

UNIVERSITY STUDENTS' ATTITUDES TOWARDS MOBILE PHONE USAGE IN MALAYSIA

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Introduction

The mid 1990s signals the beginning of mobile phone usage which is now considered as essential tool for our modern life. In 1997, only 215 million people used mobile phone technology worldwide (Bauer *et al.*, 2005). Due to the unique features and low-cost pricing of mobile phones, majority of the population in the world including developing and least developed countries are accepting this technology very quickly. In just 10 years, the number of subscribers had increased tremendously (Bauer *et al.*, 2005). According to a market research firm, Gartner, cited in Reardon (2008), more than 1.15 billion mobile phones were sold worldwide in 2007, a 16 percent increase from the 390.9 million phones sold in 2006. PC World forecasted that the number of mobile phone subscribers worldwide will increase to 4 billion by 2010. Like many other countries, in Malaysia mobile phone subscribers outnumbered land-line telephone subscribers, with most adults and children now owning a mobile phone. About 90.3 percent of the total population of Malaysia owns mobile phones (SKMM, 2007) making Malaysia the second highest mobile phone penetration in South East Asia after Singapore. The 25 million mobile subscribers' milestone is set to be passed in 2008, up from only two million in 1998. Having reached annual growth levels in excess of 50% by the mid-1990s, Malaysia's mobile market had made a remarkable recovery after suffering a serious setback in 1998 due to the Asian economic crisis. However, the market quickly recovered.

Malaysia has developed one of the most advance telecommunication environment among the developing nations. In the 1990s, the country was busily promoting itself as a regional high technology hub, but recently it has adopted a quieter profile, and has set about the task of steadily building a technologically progressive economy. Currently, telecommunication companies are still in the expansion phase with the telecommunication

companies battling in an increasingly competitive and changing market. The last decade witnessed a healthy overall growth in the country's telecommunication sector.

The aim of this study is to identify the purchase decision behaviour of mobile phone users, with the respondents being students of a public university in Malaysia.

Review of the related literature

Nurvitadhi (2004) did an assessment of the urban and rural areas mobile phone usage pattern in the USA and Japan and found the unique characteristics of mobile phone usages in each country, such as the differing reasons for the students to have a mobile phone, the differing mobile phone features used and desired. This study showed that respondents who owned mobile phones think that their mobile phones are useful. Email or Short Messaging Service (SMS) capability is the most popular feature in mobile phones. This study also reveals that the second most popular feature in the US is the mobile games capability and in Japan it is the music playing capability.

Karjaluoto, Karvonen, Kesti, Koivumaki, Manninen, Pakola, Ristola and Salo (2005) studied on factors affecting consumers' choice of mobile phones in Finland and identified that brand choice is affected by demographic factors including gender and occupation, as well as size and price of the mobile phone. While Liu (2002) found that brand choice of mobile phone is dependent on the new technology features, similarly, Karjaluoto, Pakola, Pietila, and Svento (2003) uncovered price and features as the most important motives affecting the decision to purchase mobile phones. Additionally, Pakola, Pietia, Svento and Karjaluoto (2003) examined the mobile phone purchasing pattern, operator choice and use of mobile phone services in Finland.

Mallenius, Rossi and Tuunainen (2008) conducted a study to identify a set of issues that needed to be taken into account when designing technology and services for elderly people. This study reveals that elderly people are interested in using mobile phones and services but they want value for money services, which is pronounced in the form of more social, active, meaningful and independent life.

Many researchers have done research on mobile phone purchasing behaviour in the developed countries. However, there have been only a small number of studies on this topic in Malaysia. Since Malaysia is one of the fastest growing markets for mobile phones, we need to examine the behaviour of

mobile phone users. Therefore, this exploratory study focuses on the usage pattern and the initial factors affecting consumers choice of mobile phone purchase among Malaysian public university students.

Research methodology

The data collection was undertaken by using questionnaires. A survey instrument was formulated to obtain feedback from the students, assessing their background and their mobile phone purchase decision behaviour. A pretest was first carried out among 20 respondents from one university in March 2009. After careful consideration of the comments and suggestions from the pretest sample, the questionnaire was revised and finally, a survey of attitude towards buying mobile phones was conducted. The data were collected from 300 students from three universities in Klang Valley from April 2009 to May 2009. Questionnaires were distributed to the respondents in their designated classrooms. Out of 300 returned questionnaires, 36 were outright rejected because they were almost or entirely unanswered. The response rate for this survey was 88% (264 respondents). Because of the exploratory nature of this study, a cross-sectional approach was undertaken to measure the individuals' responses regarding mobile phone usage. The results were then processed and analysed using Statistical Packages for Social Sciences (SPSS).

Results

Based on the objective of this study, first the socio-economic characteristics of the respondents are analysed. Then, the reason(s) relating to customers' buying behaviour on mobile phone are discussed. Finally, recommendations are forwarded both from the managerial and consumer perspectives.

Socio-economic characteristics of the respondents

Table 1 shows the socio-economic variables examined in this study which include age, nationality, the level of education, income level, quantity of mobile phone, cost to purchase the mobile phone, period of using the mobile phone, frequency of changing mobile phones and amount spent per month for mobile phone usage. Brand of mobile phone and service provider that the respondents subscribed to are also discussed here.

A final total of 264 respondents participated in this study. Female encompassed 59.85% of the total respondents (158 respondents). The male respondents accounted for the remaining 40.15% of the total respondents (106 respondents). The gender breakdown clearly reflects that female

respondents outnumbered the male respondents. The present research found that most of them are 20 years of age. From our research, we found that most of the respondents are Chinese (155 respondents), 79 respondents are Malay, 16 respondents are Indian and only 12 respondents are of other races.

Table 1: General Information

Demographic Variables	No. of Respondents	Percentage (%)
Gender		
Male	106	40.15
Female	158	59.85
Race		
Malay	79	29.92
Chinese	155	58.71
Indian	16	6.06
Others	12	4.54
Education Level		
Diploma	38	14.40
Undergraduate	217	82.20
Master	7	2.65
Ph.D	2	0.75
Age (years)		
19	42	15.90
20	118	44.70
21	41	15.53
22	27	10.23
23	12	4.54
24	13	4.92
27	8	3.04
28	3	1.14

Mobile phone ownership

More than fifty percent (51.89%) of the respondents are using two mobile phones. There are 108 respondents having three mobile phones and only 19 respondents own one mobile set. With regards to the price of mobile phone, the highest that the respondents spent to buy a mobile phone, is within the range of RM600-RM1000 (48.4%).

Overall, most of the respondents (37.1%) have used their mobile phones between four to six years and more than 76.1% respondents have not changed their mobile phones. Majority of the respondents (112 respondents) spent less than RM50 for their monthly billing. Nokia was found to be the number one brand in international market and the present study’s result indicate a similar finding. Nokia mobile phone is the highest preferred brand among the

respondents (50%). This study supports other study by (Dewenter *et al.* 2007) in a developed country like Germany which found that 34% of the respondents are users of Nokia mobile phones. The second choice is Sony Ericsson followed by Motorola. Whereas, 9.1% of the respondents use Samsung, LG 1.5% and the remaining 3.0% of the respondents use other brands. Since Maxis is the market leader in the mobile phone service provider in Malaysia, holding 50.75% market share with 2.3 million subscribers (Yeoh, 2000), our study also indicates that 60.7% of the respondents are currently subscribers of Maxis.

Mobile phone features/attributes

SMS capability is the most popular feature among the respondents (57.2%). Moreover, 63.3% of the respondents send 11 to 20 SMS per day. The second most popular feature is the call waiting function (19.7%).

Table 2: Mobile Phone Usage Pattern

Demographic Variables	No. of Respondents	Percentage (%)
Quantity of mobile phone		
1	19	7.20
2	137	51.89
3	108	40.90
Price of mobile phone		
Below RM300	35	13.3
RM301-RM600	44	16.7
RM601-RM1000	128	48.4
RM1001-RM2000	44	16.7
RM2001-RM3000	11	4.2
Above RM3000	2	0.7
Mobile Phone experience (Years)		
1-2 years	47	17.8
3-4 years	74	28.0
5-6 years	98	37.1
7-8 years	38	14.4
9-10 years	5	1.9
Above 10 years	2	0.8
How often do you change your mobile phone?		
Not at all	3	1.2
1-3 times	193	73.10
4-6 times	68	25.78

Table 2 (Continued)

Demographic Variables	No. of Respondents	Percentage (%)
Total monthly bill		
Below RM50	112	42.4
RM51-RM100	88	33.3
RM101-RM150	28	10.6
RM151-RM200	14	5.3
Above RM200	22	8.3
Brand		
Nokia	132	50.0
Motorola	32	12.2
Sony Ericsson	81	30.7
Samsung	24	9.1
LG	4	1.5
Others	8	3.0
Service provider(s)		
Maxis/Hotlink	134	50.75
Digi	101	38.25
Celcom/TM	50	18.94
Others	38	14.39
Line		
Prepaid	154	58.3
Postpaid	87	33.0
Mixed (prepaid and postpaid)	23	8.7
SMS Send per day		
Below 10	40	15.2
11-20 SMS	168	63.3
21-30 SMS	25	9.5
31-40 SMS	17	6.4
Above 40 SMS	14	5.3

On what kind of features they think that future mobile phones should have, the most sought after feature is that having a mobile phone that can be used anywhere in the world (68.4%). Other answers include having TV capability, computer like functions, better reception, PDA (personal digital assistant capability) and others.

Factors affecting choice of brand

The research found that product design is an important factor that affects respondents buying decision. Fifty four percent of the respondents indicated that product design including handy, slim, and colour are the most important factors in choosing mobile phones. Over 57.57% of the respondents confirmed that price is the second most important factor that affects their mobile phone buying decision whereas 31.18% claimed that user friendly

nature of the mobile phone also affects their purchasing decision. Some of the respondents noted that their choices of mobile phones are dependent on sophisticated features (23.48%) and latest technology applied in the mobile phone (21.96%). Advertising also play an important role in understanding more about the features of a mobile phone users in which 22.34% of the respondents believed that mobile phone advertisement can provide adequate and useful information that could convince users on the phone usage and function. Please refer Table 3.

Table 3: Factors Affecting the Choice of Brand

Factors	Frequency	Percentage
Price	152	57.57
Nice design	143	54.16
Sophisticated features (sliding or flipping, size, data storage capacity, camera's mega pixel, etc.)	62	23.48
Latest technology applied	58	21.96
User friendly	84	31.18
Advertising	59	22.34

Limitation of the study

This study has certain limitations that one must consider when examining the relevance of the results. The first of these limitations deals with the generalisability of the sample. This study on the mobile phones buying behaviour of students may in fact be generalisable only to the sample used in this study. A second possible limitation is the cross-sectional analysis applied in this exploratory study, whereby, the main purpose is to examine students' mobile phones usage behaviour. Nevertheless, a longitudinal study could be more useful in explaining mobile phone user behaviour. Third, a more detailed questionnaire with inclusion of more specific factors could be more helpful in gaining better description of the stages of decision making in owning a mobile phone.

Conclusions and future research directions

The survey focused on mobile phone behaviour among students. Specifically, the students' mobile phone buying pattern, brand choice, and factors influencing the students decisions were examined. The analytical results are generally consistent with previous research by Dewenter *et al.* (2007) and Nurvitadhi (2004). It can be concluded that when individuals have more experience with mobile phone, the impact of factors on intention to buy mobile phones is different from that of the inexperienced mobile phone users.

Information obtained from experience over a period of time undoubtedly has the potential to modify the future of mobile phone buying behaviour. Therefore, experience gained over time has potential implications on buying behaviour model and future research should include this element in studying buying behaviour. Examination of different buying patterns should be carried out in different demographic background in order to increase market share in the different market segments. Thus, this study can be considered as an initial attempt in examining this issue.

Studies on the impact of different types of marketing campaigns on mobile phones buying behaviour on different segments should be carried out in an attempt to create a long lasting brand image. Finally, this study needs to be replicated in other demographic layout, and perhaps in other regions of Malaysia.

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