Mobile Phone Adoption & Consumption Patterns of University Students in Pakistan

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Abstract
This study explores buying and re-buying activities of mobile phone; Preferences for Brands, Purchasing features and Network providers; Account recharge activities and Calling & Texting patterns of mobile phone users in Pakistan. For this purpose questionnaires were used as data collection tool. Students were selected as population and Simple random sampling technique was used consisting of 500 respondents as total sample size. 400 students responded back comprising 80% response rate for this study. This leads to conclude that mobile phone users in Pakistan are not exhibiting addictive or over excessive usage pattern of mobile phone; they are loyal customers of network providers, Nokia is their favorite manufacturing brand and U-fone is their favorite network provider and consider almost all features of mobile phone at the time of purchasing.

Key words: Mobile Phone, Buying and Re-buying factors, Brands, Purchasing features, Network providers, Account recharge, Calling & Texting patterns, students, professionals, Pakistan.

Introduction

Luxurious inventions are the miraculous output of technological revolution. Up-gradation of communication channels has given a new face to the ways of correspondence among people thousands of miles away from each other. Fixed telephone was invented in 19th century but invention of a "portable" cell phone was a fast turn into the chain of technological expansion. A furious growth can be seen into the development mobile phone technology. First official mobile phone was used in 1946 by Swedish Mobile and 1st strictly calling "portable cell phone" was created by company, Motorola, in 1983 (www.tech-faq.com). Afterwards, mobile phone usage proved to be contagious over period of time. Researches revealed that 1 billion mobile phone users were accumulated in 20 years after its creation but growth was so unbelievable that it took just 40 months to strap up another 1billion and then only 2 years to hit the 3.5billion users' mark (www.mobilephonereviews.org).

Every comfort introduced by technological development also brings some hostile impacts along with. Likewise, mobile phone technology has connected the masses in a magical way but its excessive usage has brought many negative implications as well. People are no more taking it as an accessory; rather it has been becoming a necessity of life. Users keep looking for upgrading of brands, models, network providers and other mobile phone related accessories. Users seem so obsessive about all mobile phone related activities that its usage is going beyond the limits of needs towards the spheres of addiction. Among the major non-drug addictions of this century, mobile phone addiction is becoming a powerful phenomenon as proclaimed by Psychiatrists. Economic loss and social isolation are the sufferings which an addictive victim passes through. They proposed that feeling an overwhelming need to use the cell phone for more than half an hour per day is the symptom of being mobile phone addict (www.smh.com.au). Excessive or obsessive use of cell phone leads to a mental disease "mobile phone dependence syndrome" as proposed by Yang. A drop in incoming calls or text causes the arousal of such symptoms especially among non-confident, unsociable and eccentric people. (www.timesofindia.indiatimes.com)

On the list of top 10 countries, Pakistan ranked 10th with largest number of mobile phone subscribers (www.blog.myxnote.com). An increase from 300,000 (2001) to 90 million (2008) in Pakistan has been observed (www.techlahore.com). Total mobile phone users were estimated to be 98 million in May, 2010 as per announcement made by Pakistan Telecommunication Authority (PTA). Mobile phone users were growing at a rate of 0.55% in April, 2010 and this rate increased to 0.72% in May, 2010 (Attaa). Mobile phone industry is one of the fastest growing industries of consumption goods. Its users are multiplying with each day passing and it encompasses almost all type of customer segments including not only students but professionals as well.

Hence, identification of usage patterns among mobile phone users in Pakistan is of immense significance with a special attention made to the students to explore their time management with regard to mobile phone usage and other important tasks to be performed in daily life so current study would be a value addition to this sphere of research.

Literature Review

Many researchers have put forward the advantageous aspects of mobile phone usage. This medium allows youngsters to develop new relationships and to sustain the older ones (Power and Horstmanshof, 2004). Many researchers proclaimed that in case of emergency mobile phone usage increases the sense of security (Chapman and Schofield, 1998; Taylor and Harper, 2001; Carroll et al. 2002). Mobility, access and expediency are the conveniences provided by mobile phone technology that youngsters use for their social fulfillment (Tjong et al. 2003). Mobility availed by using cell phones enable busy working parents to keep in touch with their children (Frissen, 2000; Matthews, 2004). Also, short messaging service (SMS) promotes interactivity among students and this leads to increased learning in classroom during the lecture (Markett, 2006). Mobile phone technology allows students to share their experiences with their families and to keep in touch with them. It provides them a mean to fulfill their family roles and to get emotional and psychic support from their families (Chen et al. 2007). Effective communication enhances the productivity and mobile phone usage provides with revolutionized ways of communication among colleagues, family members and peer groups (Ling and Yttri, 2002). Youngsters are very much keen about their acceptance in peer groups and they use mobile phone as a medium to get that recognition (Cova , 1994).

Despite of the above said upsides of mobile phone, many researchers have also emphasized on harmful and problematic aspects of using cell phones excessively among youngsters such as emotional stress, financial costs, falling literacy and damaged relationships (Bianchi and Phillips, 2005; Paragras, 2003; Monk et al 2004; Palen et al. 2001; James and Drennan, 2005). But Matthews (2004) found youngsters making maximum 5 calls per day on average. And majority of them (85%) used short messaging service (SMS) less than 5 times per day. Excessive mobile phone usage gives rise to serious social, health and educational hazards as well. A linkage has been observed between excessive cell phone usage and criminal activities such as fighting, theft, alcohol and use of narcotics (Ling, 2005). As far educational implications are concerned, study found that students keep using their mobile phone even while attending to their lectures in classrooms (Srivastava, 2005). Youngsters ignore their safety precautions and use cell phone while driving that put them at serious safety risks (McEvoy et al. 2005).

New generation seem to be so obsessed with using cell phone that they use their mobile phones even at places where usage is prohibited such as planes, hospitals and petrol stations (Bianchi and Phillips, 2005; Palen et al. 2008). Excessive usage brings financial worries and make adolescents financial indebted as a consequence (Griffiths and Renwick, 2003). Aoki & Downes (2003) found in a study conducted on U.S students that major strength of students are in a habit of making calls at night and this habit can go ahead to adverse outcomes such as sleep loss. It has been found in a study that youngsters desparately want to be in contact with their friends (Ito, 2006). They want to have a sense of presence f their belongings all the time and for this they use (SMS) short messaging service (Warner, 2003). Hence, it is need of the hour to spread awareness about the hazards caused by excessive mobile usage as it has become a public health issue (Niaz, 2008).

There must be some remedies and precautions adopted to prevent the mobile phone addiction among users and special care should be taken when it is about young people as they are the most vivid users of this technology. Older people are passive users of mobile phone technology as they face a sense of fear for getting familiar with new technological trends and devices (Kurniawan, 2008). Security of children must be emphasized when they are allowed to use cell phone because a number of potential risks (exposure and access to prohibited, damaging or adult material, bullying via mobile phone, uncontrolled expenditures etc.) they may face being active users of mobile phone technology (Thompson & Ray, 2007). In a qualitative research conducted by Walsh et al. (2008) it has been found that young people are obsessed with using their cell phones and often seen to show the symptoms of behavioral addiction.Various factors impact patterns and extent of mobile phone usage. In a research conducted by Devís et al. (2009), it has been found that time spent on using mobile phone by boys is far more than the girls'. Also, youngsters increase their mobile phone usage more weekends than the casual week days. Likewise, user's individual attributes (gender, age etc.) and personality traits have differentiated association with phone-related behaviors (Turner, 2008). Some other factors have also been found linked to the extent of mobile phone usage such as marital and work status, income etc. (Rice & Katz, 2003).

There are certain studies that have contradicted the above said associations. Like Prezza (2004) proposed that gender, socio economic status etc. are not associated with mobile phone usage among youngsters. Excessive usage of mobile phone has always been a topic of research in lieu of addiction perspective. Carbonell X et al. (2008) claimed that greater use of mobile phone does not bring about sudden and rapid emotional changes so it can be taken as abuse rather than addiction. In lieu of all the findings presented above, identification of usage patterns among mobile phone users in Pakistan is of immense significance with a special attention made to the students to explore their time management with regard to mobile phone usage and other important tasks to be performed in daily life. This study has been conducted to delineate these elements of mobile phone usage.

Research Methodology

This study identifies the buying and re-buying activities of mobile phone; Preferences for Brands, Purchasing features and Network providers; Account recharge activities and Calling & Texting patterns of mobile phone users in Pakistan. For this purpose questionnaires were used as data collection tool. Students were selected as population and simple random sampling technique was used consisting of 500 respondents as total sample size. 400 students responded back comprising 80% response rate for this study. To encompass all important activities related to mobile phone usage, Questionnaire was designed and major portion of questionnaire was taken from the research report conducted by Market Analysis & Consumer Research Organization (MACRO) in May, 2004. The overall reliability of the questionnaire was estimated to be 0.81. Then, collected data was analyzed using SPSS 17.0.

Findings of the Study

Table-1 shows the demographical factors of this study. Out of total respondents (400), majority were female (61.8%) and rest were male (38.2%). About 91% respondents were between 17-30 years of age and rest of respondents was lying above this age bracket with maximum age of 46 year. On the basis of educational qualification, 48.5% of the respondents were bachelors, 45.5% were of masters' level, 0 .2% were M.phil and 0.6% of respondents were having some other education. When asked about No. of family members 54.5% respondents were having 1-6 family members, 42.8% were having 7-12 and rest were having more than 12 family members (2.7%). 61% of respondents were having 1-5, while 39% were having 6-10 educated family members. When distribution was made on the basis of no. of earning family members 67.3% of respondents were having 1-2, while 32.7% were having 3-8 earning family members. 82.5% of respondents were having 1-6 mobile phones in their families while 17.5% were having 7-15 mobile phones in total in their families.

Table-1 Demographical factors of respondents

		Frequency	**Percentage**
Age	17-30	362	90.5
	31-46	38	9.5
Gender	Male	153	38.2
	Female	247	61.8
Degree	Bachelors	194	48.5
	Masters	182	45.5
	M. Phil	21	5.2
	Other	3	0.6
No. of family members	1-6	218	54.5
	7-12	171	42.8
	More than 12	11	2.7
No. of educated family members	1-5	244	61
	6-10	156	39
No. of earning family members	1-2	269	67.3
	3-8	131	32.7
No. of mobile phones in family	1-6	330	82.5
	7-15	70	17.5

Table-2 shows the buying and re-buying activities of mobile phones. When respondents were asked about the age at which they started using mobile phone, 52% of respondents had started using it between 10-18 years of their age, 40% did between 19-25 years and only 8% were those who started its usage at or after 26years of age. The findings revealed that majority (47.8%) of 400 respondents claimed that having a mobile phone is a necessity, 31.8% said that it makes life easier, 11.7% claimed that it is a sign of social status and 8.8% say that having it provides safety to them. The findings revealed that 46.9% of 400 respondents say that their father bought them the first mobile, 26.2% say that their brother/sister bought them, 19.5% say that themselves have bought and 7.2% say that others have bought them the first mobile. When asked about the type of customer, 83.5% of 400 respondents were prepaid user and 16.5% were post paid user. Respondents were asked about the total no. of mobiles changed since started first mobile phone. In response to this 92.5% of respondents claimed that they had changed 1-5 mobile phones while 7.5% had changed 6-20 mobile phones. When respondents were inquired about the time duration after which they change the mobile phone, 92.5% of respondents mentioned 1-3 years while 7.5% declared duration of 4-6 years. An inquiry was made to ask about the duration of mobile phone in use. 77.8% respondents claimed 0-2 years while 22.2% respondents mentioned duration of 3-8 years since when they are using their mobile phone currently in use.

Table-2: Buying and Re-buying Activities

		Frequency	**Percentage**
Age at which started using mobile phone (years)	10-17	106	26.5
	18	102	25.5
	19-25	160	40.0
	26-40	32	8.0
Having a mobile phone	Is necessity	191	47.8
	makes life easy	127	31.8
	Reflects social status	47	11.7
	Provides safety	35	8.8
Customer type	Pre-paid	334	83.5
	Post-paid	66	16.5
First mobile phone brought by	Father	188	46.9
	Brother/Sister	105	26.2
	Self	78	19.5
	Other	29	7.2
No. of mobile phones changed	0-5	370	92.5
	6-20	30	7.5
Duration of current mobile usage (years)	0-2	311	77.8
	3-8	89	22.2
Duration after which mobile phone is changed (years)	1-3	370	92.5
	4-6	30	7.5

Table-3 shows the brand preferences of mobile phone users. Finding revealed that 72.2% used Nokia mobile phone, 6.8% used Sony Ericsson, 4.0% used Motorola, 2.5% used Black Berry, 3.8% used Samsung, 4.0% used LG and 6.8% used cell phones manufactured by some other brand. When asked about brand switch, 52.4% of the 400 respondents said that yes they have switched the brand and 47.6% said that they did not switch the brands. Respondents were also inquired about total no. of brands they have used, 77% used 0-2, 13.5% used 3 while 9.5% used 4 or above cell phone brands.

Table-3: Brand Preferences

		Frequency	Percentage
Brand currently in use	Nokia	289	72.2
	Sony Ericsson	27	6.8
	Motorola	16	4.0
	Black Berry	10	2.5
	Samsung	15	3.8
	LG	16	4.0
	Other	27	6.8
Brand Switch	Yes	210	52.4
	No	190	47.6
No. of total brands used	0-2	308	77
	3	54	13.5
	4 and above	38	9.5

Table-4 shows the description of features which are considered when mobile phones are purchased. The findings revealed that 53.8% of the 400 respondents claimed that consider the price of mobile phone while purchasing a mobile phone; 50% consider design; 49.8% consider the color; 42.0% consider sound; 62.0% consider the brand; 43.2% consider useable life; 60.0% consider the durability; 40.0% consider the size; 21.0% consider some other features of mobile phone while purchasing a mobile phone.

Table-4 Purchasing features' Preferences

		Frequency	Percentage
Price	Yes	215	53.8
	No	185	46.2
Design	Yes	200	50.0
	No	200	50.0
Color	Yes	199	49.8
	No	201	50.2
Sound	Yes	168	42.0
	No	232	58.0
Brand	Yes	248	62.0
	No	152	38.0
Useable life	Yes	173	43.2
	No	227	56.8
Durability	Yes	240	60.0
	No	160	40.0
Size	Yes	160	40.0
	No	240	60.0

Table-5 shows the mobile phone users' preferences for network providers. When respondents were asked about the connection in use, findings revealed that 17.2% of 400 respondents use Mobilink, 33.1% use U-fone, 16.0% use Telenor, 27.0% use Warid and 7.5% use Zong as service provider. When asked about all connections in use respondents claimed that 26.8% of 400 respondents have Mobilink, 42% have U-fone, 33.0% have Telenor, 40.0% have Warid and 24.8% have Zong sim-cards. When asked about their favorite connection, 20.2% of 400 respondents claimed that Mobilink is their favorite service provider; 24.8% mentioned U-fone; 23.5% claimed Telenor; 25.8% claimed Warid and 5.8% mentioned Zong as their favorite service provider. When findings were compared on the basis of connection in use and favorite connection, a variation of 2-3% has been observed for both dimensions. The findings revealed that 17.4% of the 400 respondents claimed that they like their favorite service provider because of low rates, 27.5% say due to better coverage, 35.5% say due to better packages,13.5% say due to services and 6.0% say that due to other reasons they like their favorite service provider. The findings revealed that 37.8% of the 400 respondents say that they face rates problems from their current service provider, 18.8% says that they face coverage problem, 11.5% say that they face packages problem, 1.2% say that they face services problem and 20.8% say that they face other problems. The findings revealed that 20.7% wants to switch to other connections and 79.2% do not want to switch. This means most of the respondents are loyal to their current network connection.

Table-5 Network Providers' Preferences

		Frequency	**Percentage**
Current connection	Mobilink	69	17.2
	U-fone	129	33.1
	Telenor	64	16.0
	Warid	108	27.0
	Zong	30	7.5
All connections in use	Mobilink	107	26.8
	U-fone	168	42
	Telenor	132	33
	Warid	161	40.2
	Zong	99	24.8
Favorite connection	Mobilink	81	20.2
	U-fone	103	25.8
	Telenor	94	23.5
	Warid	99	24.8
	Zong	23	5.8
Reason of connection preference	Lower rates	70	17.4
	Better coverage	110	27.5
	Better packages	142	35.5
	Services	54	13.5
	Other features	24	6.0
Problem with current connection	Rates	151	37.8
	Coverage	75	18.8
	Packages	46	11.5
	Services	45	11.2
	Other problems	83	20.8
Do you want to switch to another connection	Yes	83	20.7
	No	317	79.2

Table-6 shows account recharge activities of mobile phone users. When asked about the estimated expense of mobile phone in a month, findings revealed that Rs. 0-200 is consumed by 42%; Rs.250-500 by 32%; Rs. 600-1000 by 19%; Rs. 1200-2000 by 5.8% and Rs. 2500-4000 by 1.2% of total respondents. The findings revealed that 36% of 410 respondents say that they use mobile cards to recharge, 32% say that they use easy load and 32% say that they use both the modes to recharge. When asked about the duration after which they recharge their account, 14% of 400 respondents claimed that they daily recharge their accounts, 59.2% do it weekly, 16.2% told that they monthly do, 1.2% told that they recharge their accounts after every 2 months and 9.2 affirmed that they recharge their account on some other time basis. Respondents were also asked that their mobile phone bill is paid by whom. The findings revealed that 52.7% of 400 respondents claimed that they pay for their mobile phone themselves, 29.5% say that their father pay, 7.8% say that their brother/sister pay, 3.0% say that their company pay and 7.0% say that their mobile phone bill is paid by some other source.

Table-6 Account Recharge

		Frequency	Percentage
Estimated expenses per month (Rupees)	0-200	168	42.0
	250-500	128	32.0
	600-1000	76	19.0
	1200-2000	23	5.8
	2500-4000	5	1.2
Mode of recharge	Mobile card	144	36
	Easy load	128	32
	Both	128	32
Duration of account recharge	Daily	56	14.0
	Weekly	237	59.2
	Monthly	65	16.2
	Every 2 months	5	1.2
	Other period	37	9.2
Mobile phone expenses paid by	Self	211	52.7
	Father	118	29.5
	Brother/Sister	31	7.8
	Company	12	3.0
	Other source	28	7.0

Table-7 shows the calling and texting trends among mobile phone users. The findings revealed that 56.5% of 400 respondents claimed that 50% of the calls made by them are to their family, 10.0% claimed 33% of calls, 9.8% make 25% of total calls, 15.5% made 20% of calls and 8.2% claimed less than 20% of total calls are directed to their families. When asked about total minutes consumed in outgoing calls, findings revealed that 0-10minutes are consumed by 58.8% of total respondents. 22.0% consumed 11-40 minutes, 16.4% consumed 41-180 minutes and 2.8% of respondents made calls of 181-700 minutes a day.

Table-7 Calling & Texting patterns

		Frequency	Percentage
Calls directed towards Family (Out of total calls)	50%	226	56.5
	33%	40	10.0
	25%	39	9.8
	20%	62	15.5
	less than 20%	33	8.2
Calls made per day (Minutes)	0-10	235	58.8
	11-40	88	22
	41-180	66	16.4
	181-700	11	2.8
Calls received per day (Minutes)	0-10	185	46.2
	11-40	148	37
	41-180	57	14.3
	181-800	10	2.5
Text Received per day	0-30	197	49.3
	31-100	130	32.5
	101-300	61	15.2
	301-1000	12	3.0
Text Sent per day	0-30	220	55.0
	31-100	117	29.2
	101-300	51	12.8
	301-1200	12	3.0
Internet usage on mobile phone(Hours)	0-2	211	52.7
	3-10	118	29.5

When asked about total minutes consumed in attending incoming calls, findings revealed that 0-10minutes are consumed by 46.2% of total respondents. 37% consumed 11-40 minutes, 14.3% consumed 41-180 minutes and 2.5% of respondents received calls of 181-800 minutes a day. After this, respondents were asked about the no. of text messages they send or receive in a day. Findings show that 49.3% of respondents receive 0-30 messages, 32.5% receive 31-100 text messages, 15.2% receive 101-300 text messages and only 3% receive 301-1000 messages in a day. 55% of respondents send 0-30 messages, 29.2% send 31-100 text messages, 12.8% send 101-300 text messages and only 3% send 301-1200 messages in a day. Respondents were also asked about the internet usage via their cell phones. 52.7% of respondents claimed that they use their mobile phone to avail internet facility for 0-2 hours per day and 29.5% of respondents used their mobile phone for 3-10 hours a day for this purpose.

Conclusion

Findings suggest that ***majority of mobile phone users***: have started using mobile phone at *10-18 years* of their age; consider mobile phone as *necessity of life*; are *prepaid users*; have been provided with their first cell phone by their *father*; have *changed 0-5* mobile phones, have been using current mobile phone since *last 2years* maximum; change their cell phone *after 1-3 years*; use Nokia handsets; change maximum *2 brands* of mobile phone; show a range of 40-60% while considering all features of mobile phone at the time of purchase; use *U-fone* as their favorite and most used service provider; like to use U-fone because of its *attractive packages*; are loyal customers of their respective connection providers; spend *Rs. 0-200 monthly* on using cell phone; use *mobile cards* as medium of recharge; pay their mobile expenses themselves; make about *50% calls* directed towards their families; send or receive *0-30 text messages* a day; make/receive calls of *0-10 minutes* a day and spend *0-2hours* a day to avail internet facility via their cell phones. This leads to conclude that mobile phone users in Pakistan are not exhibiting addictive or over excessive usage pattern of mobile phone; they are loyal customers of network providers and consider almost all features of mobile phone at the time of purchasing.

Limitations and Future Implementations of the Study

This study focuses to explore some horizons that are not being in consideration by researchers. It covers the consumption patterns of mobile users. It spotlights on both the service preferences and mobile phone preferences of the users in Pakistan. Very few studies are available considering both the dimensions that are covered in the present study. This study is still limited to only 400 users, in order to get in depth view point and preferences of customers it can be broadened by selecting higher sample size. So suggesting the future implementation of the study it should be repeated with larger sample.

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