MOBILE PHONE FEATURE PREFERENCES AND CONSUMPTION PATTERN OF STUDENTS IN UNIVERSITY OF SARGODHA

Noureen Akhtar[†]

Department of Statistics, University of Sargodha, Pakistan

Samreen Saleem

Department of Statistics, University of Sargodha, Pakistan

Sadia Qamar

Department of Statistics, University of Sargodha, Pakistan

Muhammad Iqbal

Department of Statistics, University of Sargodha, Pakistan

Asma Shaheen

Department of Earth sciences, University of Sargodha, Pakistan

Tahir Mahmood

Department of Statistics, University of Sargodha, Pakistan

ABSTRACT

The use of mobile in Pakistan is growing with fast speed. Pakistan ranks fifth in Asia in mobile phone users as more than hundred million people are using mobile phones in the country. The youth is playing a vital role in adopting the ways towards the advancement of technology. Mobile youth market in Pakistan is saturated. The objective of this study is to investigate the preference of brands, network providers and purchasing features, account recharge, calling and text patterns of the students in University of Sargodha. For this purpose questionnaire was designed to collect the data from the sample size of four hundred respondents (students). Simple random sampling technique was used for this purpose. From this study we conclude that majority of respondents have started using mobile phone at the age of eighteen. Nokia brand is the most favorite brand and students mostly prefer moderate price while purchasing a cell phone. Mobilink is the preferred connection and considered as status symbol. Most of them weekly recharge their account and use easy load as medium of recharge. They make/receive 0-10 minutes calls and send or receive 31-100 text messages per day.

Keywords: Mobile phone, Students, Account recharge, Favorite brand, Simple random sampling.

1. INTRODUCTION

A mobile phone known as a cell phone and a hand phone is a machine which is used to receive and make telephone calls over a radio link. On the basis of comparison, a cordless telephone is used within the short range of a single private base station. The additional characteristics of the current cell phones is a wide range of services such as text messages, Internet access, Multimedia Messaging Service (MMS), Gaming, Photography, Business applications, Email and short-range wireless communications such as Bluetooth etc. Smart phones are the cell phones that deal these more general computing aptitudes.

Adoption of cell phones is classified into three schools of thought; adoption, diffusion and domestication (Ling and Yttri, 2002). Based on adoption and domestication schools of thought, Van Biljon and Kotzé (2008) described mobile phone adoption in an extended Technology Acceptance Model (TAM) framework where apparent usefulness in adoption is encompassed in a multi-dimensional setting in terms of income, gender and socio-cultural criteria.

Luxurious inventions in technological revolution are unbelievable. Within the Up-gradation of communication channels, upgrading the ways of communication among people which live thousands of miles afar from each other. In 19th century, fixed phone was invented but invention of a moveable cell phone was a new twist in the chain of technology development. Mobile phone technology is growing day by day. The first company which produced a handheld mobile phone was Motorola. In 1946, engineers of Bell Labs began work on a system and allow users of mobile to set and receive phone calls from automobiles. After this American Telephone &Telegraph (AT&T) offered cell phone service. In 1957-1961, engineer from Moscow developed a number of new models of handheld mobile phone as an experiment. The model which was offered in 1961 had weight only 70 g. Motorola company first time produced a handheld cell phone. In 1973 a Motorola engineer and executive, Martin cooper, made the first mobile telephone call and used prototype handheld phone, whose weight was 2.5 pounds, 9 inches long 1.75 inches wide and 5 inches deep. It takes30 minutes talk time and 600 minutes to recharge. Users keep looking for upgrading of models, network providers, brands and other mobile phone related accessories.

Globally there were 6835 million mobiles cellular subscription having 96.2% per 100 people. In developed nations 1600 millions and 5235 millions mobile cellular subscriptions. In Asia there were 3547 millions users of mobiles. Pakistan stood at 5th position in mobile phone users in 2009 while in 2012 she stood on 8th position having 120.5 million mobile subscribers (International Telecommunication Union, 2013). According to a report presented by Pakistan Telecommunication Authority (PTA) there are 68.6% mobile users in Pakistan.

In developing countries, the mobile technology has become more important for economic development. Rapid economic growth is the major reason for the growth of mobile phone industries in developing countries like Pakistan, China, India and Russia. For making mobile phone affordable to people, the mobile phone companies of these countries reduced the prices and tariff rates of handsets. People are taking it as a necessity of life rather than an accessory.

Modern technologies also have some adverse effects on society. Mobile phone users made use of this accessory beyond the limits and become addicted of this invention.

2. LITERATURE REVIEW

Many researchers have put forward the valuable features of mobile phone usage. According to Cova (1994), young people try to find social group recognition by using their cell phones. Chapman and Schofield (1998), Taylor and Harper (2001) and Carroll *et al.* (2002) declared that mobile phone usage increases the sense of security in case of emergency. The effective communication increase the output and mobile phone usage offers with modernized ways of communication among family members, colleagues and peer groups (Ling and Yttri, 2002).

Rice and Katz (2003) revealed that mobile phone usage is correlated with income, marital status and work status of the users. But some other studies proved an insignificant relationship among cell phone usage and gender of the mobile phone users.

Warner (2003) proposed that, youth use Short Message Service (SMS) to be in contact with their belonging and to feel their presence all the time. He depicted that most of the students made calls usually at night. Power and Horstmanshof and Power (2004) examined that cell phone provide the opportunity to the youngsters to create and maintain their relations with others. Prezza *et al.* (2004) stated that among youngsters, cell phone usage is independent of gender and socio-economic status.

According to Matthews (2004) about 85% of the youngsters, on the average made maximum 5 calls per day and used short messaging service (SMS) less than 5 times per day. McEvoy *et al.* (2005) stated that young people use cell phone while driving by ignoring their safety precautions and that put them at serious security risks.

Srivastava (2005) claimed that while attending the lectures students even use their cell phones. Markett *et al.* (2006) declared short messaging service (SMS) among students lead to improve learning in classroom during the lecture. According to Thompson and Ray (2007) safety of children must be highlighted when they are allowed to use cell phone because of a number of potential risks such as exposure and access to prohibited, damaging or adult material, bullying via mobile phone, uncontrolled expenditures etc. Chen and Katz (2007) declared that cell phone is a necessity for college students to be in contact with their family. Bianchi and Phillips (2005), Palen *et al.* (2008) declare that young people seem to be so passionate with using cell phone that they use their mobile phones at places where usage is prohibited such as hospitals, planes and petrol stations. . Older people are submissive users of cell phones as they face a sense of fear for getting well-known with new technological trends and devices (Kurniawan, 2008).

Niaz (2008) stated that extreme use of cell phone is a major cause of public health problem and awareness must be created in people. Walsh *et al.* (2008) conducted a qualitative research to find out the activities of young people concerning cell phone usage. Devis *et al.* (2009) studied the pattern of new technology usage among school students. They concluded that as compared to girls, boys spend more time on using cell phone. Also, youngsters spend more time on using cell phones on weekend than on casual week days. Ahmed and Qazi (2011) examine the mobile phone adoption and consumption patterns of university students. It focuses on consumer behavior on basis of brand preference of mobile handset, mobile operator and some ideal features but not their relative importance to make purchase decision. According to Nawaz and Ahmad (2012) young people use mobile phones in positive ways in order to organize and maintain their social networks however it also puts a negative effect on their close relationship.

3. RESEARCH METHODOLOGY

This study is about the buying and re-buying activities of cell phone; favorite connection, favorite brand; account recharge activities and Calling & Texting patterns of cell phone users in University of Sargodha. For this purpose questionnaire was designed to collect the data. Students were selected as population and simple random sampling technique was used to collect the data. Total respondent were 400.

4. CONCLUSION

From this study find that majority of respondents were between 17-30 years of the age. In this study majority (58%) of respondents were female while rest of the respondents (42%) were male. Classifications on the basis of educational qualification revealed that majority of respondents (52.5%) were from BS program, (42.75%) from Master's program while (4.75%) from M.Phil/Ph.D.(62.8%) of the respondent have1-5 educated family members while (37.2%) of the respondents have 6-10 educated family members.

Table-1. Univariate analysis of data.

Variable	Categories	Number	Percent
Age	17-23	360	90
	24-30	40	10
Gender	Male	168	42
	Female	232	58
Degree	Bachelor	210	52.5
	Master	171	42.75
	M.Phil/Ph.D	19	4.75
No. of educated family members	1-5	251	62.8
	6-10	149	37.2
Earning family members	1-2	297	74.2
	3-8	103	25.8
No. of Cell Phones in Family	1-6	313	78.2
	7-15	87	21.8
Age started using cell phone	10-17	100	25
	18	188	47
	19-25	11	27.8
	26-40	1	0.2
Cell Phone is	Necessity	186	46.5
	Make life easy	154	38.5
	Reflects social status	15	3.8
	Provide safety	45	11.2
First mobile phone brought by	Father	228	57
	Brother/Sister	91	22.8
	Self	58	14.4
	Other	23	5.8
Current mobile usage	0-2	215	53.8
	3-6	185	46.2
Mobile phone changed/ year	1-3	333	83.2
	4-6	67	16.8
Brand currently in use	Nokia	254	63.5
	Sony Ericson	13	3.2

Continue

	Black berry	21	5.2
	Samsung	31	7.8
	Other	81	20.2
Total brands in use	0-2	198	49.5
	3	116	29
	4 & above	86	21.5
Price	Low	68	17
	Moderate	275	68.8
	High	57	14.2
Design	Normal	58	14.5
	Good	189	47.2
	Better	153	38.3
Color	Normal	62	15.5
	Good	182	45.5
	Better	156	39
Useable Life	Less	37	9.2
	Normal	224	56
	Durable	139	34.8
Favorite Connection	Mobilink	136	34
	Ufone	111	27.8
	Telenor	88	22
	Warid	41	10.2
	Zong	24	6
Connection in use	Mobilink	127	31.8
	Ufone	119	29.8
	Telenor	85	21.1
	Warid	46	11.5
	Zong	23	5.8
Favorite Connection is current connection	Yes	300	75
	No	100	25
Reason for Connection Preference	Low rates	43	10.8
	Better coverage	113	28.2
	Better package	134	33.5
	Services	76	19
	Other features	34	8.5
Mode of recharge	Mobile card	82	20.5
	Easy load	196	49
	Both	122	30.5
Expenses per Month	0-200	160	40
	250-500	130	32.5
	600-1000	75	18.8
	1100-2000	18	4.5
	2100-4000	17	4.2
Duration of account recharge	Weekly	250	62.5
	Monthly	90	22.5
	After every 2 months	11	2.8
	other period	49	12.2
Calls made per day	0-10	251	62.8
	11-40	117	29.2
	41-180	32	8
Calls receive per day	0-10	236	59
	11-40	116	29
	41-180	48	12

Text receive per day	0-30	151	37.8
	31-100	161	40.2
	101-800	88	22
Text sent per day	0-30	152	38
	31-100	179	44.8
	101-1200	69	17.2

Distribution on the basis of earning family members revealed that (74.2%)of the respondents have 1-2 while (25.8%) have 3-8 earning family members. Majority of the respondents (78.2%) have 1-6 cell phones while (21.8%) have 7-15 cell phones in the family. From this study we conclude that (47%) of the respondents started using cell phone at the age of 18, (25%) between 10-17 years of age, (27.8%) between the age of 19-25 and (0.2%) between the age of 26-40.

According to most of the respondents (46.5%) cell phone is a necessity while others are of the view that it makes life easy, reflect social status and provide safety etc. 57% respondents stated that the first mobile phone was brought by their father, 22.8% respondents said that their first cell phone was brought by their brother/sisters,14.4% brought themselves and 5.8% asked that others have brought their first cell phone. Most of the respondents (53.8%) currently have 0-2 cell phones while (46.2%) respondents have 3-6 cell phones currently in use. When they were asked about the number of cell phone changed per year, (83.2%) of the respondents changed 1-3 mobile phones per year and rest of the respondents changed 4-6 cell phones per year. Nokia brand is their favourite brand as (63.5%) of the respondents prefer Nokia, (3.2%) prefer Sony Ericsson, (5.2%) prefer Black Berry, (7.8%) prefer Samsung and (20.2%) prefer other brands. Majority of the respondents (49.5%) have 0-2 brands, (29%) have 3 brands and (21.5%) have 4 or more brands currently in use.

While purchasing the cell phone (68.8%) of the respondents prefer moderate price cell phones, (17%) prefer low price and (14.2%) prefer high price cell phones. The study revealed that (47.2%) and (45.5%) respondents consider good design and good colour respectively. (56%) respondents gave preference to cell phones with normal life time. Mobilink is their favourite connection and most of the respondents have Mobilink connection currently in use as it's their favourite connection. They prefer Mobilink due to its better and attractive packages. Most of the respondents (49%) use easy load as a mode of recharge while rest of the respondents use mobile card or both services.

When asked about the estimated expense of mobile phone in a month, findings revealed that Rs. 0-200 is consumed by (40%); Rs.250-500 by (32.5%); Rs. 600-1000 by (18.8%); Rs. 1200-2000 by (4.5%) and Rs. 2500-4000 by (4.2%) of total respondents. When respondents were asked about the duration of their account recharge, (62.5%) of respondents informed that they weekly recharge their account, (22.5%) respondent monthly recharge their account while rest of respondents recharge their accounts on the other periods. Mostly they made or received 0-10 minutes call per day. The data about the number of text which the respondents received per day indicate that (37.8%) respondents received 0-30 text, (40.2%) respondents received 31-100 text and (22%) respondents received 101-800 text per day.(38%) respondents sent 0-30 text, (44.8%) sent 31-100 text and (17.2%) sent 101-1200 text per day.

4.1. Hypothesis Testing

For data analysis χ^2 test is applied to check the association between certain attributes.First of all we check the association between earning family members and cell phones in family. The results were highly significant which shows that there was association between earning family members and cell phones in family.

Table-2. Chi-square test of association between attributes

Attributes	Chi-square value	p-value	Conclusion
Earning family member and cell phone in family	42.78	0.001	Significant
Brand currently in use and age	2.95	0.566	Insignificant
Price and gender	3.424	0.18	Insignificant
Price and design	21.02	0.001	Significant
Expenses per month and gender	7.813	0.09	Insignificant
Duration account recharge and gender	24.28	0.0002	Significant
Mode of recharge and gender	23.099	0.0001	Significant

In order to check the association between brand currently in use and age, we observe that p-value (0.566) is statistically insignificant indicating that the two attributes are independent.The assocition between price and gender show that the two attributes are independent.

Concerning prices and designs of mobile phones, we have constructed the following hypotheses for the possible rejection or acceptance of H_0:

H_0: Price of the mobile is independent of the design of mobile

H_1: Price of the mobile is associated with the design of mobile

For the said purpose we applied the chi-square test of independence and the results are given in Table 2. We can see that the calculated value of $\chi^2 = 21.02$ and the corresponding p-value is0.001. Both of these values indicate that "prices of the mobile" are associated with the "designs of mobile". This shows that the students give significant importance to the design of the mobile while buying one so the companies should pay considerable attention towards the design of their mobile phones that are to be launched in future. While checking the association between expenses per month and gender, p-value (0.09) show that the results are insignificant which means that there is no association between expenses per month and gender. When we check the association between duration of account recharge and gender, we find that the two attributes are associated. By checking the association between modes of recharge and gender p-value (0.0001) concluded that the two attributes are highly associated.

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