and eventually ease the progression of market segmentation.

According to Mowen and Minor (2001), psychographics analysis is a type of consumer research that describes segments of consumers in terms of how they live, work, and play. Generally, there are three principal indicators of lifestyles, namely activities, interests and opinions. These three indicators, also termed as AIO rating statements, have been widely used as an approach to psychographic measurement whereby consumers are asked to express their agreement or disagreement with the Activities, Interests and Opinions (AIO) statements (Engel and Blackwell, 1982).

The AIO statements as described by Plummer (1974), measure activities on how people spend their time and money; measure interests on what they consider to be of importance in their immediate surroundings; and measure opinions on how they feel about themselves and the world around them. Wells (1974) suggested that the AIO statements could be either general or product specific, and either standardized or ad hoc in scale. The choice of statements depends on the objective of the study and it is possible to use either one or both types mentioned above (Tai and Tam, 1997).

In essence, the types of AIO statements used depend on the objectives of the psychographics research. AIO statements designed to capture information as regards relevant aspects of consumer's personality, buying motives, interests, attitudes, beliefs and values, in turn aimed to reveal the broad patterns in marketplace. These statements are used in generic psychographics study by marketers to uncover new product opportunities. Good AIO items could be

rendered from various sources. AIO statements sourced from Wilson (1966), Pessemier and Tigert (1966) and a set of unpublished studies by Social Research, Inc. for MacFadden-Bartell Corporation is annexed as Appendix II. It is worth to note that most studies would include demographic profiles with AIO statements in order to obtain clearer insights in consumer behaviour. Table 2.1 lists some of the variables that would be covered by Plummer's (1974) lifestyle inventories. In order to obtain useful information, most studies would include demographic profiles as well.

Table 2.1: AIO Categories of Life Style Studies

Activities	Interest	Opinions	Demographics
Work	Family	Themselves	Age
Hobbies	Home	Social Issues	Education
Social Events	Job	Politics	Occupation
Vacation	Community	Business	Family size
Entertainment	Recreation	Economics	Dwelling
Club Membership	Fashion	Education	Geography
Community	Food	Products	City Size
Shopping	Media	Future	Stage of Life Cycle
Sports	Achievement	Culture	

Source: Plummer (1974).

Many researchers have applied the concept of psychographics to diverse applications and supplemented demographic information with descriptions of consumers' activities, interests, and opinions. Topics studied in this way include how a product's position could be defined through lifestyle variables (Alpert and Gatty, 1969); lifestyle correlates of age and social class (Tigert, 1970); opinion leadership and information seeking (Reynolds and Darden, 1971); furniture store choice and preferences for furniture styles (Good and Suchland, 1970); fashion interest and leadership (Summers, 1970); reactions to new product concepts (Nelson, 1971); lifestyle segmentation to commercial bank credit card usage (Plummer, 1971); profiling shoppers based on psychographics variables

(Reynolds and Darden, 1972); defining segments for apparel products (Richards and Stuman, 1977); developing a successful lottery in Britain (Smith and Thomas, 1995), predicting sales at a new department store location (Leblang, 1993); understand service expectations with respect to health care (Thompson and Kaminski, 1993); study of the subcultures in Canada (Hui, Joy, Kim and Laroche, 1993); as well as develop dining menus at U.S.A. college campuses (Lipke, 2000), and so on.

Furthermore, it is worth to take note that lifestyle is also the results from the interaction of social and personal variables in which individuals are influenced by the environment. It occurs during childhood through the process of socialization. Social influences continue to surround the individual throughout life, however, originating in the family, reference groups, social classes, important subcultures, and the overall culture (Engel and Blackwell, 1982). Subcultural influences refer to the norms and values of subgroups within the larger or national culture. Individual consumers may be influenced only slightly by membership in specific subgroups or the subgroups may be a dominant force on the lifestyle or behaviour of the consumer. Amongst types of subcultures including nationality groups, religious groups, geographic areas and racial groups.

Although lifestyle data are very useful in market segmentation and in developing international marketing strategy, Wells (1975) suggested that marketers have to be cautious when choosing lifestyle variables in their studies, as these variables are not as stable as demographic variables. Psychographic research has been criticized for a number of problems associated with its measurement and the validity of items arbitrarily selected for surveys. According to Wells (1975) standardized scales for psychographic research often achieve reliabilities ranging from 0.70 to 0.90, whereas homemade measurements may generate reliability values that range from under 0.30 to 0.90. The extend to which a measure is reliable affects future analysis of relationships with other variables of interest (Gilbert and Warren, 1995). In addition, a number of other researchers (Cote and Buckley, 1987; 1988; Kinnear and Taylor, 1976; Lastovicka, 1982; Rentz 1988; Wind, 1978) have questioned the reliability of psychographic items selected for a particular study as well.

Nevertheless, there are somewhat little empirical research to date has been conducted on Malaysian lifestyle characters especially on mobile phone users. It would be interesting to know whether differences exist in response to lifestyle profiles of dependent and non-dependent mobile phone users in Malaysia.

2.6 Measurement of Malaysian Consumer Lifestyle

In Malaysia, lifestyle research is relatively new (Ho, 1988) though it has already been widely used in the West. The first official nationwide lifestyle study in Malaysia context was only conducted in 1987 by SRM. The study involved 2,037 respondents and with the use of a questionnaire consisted of 86 AIO statements. Malaysian consumers were divided into seven lifestyle groups, namely "The Yesterday People" (20%), "The Yuppies" (9%), "The New Breed" (19%), "The Chameleons" (14%), "The Loners" (9%), "The Kampong Trendsetters" (19%) and "The Sleep Walkers" (9%) (Ho, 1988).

Subsequently, in 1993, a Malaysian Lifestyle Study was conducted by SRM. The study involved 1,968 respondents and they have clustered the population of Malaysian into seven psychographic segments. The segments are "Pious Strivers" (27.3%), "Non-Conformists" (10.3%), "Chinese Contemporaries" (6.1%), "The Passive Liberals" (17.6%), "Young At Heart" (11.3%), "The 'Tidak Apa' Spendthrifts" (9.1%) and "The Caring Traditionalist" (18.3%) (Seow, 1997).

Rejab and Yacob's (1986) study in Malaysian women's lifestyle showed that the Malaysian women population can similarly be segmented into various lifestyle groups by means of their activities, interests and opinion. In this study, Malaysian women were segmented into eight lifestyle groups by means of the 61 AIO items which have been modified to accommodate the local cultural variations. The eight statistically independent factors were "Traditional Mothers", "Fashion-Conscious Women", "Innovative Opinion Women", "Feminine Women", "Liberated Women", "Economically-Conscious Women", "Socially-Active Women" and "Basic Role Orientation".

Kaur (1990) investigated the demographic and pyschographic characteristics that distinguish male credit card holders from non-holders in Kuala Lumpur and Petaling Jaya areas. The research result identified eight psychographic dimensions among male credit card users and no-users, namely, "Credit Disbeliever", "Swinger or Achiever", "Appearance Conscious", "Self-Confident", "Conservative Outlook", "Social Active", "Risk Oriented or Innovative", and "Bargain Shopper". The result showed that there was significant difference in five out of the eight lifestyle dimensions. The credit card users were found tend to be low in their disbelief in credit, more self-confident, socially active, risk oriented and less price conscious in purchase behaviour.

In Chong's (1996) study to examine the product attributes, demographic and psychographic profiles of Malaysian female regular and non-regular consumers of lipstick and face power, it was found that no significance difference between regular and non-regular consumers of both products in terms of "Personalized Service Oriented", "Brand Trier" and "Bargain Shopper" psychographic constructs. However, the findings showed significant difference between the two groups of users of both products in term of "Quality Minded", "Brand Loyal", "Safety Conscious" and "Appearance Conscious" constructs, while the regular consumers of lipstick are more quality minded and the regular consumers of face powder are more loyal to brand.

Ezlika's (2000) research on demographic and lifestyle characteristics of active and passive investors of KLSE in Malaysia identified four lifestyle segments which were significant different, namely, "Self-Confident or Independent", "Careful Spender", "Risk Oriented or Innovative", and "Debt Avoider". The active investors were found more risk taking or innovative than passive investor groups.

2.7 Relationship between Demographics and Lifestyle

The marketers may tend to sell a product or service to suit a particular group of customer's taste and preference and often the products are bought not to satisfy basic physiological needs but as a reflection of personal lifestyle. Hence, deep-seated psychological motivations may be involved (Ho, 1988). Lifestyle and

personality characteristics that are specific to certain consumers and product categories must be defined and measured in order to be useful to marketers.

Psychographics which combined with consumer demographics would be valuable for better market segmentation, product positioning, communications, advertising and promotions as well as identification of new product and service opportunities. As Wells (1975) asserted, behavioural and attitudinal aspects of lifestyles may be expected to change over time, making it essential for marketers to continually monitor the congruence of psychographics and demographics as well as media usage and other purchase behaviours (Gilbert and Warren, 1995).

In this regard, lifestyle segmentation combines the simplicity of demographic segmentation and the depth of using psychographics factors. Plummer (1974) claimed that there are several benefits from using lifestyle segmentation, such as richer definition of the key target. He also argued that the lifestyle segmentation could be used to compliment other pieces of information when positioning a product or service.

Past marketing research has used demographics, psychographics, benefits sought, or behavioural variables to profile heavy user segments (Assael and Poltrack, 1994; Assael and Roscoe, 1976; Bass et al., 1968; Goldsmith, Flynn and Bonn, 1994). Demographic data, however, have their limitations in helping to generate insights about customers (Haley, 1984), while psychographic data are costly to assemble and difficult to interpret objectively (Wells, 1974). The benefits a person seeks in a product are also limited in their ability to provide stable, reliable profiles. Taken singly, variables seem to be indeterminate, but integrating them might reveal common factors (Sheth, 1974).

From a pragmatic standpoint, marketers frequently have difficulty incorporating psychographic information into their marketing plans, particularly media planning. Profiles of psychographics for media vehicles are frequently sparse, if in fact they exist at all. However, these same vehicles generally have demographic profiles of their audiences. Thus, the goals become one of relating general psychographic

segments to previously identified target subgroups of a diverse overall market (Gilbert and Warren, 1995).

A research by Gilbert and Warren (1995) investigates the validity of selected psychographic measures and then to relate these constructs to demographic segments of respondents residing in several cities within a southern state in United States. The research result showed that demographic variables such as income, gender, employment, age and education differentiated some psychographic characteristics out of "Economizer", "Credit User", "Self-Confident", "Home Oriented" and "Fashionable" constructs.

Seow (1997) researched the relationship between demographic characteristics and seven lifestyle characteristics which have been previously identified in the 1993 Malaysian Lifestyle Study conducted by SRM. This research results showed that demographic variables namely, race, gender, age, personal income, household income, location, occupation, marital status and education, were significant different in the psychographic segments.

2.8 Mobile Phone Usage, Demographic and Lifestyle Factors

The arrival and usage of ICTs including mobile phone could modify the routines and practices of offices and households as well as the relationships between members within. Earlier studies on mobile phone usage were restricted to the world of work (Haddon, 1997). However, a research by Sussex Research Group (1998) noted that the work role could still remain important in legitimizing the acquisition and usage of mobile phone, while the private or non-work communication has become more common. In fact, some empirical examples have been demonstrated by Klamer, Haddon and Ling (2000), that how the mobile phone allows an individual to attend to domestic errands while also being available for job related interaction.

Davis's study (1993) about the social impact of mobile phones reported that mobile phones are useful for maintaining interpersonal relationships. Davis (1993) identified the motivations for early adoption of mobile phones as being

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internal, such as gaining social status or exploring to new thing, and external, such as job requirements or potential for career advancement.

Furthermore, a survey of mobile subscribers in the United States found that nearly two-thirds of the respondents subscribed to mobile services for personal use rather than business (Telecommunications Reports, 1995). Another study (James, 1992) also reported that while mobile phone is an important business tool, personal use was the fastest growing sector of the market.

Mobile phone usage has been approached by a number of different perspective. Several studies showed the perceived importance of ICT equipment will influence the usage. A study on the adoption of computers showed people are more likely to buy computer because they consider it is important for their children's education (Heinzmann, Schwedes, Mese, Valdevit, Grolimund and Loffler, 1997). Haddon's (1997) highlighted in his study that low perceived importance of mobile phone in Belgians' daily lives renders to low adoption of mobile phone in Belgium.

A survey indicates that radio and television are rated as the most important medias in the lives of young generation in some European countries such as Germany, Switzerland, Netherlands, and so on. The respondents were found relatively listen to the radio regularly while they are willing to spend their money on music tapes and discs (Heinzmann et al., 1997).

In principle, a similar concept might be applied to examine the dependencies on mobile phone usage of mobile phone users, based on their perceived importance of mobile phone in their daily lives, including the integration of mobile phone into their work and personal practices. It will be interesting to profile mobile phone users into dependent and non-dependent user groups based on similar concept of the studies by Heinzmann et al. (1997) and Haddon (1997), in which strong correlation found between the degree of possession of majority ICT equipments, the perceived importance of ICT equipments and the actual usage behaviour of users.

Apart from that, studies showed that individual differences or demographic variables play an important role in how extensive mobile phone is used. A study by Wareham, Levy and Cousins (1998) in a study of mobile phone diffusion model, investigates which demographic factors such as race, gender, education, age, marital status and income level, will be significant different in different adoption rates of mobile telecommunications in United States. The demographic factors that explain statistical significant different in adoption rates for mobile phones are used to identify different user groups of mobile phone. The study further examines the long run market shares of mobile phone usage of the specific demographic segments.

The findings of Wareham *et al.*'s (1998) study showed that there were significant differences were found between different mobile phone user groups in terms of some demographic variables such as income, followed by marital status and occupation. However, it was found the presence of children in a family tends to be a consistent negative predictor of mobile phone adoption rate. Besides, the result showed people in sales positions consistently adopt mobile phones at the highest rates. It also revealed that African-American respondents adopted mobile phones at higher rates than the general population while Hispanic and Asian respondents are not statistically different from the general population. Nevertheless, in contrast to traditional Internet access, neither education nor age seems to be significant different in mobile phone adoption rate.

Besides, Saljoughi (2001) found the early adopters of technology including mobile phone are more likely to be male. Moreover, Ling (2000) in his study found that there is statistically significant gender difference that follows from men's greater access to mobile phone via their job. In another analysis by Ling and Vaage (2000) on gender-based use of the mobile phone, it was found men dominate in the usage of mobile phone.

However, in contrast to the above findings, Rakow and Navarro (1993) have noted how the mobile phone can play a particular role for some women. The study found mobile phone enables "remote mothering" by allowing mothers to keep track of and organize children even when those mothers are out of the

home. On top of that, Classie and Rowe (1993) reported that women use the telephone twice as much as men. In addition, in Ling's (1998) study, it was found women dominated in the mobile phone usage especially for travel related calls in which they are often more deeply involved in the everyday co-ordination of the household. Given review of relevant literature showed that it is women who often have larger and more complex social network (Moore, 1989), it is speculated that female mobile phone users would likely to be more dependent on mobile phone or adopt greater usage than their male counterparts.

A report by Telecom Industry Review in 2003 on a recent research conducted by Insight Research Corporation, United States, has revealed greater insights of complex ethnics consumer marketplace in United States. This research discerned some new telecommunication marketing opportunities to distinctive ethnic groups, which eventually offers further intelligence into market trends and market sizes. It discovered that some races such as Hispanics, Asians, and African-Americans are spending more on telecommunications than the general population (Insight Research Corporation, 2003). It is therefore can be predicted that mobile phone users in certain ethnic group will tend to be having higher usage of mobile services than other ethnics in a society.

In addition, Heinzmann et al.'s (1997) study, it was found that the attitude and perception towards the mobile phone and mobile phone usage appear to be influenced by education background, whereby respondents of the tertiary educational level give the accessibility by mobile phone a significantly lower rating than expected while respondents with only secondary school education level on the other hand rate accessibility of mobile phone much higher. Besides, the academic professionals were found tend to be less dependent on mobile communications Heinzmann et al. (1997). Therefore, it can be predicted that education levels equate with greater technical literacy, and individual could be possessed more positive attitude towards technology acceptance, however not necessary will show high mobile phone usage dependency.

In Wareham et al.'s (1998) study, it was found occupation is significant different in mobile adoption rate. People in sales positions are consistently adopt mobile

phones at the highest rate, in other words, they tend to be more dependent on mobile phone services, given the intuition of their travel inherent in their jobs. With the competitive business landscape nowadays which speed is an essence, it can be predicted that strategic mix of appropriate mobile services would complement and support the diverse professional occupations. For example, doctors may be prone to use certain types of mobile services, while sales representative may appeal for some other mobile services as they constantly need to be remotely connected to their office.

Furthermore, a research findings showed a positive significant correlation between income level and mobile phone adoption rate (Wareham et al., 1998). However, it can be predicted that mobile subscription fees and mobile phone bill charge mechanism may become equally significant to mobile usage dependency behaviour.

In addition, as mentioned by Haddon (1997), the youngsters are a growing group of mobile phone users while elderly people have not yet appeared significantly in mobile phone usage statistics even they do possess mobile phones. While another analysis shoed that teenage girls are heavy mobile phone users than same aged boys (Ling and Vaage, 2000). In some European countries, mobile phone conversations are important moments to teenagers which address intimate relations with other peers. The pleasure and enjoyment of contacting friends and classmates or relatives living far-away passes are an opportunity that opening up the communication horizon desires as well as communicative needs (Haddon, 1997).

Young people seems to desire new technologies and enjoyed mastering them (Saljoughi, 2001). Thus, it is expected the current generation of teens whom would eventually establish themselves in the job market, might be the next potential target market of mobile phone operators as mobile phone usage will become a part of their adult perspective on top of the settlement of mobile phone expenses.

However, mobile phone usage should not be seen in isolation from the social and cultural context (Haddon, 1997). In other words, the usage dependencies of mobile phone could have also become part of an individual's lifestyle. In Italy, the emergence of mobile phone usage begun under the sign of fashion. Mobile phone has been carried, as it often was, in a suit pocket or close to the necktie, more likely to represent a violent aesthetic break. Thus, mobile phone is not only something to save time in an Italian's daily businesses but also an extremely powerful tool to show-off (Haddon, 1997).

As in Denmark, at the end of 1996, the main market for the mobile phone is still the business area, but mobile phone has also become a must for a large number of people in their private lives. Danish women do have mobile phones, but they prefer to use the telephone at home for calls in general. The children in Denmark are a growing group of mobile phone users while the elderly people do not yet appear significantly in the mobile phone statistics even a few of them do have mobile phones but this is mainly to make themselves and the closest family feel secure (Haddon, 1997).

South Korea is another early and heavy adopters nation and generally Koreans possess the mobile technology savvy to rival that of anyone else on earth. One thing that is noticeable in Seoul is that Koreans do not seem to regard their mobile phones as merely a phone, but rather as miniature multimedia entertainment or information centers. Koreans use their mobile phones for multiplayer games over the network, snapping and sending pictures or video clips, and soon they will be moving to using them as maps. Thus, Korean mobile operators do not just sell minutes and free weekends but they sell whole lifestyle to mobile phone users (Aley, 2003).

However, to date there are uncertainties on how is the usage dependencies that of urban Malaysian mobile phone users, for both work related and personal matters, as well as lack of information on significant demographic and psychographic variables which may influence the mobile phone usage dependencies. As mobile computing applications emerging, besides identifying two major groups of mobile phone users in the population either they are

dependent users and non-dependent phone users, it would be interesting to determine if, and why, differences in usage dependencies emerge within some demographic and psychographic variables.

We can make some predictions about mobile phone usage dependencies and usage pattern along with demographic and psychographic variables. For dependent users, their perceived importance towards mobile phones and mobile phone usage dependencies are expected will be distinctive than non-dependent users. Further, it can be predicted that these mobile phone users will select to subscribe for a more cost-efficient service package. The study also estimates the dependencies of mobile phone would be significant different in terms of demographics such as, age, gender, marital status and occupation, as well as lifestyle constructs such as brand conscious, self-confident, variety seeking and impulsive. The relevant findings comparatively with other studies coupled with the speculations of the current study will be addressed and reported in another chapter.