THE IMPACT AND PENETRATION OF SMARTPHONE USAGE IN STUDENT’S LIFE

R K Jena*

ABSTRACT
The usage of Smartphone has been a 21st century phenomenon that attracts young generation for their usefulness in different purposes and functions. This study looks into the usage, perceived effect and implications of Smartphone on the academic performance of the post-graduate business management students in India. Perceived and relative significance of Smartphone usages to variables such as gender and academic performance have been evaluated in this study.

Key Word: Academic performance, Smartphone usages,

INTRODUCTION
It is an undeniable fact that technology has become an integral part in today’s society. Technological revolution in academic organisation has not only improved efficiency but also helps reduce the problem of boredom in workplace (Vieitez, Carcia, & Rodriquez, 2001). The advancement of technology has also been a dominant force in effecting students academic life (Roberts, J., & Pirog, S., 2013). Smartphone is a major information technology device and students feel the urge to adapt to it in order to “keep up with the times”. Overdependence on Smartphone may lead to compulsive usage and enhance students stress and effect student academic performance.

A Smartphone is an increasingly more common type of mobile phone, which can be described as a mobile phone with characteristics similar to the ones of a computer. Student can check e-mail, browse the Internet and add personal functionality by downloading applications using Smartphone. A Smartphone can be defined as “…a handheld computer integrated into a mobile phone” (Encyclopedia Britannica, 2012). Smart products are leading this era and functioning as the new buzzword. The market share of Smartphone is increasing. According to a survey by market research firm Nielsen (Nielsen Survey, 2012), a majority (50.4%) of U.S. mobile subscribers owned Smartphone in March 2012, up from 47.8 per cent in December 2011. The survey has also covered the usage pattern of Smartphone. While 22 million people use their Smartphone for

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social networking, 24 million use it for online searching, 21 million for looking up app stores and 19 million each use these devices for chatting and mailing, respectively. Around 16 million users view streaming videos; another 16 million use Smartphone for maps and navigation while 8 million each use it for banking & finance, travel, shopping and accessing Web portals. The survey also highlights that Smartphone ownership peaks in the age bracket of 18-24 year. Education level also plays a significant role and nearly significant number of graduates/post-graduates own Smartphone (Nielsen, 2012).

LITERATURE REVIEW

Smartphone usage among students is growing exponentially (Woodcock et al., 2012). Students prefer smartphones while purchasing new phones. The use of Smartphone has brought many changes in student academic activities. Due to the increased use of personalized content, students can easily obtain their information that they need in real time. Smartphone’s that use real-time media such as Facebook, Twitter, and others help create online communities among students. Students in the future can be able to exert more power in a way that they could not have imagined before using Smartphone (Cairncross, 1997). However, the evolution of these technologies can lead to increased stress. In addition, the term antismart, which is a conscious resistance to the smartization, is emerging by a result of experiencing smart devices such as smartphones, smartpads, and smart TVs.

This area of interest is chosen because of the unregulated usage and over dependent attitude on these devices by youth particularly students. Interestingly, this is obviously imperative as Geser, (2006) and Junco R, Timm D. (2008) had observed that the youth (students) have consistently displayed higher level of attachment to their cell phones which could serve as distractions to them because of the time devoted to the phones. It should be noted that the usage of phones are not intended for negative purpose and influence; however, the attitude and time spent towards these devices has enslaved the student. It also making them addicts, such as a study by the University of Navarra affirms that young people between 15 and 19 admit being addicted to their cell phones (Naval et al., 2004). British scientists noted that more and more people are getting addicted to their cell phones, causing stress and irritability. While specialists indicate that the abuse of the use of cell phones could be typified as ‘a disorder of addiction that has to be stopped as soon as possible’ (Paniagua, 2005).

Based on the study of the past literature, the aim of the study is to understand the effects of Smartphone usage and academic performance among post-graduate students. So, the main objectives of the study are to:

1. the penetration level of smartphones on student personal and academic life;
2. examine the gender effect on smartphone usage; and
3. examine the effect of Smartphone on students’ Academic Performance.

This study is formulating the following hypothesis based on the objectives of the study to ascertain the possible relationship between Smartphone use and student academic activities.

H1: There is no gender difference in the most frequent usage of Smartphone
H2: There is no gender difference in perceived satisfaction to usages of Smartphone
H3: There is a negative impact of frequent use of on overall the student’s academic performance

METHODOLOGY

This study is using both theoretical and empirical knowledge to find issues of Smartphone use academic life of post-graduate students. In an attempt to discuss about the issue of this topic on phones and its usage via the Internet, personal observations has been seen among student using the phones for visiting social platform, such as the Facebook, Twitter, 2go, Myspace and instant messengers (yahoo messengers, msn messengers and blackberry pinging instant messengers) during academic periods and off academic periods indicating that the Internet phones have a strong effect on the students.

Primary data is collected during last quarter of 2013 from students of IMT Nagpur, India. Survey questionnaire is triangulated for the purpose of primary data collection. A set of 350 semi-structured questionnaires was administered with a purposive sampling technique for primary data collection. This means that those qualified to participate in this research need to own a Smartphone. Prior to conducting the actual data collection, a pilot test involving nearly 50 respondents was conducted. The result for reliability analysis was relatively high with most items scores Alpha Cronbach above 0.75. The instrument for this research used five-point Likert-type scale. The Likert-type scale was used to address the level of importance of the Smartphone to the different student activity and their academic achievement. 310 filled questionnaires are collected with a response rate more than 90% returned by the respondents. To guarantee the maximum return all the administered questionnaires are collected immediately. The mixture of respondents with regard to their sex, engineers, non-engineers and work experience is adopted for uniform representation. The table (table-1) below represents the demographic information about the participants. It shows that majority (68%) of the respondents are male in compare to female(32%). The sample has 63% of engineer in compare to 37% of non-engineer. The non-engineers are those, who don’t have enough exposure to information and communication technology.

<table>
<thead>
<tr>
<th>Table 1: Demographic Information</th>
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<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Technical Exposure</td>
</tr>
<tr>
<td>Engineer</td>
</tr>
<tr>
<td>Non-Engineer</td>
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</table>

During the analysis stage, data collected through the administered questionnaires are analysed with the help of SPSS version 20. Descriptive statistics and inferential statistics are used to analyse the data for this study.

RESULTS & DISCUSSION

Descriptive Statistics

From the collected data, it is found that more than 60% of the students having more than one phone. 85% of students are using Internet enabled phones. 97% of them are actively used
Internet mobile services to enable them to surf and browse the net. Figure-1 shows the time spend by the respondents in every day with Smartphone.

![Fig. 1: The Browsing Frequency of Respondent](image)

The figure-1 shows that the maximum students browse a minimum of 5hrs intensive daily while some browse and chat at every single available opportunity. The data also indicate that they browse more on social site than academic purpose. They cited the reason for browsing the social site that it helps them to cool off during their stay and study in the institution otherwise it will be boring for them without connecting to their friends and loved ones. The responses to the question relating to the use of mobile phone are presented in Figire-2

![Fig. 2: Smartphone Usage](image)

From the pie chart shown in figure 2, it signifies that majority of the respondents indicated that they browse and source for academic information as students and chatting came second, while Networking and blogging was the third on the chat in the terms of percentage of respondent. From findings and analysis, this is to say in a nutshell that the students browse more with their phone on academic information. The use of social network is one of the important activities
among young generation. The responses to the question relating to the preference of social sites using Smartphone is shown in figure-3.

![Social Site Preference](image)

**Fig. 3: Social Site Preference**

Facebook, Twitter, Instant messengers (2go, yahoo messengers, and etcetera) messager were listed in the study instrument. The number of students prefer Facebook users is 203, Twitter respondents are 51, Instant Messengers such as 2go, Yahoo messengers, etc. are 56.

The study is also found that the decision on choosing a Smartphone rest on the Smartphone’s functions followed by the usability. Other factors included budget, other’s influence, following trend and fashion statement etc. This finding is contradicting the earlier findings of Katz, and Sugiyama (Katz, and Sugiyama, 2006). They found fashion play a significant role in mobile phone’s adoption; however in this research it seemed that the students are more interested in the Smartphone’s function rather than fashion statement. Few students are revealed that they have no choice with the decision on choosing the Smartphone as some of them received their Smartphone as a presents from others. Some of others chose their Smartphone based on others influence, fun, design, inexpensive, and also because it has longer battery life.

It is also found that more than half (61%) of the respondents are responsible for their own phone bills. The reason may be that post-graduate students are already considered an adult and many of them received study loans, scholarship, or allowances from sponsors and family members. It is also revealed that many of them subscribed to prepaid plan (89.2%) as they could manage their monthly phone bill according to their budget. The most popular non academic activities preferred by the students are to send and receive text messages (98.9%), take pictures (81.1%), play music (84.1%), setting the alarm (96%), referring to the calendar (69.5%), recording videos (96.8%) and play games (96.9%). It is found from this research that most of the respondents used their smartphone for sending and receiving text messages. This result is conforming to the previous researches (Thulin, & Vilhelmson, 2007; Lenhart, Ling, Campbell, & Purcell, 2010; Noor Mayudia Mohd Mothar et. al, 2013).
INFERENTIAL STATISTICS

Inferential statistical tools like t-test chi-square test are used to test the proposed hypothesis in our study. The result presented in table-2 shows that the null hypothesis “there are no significant difference of usages of Smartphone with respect to gender” is accepted (P=0.213, t=0.48). Similar result has be reported by Sang-Zo Nam (Sang-Zo Nam, 2013) in their study in South Korea.

Table 2: Gender Difference in the Most Frequent Usage of Smartphone

<table>
<thead>
<tr>
<th></th>
<th>t-value</th>
<th>Asymp. Sig.(2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of Smartphone (Boys/Girls)</td>
<td>0.48</td>
<td>0.213*</td>
</tr>
</tbody>
</table>

*P=0.05

The result in Table-3 is reject the hypothesis that there is no gender difference in perceived satisfaction to usages of Smartphone. That is hypothesis (H2) is accepted (P=0.627, t=0.58).

Table 3: Gender Difference in Perceived Satisfaction to Usages

<table>
<thead>
<tr>
<th></th>
<th>t-value</th>
<th>Asymp. Sig.(2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Satisfaction to Usages (Boys/Girls)</td>
<td>0.58</td>
<td>0.627*</td>
</tr>
</tbody>
</table>

*P=0.05

At the end of the study, an hypothesis (H3) on the frequency usage of Smartphone and its significant effect on academic performance is tested using Chi-Square test, The result in table-4 shows no negative effect of Smartphone in academic performance. Similar results have been reported by Emeka Ezemenaka(Emeka Ezemenaka, 2013) in Nigeria. The reason could be the maximum times devoted in Smartphone by students are for Academic purpose.

Table 4: Academic Performance and Usages of Smartphone

<table>
<thead>
<tr>
<th></th>
<th>Chi-Square-value</th>
<th>Asymp. Sig.(2-sided)</th>
</tr>
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<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.87</td>
<td>0.09*</td>
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</table>

*P=0.05

CONCLUSION

The first part of this study verified the most frequent usage, usual usages and serviceability of Smartphone. The study showed that most of the students use their Smartphones for chatting and social networking. It was also showed that it is possible for students to enhance and broaden their academic knowledge by browsing for academic materials and equipped them better towards their examination preparation. The second part of the study found no relation between Smartphone usage and gender of the students. The study also found no relationship between the academic performance and frequency of use of Smartphone. Finally, in my opinion the usage of the Smartphone cannot solve the lacuna of students’ academic performance but will go a long way to help students to be better equipped if appropriate time is meted out while harnessing its potentials.
REFERENCES


