

## Study of Impact of Uses Smartphone - Special Reference to State of Rajasthan

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### ABSTRACT

Media technology has become integral part of children's lives in the twenty-first century. The world of electronic media is changing with a fast pace. After television it has joined by many other media resources like cell phones (mobile), iPods, video games, messaging, social networks sites and e-mail. Usage of mobile phone and its effect on subjective wellbeing of the participants is a very recent and emerging research especially in India. But still very few researches focus in the areas of concern. The current study examined the impact of smartphones on social behaviour and relationships, investigating smartphone use, phone etiquette, face-to-face communication and computer-mediated communication. This study is important in providing the outcome of smartphone use either it is positively or negatively effecting human life.. In our study we have taken 600 participants/respondents for the sample, and our study reveals that the positive impact of smartphone on the social, common life of general users of India. In conclusion, smartphones undoubtedly have both positive and negative influences over users and it would be valuable research focused on the possible reasons for this.

**Keywords:** Smartphone, iPods, Communication Technology, social and human behavior, impact of smartphone

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### INTRODUCTION:

It is interesting to note that not only the young generations even the dependency of the senior citizen on smart phone has increased and studies reveal that senior citizen also considers mobile phone as an appealing device instead of a distraction. On an average half of the population of India spends more than 4 hours on the mobile phone. Study conducted for observing the usage of smart phone by senior citizens in India show that most of the users consider checking their smart phone as the main thing and do it with in 15 minutes of waking up. Users are addicted for browsing internet, using social media sites, playing games, checking whatsapp and chatting.

Internet access through mobile phone is rapidly increasing and instead of using internet on PCs and laptops, people prefer to use mobile phones due to various significant reasons like portability, ease of access and so on. Use of internet through mobile phone has brought a sort of digital transformation in digital growth of the country. In India, 73 percent of total web traffic is found to be due to internet usage on mobile phones. This rise in number of mobile phone users is due to two main reasons: First is the easy availability of mobile phone devices at affordable rates and second is the investment made by Indian government on development of telecommunication sector after realizing the significance of this sector in overall growth and development of this particular field and that of overall country's economy. Furthermore, country has scope of tremendous growth in number of app downloads and increase in mobile application sector. Study suggest that by the year 2023, nation will have 46.2 billion downloaded apps which would be more than double as compared to the statistics of 2018 which was 20.7 billion app downloads in 2018.

Studies [1-2] have been reported and examined the health impacts of mobile phone utilization on different ages. It was led among the students who were confessed to seek after proficient courses in schools arranged in metropolitan setting. Students of both the genders were taken as subjects for the investigation and their ages were in the middle of 17 to 23. A self-managed, pre-trying survey, in which a couple of normal negative mental and actual wellbeing side effects ascribed to phone utilization were incorporated, was controlled with the subjects [3]. The outcome demonstrated that 96.1% of the subjects had smart phone and they use phone most of the time. 51.47% subjects had migraine, while 50.79% had anger and frustration followed by 32.19% had body hurts, 36.51% had eye strain and 13.8% had computerized thumb. Subjects additionally revealed some different indications of mental health, for example, tension, sleep deprivation, absence of fixation and helpless scholarly execution and so forth likewise; accidents were accounted for utilization of smart phone at the time of driving. Adverse effects of smart phone usage are multifold and it is important to use smart phone cautiously. Addiction to mobile phone has seen so commonly that people started feeling stressed without their smart phone [4]. Addiction is at such a high rate that people tends to be connected and looking at mobile phones till going to bed and first thing they use after getting up in the morning is mobile phone. Research studies also reveal that many of the smart phone users access the mobile phone even in the mid night in between their sleep hours. Such kind of behavior, usage and dependency on mobile phone is the cause of stress and disturbance in the life of the individuals and they could not enjoy the peace and sound sleep. High dependency on the smart phone make people slave of this device and they could not do anything without this device [5–6].

According to studies reported in [7–10] Mobile Phone Usage on Humans, there are various negative effects of excessive mobile phone usage on human health. The research is grounded upon the quantitative investigation directed to amalgamate the results on unnecessary use of cell phone from the clinical specialists. The review poll comprises of five inquiries alluded to the subject which sufficiently covered the information related with the cell phone gadgets and the effect that they make in the human actual structure [11].

## RESEARCH PROBLEM, METHODOLOGY AND DATA COLLECTION:

### a) PROBLEM

The present study is aimed to assess and analyze the impact of uses of smart phone's technology and analyzing the human behavior in its context and relation. Jaipur zone of Rajasthan state is selected for this study. The main objectives of the research work are to demonstrate the positive and negative impacts of the uses and misuses of mobile phones on society with 06 manifolds as explained in this study:

1. To recognize the uses of Smart phone's and Mobile Phone by members of the society and their impacts on the social aspects.
2. To identify the reasons for gaining mobile phones techniques (why people use these techniques).
3. To find the disadvantages of the use of Mobile phones in all areas of life.
4. To be aware of the ideas spreading among members of the society about the positive and negative impacts of Smart phone's and Mobile Phones
5. To realize the impacts of Smart phone's and Mobile Phones on the family relations, family budget and children's achievements.
6. To be familiar with the family's role in reducing the risk of Smart phone's and Mobile Phones.

### b) METHODOLOGY:

Three types of families representing high, middle and low social class backgrounds were selected from Rajasthan States. A total of 600 peoples, from age 15 to 60 were from different family set up from 05 district of Rajasthan were participated in the present study. The participants were set ups were from 15 to 60 years were subdivided into 4 groups as (A) 16 years to 24 years (B) 25 to 35 years (C) 36 to 45 years and (D) 46 to 60. The sample size and design for all the four categories as explained in Fig. 1.

A total of 600 participants randomly selected for the present study. They were all belonging to four age groups A, B, C and D. Out of total participants (N=600), 150 participants were chosen for each age group. Further according to the gender wise distribution of the participants, it is found that from the age group of A age group (n1=150), 104 (69.33%) were male followed by 46 (30.67%) were the female participants. Similarly for all age group the data for female and male participants are tabulated in Table 1.

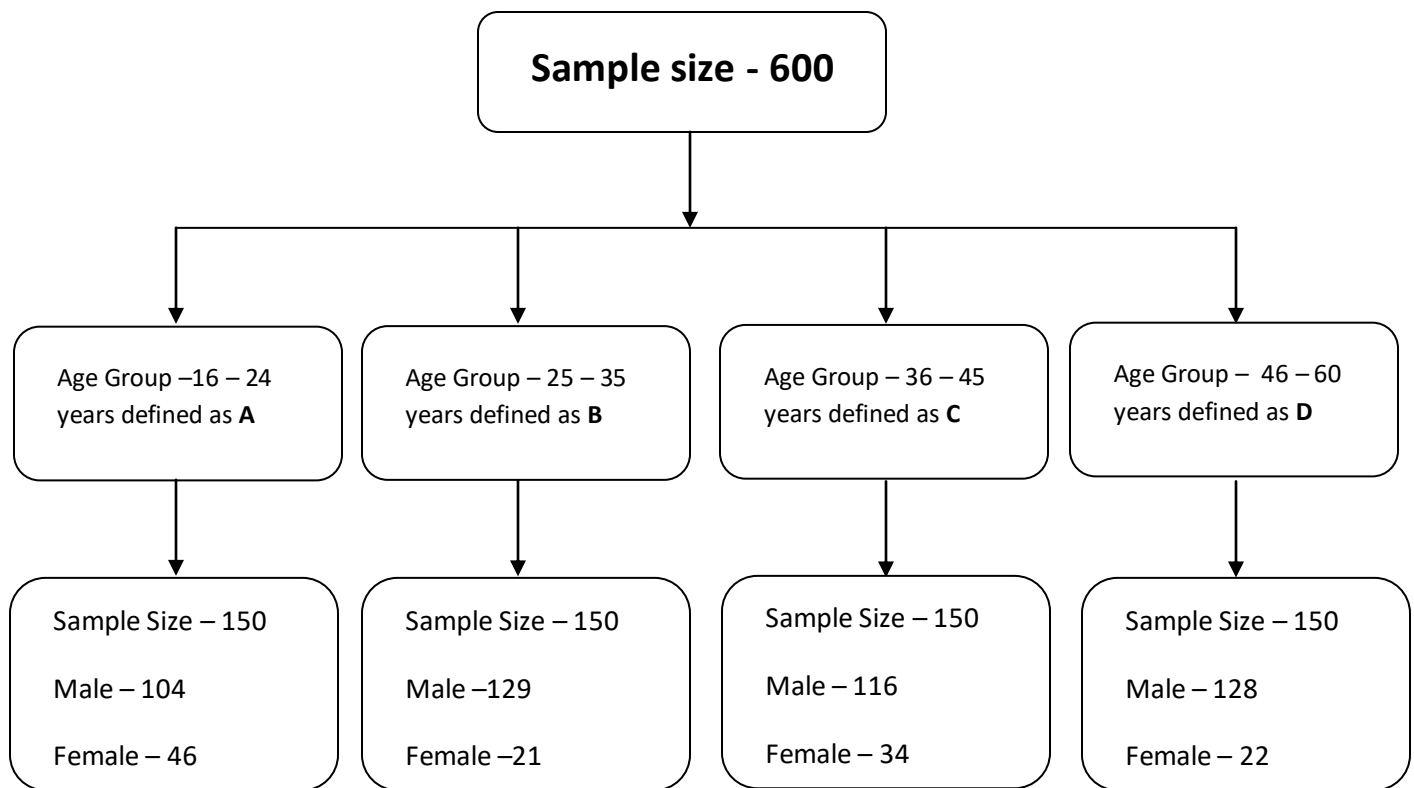


Fig. 1: Methodology for distribution of Sample for 600 participants.

TABLE 1: 600 participants' age and gender Wise Distribution

Age Group with Age	Gender	Participants / Respondents	Percentages
A – 16 to 24 years	Male	104	69.33
	Female	46	30.76
	Total	150	
B – 25 to 35 years	Male	129	86.00
	Female	21	14.00
	Total	150	
C – 36 to 45 years	Male	116	77.33
	Female	34	22.67
	Total	150	
D – 46 to 60 years	Male	128	85.33
	Female	22	14.67
	Total	150	

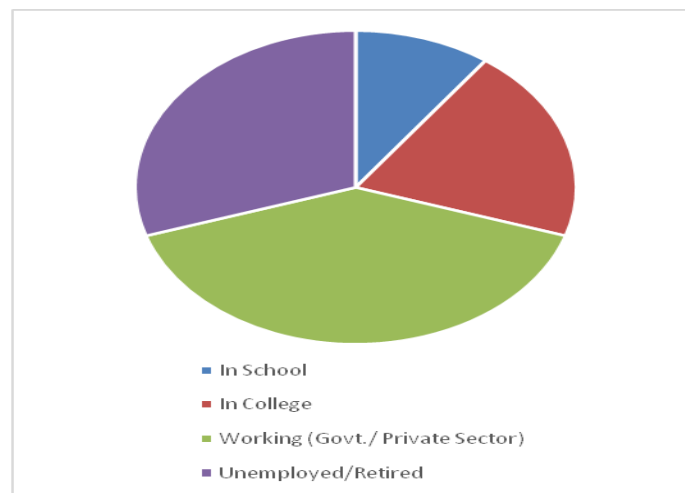
Grand Total	Male	477	79.50
	Female	123	20.50
		600	

### DATA ANALYSIS AND DISCUSSION:

Our data analysis reveals that people of all age group and gender are using smart phone at present without any discrimination of age or gender for its usage. Marital status of the user does not put impact on the smart phone usage of the user as both married and unmarried people are found to use the smart phone with almost similar tendency. Study conducted in some districts (Jaipur Range) of Rajasthan where illiteracy is also prevalent and it is observed that even less qualified or illiterate individuals are also using smart phone. It explains that at present smart phone has become so much popular and preferred by people that it does not matter that how highly the user is qualified. When respondents are asked about their profession it is observed that Govt. sector employees, private sector employees, college students, unemployed and retired persons, all are using smart phone and the device has become an important aspect of their lives (in Q1.). All questionnaires has been prepared in two ways a) Offline, where we collected the information of participants on a form and b) online google form which have been filled with the choice explained to the respondents for justification of the answer. Eight question and their data interpretation have been reported in this article.

#### 1. What is your profession?

Analysis of the collected data show that 10% of the participants are students at school, 20% of the participants are students at college, and 40% are working at Government or private sector while 30% belong to unemployed category. This data reveal that smart phone is used by people of all backgrounds but its usage is less common in school going students in Rajasthan for the selected Districts.



**Fig. 2: Pie chart for participant's professions**

## 2. Time duration spend on smart phone every day

Out of 600 participants, only 15% are found to spend less than 2 hours on using smart phone while 20% are moderate users who spend 2-3 hours on using smart phone whereas high end users i.e. 4-7 hours utilization of smart phone is observed in 35% participants and 30% are found to be addicted towards smart phone usage and spend more than 7 hours on smart phone every day, which indicate that the use of mobile phone is converting the user towards addiction.

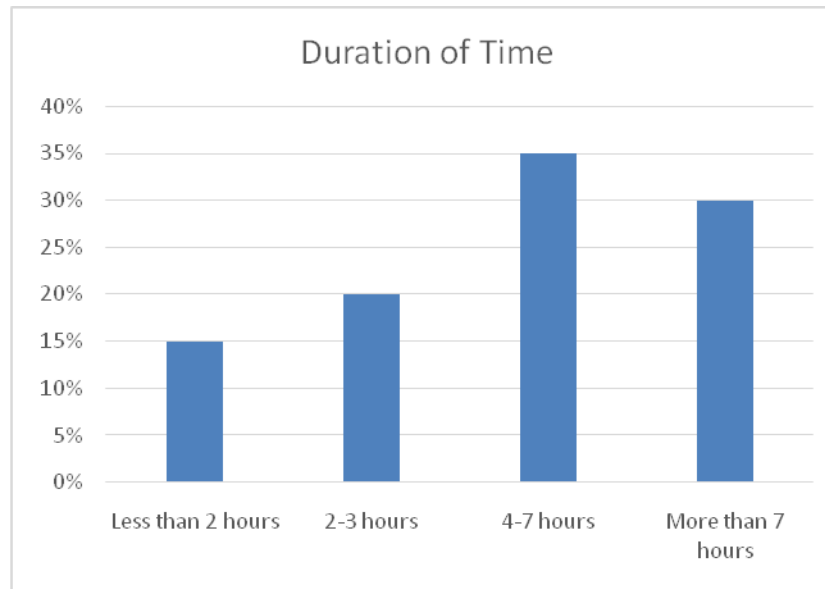
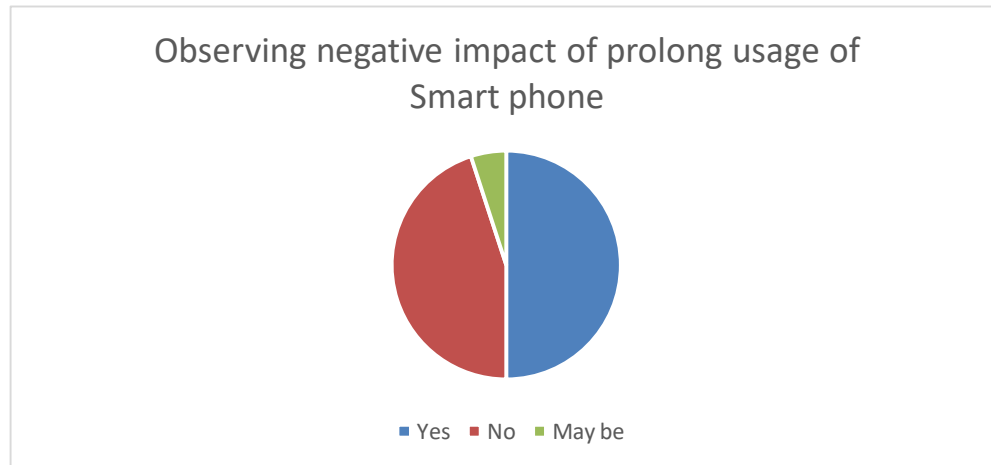


Fig. 3: Bar graph for devotion of average time in a day by a participant

## 3. Have you observed a negative impact of prolonged usage of the smart phone on your health?

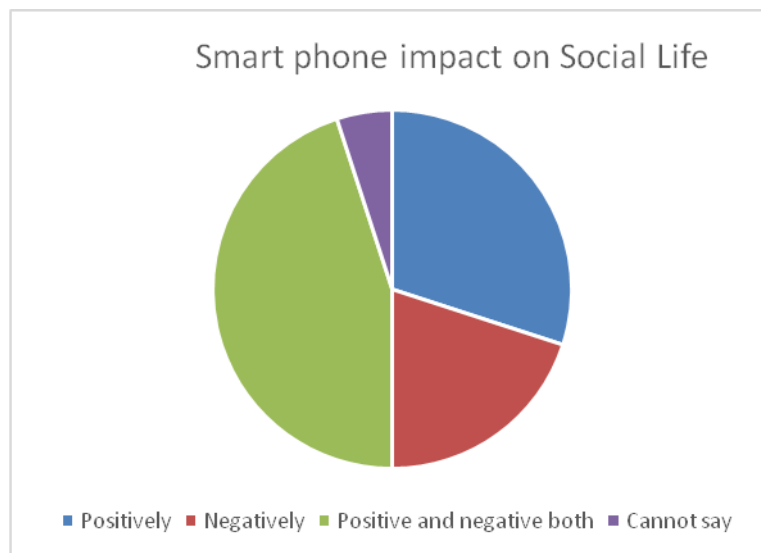
Participants are asked whether they have observed any negative impact of prolong smart phone usage on their health and the data collected depict that 50% of the participants agreed to the statement and found to observe negative impact of prolong smart phone usage. 45% of the participants affirm that they have not observed any negative impact of prolong smart phone usage while 5% are not certain about any such observation.



**Fig. 4: Impact of smart phone on prolonged use**

#### 4. How your smart phone has affected your social life?

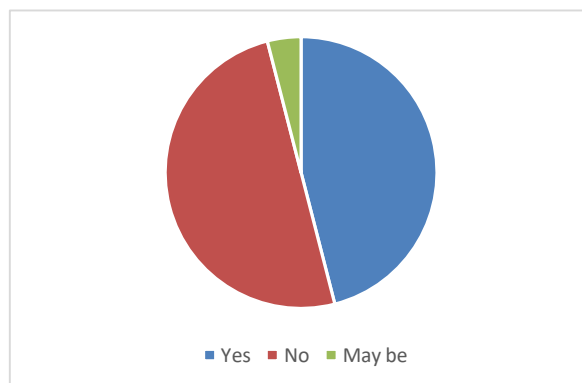
Analysis of the data collected from the participants regarding the impact of smart phone on the social life of the participant show that 30% participants consider that smart phone has influenced their social life positively, 20% admits that smart phone negatively impacted their social life while 45% opinion that smart phone has both positive and negative impact on their social life. 5% of the participants from the 600 participants surveyed could not give any opinion on this aspect.



**Fig. 5: Impact of smartphone on social life**

#### 5. Do you think smart phones have a negative impact on your life?

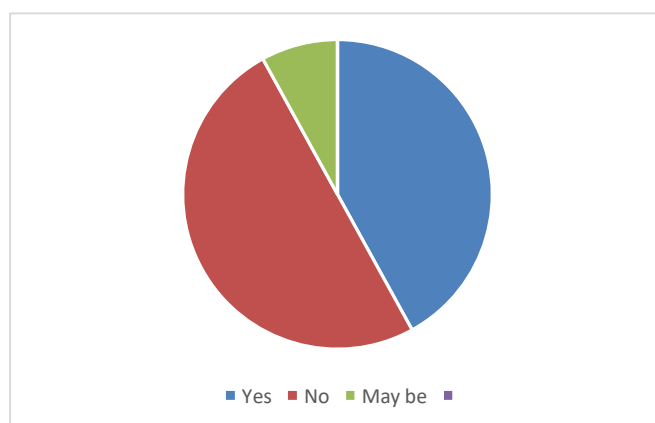
Analysis of the survey data reveal that 46% regards that smart phone have negative impact on their life while 50% regards that smart phone does not have negative impact on their life. 4% respondents could not reply to this question with certainty.



**Fig.6: Opinion about negative impact of life**

#### **6. Are you addicted to your smart phone?**

Analysis of the data from 600 respondents reveal that 42% regards that they are addicted to their smart phone while 50% considers that they are not addicted towards the smart phone usage and 8% don't have any clear opinion about whether they are addicted to smart phone or not.

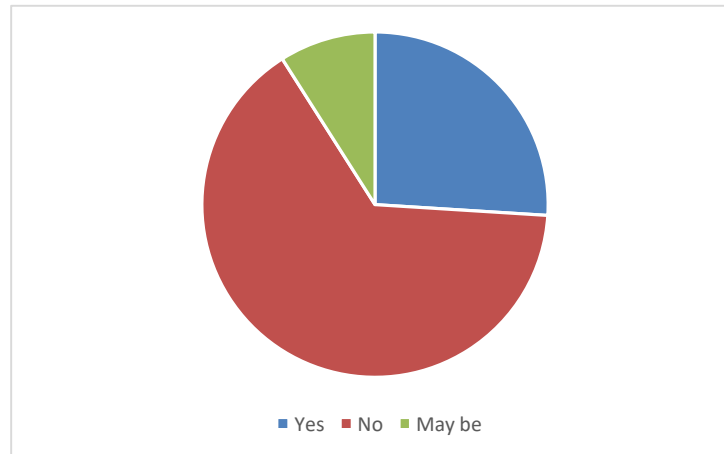


**Fig. 7: Pie chart for addition of smartphone on time spent basis**

#### **7. Would you suggest prolonged usage of smart phones in your daily lives?**

Analysis of the data obtained show that 26% of the total participants suggest using smart phone for extended period of time in their daily lives, 65% replied negatively and suggest not to use smart phone for prolong time in daily lives while 9% could not reply to this question.

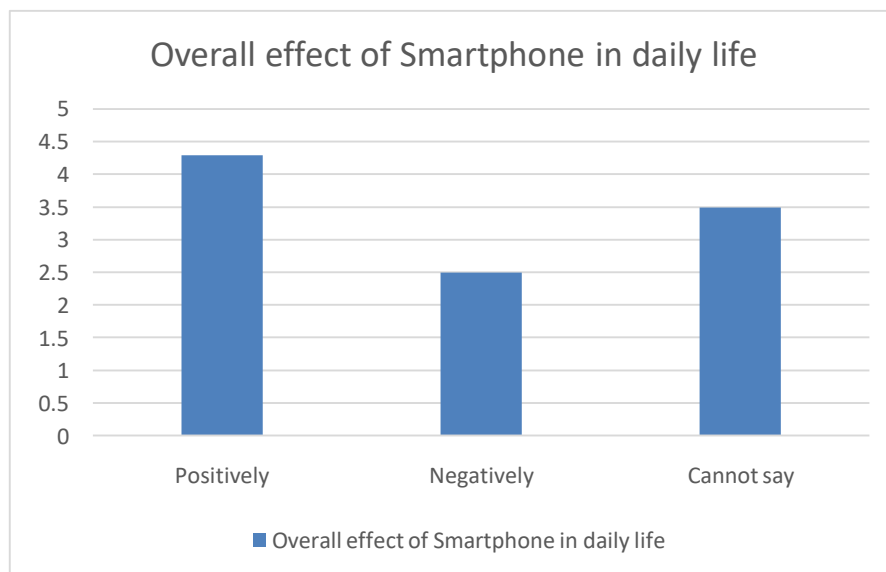




**Fig. 8: Impact of prolonged use of smartphone**

### 8. Overall effect of Smart phone on your daily life.

Out of the 600 participants surveyed, 57% considers that smart phone has impacted their daily life in a positive manner and made the life easier, made them socially connected provided scope of education and so on. 39% considers that it influenced their life negatively and some of the factors responsible for this are diversion from work, social breakup, health issues and so on. 4% of the total participants could not comment on overall effect of smart phone.



**Fig. 9: Conclusive of the all questionnaires for positive or negative impact of smart phone**

### GRAPHICAL REPRESENTATION FOR THE STUDY:

Our study for different age group for male and female with 600 respondents, we have summarized all questionnaires with 09 categories, where the participants have opinioned on

different streams application of smartphone with per day time consumed for each applications (in the graphs on X –axis; Edu- stands for Education, Soc – Social, OT – Online Transactions, Games-Online or offline game on smartphone, Hr-Health related issues, Ecom – E-commerce based application and uses, Music – Entertainment, Photo-smartphone as camera and Comm-Phone for call and chat), on Y-axis the average time (in minutes) per day of a participant devoted for each application for male and female are plotted. For the age Group 16 to 24 years - In the graph it is clearly self explanatory, that the male are prominent user of the smartphone compared to female. But the education categories females are using the smartphone higher than the male in this age group. This also indicates that the teenage females are more conscious about study compared to male, where the male participants show their interest in entertainment, music etc.

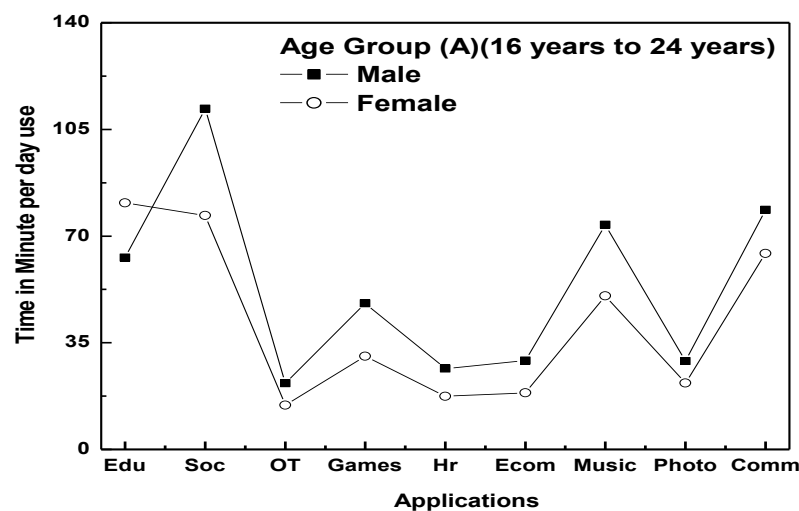


Fig. 10 (a): Showing age group (A) male and female wise study

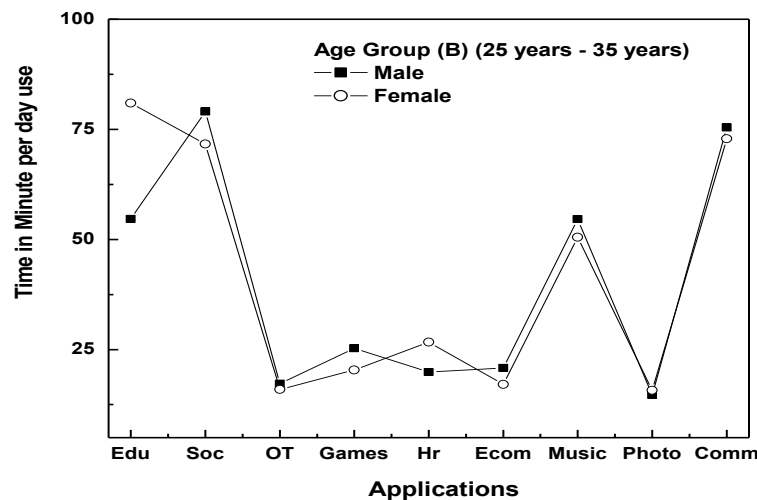


Fig. 10 (b): Showing age group (B) male and female wise study

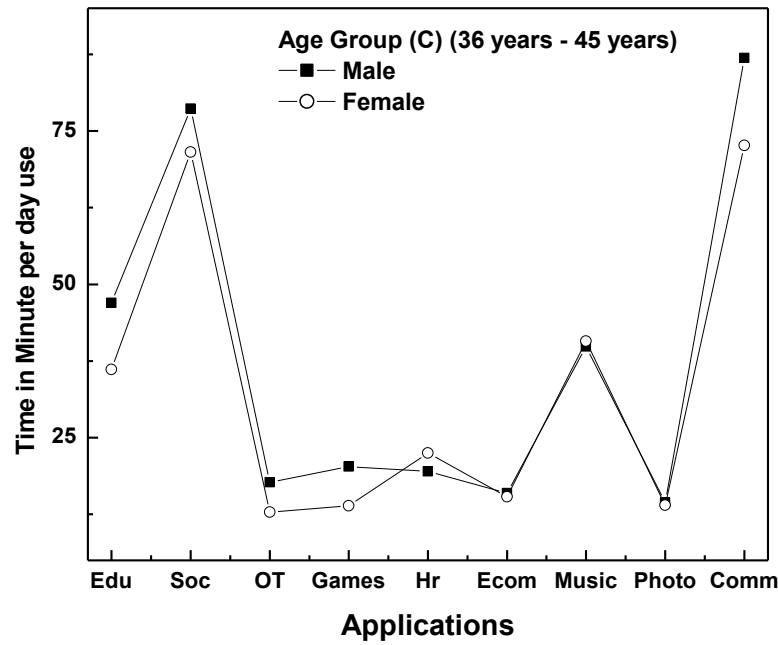


Fig. 10 (c): Showing age group (C) male and female wise study

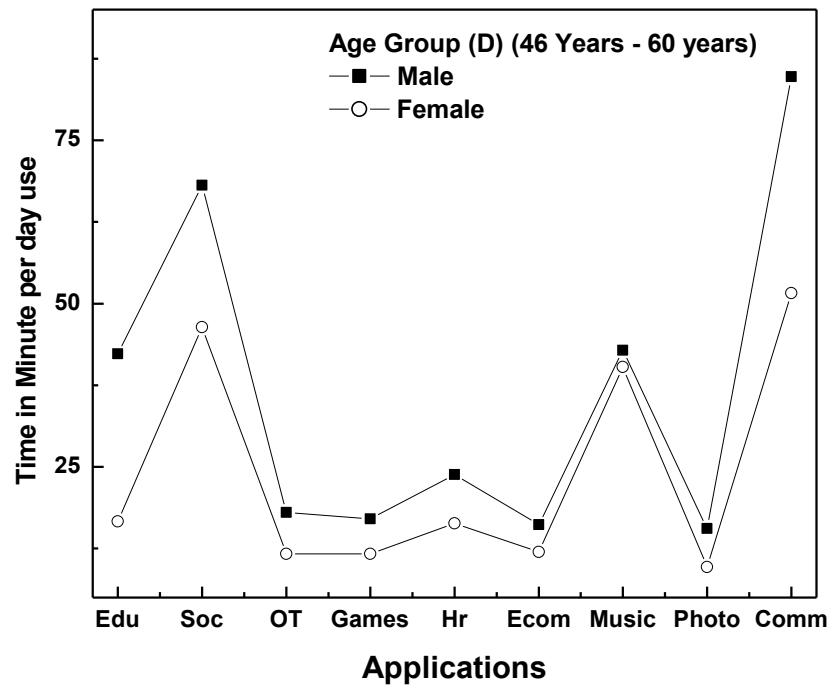


Fig. 10 (d): Showing age group (D) male and female wise study

The variations observed in our study for different age group have good consistency with the earlier published results on the impact of smartphone for different age group ref as [11, 13, 14 - 15]

## CONCLUSION:

Our results of analysis suggest that the time when respondents are asked about their addicted behavior towards smart phone 42% respondents mentions that they are addicted towards smart phone while 50% of the respondents are not addicted towards smart phone. It implies that smart phone is a device that can make people addicted and impact their lives as addiction of any technological device is not at all good, may be towards a negative point for the upcoming time [12 – 13]. In our study, when respondents have been asked about whether they would suggest prolong use of smart phone in their daily lives, most of the respondents replied negatively and suggest smart phone should not be used for prolong time in daily lives. Observation of the overall impact of smart phone on daily lives of the individuals show that smart phone has both negative and positive impact on the lives of the individuals and it certainly depends on the way one handles the pattern, habits and behavior of using smart phone. The study also correlate our results with the study reported in [14 – 15], some of the positive impacts of smart phone are making life activities convenient, keeping people socially connected, education and so on whereas negative impacts of smart phone are diversion from work, social breakup, and health issues and so on.

## REFERENCES:

- [1] Abu-shanab, E. (2015). The Influence of Smart Phones on Human Health and Behavior : Jordanians' Perceptions. *International Journal of Computer Networks and Applications*, 2(2), 52-56.
- [2] Roberts, J. A., Yaya, L. H. P., & Manolis, C. (2014). The invisible addiction: Cell-phone activities and addiction among male and female college students. *Journal of Behaviour Addiction*, 3(4), 254-265.
- [3] Hong, Y. H., The, B. H., & Soh, C. H. (2014). Acceptance of Smart Phone by Younger Consumers in Malaysia. *Asian Social Science*, 10(6).
- [4] Kuss, D. J., & Griffiths, M. D. (2011). Online social networking and addiction—a review of the psychological literature. *International journal of environmental research and public health*, 8(9), 3528-3552.
- [5] Woodcock, B., Middleton, A., & Nortcliffe, A. (2012). Considering the Smartphone Lerner: An investigation into student interest in the use of personal technology to enhance their learning. *Student Engagement and Experience Journal*, 1(1), 1-15

- [6] Mahakud, G. C. & Bhola, R. M. (2014). Impact of Social Networking on Physical and Psychological Wellbeing: A Cross Gender Stud. *International Journal of Psychology and Psychiatry*. Online ISSN:2320-6233, Voluem-2, Issue-2, 259-274, DOI : 10.5958/2320-6233.2014.00013.3
- [7] Sapacz, M., Rockman, G., & Clark, J. (2015). Are we addicted to our cell phones? *Computers in Human Behavior* , 57, 153-159.
- [8] Nurullah, A. S. (2009). The Cell Phone as an Agent of Social Change. *Rocky Mountain Communication Review* , 6 (1), 19-25.
- [9] Elsobeihi, M. M., & Abu Naser, S. S. (2017). Effects of mobile technology on human relationships. *International Journal of Engineering and Information Systems (IJEAIS)*, 1(5), 110-125.
- [10] Rotondi, V., Stanca , L., & Tomasulo, M. (2017). Connecting alone: Smartphone use, quality of social interactions. *Journal of Economic Psychology*, 17-26.
- [11] Mokoena, S. (2012). Smartphones and regular cellular phones: assessing their impact on students' education at the University of Zululand. Doctoral dissertation, University of Zululand.
- [12] Gowthami, S., & VenkataKrishnaKumar, S. (2016). Impact of smartphone: A pilot study on positive and negative effects. *International Journal of Scientific Engineering and Applied Science (IJSEAS)*, 2(3), 473–478.
- [13] Walker, M., Turnbull, R. & Sim, N. (2007). Future mobile devices - an overview of emerging device trends, and the impact on future converged services. *BT Technology Journal*, 25(2), 120-125. doi: 10.1007/s10550-007-0035-3
- [14] Chun, H., Lee, H., & Kim, D. (2012). The integrated model of smartphone adoption: Hedonic and utilitarian value perceptions of smartphones among Korean college students. *Cyberpsychology, Behavior, and Social Networking*, 15(9), 473–479.
- [15] Manvin Kaur Kuldip Singh & Narina A. Samah (2018) "Impact of Smartphone: A Review on Positive and Negative Effects on Students" *Asian Social Science*; Vol. 14, No. 11, ISSN 1911-2017 E-ISSN 1911-2025