

Influence of smartphone usage on academic performance of students in the Faculty of Communication and Information Sciences, University of Ilorin, Ilorin, Nigeria

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Abstract

The study investigated the influence of smartphone usage on academic performance students in the five departments of the Faculty of Information and Communication Sciences, University of Ilorin, Nigeria. The study was guided by five research objectives and descriptive survey design using questionnaire for data collection. Through convenient sampling techniques to select 315 respondents for inclusion in the study. The Statistical Package for Social Sciences (SPSS) version 22 was used to analysed the data collected with descriptive statistics. Results from the data collected revealed that a majority the respondents were femaless while 60.1% were in the age range of 20-24; that 68.4% of the respondents used Techno smartphone, 88.4% of the respondents agreed that the use of smartphone enhanced academic performance, 76.4% of the respondents indicated that smartphone usage lead to fatigue and sleeplessness, though 80.1% of the respondents agreed that change in the attitudinal behaviour is the solution to the problem of use of smartphone among students. Finally the study recommended among others that the university authority should address the issue of inadequate power supply on campus and monitor the use of smartphones for enhanced academic performance among students in the Faculty of Communication and Information Sciences, University of Ilorin.

.Keywords: Academic performance, Communication and information science, Library and information science, Perceived influence of smartphone, Smartphones and academic performance, Students, University of Ilorin, Nigeria

Introduction

Technological revolutions have made communication and sharing of information to take a new dimension, especially for educational purposes, amongst students at all levels. Falayi and Adedokun (2014) observed that the technological revolution has positively influenced the way students communicate and share information, particularly the use of smartphones. Similarly, Elogie, Ikenwe and Idubor (2015) considered smartphones as universal technology amongst the youths for allowing students to connect socially for personal, educational, entertainment and other purposes.

Elogie *et al.* (2015) noted that a smartphone is a mobile phone with more

advanced computing capability and connectivity than basic phone features. Early smartphones typically combined the characteristics of a mobile phone with those of another popular consumer information device like a personal digital assistant (PDA), a media player, a digital camera, or a GPS navigation unit. Nowadays, smartphones have all of those characteristics and others like touch screen computer, web browsing, Wi-Fi, and third-party users such as hotspot and sharing peculiarities (Falayi & Adedokun, 2014). Alfawareh and Jusoh (2014) revealed that smartphones debuted in the year 2000 by Ericsson with a smartphone model called R380. According to the study, it was the first time when this type of gadget (merging between a cell

phone and computer) functionality of a smartphone was made available for use. Today, the use of smartphones has replaced desktop in university and almost every office in the world. It is arguably taking centre stage in academic and other sectors at advancing and easing human activities all over the world.

Nushrat (2017) inferred that operating system allows the Smartphone to run its applications using the different operating system, such as iPhone runs IOS; BlackBerry runs The BlackBerry OS, other kinds of handsets operate on Google's Android OS, HP's web OS, and functionalities with Microsoft's Windows Phone. Japanese firm NTT DoCoMo in 1999 released the first smartphones to achieve mass adaption and later became prevalent in the 21st century, and most of those produced from 2012 onwards have high-speed mobile broadband 4G net, motion sensors, and mobile payment features. Nushrat (2017) reported that in the third quarter of 2012, one billion smartphones were in use worldwide.

Consequently, Sarwar and Soomro (2013) averred that the smartphone had impacted almost all the walks of human life since its inception. The study submitted that all activities on regular computers such as sharing information, sending and receiving emails, chatting, opening and editing documents, paying for products, browsing, and shopping using smartphones. It provides more applications for an increasingly extensive range of usage situations among university students in their academic performances; they have become an increasingly integrated part of students' everyday life (Rao, 2012). The use of smartphones among students recently has contributed to their lives in various forms. Academically, wireless internet services that enable access to search engine sites, such as

Google and Ask, have contributed positively to social and academic pursuit; access to social media sites, such as Facebook, WhatsApp, and Twitter have made the connection to the rest of the world easy and exciting to the students. Also, multimedia and entertainment services like camera, music, and games served as a companion to the university students. Alfawareh and Jusoh (2014) indicated that the adoption of the smartphone by mobile users in many countries around the world. Against this background, this study examined the influence of students use of smartphones academic academic performance in the Faculty of Communication and Information Sciences, University of Ilorin, Ilorin Nigeria.

Objectives of the study

The main objective of this study was to explore the perceived influence of smartphones on perceived academic performance of students in the Faculty of Communication and Information Sciences, University of Ilorin, Ilorin. Specific objectives were to:

1. identify various types of smartphone possessed and used by students in the Faculty of Communication and Information Sciences, University of Ilorin to enhance their academic performance,
2. examine the extent to which the students are making use of smartphones to enhance academic performance,
3. determine the influence of smartphone use on academic performance of the students,
4. identify challenges encountered by the students in using smartphone in gathering information for their perceived academic performances;

5. find out solutions to the challenges of the choice and use of smartphones for enhanced academic performance by the students.

Research questions

The following research questions were intended to guide this study:

1. What are the various types of smartphones possessed and used by students in the faculty of Communication and Information Sciences to enhance their academic performance?
2. What is the extent to which students in the Faculty of Communication and Information Sciences use smartphones to enhance academic performance?
3. What is the extent to which students in the Faculty of Communication and Information Sciences use smartphones to enhance academic performance?
4. What are the major problems encountered by the students with use of smartphones in gathering information to enhance their academic performance?
5. What are the solutions to the challenges to the students' use of smartphones to enhance academic performance?

Research hypotheses

The following hypotheses were tested in the study:

H₀₁: There is no significant relationship between Smartphone use and perceived students academic performance

H₀₂: There is no significant difference between Smartphone use and perceived academic performance based on gender

Literature review

Smartphones are speedily emerging technologies in the human race (Robello, 2010). Elogie, Ikenwe, and Idubor(2015) opined that smartphones allow students to have immediate access to up to date information in their academic activities within and outside the university. Hanson, Drumheller, Mckee, and Schlegel (2011) revealed that lecturers and teachers have reservations about the use of smartphones by students. The reservation premised on the believed that the use of smartphones by students in the universities could restrain them from their academic and stands as a hurdle to their academic pursuit. According to Boruff and Stories (2014), smartphones are commonly used by students to find and gather the information that helps capacity building in their area of specializations. Also, Bruce (2010) opined that students could also use smartphones to access links, relevant websites, videos, course materials and also they can learn at their convenient time. It shows quite a positive impact of the smartphone on student academic performances.

Rabiu, Muhammed, Umaru, and Ahmed (2016) submitted that internet/smartphone access has exposed many students to different kinds of content. In the recent time, the availability of different kinds of affordable and inexpensive smartphones have made it easy for students to access different types of social media and pornographic sites where they access, download, exchange and watch pornographic films or different sexual orientations from all over the world. Hanson, Drumheller, Mckee, and Schlegel (2011) averred that the current generation has grown up in a technologically rich world, using smartphones on chat rooms, electronic mails, computer games, and

listening to music and watching movies. According to Tindell and Bohlander (2012) added that in an emergency, text messages could be sent directly to students' phones for emergency and instructions on how to respond. Oksman (2010) stressed that new media, traditional media such as newspapers, radio, and television made available on the smartphone through the Internet with information that can assist university students' academic performance.

There are many different types of mobile devices. Smartphones and tablets are the more advanced devices under the generic term of mobile devices. Huyen Nguyen (2016) opined that the three most well-known systems of smartphones are: Android, iOS (iPhone Operating System) and Windows Phone. They all differ in how the system looks like, how it works, and the possibilities of the systems. There is no standard between those three smartphone systems, which makes it sometimes difficult for students to change smartphones with different systems. The most important is that they all have different apps and app stores. Some apps are available for iOS and Android, but not for Windows Phone and the other way around. It makes it difficult to change from different systems. Some examples of Smartphones/tablets include; Sony Ericsson, Palm Treo, Blackberry, Nokia T-Mobile Sidekick, Torq, Motorola Q, E-Ten, HP iPaq, Apple ipads, ipod, iphone, Samsung Galaxy Tabs and I-mate (Edonkumoh, 2015).

Afroz (2017) revealed that smartphones are becoming popular in the advanced world as everyone wants to carry their data and information with them all the time which smartphone makes possible. Acceptance of smartphones was with the likelihood that the future will take over all the other digital devices such as laptops, personal desktop computers, and notebooks.

Computer products are now branding smartphones, and each holds different qualities. Good knowledge of student's brands' preferences in smartphones helps in understanding how brands shape students buying decisions and preferences (Afroz, 2017).

The introduction of smartphones at the beginning of the 20th century made a tremendous influence on students and staff by changes the seeking and retrieving of information to meet academic teaching, learning, and research objectives. Since its introduction, it has been fused into many colleges and universities using different educational models (Raths, 2012; Marmarelli & Ringle, 2011).

The preference of smartphones amongst the university students is chiefly due to portability performance capacity, high functionality, and ability to revitalize the broad spectrum of teaching, learning and research process via easy and faster internet access. Jubien (2013) mentions one finding of how smartphones are influencing and changing educational practices, for example, changes in the way to gather information, to receive instructions from teachers, to do homework, to collaborate with classmates, among others.

Rabiu, Umaru and Ahmed (2016) believed that the smartphone is ready for enhancing student's academic performance in the schools. While in school, students are to take prescribed roles by concentrating on their studies and free from contact with the outside world. However, the smartphone enables students in their roles with other distractions and disruptions to the students' academic works. Before now, fixed telephones were the norm in schools, there were minimum distractions and disruptions, but presently with the invasion of smartphones and the willingness of parents and guardians to maintain contact with their

wards, smartphones are becoming part of the classroom (Rabiu et al., 2016). Thus, the smartphone now undermine the schools' authority and weaken their control over students as well as affect students level of academic performances (Jumoke, Oloruntoba & Blessing, 2015)

Omopupa, Olasina, Ishola and Muhammed (2018) reiterated that the benefits of the smartphone on learning are that it provides portability, collaboration and motivation enhancing students, parents and teachers' educational performance. The smartphone convenience enables student learning to be permeating in retrieving course information through their smartphones from class to class. It portability improves a wide variety of learning settings including field trip, the classroom and the off-campus learning activities. Social media such as Whatsapp, Facebook and Twitter usages on students' mobile phones allow students to create groups to distribute and share knowledge and information with ease, and this could result in a more successful collaborative learning

The usage of the smartphone as a means of interactions among students to create, share, and collaborate information and ideas in virtual communities and networks (Blumstock & Eagle, 2010). Internet access exposes many students to different kinds of content they now used for learning and recreation purposes. Also, the availability of different kinds of affordable and inexpensive android smartphones made it very easy for the student to have access to different types of social media and pornographic sites. It enables students to access, download, exchange, and watch pornographic films of different sexual orientations from all over the world. Osemudiamen (2017) argued that guidance and counselling services are either absent or

inactive on campuses to educate the student on how to use smartphones for their academic activities. Students nowadays are influenced by what they watch on the internet that one can easily see the consequences of their academic performance and lifestyles (Osemudiamen 2017).

Gowthami and VenkataKrishnaKumar (2016) averred that smartphones enable students to cooperate on social media platforms, e-mails, play online games, and watch TV channels. The study also concluded that it distracts students in their studies and can become distracting for other students around them and other members of the class. Similarly, smartphones prevent students from making calls during examinations to cheat but it may be easy for students in a crowded classroom or examination hall to use their smartphones to access information online to cheat in exams. Gowthami and Venkata, Krishna and Kumar (2016) also observed that the wrong usage of smartphones could be through the use of text message exchange with other students, find answers on the Internet, using the advanced calculator, phone applications and reading notes saved on their phones to help on the test. Gupta (2015) revealed that smartphones might cause internal harm to the brain due to the continuous chatting and unlimited usage of ware less application protocol and damages the reflection of the eye.

Hanson, Drumheller, Mallard, McKee and Schlegel (2011) observed that students prefer the use of instant messaging, library email, and web-surfing to the library's online resources browsing. However, students want to make academics a priority, but they have a difficult time balancing their school life with their needs for financial and social supports. The study also found that students focus more on

updating their Facebook status than downloading their homework assignments.

Methods

This study adopted a descriptive survey described by Osuala (2013) as a prerequisite for finding answers to questions. The reason for adopting this design is that a descriptive survey is one of the research designs which seek the opinions of individuals on a particular problem and the consensus opinion. Therefore, the target population of this study consists of undergraduates' in the Faculty of Communication and Information Sciences (CIS) comprises of five (5) departments: Computer Science, Information Communication Science; Library and Information Science; Mass Communication and Telecommunication Science.

The study adopted a convenience sampling technique because of the difficulty in getting the attention of the whole targeted population within a limited time. Therefore, the study selected a total number of 315 respondents among the population using Yaro Yamane's (1969) simple statistical formula (Ryan, 2013). The study used questionnaire as a data collection instrument and data collected from the field were analyzed using the descriptive statistics of simple percentage and frequency counts. The data collected were analyzed using the IBM SPSS version 22 for its simplicity in analyzing data.

Results

A total of 315 copies of questionnaire were administered to respondents in the faculty with the help of three research assistants. Out of the 315 copies, only 301 copies were returned. That means a total of 9(2.9%) copies could not be retrieved. A total of

5(1.6%) copies were not filled or wrongly filled, thereby invalidated for the study.

Moreover, only 301(95.5%) were filled and validated for the study. Hence, the return rate for the administered questionnaire for this study is 95.5%. Therefore, necessitated the use of the total number of respondents whose responses were for analyses in this study is 301.

Table 3 shows responses to the gender of respondents with 78(25.9%) respondents were male, while 223(74.1%) respondents were female. This show that the majority of respondents were female in the faculty

Table 4 shows the response on age of the respondents with 97(32.2%) of them in the age range of 15-19, while 181(60.1%) 20-24 age range and 23(7.6%) 25-29 years. It shows that a majority of respondents were between age 20-24 in the faculty.

Table 5 shows that 74(24.6%) of respondents were in Mass Communication department, 63(21%) in Library and Information Science department, 106(35.2%) in Computer Science while 37(12.3%) in Telecommunication department while 21(7%) of them were in Information and Communication Science department. This implied that the Computer Science department was highly represented in the study.

Answering research questions

Research question: What are the various types of smartphones possessed and used by students in the faculty of Communication and Information Sciences to enhance their academic performance?

Table 6 shows responses on the different types of smartphone possessed and used to enhance academic performance by Faculty of Communication and Information Sciences students. A total of 208(68.4%) of respondents have Tecno as smartphone,

followed by Htc, 287(95.3%) while Ericson attracted the lowest response of 4(1.3%).

Research question two: What is the extent to which students in the Faculty of Communication and Information Sciences use smart-phones to enhance academic performance?

The Table 7 shows response to the use of Smartphone for academic performance by students with 122(40.5%) of respondents use Smartphone daily for assignment, 84(27.9%) of respondent make use of Smartphone weekly for assignment, 25(8.3%) of respondents make use of Smartphone fortnightly, 40(13.3%) of respondents make use of Smartphone monthly for assignment while 30(10%) of respondents make use of Smartphone occasionally for assignment. Moreover, 78(25.9%) of respondents make use of Smartphone daily for examination, 83(27.6%) of respondents make use of Smartphone weekly for examination, 58(19.3%) of respondents use it fortnightly, 48(15.9%) of respondents use it monthly while 34(11.3%) of respondents use it occasionally. The table also shows that 106(35.2%) of respondents were making use of Smartphone for classwork daily, 97(32.2%) of respondents make use of Smartphone on weekly basis, 30(10%) of respondents use Smartphone for classwork fortnightly, 32(10.6%) of respondents make use of Smartphone for classwork monthly while 36(12%) of respondents make use of Smartphone for classwork occasionally.

Moreover, 105(34.9%) of respondents make use of Smartphone for gameplay on daily basis, 69(22.9%) of respondents make use of Smartphone for game on weekly basis, 29(9.6%) of respondents make use of Smartphone for game on fortnightly basis while 28(9.3%) use Smartphone monthly for gameplay, 29(9.6%) of respondents make use of

Smartphone monthly for gameplay and 41(13.6%) of respondents do not make use of Smartphone for gameplay at all. The study also revealed that 163(54.2%) of respondents make Smartphone for group discussion on daily basis, 69(22.9%) of respondents make use of Smartphone for group discussion on weekly basis, 26(8.6%) and 24(8.0%) of respondents use of Smartphone fortnightly and monthly respectively for group discussion while 15(5.0%) of respondents make use of Smartphone occasionally and (1.3%) of respondents do not make use of Smartphone at all.

However, 94(31.2%) of respondents make use of Smartphone on daily basis for texting, 41(13.6%) of respondents on weekly basis, 16(5.3%) of respondent on fortnightly basis, 84(27.9%) of respondents on monthly basis while 32(10.6%) of respondents occasionally and 28(9.3%) of respondents do not make use of Smartphone for texting at all. The table also shows that 74(24.6%) of respondents make use of Smartphone daily for chatting, 70(23.3%) of respondents on weekly basis, 88(29.2%) of respondent fortnightly, 29(9.6%) of respondents on monthly basis while 37(12.3%) of respondents use Smartphone occasionally and 3(1.0%) of respondents do not use Smartphone for chatting at all. In conclusion, 25(8.3%) of respondents use Smartphone for watching the film daily, 172(57.1%) of respondents weekly, none of the respondents use Smartphone fortnightly, 54(17.9%) of respondents use Smartphone monthly, while 41(13.6%) of respondents do not use smartphones occasionally, and 9(3.0%) of respondents do not use smartphones at all.

Research question three: What is the extent to which students in the Faculty of Communication and Information Sciences

use smartphones to enhance academic performance?

The Table 8 shows responses of respondents on the influence of smartphone on academic performance of the students with 270(89.7%) of respondents agreed that Smartphone improves the academic performance of students in the Faculty of Communication and Information Sciences while 31(10.3%) of respondents strongly disagreed. 273(90.7%) of respondents strongly agreed that Smartphone exposes students in the Faculty to many disciplines and 28(9.3%) strongly disagreed that Smartphone exposes students to many disciplines. 222(73.7%) of respondents strongly agreed that smartphones keep students abreast of discoveries while 23(7.6%) of respondents were neutral and 56(18.6%) of respondents disagreed.

Moreover, 244(81.0%) of respondents strongly agreed that it broadens knowledge of students while 13(4.3%) of respondents were neutral, and 34(14.6%) strongly disagreed that it broadens knowledge. 263(87.4%) of respondents strongly agreed that Smartphone distracts students from studies while 18(6%) of respondents were neutral and 20(6.7%) of respondents disagreed that it distracts students from studies.

Also, 266(88.4%) of respondents strongly agreed that smartphones facilitate the gathering of data and information while 16(5.3%) of respondents were neutral and 19(6.3%) of respondents disagreed that it facilitates the gathering of data and information. 295(98%) of respondents strongly agreed that Smartphone serves as a private tutor to students in the Faculty of Communication and Information Sciences. 223(74.0%) strongly agreed that its distraction in the class causes low academic performance while 30(10%) of respondents were neutral and 48(15.8%) strongly

disagreed that its distraction in the class causes low academic performance in the Faculty of Communication and Information Sciences

Research question four: What are the major problems encountered by the students with use of smartphones in gathering information to enhance their academic performance?

Table 9 shows response on problems encountered by the students with use of smartphones in gathering information to enhance their academic performances.

Problem of sighting/hearing senses attracted the high affirmative responses of 295(98%), followed by power failure with 257(85.4%) with 250(83.1%) of them affirming to problem of instability of network service.

Research question five: What are the solutions to the challenges experience by the students' use of smartphones to enhance academic performance?

Table 10 shows responses on solutions to the challenges of using Smartphone to enhance academic performance with 229(76.1%) of respondents were strongly agreed with a deep understanding of Smartphone as tools for the improvement of academic performance while 38(12.6%) of respondents were neutral and 34(11.3%) of respondents disagreed. A total of 252(83.7%) respondents strongly agreed that strict policies must be made to ensure proper use of smartphones while 9(6.3%) of respondents were neutral, and 30(9.9%) of respondents strongly disagreed that strict policies must be made on smartphones usage.

However, 241(80.1%) of respondents strongly agreed that the addicted students of smartphones should

change their attitudinal behaviour and thought while 20(6.6%) of respondents were neutral, and 40(13.3%) of respondents strongly disagreed. 235(78.1%) of respondents strongly agreed with the advancement of in-network service provisions while 25(8.3) of respondents were neutral, and 41(13.6%) of respondents strongly disagreed. 219(72.8%) of respondents strongly agreed with improvement in the power supply while 52(17.3%) of respondents were neutral, and 30(10%) of respondents strongly disagreed. 241(80.1%) strongly agreed that their parents should give students close mark watch on the used Smartphone while 20(6.6%) of respondents were neutral and 40(13.3%) of respondents disagreed strongly.

Testing of hypotheses

H₀₁: There is no significant relationship between Smartphone use and perceived students' academic performance.

Table 11 shows the distribution correlation of the significant relationship between Smartphone use and perceived academic performance of undergraduates of faculty of communication and information sciences. Therefore, the hypothesis that "There is no significant relationship between Smartphone use and perceived students' academic performance is accepted" because the correlated of 0.63 is more significant than 0.05 level of significance.

H₀₂: There is no significant difference between Smartphone use and perceived academic performance based on gender

The analysis of the result in table 12 shows that the P-values (is less than the significance level (0.05) for 291 degrees of freedom ($P=0.04$, $P<0.05$). It means that the hypothesis which stated that there is no significant difference between Smartphone use and perceived academic performance

based on gender is rejected at the level of significance 0.05. It implies that there is a significant difference between Smartphone use and perceived academic performance based on the gender of undergraduates' in the faculty of communication and information sciences

Discussion

On smartphones possession and use among CIS students, the study shows that the majority of them have Techno, tablets, Nokia, Lenovo, ITEL and Infinix with only a few respondents have Toshiba and Erickson. Therefore, it concurs with the study by Huyen Nguyen (2016) who opined that the three most well-known systems of smartphones are: Android, iOS (iphone Operating System) and Windows Phone.

The findings of the study on the extent of Smartphone use on the academic performance of the students display that the majority of students in the Faculty of CIS make use of smartphones for assignment, examination, games, chatting, group discussion and classwork most especially on daily and weekly basis. Though, only a few respondents use smartphones for watching films daily, as shown in the study.

The study further reveals that majority of respondents agreed that Smartphone improves academic performance, serves as a private tutor, broadens knowledge, facilitates the gathering of data and information, keeps students abreast of discoveries and its distraction in the class causes low academic performance. Rabiou Muhammed, Umaru and Ahmed, (2016) supports it that smartphone provides room to blending students' to function with other roles thus distracting and disrupting the students' academic work. In the past, when fixed telephones were conventional in schools, there were minimum distractions and disruptions but

presently with the invasion of smartphones and the willingness of parents to maintain regular contact with their wards makes the device at becoming part of the classroom.

Findings of the study on the challenges encountered by using Smartphone for an academic performance show that majority of respondents agreed that inadequate power supply, wastage of productive time, sight/hearing problem and fatigue are causing disturbance and interruption on their academic performances. It is similar to the study by Gupta (2015) who affirmed that Smartphone may cause the internal ham to raze of the brain due to the continuous chatting and unlimited usage of ware less application protocol. Smartphone damages the reflection of the eye because it is such an active medium to highlight the social media for the adolescents. More so, the finding

affirmed the study of Ikene, Iguehi, Joy; Idhalama, Ogagaghene Uzezi and Inegbenojie, Osemudiamen Emmanuel (2017) that lack of regular power supply or incessant power outages mostly in developing countries of Africa affects the effective use of smartphones for medical and health education. Due to the high functional details embedded in smartphones, their practical use demands constant or relatively regular power supply. Thus lack or absence of this will significantly hamper the use of such high tech digital materials for adequate medical teaching, learning and research. On the solution to the challenges of Smartphone on the academic performance of CIS students, the study shows that prompt power supply, useful policies and laws, proper monitoring by parents and improvement in network service provisions could positively influence students' academic performance.

Kamal Tunde Omopupa, Abdulrasaq Abdulrauf, Ahmed Usman Abdulsalam, Hajarat Abubakar and Kabir Alabi Sulaiman: Influence of smartphones usage on academic performance of students in the Faculty of Communication and Information Sciences, University of Ilorin, Ilorin, Nigeria

Table 1: Population of students in the faculty

S/N	Departments	100 level	200 level	400 level	Total
1.	C S	110	120	144	354
2.	I C S	108	65	81	254
3.	L I S	156	138	72	366
4.	M C	92	57	78	222
5.	TCS	95	88	70	253
	Total	561	448	445	1474

Note: Lists of registered students in the Faculty of Communication and Information Sciences, excluding three hundred level students who were in SIWES.

Table 2: Questionnaire response rate

Copies of the questionnaire				
Administered	Retrieved	Lost	Validated	Invalidated
100% (=315)	95.5% (n=301)	2.9% (n =9)	85.2% (n = 340)	1.6% (n = 5)

Table 3: Distribution of Respondents by Gender

Gender	Frequency	Percentage
Male	78	25.9%
Female	223	74.1%
Total	301	100

Table 4: Distribution of Respondents by Age

Age	Frequency	Percentage
15-19	97	32.2%
20-24	181	60.1%
25-29	23	7.6%
Total	301	100

Table 5: Distribution of respondents by department

Department	Frequency	Percentage
Mass Communication	74	24.6%
Library and Information Science	63	21%
Computer Science	106	35.2%
Telecommunication	37	12.3%
Information and Communication Science	21	7%
Total	301	100

Table 6: Different types of smartphone

Types of smartphone	Frequency and percentage
Tecno	208(68.4%)
Htc	54(17.9%)
Tablet	287(95.3%)
Nokia	123(40.8%)
Eriksson	4(1.3%)
Infinix	87(28.9%)
Itel	106(35.2%)
Gionee	67(22.3%)
Toshiba	26(8.6%)
Lenovo	91(30.2%)
LG	57(18.9%)

Table 7: The use of Smartphone for academic performance by students

Academic Work/performance	Daily %	Weekly %	Fortnightly %	Monthly %	Occasionally %	Not all
Assignment	122(40.5%)	84(27.9%)	25(8.3%)	40(13.3%)	30(10%)	-
Class work	106(35.2%)	97(32.2%)	30(10%)	32(10.6%)	36(12%)	-
Examination	78(25.9%)	83(27.6%)	58(19.3%)	48(15.9%)	34(11.3%)	-
Game	105(34.9%)	69(22.9%)	29(9.6%)	28(9.3%)	29(9.6%)	41(13.6%)
Group discussion	163(54.2%)	69(22.9%)	26(8.6%)	24(8.0%)	15(5.0%)	4(1.3%)
Text	94(31.2%)	41(13.6%)	16(5.3%)	84(27.9%)	32(10.6%)	28(9.3%)
Chatting	74(24.6%)	70(23.3%)	88(29.2%)	29(9.6%)	37(12.3%)	3(1.0%)
Watching firm	25(8.3%)	172(57.1%)	-	54(17.9%)	41(13.6%)	9(3.0%)

Table 8: Influence of Smartphone on academic performance

Influence on academic performance	SA%	A%	N%	D%	SD
Smartphone improve my academic performance	91(30.2%)	179(59.5%)	-	28(9.3%)	3(1.0%)
It exposes students to may discipline	160(53.2%)	113(37.5%)	-	17(5.6%)	11(3.7%)
It keep students abreast of new discoveries	137(45.5%)	85(28.2%)	23(7.6%)	39(13%)	17(5.6%)
It broadens knowledge	128(42.5%)	116(38.5%)	13(4.3%)	27(9.0%)	17(5.6%)
It distracts students from studies	72(23.9%)	191(63.5%)	18(6%)	12(4%)	8(2.7%)
It facilitates gathering of data and information	106(35.2%)	160(53.2%)	16(5.3%)	15(5%)	4(1.3%)
It serve as private tutor	247(82.1%)	48(15.9%)	-	4(1.3%)	2(0.7%)
It distraction in the class causes low academic performance	166(55.1%)	57(18.9%)	30(10%)	16(5.3%)	32(10.6%)

Table 9: Challenges encountered by CIS students in Using Smartphone

Variable	SA%	A%	N%	D%	SD%
Instability of network service	115(38.2%)	135(44.9%)	15(5%)	18(6%)	18(6%)
Power failure	128(42.5%)	129(42.9%)	6(2.0%)	23(7.6%)	15(5%)
Sleepless nights and fatigue	74(24.6%)	156(51.8%)	17(5.6%)	36(12%)	18(6%)
Causing accidents	160(53.2%)	77(25.6%)	6(2%)	41(13.6%)	17(5.6%)
Sight/hearing problem	143(47.5%)	152(50.5%)	-	-	6(2%)
Productive time wastage	121(40.2%)	111(36.9%)	36(12%)	26(8.6%)	7(2.3%)

Table 10: Solutions to the challenges of using Smartphone for academic performance

Variable	SA%	A%	N%	D%	SD%
Deep understanding of Smartphone as tools for the improvement of academic performance	96(31.9%)	133(44.2%)	38(12.6%)	22(7.3%)	12(4%)
Strict policies must be made to ensure proper use of Smartphone	171(56.8%)	81(26.9%)	9(6.3%)	10(3.3%)	20(6.6%)
The addicted students of Smartphone should change their attitudinal behaviour and thought	86(28.6%)	155(51.5%)	20(6.6%)	29(9.6%)	11(3.7%)
Advancement in the network service provisions	77(25.6%)	158(52.5%)	25(8.3)	16(5.3%)	25(8.3%)
Improvement of power supply	111(36.9%)	108(35.9%)	52(17.3%)	19(6.3%)	11(3.7%)
Students should be given close mark watch by their parents on the use of Smartphone	149(49.5%)	92(30.6%)	20(6.6%)	18(6%)	22(7.3%)

Table 11: Analysis of responses on the relationship between Smartphone use and perceived students academic performance

		Smartphone	Perceived academic performance
Smartphone	Pearson Correlation	1	-.291
	Sig. (2-tailed)		0.63
	N	301	301
Perceived academic performance	Pearson Correlation	-.291	1
	Sig. (2-tailed)	.063	
	N	301	301

Table 12: There is no significant difference between Smartphone use and perceived academic performance based on gender

Variables	Score	Mean	SD	N	Df	P-value	Remark
Male	78	53.21	12.9	301	291	0.04	Ho ₂ is
Female	223	25.87	9.3				rejected

Conclusion

In this study, an effort was made to analyse the influence of Smartphone use on academic performance of students in the Faculty of Communication and Information Sciences, University of Ilorin, Ilorin. In this study, it established that Smartphone use has both negative and positive influence on the academic performance of the students in the Faculty, as shown in the findings of the study. It has led to the improvement in knowledge acquisition and thereby upgrading the Cumulative Grade Point of (CGP) of some students and vice versa. By and large, exceptional care by students of the Faculty of Communication and Information Sciences on Smartphone use.

The following recommendations are made based on the findings of this study:

1. The use of various types of smartphones should be encouraged to enhance academic performance at all levels among the students of various departments in the Faculty of Communication and Information Sciences, University of Ilorin.
1. There should be a periodic assessment of the extent of use of smartphones for improved academic performance among the students of various departments in the Faculty of Communication and Information Sciences, University of Ilorin.
2. Regular and routine check on the positive influence of smartphone usage for academic performance should be enshrined in the institutional rules and regulations

in the Faculty of Communication and Information Sciences, University of Ilorin.

3. The university authorities should address the issue of inadequate power supply on campus and monitor the proper use of smartphones for academic performance among students in the Faculty of Communication and Information Sciences, University of Ilorin.
4. Collaborative effort with agencies like the Nigerian Communication Commission (NCC) to monitor service providers at ensuring affordable subscription rates are recommended while the Faculty of Communication and Information Sciences should try to provide free and functional Wifi for students.

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