

Impact of smartphone on academic performance: A case study on the female students of a public university of Bangladesh

Mamunor Rashid¹, Md. Belal Hossain^{2*}

¹Assistant Professor, Mass Communication and Journalism Discipline, Khulna University, Khulna-9208, Bangladesh

²Assistant Professor, Department of Mass Communication and Journalism, Comilla University, Cumilla-3506, Bangladesh

ARTICLE INFO

Article history

Accepted 27 July 2019

Online release 28 September 2019

Keywords

Smartphone
Academic Performance
Female Students
Public University
Bangladesh

*Corresponding Author

Md. Belal Hossain
✉ belal.cu12@gmail.com

ABSTRACT

The present study was to explore the impact of smartphone usage on academic performance among the female students of Khulna University in Bangladesh. A survey was conducted on one hundred (100) female students from the six Schools/Faculties of Khulna University. The primary data was collected by using a questionnaire during October to December, 2018 following purposive sampling techniques. The respondents were from six Schools of Khulna University among them 21% from Science and Technology School (SET) 14%, from Life Science School, 20% from Arts and Humanities School, 23% from Social Science School, 10% from Law and 12% from Business Administration Schools. The study revealed that most of the respondents (35%) used smartphone for pleasure and multimedia, 22% for socialization and 31% for personal safety. This study also found that majority of the respondents (51%) also used smartphone for talking with family and others, 25% for using social media, 19% for multimedia services and the rest 3% said for playing games etc. The CGPA in the last term 54% respondent said their CGPA were less than 3.00. Only 9% percent said their result were above 3.26 and the rest 37% said their CGPA were between 3.00 to 3.25. This study also suggest that the students should use smartphones for their academic benefit and security purpose but should not waste their time for unproductive purposes.

INTRODUCTION

Now a days our personal life is highly depend on the technology that people have developed. Technology has advanced with years and it has changed the way we purchase products, the way we live, the way we communicate, the way we travel, the way we learn and so many changes have been brought about by these continuous technological advancements (Kwon et al., 2013).

With the advent of new smartphone technologies and the widespread utilization of touch screen mobile phones made humans embrace technology more and depend on it extensively and compulsively in their lives. Due to the new communication technologies and smartphones the world is becoming a trajectory place where man is not relying on man for its needs but depending more on smartphone. Smartphone is a mobile phone with an advanced mobile operating system which combines features of a personal computer

operating system with other features useful for mobile or handheld use. Smartphone, which are usually pocket-sized, typically combine the features of a cell phone, such as the abilities to place and receive voice calls and create and receive text messages, with those of other popular digital mobile devices like personal digital assistants (PDAs), such as an event calendar, media player, video games, GPS navigation, email, digital camera and digital video camera etc. (Bisen and Deshpande, 2016).

According to Bangladesh Telecommunication Regulatory Commission (BTRC), the number of mobile phone subscriber is 158.438, the total number of internet subscribers 92.061 million at the end of February, 2019, of which 86.268 million subscribers use mobile internet, WIMAX 0.061 million and other 5.731 subscribers ISP+ PSTN users (BTRC, 2019). In Bangladesh, the mobile phone users are increasing rapidly and a major portion of the users are smartphone users.

Among them, most of the users are young adults. Smartphone is becoming more popular among young generation, especially students. With the rapid growth of smartphone users, the negative consequences of mobile phone usage are increasing day by day. Usage of mobile phone becomes one of the death causes when the victims walk and use mobile phone on the rail tracks (Arefin et al, 2017).

Mobile phone usage has influence on academic performance among secondary school students which has negative impact on the academic records (Hong 2012; Jairus et al, 2017). However, different studies have confirmed that drastic usage of social networking, texting and chatting on smartphones result in lower grades and poor academic performance of students. While people of various ages find smartphones convenient and useful, young generations tend to appreciate them more and be more dependent on them. Some of the students have the habit of keeping their smartphones on during their classes and homes, even in the library, thereby diverting others. In this context the study focused on exploring the impact of smartphone usage on academic performance among the female students of Khulna University of Bangladesh with exploring the purpose of using smartphone and the time they spend.

MATERIALS AND METHODS

This study was conducted in Khulna University of Bangladesh. The respondents were second year to fourth year female students of different disciplines. The survey was administered among 100 female students of 29 disciplines under six schools from Khulna University. The majority of the respondents of those schools were aged between 18-25 years. The primary data was collected following purposive sampling using questionnaires during October to December, 2018. The sample students were experienced in using smartphone in their daily lives. The schools were heterogeneous in nature in terms of infrastructure, teaching, student strength and other amenities.

RESULT AND DISCUSSION

Respondents

The respondents were from six Schools of Khulna University of Bangladesh among them Science and Technology School (SET) 21%, from Life Science 14%, Arts and Humanities 20%, Social Science 23%, Law 10% and from Business Administration Schools 12 % were participated in this survey (Figure 1).

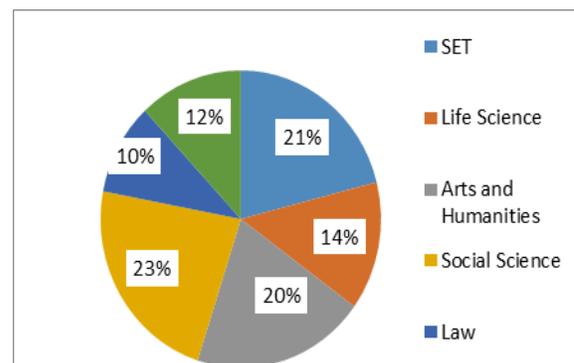


Figure 1
Percentage of respondent from different Schools

Types of family of the respondents

Among the 100 respondents 89% of them came from nuclear family and the rest 11% said they were from joint family (Figure 2).

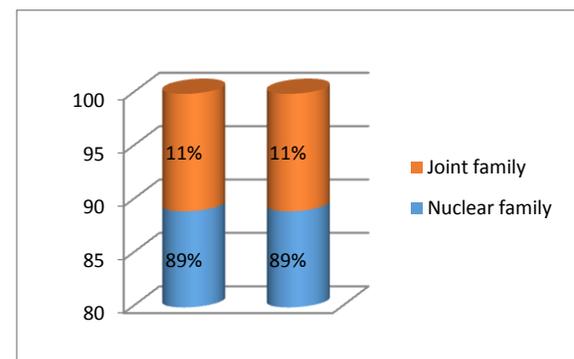


Figure 2
Percentage of respondent comes from types of family.

Present living area of the respondents

Data showed that 60% respondents are living with their family, 31% living in the Mess and the rest 9% lives in the University residence (Figure 3).

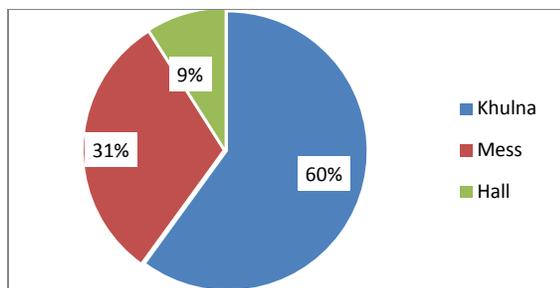


Figure 3
Percentage of the respondent come from types of residence.

Reason of using cellular phone by the respondents

It was observed that 35% respondents used Smartphone for pleasure and multimedia. Use of smartphone for socialization was 22%, for safety 31%. About 9% said that they use smartphone for privacy and only 3% said they use as showing status (Figure 4).

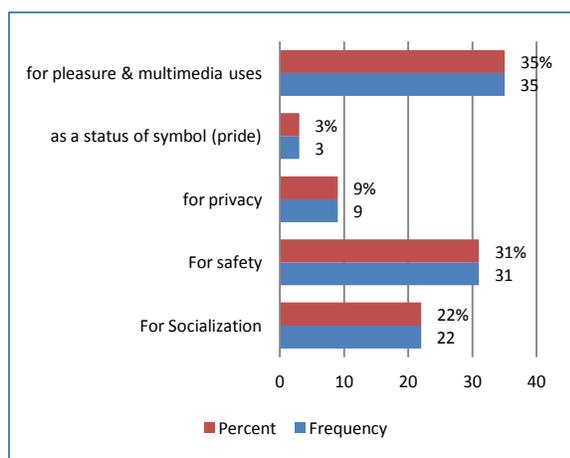


Figure 4
Percentage of respondents according to their purposes.

Objective of using smartphone by the respondents

Most of the respondent (51%) said that they used for talking with their family members and other members. Only 2% answered they use for taking photos and seeing videos. About 25% use for social media, 19% for multimedia services and 3% said for playing games (Figure 5).

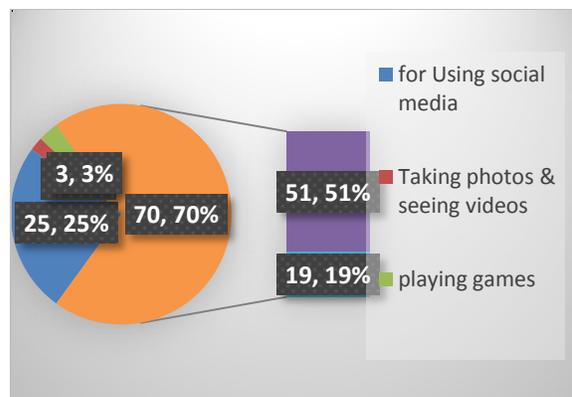


Figure 5
Percentage of respondent according to the uses of smartphone.

Time of using smartphone by the respondents

Out of 100 respondents the majority of them (62%) said that they use smartphone about two to five years. Only 4% said they use more than eight years. 14% respondents answered they use less than two years and the rest 20 % respondent said they use five to eight years (Figure 6).

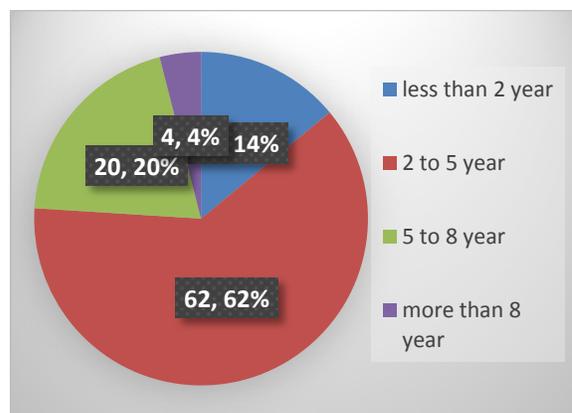


Figure 6
Percentage of respondent with duration of smartphone uses.

Duration of using smartphone by the respondents

This study also revealed that most of the respondent (44%) said they started using smartphone after admitted into university, 26% said they started before admitted into university

and 26% respondents said they used from college level. The rest 4% said they started using smart phone from secondary school level (Figure 7).

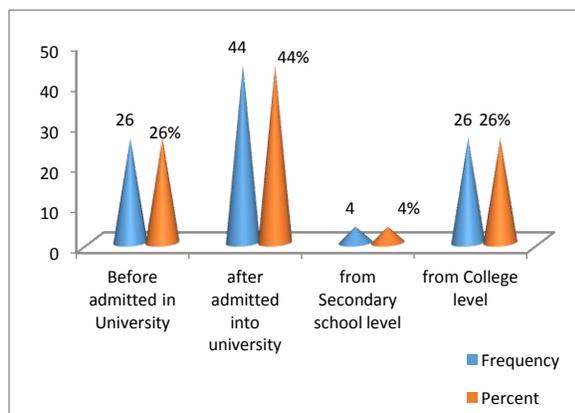


Figure 7
Percentage of respondent uses of smartphone at education level.

Residential area of the respondents

From this study also show that out of the 100 respondent's maximum (54%) comes from city area. On the other hand from rural area 30% respondent have come and the suburb area 14% and others area only 2%. (Figure 8)

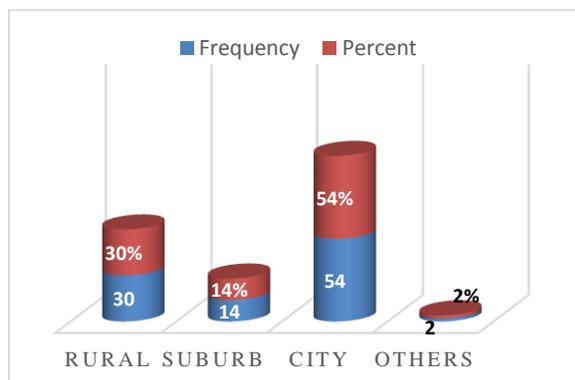


Figure 8
Percentage of respondents comes from different areas.

Spending time for smartphone by the respondents

There are 45% respondents said, they spend one to three hours for using smartphone in a day, 37%

respondents spend less than one hour. On the other hand 10% spend three to five hours and the rest 8% spend more than five hours in a day (Figure 9).

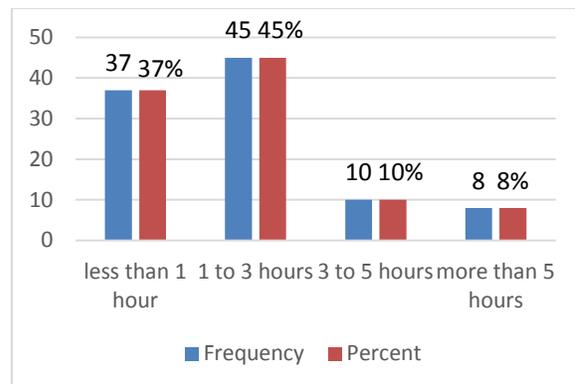


Figure 9
Percentage of respondent spending on the time they used smartphone.

Usage of smartphone for academic purpose by the respondents

Most of the respondent said they spend 1 to 10 hours' time in a week which percentage is 74%. The lowest 5% said they spend 21 hours more and 11% respondent answered 11 to 20 hours. Another 10% said they spend less than 30 minutes (Figure 10).

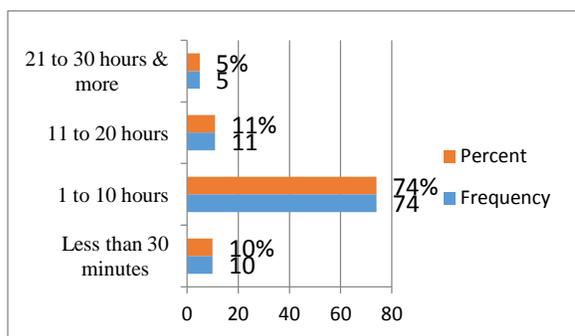


Figure 10
Percentage of respondents spend time to use smartphone.

Academic activities of the respondents by using smartphone

From this survey it has been found that most of the respondent answered they perform academic

activities by information searching on web which percentage is 81%. Respondent said they perform by e-book reading and the rest same 6 % by recording audio lectures and seeing video clips (Figure 11).

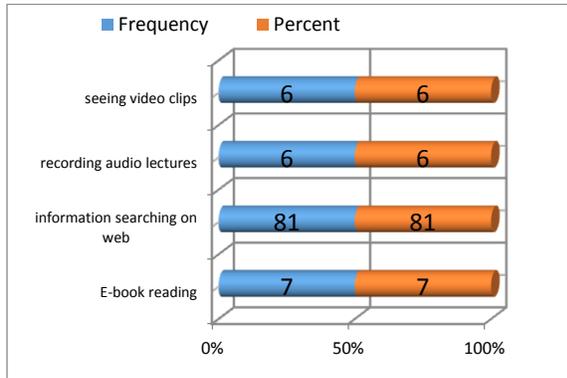


Figure 11
Percentage of respondent usages of smartphone to resolve academic activities.

Communication pattern of the respondents by using smartphone

Most of the respondents (47%) said they are using smartphone to connect with their family and friends. They maintain communication by using phone call to them, 9% by chatting through social media said and 5 % respondents answered they maintain connection through sending message (Figure 12).

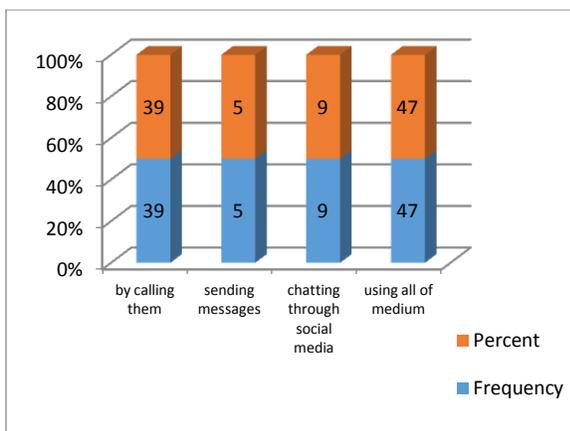


Figure 12
Percentage of respondent based on communication way to connect their family and friends.

Purpose of using smartphone by the respondents

On the other hand, majority of the respondent (62%) said that most of time they spend on smartphone by browsing social media. Only one participant respondent spending time by taking photos. 17 % spending time by talking, 12 % respondent by watching videos and the rest 8% spending time on smartphone by plying games (Figure 13).

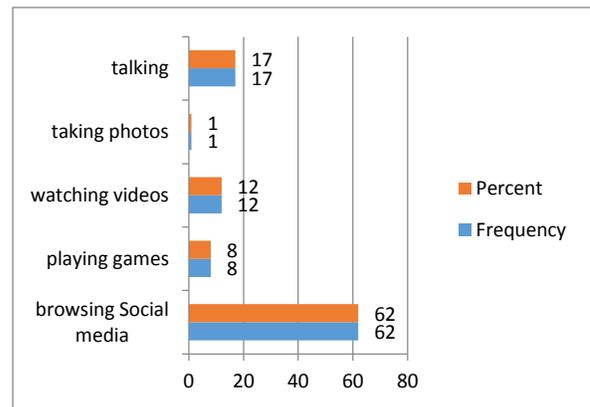


Figure 13
Percentage of respondent based on activities with smartphone.

Using pattern of smartphone by the respondents

The researcher also finds some interesting information from the study during academic session majority of the respondents (67%) said they do not respond at that time about 18% checking the SMS or call during class and 8%, immediately replying back while 7% answered they just switch off their cellphone during class time (Figure 14).

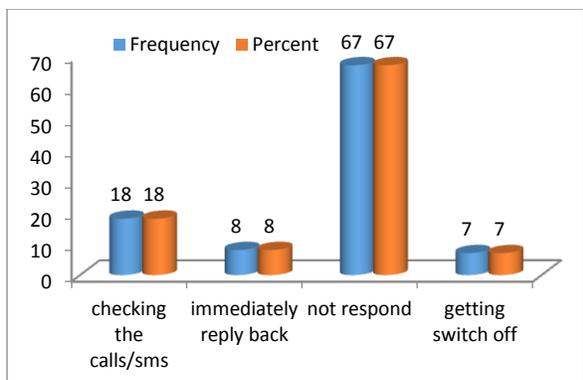


Figure 14
Percentage of respondent usages of smartphone during academic hour.

Reason of using smartphone by the respondents

On the other hand, about 53% respondent said that they are using smartphones for spending time by reading books, 20% doing academic work and 13% participants spending time by doing other works. 8% respondent said they are doing for social or voluntary works and the rest 6% spending time by playing sports (Figure 15).

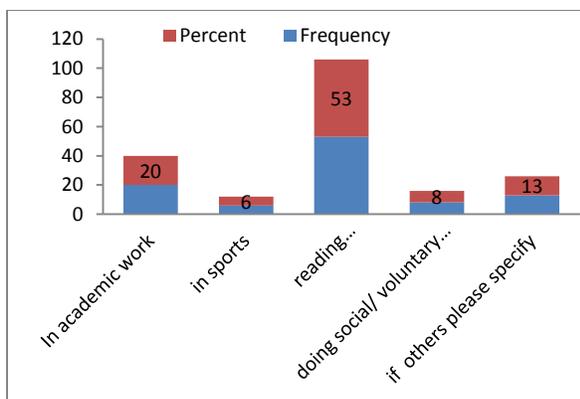


Figure 15
Percentage respondent based on the spending time in smartphone

Monthly mobile cost of the respondents

Data also represent that there are 57% respondents who said their monthly mobile cost in between 100 to 500 taka, 25 % said they spend less than 100 taka and 16% participant said their monthly mobile cost around 500 to 1000 taka. About 2%

respondent said that their mobile cost more than 100 taka (Figure 16).

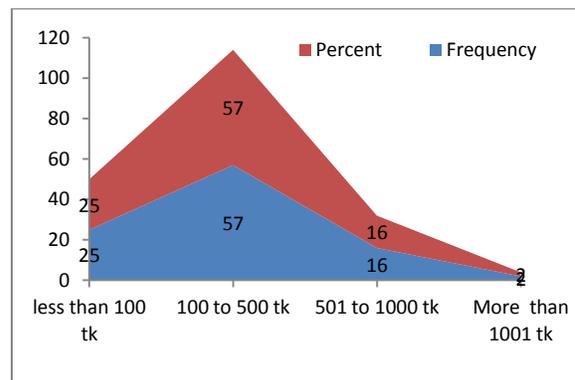


Figure 16
Percentage of respondent based on money they spend for smartphone activities.

Pattern of using smartphone during class period by the respondent

It was observed that 87% respondents keep their smartphones in silent mode, 4% keeping switch off and 7% keep their phone in ringtone mode and 2% keep others mode during academic class (Figure 17).

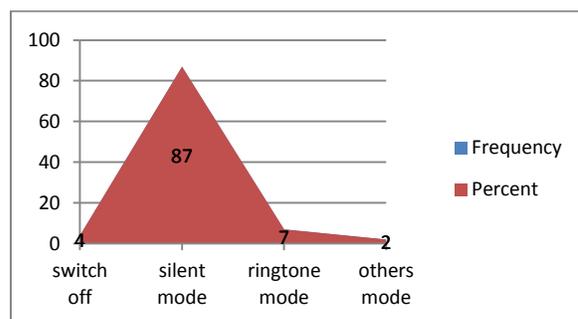


Figure 17
Percentage of respondent based on using mode of smartphone.

Pattern of disturbance by using smartphone

This study also show that the maximum respondent (68%) said sometimes they got wrong calls and disturbed by massages regularly 4% and frequently 7% and 21% respondent they did not get any kind of wrong call or messages (Figure 18).

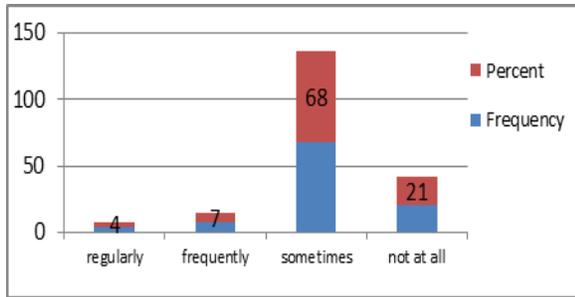


Figure 18
Percentage of respondent disturbs by using Smartphone.

Opinion of using smartphone by the respondents

About 61% respondents think that smartphone is a device for multimedia usages, 29% said it's a demand of time, 5% think it a matter of social prestige and 5% respondent answered that smartphone is just time passing device (Figure 19).

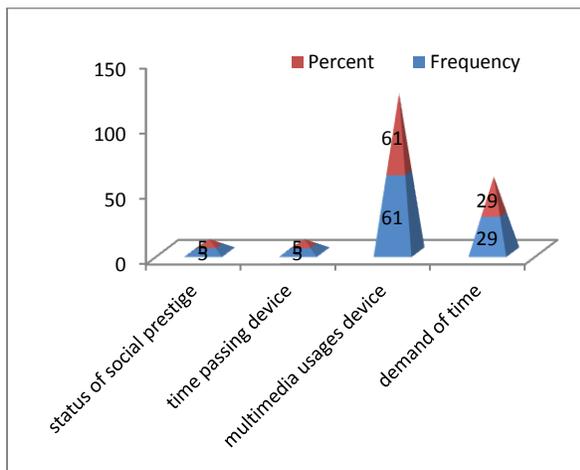


Figure 19
Percentage of respondent usage smartphone at different values.

Effect of smartphone usage on academic performance

The study shows that 54% respondent are getting CGPA less than 3.00. Only 9% percent said their result is above 3.26 and the rest 37% said their CGPA 3.00 to between 3.25 (Figure 20).

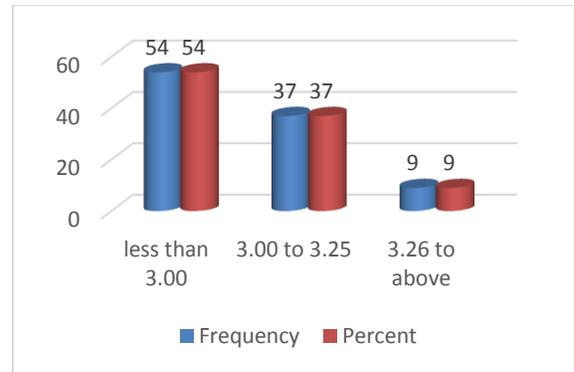


Figure 20
Percentage about the effects of smartphone used on respondent's academic performance.

Smartphones are now indispensable part in daily life. Owing to developed standard of living in the modern society, Smartphone ownership is highly prevalent among teens and young adults, especially students. The findings of this study suggest that specific objectives of smartphone usage and direct impact of their academic activities among the female students of Khulna University. In this study, the researcher observed that smartphone usage was high among the female students. Moreover, they are from low socioeconomic status families possessed their own smartphones.

It has been observed that some students possessed another spare smartphone, and many students were using dual SIM phones, which suggest improper usage of smartphones as they may be hiding their contacts, information or data from others, especially their friends and family members. Majority of the respondents were possessing smartphones along with Internet facility, and they frequently used it for taking pictures, recording videos, playing games, listening to music, and entertainment and pleasure.

In a study by Hossain (2019) at Jahangirnagar University, Bangladesh, among male approximately 50% of the students agreed that mobile phone is a waste of time for them.

In this study, majority of the students used their smartphones for social interaction and sharing of thoughts with their friends and families. Besides calling, the second most common usage of

smartphone was Information searching on web and also for browsing social media. Another common feature used on smartphone was different apps like whatsapp, imo, viber and messenger etc. these enables users to send and receive images, videos, audios, and text messages instantaneously to individuals and groups of friends.

The impact of social media has been extensively documented across the world. Chen and Peng (2008) reported that less using of internet can make better academic performance. Facebook usage contributed to lower actual GPA (Kirschner and Karpinski, 2010; Junco and Cotton, 2011).

The result also shows that, maximum female students use smartphones in the evening time or late night, which may be owing to their busy schedule of classes in morning or afternoon. While sleeping, students used to keep their phone on bed or table near to bed. Only few students switched off their phones during sleeping. These observations suggest that people who are habitual smartphone users get so much involved with it that they find it difficult to shut off their phones even at night time during sleeping. Students were also found to use their phones during late night hours. According to a study, there is no safe amount or safe time to use a smartphone after lights out; even moderate use doubles the risk of long-term tiredness. It may also potentially affect students' academic performance. It can be interpreted that many University students may be sacrificing their academic position, emotional and physical health, and other aspects of life only to ensure that they do not miss a call, text message, or social networking post (Gupta et al., 2015).

The influence of mobile phone usage on academic performance among secondary school student in Jalingo, Taraba State, Nigeria has been studied by Rabiou et al (2016) who reported that age difference was not a significant factor in mobile phone usage on academic performance among senior secondary school students. Parent's occupation was not a significant factor in mobile phone usage on academic performance among senior secondary school students and that the frequency of mobile phone usage does not significantly influence academic performance among male and female senior secondary school

students. However the dissimilarities on the results with present study might be due to the socio-economic and cultural differences between two different geographical settings.

Based on the present study it is observed that smartphone usage has the significant influence on academic performance among the female students of Khulna University in Bangladesh.

CONCLUSION

It can be concluded on the basis of the findings that majority of the respondents keep smartphones for browsing social media, reading novel/story/books /playing games etc. and they also used this device for connecting with their friends and families and others. A large proportion of the respondents used for Information searching on websites and they also prefer to send text messages multiple times a day. Many other respondents used of smartphones only for pleasure and entertainment also. About 4% of the students keep it switched off during work while during prayer time, 87% silent mode. The students sometimes feel disturbing wrong call and messages during their class time through smartphone it is also responsible for negative impact on their academic performance. But they feel proud of having costly phones. On the other hand, the parents feel easy to contact their daughters through smartphones. It is used for dictionary, internet and calculator. It has not only helped in improvement of academic performance of the students but also improved the quality of education. However, majority of the students were of the view that they are using smartphones for multimedia usages device, also for social status and only for demand of time. Similarly, it is also considered as wastage of time by some of the students.

The present study also suggest that the respondent should try to ensure positive usage of smartphones with less emphasis on chatting and unproductive text message to save their precious time which may be used to prepare their study which will be fruitful for them.

REFERENCES

- Arefin M, Islam M, Mustafi MAA, Afrin S and Islam N (2017). Impact of Smartphone Addiction on Academic Performance of Business Students: A Case Study. *Independent Journal of Management & Production*, 8(3), 955-974.
- Bisen S and Deshpande Y (2016). An Analytical Study of Smartphone Addiction among Engineering Students: A Gender Differences. *The International Journal of Indian Psychology*, 4(1) 81, DIP: 18.01.128/20160401 ISBN: 978-1-365-59365-9.
- Chen YF and Peng SS (2008). University students' Internet use and its relationships with academic performance, Interpersonal relationships, psychosocial adjustment, and self-evaluation. *Cyber Psychology & Behavior*, 11(4): 467-469. *Computers & Education*, 56, 370-378.
- Gupta Naveenta, Garg Sonia, Arora Khushdeep (2015). Pattern of mobile phone usage and its effects on psychological health, sleep, and academic performance in students of a medical university *National Journal of Physiology, Pharmacy and Pharmacology*, Vol 6 , Issue 2, 2016.
- Hong FY, Chiu SI and Hong DH (2012). A model of the relationship between psychological characteristics, mobile phone addiction and use of mobile phones by Taiwanese university female students. *Computers in Human Behavior*, 28: 2152-2159.
- Hossain MM (2019), *Impact of Mobile Phone Usage on Academic Performance*, World Scientific News 118 (2019) 164-180 EISSN 2392-2192. <http://www.btrc.gov.bd/content/mobile-phone-and-internet-subscribers-bangladesh-february-2019>.
- Jairus EU and Christian UU et al (2017). Impact of Mobile Phone Usage on Students' Academic Performance among Public Secondary Schools in Oju Local Government Area of Benue State, *IJSR Human Journals*, Vol.:6 Issue: 3.
- Junco, R., & Cotton, S. R. (2011). Perceived academic effects of instant messaging use.
- Kirschner PA & Karpinski AC (2010). Facebook and academic performance. *Computers in Human Behavior*, 26, 1237-1245.
- Kwon M, Lee JY, Won WY, Park JW, Min JA, et al. (2013). Development and Validation of a Smartphone Addiction Scale (SAS). *PloS one* 8(2): e56936.
- Rabiu H, Aisha IM, Yunusa U, Hadiza TA (2016). Impact of Mobile Phone Usage On Academic Performance Among Secondary School Students In Taraba State, Nigeria x *Scientific Journal* edition vol.12, No.1 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431.