

## Impact of Increased Cellphone Usage in Youth

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### Abstract:

*Without cell phone student life looks almost unthinkable. The present study explores usage of cell phone among university students. Use of cell phone is very common among students and it has been shading great impact on their academic performance, health and expenses. Male students spend more time on dialing and receiving calls than females, also both spend a lot of but equal time on sending and receiving SMS. Students' live in hostel use cell phone more than day-scholars. Significant association exists between family monthly income and average expenses of cell phone usage. As cell phone is necessary for students but also become a cause of disturbance in the class. There is also significant association between service packages with average monthly expenses of cell phone and subscription of low rate packages. Association exists between use of late night call packages and adverse effects. Late night call packages' lacks mental freshness, consistently usage of phone effects on health by playing games on cell phone damages our eyesight. There is also an association exist between traffic accidents and disobeys the traffic rule during driving by using cell phone. Five factors were extracted by using factor analysis, namely; Negative impacts, Driving disturbance, Mobile Dependency, Adverse Effect on health, Cost efficient.*

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**Key words:** Cell phone; Gender; Usage pattern; Adverse effect; Factor analysis

## **1. Introduction:**

Now in modern society cell phone has become a vital communication device all over the world. From last ten years, it increasingly becomes a popular technology for people of various ages especially for college and university students. Our young generation tends to be more addicted of cell phone. In 2001, mobile phone subscriptions became less than one billion over the world and a major contribution in this amount was from developed countries and at the end of 2010 the subscription was reached at five billion but now developing countries were contributing more than developed countries (Hakoama & Hakoyama, 2011). The highest growth occurred in developing nations like Iraq, Libya, Turkmenistan, Tajikistan, and Afghanistan (Haverila, 2013). The usage of cell phone has change very fastly. If we look back in 1980s, the cell phones were used only for business purposes and in 1990s the culture of SMS came out. The new form of cell phones with the usage of video, camera phones and even capabilities of broadcasting emerged during 2000s (Kangas, Lundvall, & Sintonen, 2008). Now these days, cell phones are in forms of mini computers with lot of apps which cover every aspect of communication and entertainment. Now it depends on us that how we use it, if we utilize it in right way we can solve our problems otherwise it effects on our life in various aspects. In modern society, medium habits of students are different from the old age people meaning that students of age category less than 25 be wont to use internet, play games and much more. University students seem to be sensible and careful to acquire supreme benefits from this technology which was a dream 25 years ago, but a reality now. They make communication with their teachers and class mates. If the students use it wisely and properly then they can improve their education and build a better future for themselves.

Improper cell phone usage effects on users' life, on mental freshness and most importantly it kill our time in form of call and SMS packages.

The prime aim of this study was to determine usage pattern of cell phone among students, see if there is any gender difference in the cell phone usage (regarding call receiving ,dialing, sms sending and receiving) and also assess the frequency of cell phone usage among students and its impacts. We organized our study as follows; in first step we tried to give some information about cell phone improvements in its shape and its usage, secondly discuss some past studies in form of literature. Step third about material and methods and fourth section discuss the interesting results and in lastly discuss the previous studies.

## **2. Background:**

Cell phones are used for lot of purposes to satisfy the requirements of users. Usage depends on social interactions, information purpose, security and safety, communication with family and friends and everyday management life even for health services (Loo, 2009). According to (Ansari, 2007) there were number of negative and harmful impacts and effects on students study performances, including the wastage of time and money. The too much use of Mobile phone vibration may be harmful for human health. Research indicates that cell phones are a pervasive communication technology among society, especially among college students. A study was conducted according to psychological perspective and behavioral usage pattern of cell phones of college students. Respondents use this device for time management; keep in touch with family, friends and colleagues and for financial benefits (Aoki & Downes, 2003). In 2011 (Hakoama & Hakoyama, 2011) studied the impact of Cell Phone usage and its development among students. Gender differences were exposed the different aspects

of cell phone usage, where else females were more dependent on the cell phone for sustain their social relationships. By using the cell phone young generation becoming more relay on their parents economy. Cell phone use during driving has taken many human lives. Passion of text messaging has lots of effects especially among youngsters.

University students can share useful information with their classmates and teachers by proper utilizing this technology. Female students belong to distant areas feel secure and their parents can contact them any time. Authors also focused that students misused it in sense of make long time calls (Javid, Malik, & Gujjar, 2011). Cell phone usage and its impacts on students were also focused by (Nysveen, Pedersen, & Thorbjørnsen, 2005). The study suggested that students use mobile chat services, social norms and essential intentions such as enjoyment, were important elements of intent to use among female users. Zulkefly & Baharudin, (2009) determined the use of cell among students to maintain communication with family and friends. Average spend time on cell is 6 hours daily and text message was the most used feature, male students were more interested in features of sending MMS & using GPRS from mobiles. High class family students spent more time and money on mobile phone, also there is association exists between mobile phone use and psychologically adverse impact on students' health.

Zaman & Khan (2011) focused on impact of mobile phone on the personal, financial, psychological, physical, educational and social life of students. Majority of students have said that mobile phone has increased social and psychological problems. Generally they spend on average of 250-600 rupees monthly and these expenses were generally paid by their parents. Haverila, (2013) also investigate gender differences regarding cell phone usage. Female students seem more significant to listen to the music and spend time on using internet than the males. While on the other hand male

respondents use business services. Interestingly significant relationship found with the usage of the games, but the correlation was quite low. Mobile phones usage during driving among students becomes a common sight these days. Majority like 66.6% students' used mobile phone during driving whereas the male drivers more often to use. They suggest policy maker to design specific campaigns to minimize this dangerous behavior (Isa et al., 2012).

### **3. Methodology:**

Our focus was to found cell phone usage behavior of university students', how frequently they used, what the purpose are behind and how cell phone usage influence on their personal and university life. A sample of 300 students was selected by using stratified sampling from twelve faculties of Punjab University considering as stratum. We divide the sample size in these twelve faculties by using proportional allocation. For analysis purpose, in first phase frequencies obtained and in second step we apply chi-square test that has been used to explore associations, t-test for purpose of means comparison. We also perform factor analysis for purpose of data reduction and extraction of meaning full dimensions.

### **4. Results:**

We found from the sample of 300 students, 153(51.0%) were females and remaining males. Majority of selected students in our sample were day scholars 200(66.7%), 74(24.7%) of the students family monthly income was less than 25,000, 107(35.7%) family monthly income 25,000 to 40,000 and 119 (39.7%) students family monthly income above 40,000. When question asked about father occupation then 106(35.3%) of the respondents are said their father work as a Govt. employee 102(34.0%) said their father serves in a private sector,

71(23.7%) have develop their own businesses and 21(7.0%) students said their father have been died and in an academic categorization majority 218(72.7%) students are studying in semester system and remaining an annual system.

Out of 300 respondents, 31(10.3%) of the students are using postpaid service packages and 269(89.7%) students use prepaid packages. About students monthly expenses of cell phone, 127(42.3%) of the students are said that their monthly cell phone expenses are below Rs. 250, 94(31.3%) committed their monthly cell phone expenses in range of RS. 250 to 500 and 79(26.3%) students monthly cell phone expense are above Rs.500. We compute the average standard deviation, minimum and maximum range of continuous variables which is, average age of students is 22.42 (Min. = 17, Max. = 28, S.D = 1.79), average CGPA is 3.0417 (Min. = 1, Max. = 4, S.D = 0.54701), average number of received calls 4.56 (Min. = 0, Max. = 15, S.D = 3.3), average number of dialed calls 5.58 (Min. = 0, Max. = 25, S.D = 5.7), SMS sending 116 (Min. = 0, Max. = 500, S.D = 143) and receiving were 122(Min. = 0, Max. = 500, S.D = 142) were respectively. We found interesting information when we ask a question about “how mobile phone is necessary for students” then majority of students agree about this statement and equal number of males and females.

#### **4.1. Chi-square Results**

There is highly significant association (p-value = 0.001) between family monthly income and average expenses of usage of cell phone. Cell phone is necessary for students but it is also a cause of disturbance in the class, are also associated. There is significant association (p-value = 0.048) between service packages used and most part of pocket money spend on cell phone, and the average monthly expenses of cell phone and subscription of low rate cell phone packages. There is also association (p-value = 0.029) between usage of late night call packages lacks mental freshness and cell phone cause adverse

effect on health. There is significant association (p-value = 0.035) between subscription low rate cell phone packages and mobile cause adverse effect on health. There is also association (p-value = 0.038) between usage of cell phone for playing games and causes bad effect on users eyes. There is association (p-value = 0.000) between most accidents happen due to the use of cell phone during driving and disobey the traffic rules during driving by using cell phone.

#### **4.2. *Independent sample t-test Results:***

The results of independent sample t-test for gender difference were found statistically significant according to number of SIMS students currently have which have an average number of dialed and receive calls and in this matter males' means were higher than females. We found insignificant gender difference for average number of sending and receiving messages. For students currently residents and number of SIMS have an average number of dialed and receive calls which are statistically significant and on average, the hostlite students have more number of received and dialed calls than day-scholars.

#### **4.3. *Factor Analysis***

The exploratory factor analysis with method of principal component, extraction method was used with Varimax rotation on 15 questions which explained 55.58% total variation and five factors were extracted. Reliability of whole questionnaire was 0.75. The factor loadings presented in table 1. First factor namely "Negative impacts" consist of four items, similarly factor two and three namely known "Driving disturbance", "Mobile dependency" consist of three items. Similarly the factor four and factor five namely "Adverse Effect on health" and "Cost efficient".

**Table 1:** Factor analysis results for cell phone usage

Factors	Factor Loadings
<b>Factor (1); Negative impacts</b>	
Late night call packages have adverse effect on the moral character of students	0.685
Student who uses late night call packages has lacks mental freshness	0.696
Mobile phones creates disturbance in the class	0.656
Cell phone use has restrained students from their study	0.624
<b>Factor (2); Driving disturbance</b>	
Most accident happens due to the use of cell phone during driving	0.747
Students disobey the traffic rules during driving by using cell phone	0.867
<b>Factor(3); Mobile Dependency</b>	
Cell phone is necessary for a student	0.702
SMS packages offered by the cellular services are beneficial for the students	0.662
SMS packages are useful for students	0.717
<b>Factor (4); Cost efficient</b>	
Most of pocket money is spent on your cell phone	0.787
You subscribe low rate cell phone packages	0.467
Use of cell phone for playing games	0.480
<b>Factor (5); Adverse Effect on Health</b>	
Cell phone causes adverse effects on your health	0.582
The use of cell phones can overcome the depression	0.654
Cell phone causes bad effect on user eyes	0.646

Total variation = 55.58%; KMO = 0.70; Rotation = Varimax

## Discussion and Conclusion:

In this study we try to discuss some features of cell phone usage among students. How frequently they use cell phone and purpose of using it. A number of past studies have already done on usage of cell phone, its positive and negative aspects discussed and we can see cell phone is beneficial for students especially those who live away from their homes in hostels. Now in modern society cell phone is looking very popular among male and females. We mainly focused to find gender based comparison and our study explores that male users on



average, spend more time on dialed and receive calls than females. But it is very interesting that they have on average equally sent and receive number of SMS. If we compare this result with past studies we found that males and females have no differences for the use of cell phone services usage like SMS, calculator, picture viewing, and playing games and MMS. For traditional call receiving and dialing, females were higher than their counterparts; they use cell phone for communication purpose more than males (Rakow and Navarro, 1993; Skog, 2002; Jackson et al., 2001; Henderson et al., 2002). These findings were also consistent with prior findings of (Zelinski, Gilewski, & Schaie, 1993), with respect to gender age group and found, female participant's means were significantly outperformed than males and they did not find significant difference with different age group students.

Study also illustrates that students feel, cell phone is necessary for them and they also in favor of low rate call packages and messages, associated with mental health which have adverse effect on their health and mental freshness. Cell phone creates disturbance in class during lectures, also cell phone usage significantly associated with bad effects on eyes. Golmohammadian, Yaseminejad, & Naderi, (2013) found significant opposite relation between cell phone usage and student's quality of life which based on dimensions; physical functioning, bodily pain, role-physical, general health, social functioning and role emotional. Lepp, Barkley, Sanders, Rebold, & Gates, (2013) also studied that cell phone usage was negatively correlated with study performance as well as with physical and mental freshness. We found that Students' pocket money, call and SMS packages were associated and student's parents' monthly income and students' cell phone usage were associated. During driving cell phone usage mostly used and become the reason of accidents and force the persons to disobey traffic rules.

Finally we can say that the tradition of mobile phone is exceptionally common among students and it has been shading immense impact on their expenses, nevertheless mobile phone is deteriorating their health and academic performance. Also mobile phone is affecting Urban as well as rural students. There is no differentiation of impact on the basis of gender, demographic and location.

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