Smartphone Usage among University Students: A Critical Analysis from Educational Perspective

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Abstract

This paper throws light on smartphone usage by university students. This paper is based on secondary data, where an attempt has been made to collect and analyse related literature on smartphone usage by university students. The related literature revealed that the use of smartphones has both positive and negative effects on students, but the effect depends on the nature and duration of smartphone usage. It is recommended that university students should be encouraged for regulative and controlled use of the smartphone, which has a strong positive effect on their academic performance. Efforts should be made to develop awareness among university students for the proper educational use of smartphones.

Keywords: Smartphone usages; university students; regulative use; effect of smartphone usage

Introduction

Now day use of smartphones is a universal and unavoidable phenomenon that has comprehensive applicability in multiple aspects of an individual's life starting from personal to professional. The smartphone is a technological device; smart in the sense of providing autonomy to the users to use irrespective of time, space, and purpose. In the present context, the smartphone is advancing rapidly and used widely (Rabiu, et. al., 2016). It has virtually affected society’s accessibility, security, safety, coordination of business, social activities and had become a part of the culture of the whole world (Soyemi et al., 2015). The use of smartphones is not confined to educational purposes its use leads to other purposes like entertainment, social media, communication, information searching, etc. Now a day growing tendency is visible within the students to use smartphones not only for educational purposes but also for searching for new information and social media and entertainment. The smartphone has been becoming a very essential digital gadget and an important technological device for all irrespective of demographic variations. Nowadays people are using smartphones frequently for recreational purposes and they are becoming addicted.
What is Smartphone?

Mobile Phone is also called “cellular phone”. It is an electronic gadget mainly used for voice calls. In present-day, the advancements in technology have made our day-to-day life very easy rather with the help of a mobile phone we can easily talk or video chat with anyone across the globe by just moving our fingers. Nowadays mobile phones are available in various shapes, sizes, and convenient design, having different technical specifications and it is not only used for purposes like – voice calling, video chatting, text messaging or SMS, multimedia messaging, internet browsing, email, video games, recording, photography, online shopping rather it also uses for different educational purposes like online teaching, online coaching, etc.

Hence it is called a ‘Smart Phone’. Today Mobile Phones are replaced by smartphones. The smartphone is a portable device that combines the functions of a cell phone with the functions of a computer (Hamblen, 2009). Due to the lots of different functions and economical cost of smartphones are very popular among the peoples. The decrease in the size and the price this device can be not only adopted by businessman but also it is used by a labourer rather almost all of us nowadays we get to see mobile phones in everyone’s hands whether it will be the people of the village or the city. Most of the students are using smartphones whether they are from rural or urban and boys or girls. It is very common to see that almost all college-going students have an expensive and sophisticated Smartphone in their hands or pockets. This Smartphone has all the applications, facilities, and software that can connect them to the internet and all forms of social networking platforms, other web applications where they chat, access information, stream videos audios, download, upload, exchange and play different kinds of media contents. There are lots of Smartphone applications in the play store that can be downloaded by the students according to their needs and interest use on the smartphone.

Theoretical Framework of Technology Usage

The intensive review of related literature revealed the use of the Technology Acceptance Model (TAM) as a widely used model for the theoretical framework in research studies. The present is based on smartphones usages among college students, so the Technology Acceptance Model became a theoretical base of the study. This model was developed by Davis (1989) and it was based on user requirements. The TAM is mainly related to the information management system, which primarily focuses on the adaptation of new technology by the people. It is concerned with the decisions of the people about the use of technology. It deals with ‘how users come to accept and use a technology (Davis, 1989). User acceptance is one of the important determinants of this model.

![Technology acceptance model](source: Davis, 1989)

The model states that behavioural attention is the key factor concerned with the use of technology. According to Davis, the attitude of the people about the use of any technology plays a vital role as it affects the behavioural intention of the people. The three important components of this model are perceived usefulness, perceived ease of use, and intention to use. So far as the present study is concerned, it is based on smartphone usage; therefore, this model has wide implications for the study. Davis says that perceived usefulness refers to “the degree to which persons believes that using a technology would enhance their performance” (Davis, 1989), so college students also use smartphones in this perspective...
mostly. Davis defined perceived ease of use as “the degree to which persons believes that using a technology would be free from effort” (Davis, 1989), so the college students use smartphones for a longer time. In between the perceived usefulness and perceived ease of use, the intention of the students plays a vital role. The figure also shows that the attitude towards using technology is affected by some external factors, behavioural intention, and actual use.

Another frequently used theory related to the usages of technology is ‘use and gratification theory, which is based on social-psychological communication (West & Turner, 2007). According to West and Turner, his theory was an extension of the needs and motivation theory of Maslow, as it was based on satisfaction. This theory is based on the understanding of the people who actively uses a specific media for the satisfaction of their needs (Severin & Tankard, 1997). This theory is based on the assumption that the audience members are not passive consumers of media, rather they have the power and control over the media that they use for satisfying their goals as it is based on gratification (Katz et al., 1973). This theory also comprises web usage and satisfaction in terms of entertainment, informativeness, and irritation. So, it reveals that the gratification of using a smartphone depends on its attitude towards the smartphone and the purposes for why it is used. Based on this theory, in the present study, the area of smartphone usage has been examined in terms of social media, information searching, communication, and entertainment.

Critical Analysis on Smartphone Usage by Students

The use of smartphones in the teaching learning process has been drastically increased in the pandemic situation. Research reveals mobile learning (m-learning) as a very useful tool to recover the study gap during the pandemic period (Biswas et al., 2020). In the context of education, its applications and utility have been well documented in the research literature (Aladham & Awad, 2012; Yu, 2012; Priya & Jeevitha, 2017; Hassan et al., 2017; Christian et al., 2017; Gladden, 2018; Muhtarifa, 2018; Ardalan et al., 2019; Rajesh & Santhi, 2020; Raza et al., 2020). At the same time, it has been documented that the use of the smart phone by students has both positive and negative outcomes via the process of regulative use versus addicted use respectively. The studies showing positive impact reveal that smartphone usage helps to increase the academic performance of students (Aladham & Awad, 2012; Priya & Jeevitha, 2017; Christian et al., 2017; Nowreen & Ahed, 2018; Sumathi et al., 2018; Minz et al., 2019). In contrast to the positive impact of the smartphone, some studies revealed a negative impact, where the results show that the use of smartphones influences the academic performance of students negatively (Hassan et al., 2017; Gladden, 2018; Muhtarifa, 2018; Rajesh & Santhi, 2020). Apart from these, studies argued that smartphone use has been an addiction for students (Kour, 2018; Sumathi et al., 2018). But less attempt has been made by researchers regarding how much time per day the college students are using smartphones and which ways they are using; what are the variables affecting both the time duration of use and nature of use. This study can help design appropriate orientation and intervention for increasing positive use of smartphones by students. A study showed that distance learning students find it easier to use the smartphone in their learning activities and it has a remarkable role within distance learning students in their academic achievement (Adjei, 2019).

Regarding the duration of use, two types of perspectives have been claimed by linking it with their positive effect i.e., high use is known as addictive use leads to negative results, and controlled or regulative use leads to positive results (Sumathi et al., 2018). But there is a dearth of literature regarding the nature or purpose of use by the students. Though researchers have their stance regarding predictors affecting time duration and nature of use, it needs a revalidation on the Indian socio-cultural context.

Apart from the related studies of smartphone usage in the educational setting, some studies on the role of demographic variables like locality, gender, and streams of education were gathered from different sources. The study found that the majority of students frequently use the internet in urban in comparison to rural, rural students mainly use the internet at home and urban students highly use the internet in commercial cybercafé, and the majority of urban students were using the internet primarily for specific information whereas rural students were using the internet for education (Loan, 2011). The survey on internet usage and academic performance of rural and urban adolescents in the Coimbatore district revealed that there were developmental differences in academic performance within both rural and urban adolescent Internet users (Jaya, 2015). The study revealed that the prevalence of internet addiction within
urban school students was found to be i.e., 83.3%, while it was 78% in rural school students. Mild internet addiction was common within both. (Sowndarya & Mounesh, 2018). The investigation on the urban and rural patterns of internet use within the youth and its association with mood state showed no significant difference concerning urban and rural areas for internet usage (Hamza et al., 2019). The study on implications of smartphone addiction on university students in urban, suburban, and rural areas. The findings showed that the rural region is experiencing the highest levels of smartphone addiction (Daoud et al., 2021). The analysis of related literature on smartphone usage concerning locality revealed that numerous studies have been conducted in this regard, but there was a scarcity of similarities in the findings based on the role of the locality.

The study revealed significant differences in the attitude of the students concerning gender, medium of education, and residence while concerning academic discipline the difference in the attitude of undergraduate students was insignificant (Halder et al., 2015). The study of the role of gender on technology use revealed that males use technology significantly more than females (Poscia, et al., 2015). The survey on how age and gender affect smartphone usage revealed that females use smartphones for longer periods than males, younger participants use their phones longer and usage is directed towards entertainment and social interactions through specialized apps (Andone et al., 2016). The study revealed a significant decrease in all balance directions for those who are using smartphones with favour reduction for those who are using a smartphone more than 4 hours per day and there is a significant difference between male and female subjects as dynamic balance decreased more in female subjects than male subjects (Azab et al., 2017). The study on the gender difference in mobile phone usage for language learning, attitude, and performance demonstrated that male and female students did not differ in their usage, attitudes toward mobile phone uses for language learning as well as their learning performance was significant (Hilao & Wichadi, 2017). Researchers found out that there was a significant relationship between gender and mobile phone addition (Ardalan et al., 2019). The study on gender differences in smartphone usage patterns of adolescents revealed that females and males have significantly different patterns of smartphone usage, it also revealed females spent significantly more amount of time on smartphones than males (Taywade & Khubalkar, 2019). The research on gender-based smartphone addiction and aftermath in family relations revealed that the female gender groups are profoundly addicted to smartphones, which signifies that males are more stick towards the family and are less connected to the smartphone (Anjaly et al., 2020). The analysis of related literature on smartphone usage in relation to gender revealed that numerous studies have been conducted in this regard, but there was a scarcity of similarities in the findings based on the role of gender.

The study on the difference in smartphone usage among undergraduate students in relation to their academic streams was insignificant (Halder et al., 2015). The comparative study on smartphone addiction within arts and medical college students of Port Blair revealed the proportion of students with high addiction to smartphones was higher in medical college than Arts students was statistically significant (Rao et al., 2019). So far as the studies related to the role of academic streams for smartphone users are concerned, a smaller number of studies were found in this regard.

Nowadays smartphone is a very essential digital gadget important technological device for all school students. The smartphone can assist students in accessing information. It is a significant learning tool for students. It saves students time and makes them get more marks in their academic areas. Overuse and misuse of the smartphone is the reason to get poor academic performances and addiction which leads to anxiety. All the college-going students are indeed using smartphones frequently in their day-to-day life. They have been installed many apps on their smartphone. The students use different types of apps for information searching, social networking, gaming, entertainment, calling, chatting, watching videos, music, recording, etc. The usability of the smartphone is a predominance in both rural and urban students as well as boys and girls. Many studies found that the increase or decrease of students’ level of competence and grades will depend on the type of application used and the amount of time spend using such applications. Nowadays students are using smartphones frequently for recreational purposes and they become addicted to using a smartphone. The students don't aware of their addition rather they feel comfortable with using a smartphone. So there is a need for primary research to find out the use pattern of smartphone usage and the nature of apps they are using frequently which may affect their social as well as educational life and aware them of how they are using it. This study is helpful to both parents and school authorities to regulate the proper use of smartphones by students and ensure that it is used for the
right purpose so that the level of academic achievement can be enhanced. This indicates that strict rules and regulations should be implemented on the type of applications to use and the amount of time to spend on using such applications. This research may help for making rules regulations regarding smartphone app use and it will be beneficial for teaching and learning as well as society.

IMPLICATIONS OF THE STUDY

- The students should encourage the educative usage of a smartphone instead of noneducative usage.
- The students should be provided knowledge of both the positive and negative effects of using a smartphone.
- They should provide knowledge of different Smartphone Apps which are helpful to their daily life.
- The students should be aware of their smartphone use so that they can use the smartphone in control manner.
- The students should provide knowledge of educative Smartphone Apps.
- The teacher, as well as parents, should encourage students to properly use smartphones.
- The teacher and parent should encourage students to limit the use of smartphones so that it will not hamper their academic performance.
- The teacher and parent should provide knowledge of the different benefits of internet use.

Suggestions for further research

- Similar studies may be taken into account by collecting primary data and extending the sample size.
- Studies can be taken by taking some demographic variables like caste, level of education, and so on and examining its effect on smartphone usage.
- Longitudinal and cross-sectional studies may be conducted on smartphone usage among students over a long period and among students of different age groups.
- Studies may be conducted on the regulative or controlled use of smartphones among student fraternity across the globe.

Conclusion

Nowadays there are lots of smartphone applications available in the play store. The genre of applications includes entertainment, socialisation, education, information, health, marketing, gaming, communication purposes, etc. So far as the present study is concerned locality was found as a significant predictor of smartphone usages, smartphone usages for information searching, for social media, and for entertainment, academic streams as a significant predictor of smartphone usages for social media and communication, gender as a significant predictor of smartphone usages for entertainment purpose. The study further revealed that college students belonging from urban areas were found to use time duration of smartphone and area of smartphone use for information searching, social media, and entertainment significantly more time than the students of rural areas. College students belonging to the science stream were found to use the smartphone for social media significantly more than the students of Arts and Commerce streams. So far as the area of smartphone usage for entertainment purposes is concerned, boys were found to use significantly more time than girls. Some of the findings of the present studies were supported by empirical evidence, and some were opposed. So, further studies may be conducted for the inconsistent findings. Some of the findings were new, which may be cross-validated from the empirical evidence of different geographical areas. Further studies may be undertaken by taking the quality dimension of smartphone usage and its educational impact on students through longitudinal studies. The present study has wide implications for policymakers as it deals with smartphone usage by college students. The smartphone applications should be used by the students productively and effectively, by which they can get access to a huge amount of information. Smartphone usage has two sides, namely positive and negative. So, if the smartphone is used positively by the students, then no doubt it has wide implications for shaping the career of the students; on the other hand, negative use of smartphones may bring a negative impact on
student’s life. So, the teachers, parents, and stakeholders should encourage the students for effective and productive usage of the smartphone by the students it. However, controlled or regulative use of smartphones by the students is recommended by the researchers.

References


