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IMPLICATION OF INTERNET-ENABLED MOBILE DEVICE ON STUDENTS' ACADEMIC PERFORMANCE AT THE FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

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ABSTRACT

This study investigated the influence of internet enabled mobile devices on students' academic performance at the Federal University of Technology Minna (FUTM). Data of the study were collected using survey questionnaire that was administered to 377 respondents drawn based on stratified random sampling method. The response rate was 94%. The overall findings revealed that 140 (40%) respondents very strongly agreed that they know how to use internet enabled mobile devices. And 136 (38%) respondents very strongly agreed that most students use their internet enabled mobile devices to chat on social media. Also 116 (33%) respondents agreed that the time spent by undergraduate students of FUTM using internet enabled mobile devices in surfing the internet have caused drawback to their academic performance. While 89 (25%) respondents agreed Whatsapp internet application is very useful to their academic performance. The study concludes that majority of the students are negatively influenced because they usually spend more time doing other things that has nothing to do with their academic interest, which in turn negatively affect their academic performance. While some of the students are positively influenced due to the fact that they use it as a medium of research and solve their school assignment problems. The study recommends that undergraduate students of FUTM should pay more attention to researches relating to their area of specializations when using their mobile devices to surf the internet. As for the distraction caused by the use of online social networks students should manage their time appropriately when chatting on social networks.

Keywords: internet-enabled devices, internet application, academic performance, mobile devices, social networks, internet distractions

INTRODUCTION

Mobile internet usage is no longer a wish as it used to be in two decades back, as it has become something very common all over the world. People can access internet from every remote location using their mobile devices. Therefore it is important we understand what internet and mobile devices are. Internet is defined as the interconnection of computer networks across the globe using the standard internet protocol suite, Transmission communication protocol and internet protocol (TCP/IP) to make billions of electromechanical devices to communicate or exchange resources worldwide. Internet can also be seen as the network of all other networks that

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interconnect devices throughout the universe to enhance communication exchange of resources using TCP/IP as a platform. While mobile devices are electronic devices or gadgets that can be handled, portable and easily movable to anywhere the user want to use it (Emeka, 2013).

As mobile devices have become more available, they are increasingly owned and used by youths. As a result of development in mobile devices, it has become loaded with more functionalities ranging from video recording, sharing of files, camera for taking pictures accessing the internet and music playing, teenagers and young adults have an ever-increasing capabilities of internet usage. This implies that, we are moving into dispensation where electronic mobile devices and phones are not just for making calls and sending text messages, but can also access the internet and its contents in general (Pew Research Center, 2010). Examples of these mobile devices are: mobile phones, laptops, iPad, tablet etc. Mobile internet usage is the process of using mobile devices to access internet in other to solve some problems that has to do with the internet.

The importance of the internet cannot be over emphasize as it has cut across all human endeavour, and the internet has also contributed drastically in the area of information and communication technology which has now turn the world into a global village. Exchange of information between people of the world which sounded utopist before is now becoming a reality in our very eyes giving practical meaning to Marshall Mollohan's view of the world as a global village interlinked by communication technologies, (Lucan, 1964). Notwithstanding, the mobile internet usage has also become addict to most people today precisely the young people. A study that was carried out in University of Navarra reveals that teenagers between 15 and 19 agreed that they are addicted to their mobile phones (Naval, 2004). Some British scientists also noted that increasing number of people are becoming more addicted to mobile electronic devices, leading to stress and irritability (BBC, 2006). And also mobile some device specialists indicate that the misuse of mobile devices especially mobile phones could be considered as an addiction that has to be stopped with an immediate effect (Paniagua, 2005). Today most people all over the world usually access the internet using their mobile devices which has made internet more portable and more accessible globally. There is no doubt that the use of mobile devices among young adults in general has reached saturation stage, as various students in colleges and universities in both developed and many developing countries own different kind of mobile devices. Most of these devices are a smart device which implies that they have some intelligent functionality which is not present in other mobile devices that are now backdated. The previous differences or distinctions between mobile devices like laptop computers and telephones are no longer put into consideration due to the fact that intelligent features are now attached mobile devices. Example of this can be attached to the United States viewpoint, where

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a court of appeals made ruled that smart phones, from a legal viewpoint, are essentially computers (Kramer, 2011). Mobile devices now perform most functions that were previously performed by computers only which is one of their smart attribute or quality.

It is very important we look into the influence of this addicting innovation masquerading as mobile devices so that we may know it stands in our life and the future of the upcoming generation. Hence, this informs why this project is undertaken with a view of finding out the influence of mobile internet usage on the academic performance of undergraduate students of Federal University of Technology Minna.

STATEMENT OF THE PROBLEM

Due to the advancement in technology, students in tertiary institution have adopted the use of mobile devices to surf the internet in order to solve their problems remotely (Ezemenaka, 2013). No doubt this sophisticated electronic innovation has contributed positive progress in our various societies which assisted in improving the living standard of people across the globe today. The students of Federal University of Technology Minna are not left out of this recent innovation of using mobile devices in surfing the internet which has contributed significantly to their daily life activities. Also researches has equally shown that this internet usage via mobile devices has caused some draw backs in students' academic performance due to some factors, which includes amount of time spent on non-academic activities such as social media and internet relay chats (IRC) (Ndaku, 2013), and the nature of content being accessed on the internet (Sushma, Suman & Ulysses). Researchers and scholars have also identified the challenges associated with mobile internet usage (Gay & Grace-Martin, 2001). These problems are neither caused by internet nor mobile devices, but attributed to those users or students that are mismanaging the use of mobile devices in surfing the internet within and outside the school environment (Junco, Merson & Salter, 2010). So, it is important we know the relationship between these factors and students' academic performance. Based on this backdrop, this study seeks to investigate the relationship that exists between internet enabled mobile device usage and students academic performance at Federal University of Technology Minna.

AIM AND OBJECTIVES OF THE STUDY

The aim of the study is to examine the influence of internet enabled mobile devices on students' academic performance, based on time spent and the nature of content being accessed on mobile devices compared to time spent on academic performance.

OBJECTIVES:

1. To find out the awareness of Federal University of Technology Minna

- undergraduate students about mobile internet services.
2. To investigate in what ways are Federal University of Technology Minna undergraduate students are using mobile internet services.
 3. To determine the possible effects of using internet enabled mobile devices on the academic performance of Federal University of Technology Minna undergraduate students.
 4. To determine if there is any relationships between students academic performance and mobile internet usage.

RESEARCH QUESTIONS

Below are some research questions formulated for this study:

1. What is the level of awareness of Federal University of Technology Minna undergraduate students about mobile internet usage?
2. In what ways are Federal University of Technology Minna undergraduate students using mobile internet services?
3. What are the effects of mobile internet usage on the academic performance of Federal University of Technology Minna undergraduate students?
4. What relationships exist between Federal University of Technology Minna undergraduate students' academic performance and mobile internet usage?

HYPOTHESIS:

- H₁: There is no significant relationship between the level of awareness of the respondents and mobile internet usage.
- H₂: There is no significant relationship between the respondents' usage of mobile internet services and their academic performance.
- H₃: There is no significant relationship between the effects of mobile internet usage and students' academic performance.
- H₄: There is no significant relationship between the students' academic performance and mobile internet usage.

REVIEW OF PREVIOUS STUDIES

It is commonly understood that no recent research or study is totally new, as it must have been carried out by someone in another geographical environment before. In this study, it is important that review of empirical studies of related studies is put into consideration so that some past knowledge relating to this study will be tapped

into. Several research studies have shown that over involvement with social media has not contribute any positive impact to academic performance. However, it is impacting negatively on student's academic performance (Kirschner & Karpinski, 2010; Paul, Baker & Cochran., 2012). New media such as Whatsapp, Twitter, 2GO Facebook and other social networks are mostly used by University and college students across the globe in a regular bases today (Paul, Baker & Cochran, 2012). A survey conducted by United States in 2011 on 3000 students shows that 90 percent of the students are using Facebook and 37 percent uses Twitter on a regular bases (Dahlstrom, Boor, Grunwald & Vockey, 2011). The only way students can succeed academically is to pay maximum attention and concentration to their academic activities since it will directly influence student's academic performance (Barkley, 2006; Dupaul & Volpe, 2009). It has also been discovered that overall GPA of students of tertiary institution has a negative effect on the study time per week; the more study is decreased the more it might have an indirect effect on the student's academic performance (Kirschner & Karpinski, 2010).

This research found out the effect of chatroom or text message slangs on students' academic performance considering the fact that it is an unstructured language that disobeyed the rules and regulations of English Language. However the researchers point out the fact that it is a bad phenomenon as the present student will eventually become the teachers of next generation of Nigerians students.

The researcher used descriptive research methodology to retrieve information from the students; the questionnaire was distributed directly from the researcher to the students immediately after their lecture classes. The researcher followed this process in other to ensure effective retrieval of the research instrument. 330 questionnaires were administered and 324 were valid as only this number was returned successfully.

Results obtained from the study shows that chatroom slang do affects students' academic performance in a positive and negative way. Positively when considering the fact that some use it for important academic message; or in messaging their family members or friends both at school and at home for information especially when they don't have enough credit and cannot make calls. Negatively due to addiction to SMS, IM, BBM and many more chart platforms. They use such text slangs to the extent of writing the slangs in their various examinations and test.

The study is related to the present study in a way that instant messages, text messages are online services which can only be rendered through internet. And the present study seeks to examine the relationship between the use of Internet on mobile devices and students' academic performance. (Ochonogor, Alakpodia & Achugbue, 2012).

Another study found out the relationship between social media use and academic performance using university students in Kuwait as case study. The study was undertaken using a self-administered survey questionnaire. Due to the fact teens and youths are the core users of social media; data were collected using sample of purposively selected college students. Some college students which were enrolled to carry out some of their coursework in mass communication at a large state university in Kuwait were equally asked to also participate in this study. A period of three months was used to distribute the questionnaires beginning from March to May 2014. The sample size was 308. Arabic language is the official language that was used in the questionnaire.

Result obtained from the study suggests that the more students use social media the lower their grades will be. Results also show participants were aware social media usage is lowering their grades, yet they continue to patronize social media heavily regardless of the effect on their academic performance. The researcher also recommends that future research in the area of relationship between social media and academic performance should consider the context in which social media are used. And also should explore other ways in which to measure social media use in addition to self-reports.

The study is related to the present study in a way that social media is an online service which can only be rendered through internet. And the present study seeks to examine the relationship between the use of Internet on mobile devices and students' academic performance. (Al-Menayes, 2014).

Yet study has investigate and found out the relationship between internet addiction and undergraduates' students' academic performance using National University of Sciences and Technology Islamabad, Pakistan (NUSTIP) as case study. The study also focused on examining the gender differences among students with respect to internet addiction. The study was carried out using the 20-item Young's Internet Addiction Test (IAT) developed by Young (1998) for the internet addiction evaluation. The IAT consisted of 20 questions which was designed to identify people as mildly, moderately, and severely addicted to internet. While the students' academic performance was measured with the Grade Point of Average academic performance achieved in the previous semester.

Results obtained from the study suggested that internet addiction was a significantly negatively correlated with academic performance of university undergraduates. Results also suggested gender difference in internet addiction. Male students had higher internet addiction than female ones. Based on the above findings, some suggestions were proposed by the researcher to serve as a reference for practical applications on how internet enable devices are to be used.

The study is related to the present study in a way that both seek to examine the relationship between the use of Internet and students' academic performance. (Akhter, 2013).

Furthermore, a study examined mobile phone usage and tries to identify effect of internet enable mobile phones on students of higher institutions taking the federal polytechnic Ilaro, Ogun State in Nigeria as a case study. The study also focuses on finding the correlation between academic performance and mobile phone usage.

Structured questionnaires were administered to 45 students in other for them to express their individual views on the subject matter. In addition, 15 interviews were conducted to have better knowledge of the students following the data gathered during the course of the study.

Result obtained from this study reveals that students are being influenced negatively to a great extent by the mobile devices simply because more attention is been focused on other activities while they neglected their academic and which is their primary objective in academic environment. Also, this study find out that the use of mobile phone is very difficult to control among students which is the leading cause of poor academic performance among students in our various citadel of learning.

The study is related to the present study in a way that most mobile phones support online service which can only be rendered through internet. And the present study seeks to examine the relationship between the use of Internet on mobile devices and students' academic performance. (Soyemi, Oloruntoba & Okafor, 2015).

Finally, a study investigated the impact of smart-phones usage on academic performance of higher learning student in Tanzania due to the fact that no previous research has being conducted to find out why the academic performances of students in Tanzania are degrading day to day. Ruaha Catholic University in Tanzania was used as case study.

The study was carried out survey method. A structured and administered questionnaire was distributed to the University students of different levels from short causes to PhD at Ruaha Catholic University for data collection as primary source. A total number of 100 students having smart-phones were surveyed regarding the usage of smart-phone to their academic performance.

Results obtained from the study shows that smart-phones affect student academic performance negatively. The researcher recommended that there is a need to evaluate and understand how to manage the mode at which smart-phone is being used by students in an academic environment due to the fact that student make their own

choices and preferences on the kind of application to use. The study is related to the present study in a way that smart-phones are mobile devices that support online service which can only be rendered through internet. And the present study seeks to examine the relationship between the use of Internet on mobile devices and students' academic performance. (Kibona & Magaya, 2015).

THEORETICAL FRAME-WORK

The purpose of theoretical framework in a research is to establish a structure for the research, so that readers can understand how it contributes to the society and how it is related to other researches. In this research, two theoretical frameworks are being used.

- 1) The Technological Determinism Theory
- 2) The Diffusion of Innovation Theory

The Technological Determinism Theory

This theory was propounded by Marshall McLuhan in (1962). The theorist probed the casual relationship between technologies and culture. He described the impact of communication technology on our daily life's challenges. This theory also explains that technology is an autonomous force that changes society. This statement provides broader explanations for many changes that can be observed in our present society. The theory proposed that advancement in Information and Communication Technologies (ICTs) would broaden the world view around us. The main thrust of the theory is to capture the attention of new media and the audience to the effect of communication technologies. In line with this study, the theory becomes very relevant in the sense that technological background would turn the world into a global village. As a result of this, the impact of Information and Communication Technologies on mobile internet usage especially in Federal University of Technology Minna, would increase the easy way of media dissemination of information and therefore foster the mobile internet usage in Federal University of Technology Minna.

Diffusion of Innovation Theory

Diffusion of Innovation Theory was propounded by Everett Rogers in (1962). This theory talked about how important communication of new ideas to the development and effectiveness of any country or organization output look like. One of most important feature of diffusion theory is that, for most members of a social system, the innovation-decision depends greatly on the innovation-decisions of the other members of the group. The theory proposed that the media have been held to be very important in spreading new ideas or passing new innovations or development to the people. Rogers further explained that diffusion is the process whereby communication of innovation is carried out through a particular channel over time

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among the participant in a social system. This is paramount in the recent introduced innovation like Information and Communication Technologies. In line with this study, the theory becomes very relevant in the sense that diffusion of innovation theory deals with the propagation of new ideas aimed at enhancing and improving human activities and subsequent output which is just what Information and Communication Technologies are meant to achieve for a people or organiza

MATERIALS AND METHODS

Research design is used to structure the research to explain all of the major parts of the research project, measures treatment, the sample or group, and method of assignment work together to try to address the central research question (Trochim, 2006).

A survey method was therefore employed in this study. Survey method was used due to the fact that it is efficient and convenient when collecting large amount of data (Muijs, 2004). Survey research is an appropriate investigation tool for making generalized inferences about a large group of people based on data drawn from a smaller number of individuals from that group. The present study was considered field research because the investigator collected data from the actual subjects in a quantitative fashion. The survey data collected was transformed into numerical data so the researcher could look at the statistical relationships.

Population of the study

The study population is the collection of the study unit from which the values of the variable of interest could possibly be determined. It is the total number of observable unit in a given research environment relevant to the research study (Black & Champion, 1976). The population for this study comprises of 16105, undergraduates students of Federal University of Technology, Minna Niger State. This information was obtained from the Dean, Students Affairs Division, Federal University of Technology Minna, Niger State.

Sampling is the process of selecting units e.g. people, organization from a population of interest so that by the study the sample may fairly generalize result back to the population from which they were chosen (Trochim, 2006).

A sample is that part of the study population selected for statistic investigation (Dowinnie & Heath, 1974). With reference to this research work; it is a portion of the entire population pulled out for the study.

This study makes use of a sample size of 377 students in FUTM. This sample size was drawn using Krejcie & Morgan (1970) table of finite sample size determination, which establishes sample sizes at 95 percent confidence level for research activities. The table is presented in this report as below.

A sample of 377 students was selected out of the 16,105 students which is the total population of undergraduate students in Federal University of Technology Minna. The selection was done proportionately according to the population of FUTM undergraduate students in each of the schools given a total of 377 students. This was to ensure that the sample selected is representative of the undergraduate students in FUTM in all the 8 schools are included in the study. Generally, a total of 377 respondents were used for the study.

The instrument used for the study is a survey questionnaire titled: "Assessment of Internet-Enabled Mobile Devices Usage Questionnaire". A total of 377 copies of the questionnaire were distributed to the respondents. Each copy of the questionnaire contained two sections (A and B) so as to get the actual data intended to obtain need for the study. Section A consisted of 5 items (1 - 5) which contain the demographic information of the respondents while Section B consisted of 22 items (1 - 20) which probed opinions, perceptions, and attitudes of respondents towards the subject matter. The response ranges between very strongly disagree, with assigned value of 1 and very strongly agree, and assigned the value of 7 on the using 7 - pointlikert scale.

The researcher employed split-half reliability method to determine how much error is present in the test score. The final result of correlation obtained is 0.79 which clearly indicates that the questionnaire was reliable for use. After the validation and reliability tests, the researcher administered the questionnaire to the entire population sample on face-to-face basis, assisted by friends in the sampled environments.

RESULTS AND DISCUSSION

The data for this study were collected using the questionnaire as research instrument. So, 377 questionnaires were distributed, and 369 were retrieved. Out of the retrieved questionnaires, only 354 were valid and it represents approximately 94% response rate of the correspondents. However, 8 questionnaires were not retrieved and 15 were invalid.

Data in Table 4.1 reveals that, majority of the respondents (75.1%) were males while (24.9%) of the respondents were female. This indicates that males undergraduate students are more populated than female undergraduate student in Federal University of Technology Minna.

Data on the variable of age indicate that more of the respondents (89.8%) were in the age bracket of 20 - 30 years. They were followed by 9.0% respondents who were in the age category of below 20 years. Respondents in the age bracket of 31 - 40 years were 0.8%, it follows by 0.3% who were 41-50 while those their age above 50 were 0.0%. In the marital status, majority of the respondent were single which was 96.9%,

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Considering responses from various schools student that has the highest number of responds were students from School of Engineering and Engineering Technology (SEET) which were 24.0%, followed by students from School of Environmental Technology (SET) which was 18.1%. The respondents from School of Technology Education (STE) were 14.1%. School of Information and Communication Technology (SICT) were 13.0% which also followed by School of Physical Science (SPS) which were 9.9%. School of Agriculture and Agricultural Technology (SAAT) and School of Life Science (SLS) were both 7.9% while students that respond from School Entrepreneur and Management Technology (SEMT) were 5.1%.

In academic qualification majority of the respondents (72.9%) had SSCE/WASSCE as their qualifications, it followed by (18.1%) having ND, those respondent that are having HND were (4.0%), the respondent with NCE were (3.1%) while the respondent with other qualification were (2.0%). In the overall, all the respondents had one educational qualification or the other. This implies that they were all qualified to be undergraduate students of FUTMS.

Table 2: Distribution of respondents according to Internet enabled mobile devices accessibility

Internet enabled mobile devices accessibility	Frequency						
	1	2	3	4	5	6	7
I believe most students of University of Technology Minna know how to use internet enabled mobile devices.	14	7	21	21	72	79	140
I believe most Students of FUTM own an internet enabled mobile device.	14	21	32	23	67	108	89
I believe not having an internet enabled mobile device will make students have limitations for internet accessibility.	11	11	25	35	92	106	74
I believe that undergraduate students of FUTM Patronizes the use of internet enabled mobile devices due to its nature of portability.	4	7	30	50	101	92	70
I believe that students in FUTM use smart phones and laptops as there internet enabled mobile device	6	4	25	23	71	106	11
I believe that everybody can now access internet because it is cheap and accessible by most students.	4	21	50	45	91	79	46

Data in Table 2 shows that the majority of the respondents 140(40%) very strongly agreed that most students of FUTM know how to use internet enabled mobile devices, 108 (31%) respondents strongly agree that most students of FUTM own an internet enabled mobile devices, 106(30%) respondents strongly agree that not having internet enabled mobile devices will make students have limitation for internet accessibility, 101(29%) respondents agree that undergraduate student of FUTM patronizes the use of internet enabled mobile devices to its nature of portability, 106(30%) respondents strongly agree that students in FUTM use smart phones and laptops as there internet enabled mobile device, 91 (26%) respondents agree that everybody can now access internet because it is cheap and accessible by most students in FUTM. While lesser number of respondents disagrees.

Table 2: Distribution of respondents according to the nature of content on internet enabled mobile devices.

The nature of content on internet enabled mobile devices.	Frequency						
	1	2	3	4	5	6	7
I believe that students use their internet enabled mobile devices to chat on social media.	7	4	14	18	101	74	136
I believe that Undergraduate students of FUTM mostly use their internet enabled mobile devices to access pornographic site.	35	18	44	85	91	46	35
I believe that FUTM Students mostly use their mobile internet devices to solve their school assignment while connected to the internet.	7	4	18	18	112	103	92
I believe that Students in FUTM only use their internet enabled mobile devices for downloading games only.	28	25	52	71	68	53	57
I believe that Students in FUTM only use their internet enabled mobile devices to downloading movies only.	35	46	86	95	81	4	7

Data in Table 3 shows that the majority of the respondents 101 (29%) agreed that students use their internet enabled mobile devices to chart on social media, 91(26%) respondents agree that Undergraduate students of FUTM mostly use their internet enabled mobile devices to access pornographic site, 112(32%) respondents strongly agree that FUTM Students mostly use their mobile internet devices to solve their school assignment while connected to the internet, 71(20%) respondents are neutral regarding the question about Students in FUTM only use their internet enabled mobile devices for downloading games only, 95(27%) respondents are also neutral regarding the question that says that Students in FUTM only use their internet

Table 3: Distribution of respondents according to time spent on internet enabled mobile devices:

Time spent on internet enabled mobile devices.	Frequency						
	11	8	32	57	100	64	82
I believe that FUTM Students normally spend more time doing other things on the internet than working on their academic activities.	11	8	32	57	100	64	82
I believe that Undergraduate Students of FUTM usually plan their time when and how they surf internet with their mobile devices.	42	17	75	64	71	57	28
I believe that FUTM students normally spend more time on online chatting while surfing the internet with their mobile phones.	4	14	22	21	110	80	103
I believe that the time spent by undergraduate students of FUTM using internet enabled mobile devices in surfing the internet have caused drawback to their academic performance	3	21	36	57	116	57	64

Data in Table 4 shows that the majority of the respondents 100 (28%) agreed that FUTM Students normally spend more time doing other things on the internet than working on their academic activities, 75 (21%) respondents disagree that Undergraduate Students of FUTM usually plan their time when and how they surf internet with their mobile devices, 110 (31%) respondents agree that FUTM students normally spend more time on online chatting while surfing the internet with their mobile phones, 116 (33%) respondents agree that the time spent by undergraduate students of FUTM using internet enabled mobile devices in surfing the internet have caused drawback to their academic performance.

Table 4: Distribution of respondents according to Social media on internet enabled mobile devices

Social media on internet enabled mobile device.	Frequency						
	1	2	3	4	5	6	7
I believe I can express my thoughts well only on Facebook.	64	42	99	60	53	18	18
I believe I spent more time on social network.	30	33	84	55	102	35	15
I believe it is easier to discuss unpleasant topics via social network than personal expression.	28	25	46	46	124	42	43

I believe Whatsapp is very useful to my academic performance.	21	39	81	60	89	32	32
I believe that Social networks consume more of student time than any other activity.	14	6	35	63	120	35	81

Data in Table 5 shows that the majority of the respondents 99 (28%) disagreed that FUTM Students can express their thoughts well only on Facebook, 102 (29%) respondents agree that they spend more time on social network, 124 (35%) respondents agree that it is easier to discuss unpleasant topics via social network than personal expression, 89 (25%) Whatsapp is very useful to my academic performance, 120 (34%) respondents agree that Social networks consume more of student time than any other activity.

Answers to Research Questions

This part of the chapter gives answers to the research questions raised in chapter one.

Research Question One: What is the level of awareness of FUTM undergraduate students about mobile internet usage?

Hypothesis one: The mean score responses of the level of awareness of the respondents will be significantly higher than the minimum mean score and they will be accepted.

Table 6 (below) shows that Internet enabled mobile devices is accessible, the calculated mean score for students of University of Technology Minna know how to use internet enabled mobile devices ($X_m = 5.6$), most Students of FUTM own an internet enable mobile device ($X_m = 5.2$), not having an internet enabled mobile device will make students have limitations for internet accessibility ($X_m = 5.3$), undergraduate students of FUTM Patronizes the use of internet enabled devices due to its nature of portability ($X_m = 5.2$), students in FUTM use smart phones and laptops as there internet enabled mobile device ($X_m = 5.7$), I believe that everybody can now access internet because it is cheap and accessible by most students in FUTM (4.9).

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Table 5 Internet enabled mobile devices accessibility

Item	Mean Score	Decision (3.5)
I believe most students of University of Technology Minna know how to use internet enabled mobile devices.	5.6	Accepted
I believe most Students of FUTM own an internet enable mobile device.	5.2	Accepted
I believe not having an internet enabled mobile device will make students have limitations for internet accessibility.	5.3	Accepted
I believe that undergraduate students of FUTM Patronizes the use of internet enabled devices due to its nature of portability.	5.2	Accepted
I believe that students in FUTM use smart phones and laptops as there internet enabled mobile device	5.7	Accepted
I believe that everybody can now access internet because it is cheap and accessible by most students in FUTM.	4.9	Accepted

Average Mean Score = 5.3

Are all accepted because they are greater than the minimum mean scores of 3.5. Thus, the hypothesis was accepted because the mean score responses of level of awareness of the respondents were significantly higher than the minimum mean score.

Research Question Two: In what ways are FUTM undergraduate students using mobile internet services?

Hypothesis Two: the mean score responses of the respondents on the usage of mobile internet services will be significantly higher than the minimum mean score and they will be accepted.

Table 7: Mean Score responses of the nature of content on internet enabled mobile devices and services

Item	Mean Score	Decision rule (3.5)
I believe that students use their internet enabled mobile devices to chart on social media.	5.7	Accepted
I believe that Undergraduate students of FUTM mostly use their internet enabled mobile devices to access pornographic site.	4.3	Accepted
I believe that FUTM Students mostly use their mobile internet devices to solve their school assignment while connected to the internet.	5.5	Accepted
I believe that Students in FUTM only use their internet enabled mobile devices for downloading games only.	4.4	Accepted
I believe that Students in FUTM only use their internet enabled mobile devices to downloading movies only.	3.5	Accepted

Average Mean Score = 4.7

Table 7 above shows that students use their internet enabled mobile devices to chart on social media. ($X_m = 5.7$), Undergraduate students of FUTM mostly use their internet enabled mobile devices to access pornographic site ($X_m = 4.3$), FUTM Students mostly use their mobile internet devices to solve their school assignment while connected to the internet ($X_m = 5.5$), that Students in FUTM only use their internet enabled mobile devices for downloading games only ($X_m = 4.4$), I believe that Students in FUTM only use their internet enabled mobile devices to downloading movies only. ($X_m = 3.5$), are all accepted because they are greater than or equal to the minimum mean scores. Therefore, the hypothesis is accepted because the mean score responses of the respondents' usage of mobile internet services were significantly higher than the minimum mean score.

Research Question Three: What are the effects of mobile internet usage on the academic performance of FUTM undergraduate students?

Hypothesis Three: The mean score responses of the respondent on the effects of mobile internet usage on students' academic performance will be significantly higher than the minimum mean score and they will be accepted.

Table 8 devices

Item
I believe spend internet activities
I believe FUTM how the devices
I believe spend surfing phones
I believe undergrad internet the academic

Average M

In Table 8 the respondents working usually p = 4.1), FU internet students caused d is accepted mobile in students

Research students

Hypothes between significant

Internet enabled

Mean score	Decision rule (3.5)
5.7	Accepted
4.3	Accepted
5.5	Accepted
4.4	Accepted
3.5	Accepted

Table 8: Mean Score responses on time spent on internet enabled mobile devices.

Item	Mean Score (X_m)	Decision rule(3.5)
I believe that FUTM Students normally spend more time doing other things on the internet than working on their academic activities.	5.1	Accepted
I believe that Undergraduate Students of FUTM usually plan their time when and how they surf internet with their mobile devices.	4.1	Accepted
I believe that FUTM students normally spend more time on online chatting while surfing the internet with their mobile phones.	5.5	Accepted
I believe that the time spent by undergraduate students of FUTM using internet enabled mobile devices in surfing the internet have caused drawback to their academic performance	4.9	Accepted

Average Mean Score = 4.9

In Table 8, the result of the mean score analysis with decision rule of 3.3 shows that the respondents normally spend more time doing other things on the internet than working on their academic activities ($X_m = 5.1$), Undergraduate Students of FUTM usually plan their time when and how they surf internet with their mobile devices ($X_m = 4.1$), FUTM students normally spend more time on online chatting while surfing the internet with their mobile phones ($X_m = 5.5$), the time spent by undergraduate students of FUTM using internet enabled mobile devices in surfing the internet have caused drawback to their academic performance ($X_m = 4.9$). Therefore, the hypothesis is accepted because the mean score responses of the respondents on the effects of mobile internet usage on the academic performance of FUTM undergraduate students were significantly higher than the minimum mean score.

Research Question Four: What relationships exist between FUTM undergraduate students' academic performance and mobile internet usage?

Hypothesis Four: The mean score responses of the respondent on the relationship between students' academic performance and mobile internet usage will be significantly higher than the minimum mean score and they will be accepted.

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Table 9 (below) shows that FUTM Students mostly use their mobile internet devices to solve their school assignment while connected to the internet ($X_m = 5.5$), I believe Whatsapp is very useful to my academic performance ($X_m = 4.1$), FUTM Students normally spend more time doing other things on the internet than working on their academic activities (5.1). Therefore, the hypothesis is accepted because the mean score responses of the respondents on relationships that exist between FUTM undergraduate students' academic performance and mobile internet usage were significantly higher than the minimum mean score.

Table 9: Relationship between internet usage and academic performance.

Item	Mean Score	Decision rule (3.5)
I believe that FUTM Students mostly use their mobile internet devices to solve their school assignment while connected to the internet.	5.5	Accepted
I believe Whatsapp is very useful to my academic performance.	4.1	Accepted
I believe that FUTM Students normally spend more time doing other things on the internet than working on their academic activities	5.1	Accepted

Average Mean Score = 4.9

DISCUSSION

This study investigated the influence of mobile internet usage on student academic performance in Federal University of Technology Minna. The first research question which says; what is the level of awareness of FUTM undergraduate students about mobile internet usage? Was answered in Table 6 above considering the average mean score 5.3 above, the analysis shows that FUTM students are aware of mobile internet usage in a high level considering the decision rule of ($X_m = 3.5$).

The second research question thus; 'what ways are FUTM undergraduate students using mobile internet services?' was answered in Table 7 above considering the average mean score of 7 above. The analysis shows that FUTM undergraduate students are using the internet services in various ways which include: charting on social network, solving their school assignment, accessing pornographic sites and downloading games considering decision rule as ($X_m = 3.5$).

Also the third research question thus; what are the effects of mobile internet usage on the academic performance of FUTM undergraduate students? Was answered in Table

8 above considering the average mean score of 4.9 above where the decision rule is 3.5. The analysis so far shows that there are some negative effects attached to mobile internet usage in FUTM due to the fact that most students agreed that they spend more time in doing other things on the internet than working on their academic activities. FUTM students normally spend more time on online chatting while surfing the internet with their mobile devices, and also 116 students agree that the time spent by undergraduate students of FUTM using internet enabled mobile devices in surfing the internet have caused drawback to their academic performance.

And also the fourth research question thus; 'what relationships exist between FUTM undergraduate students' academic performance and mobile internet usage?' was answered in Table 9 above considering the average mean score of 4.9 were the decision rules is 3.5. The analysis so far shows that there exist some relationships between FUTM undergraduate students' academic performance and mobile internet usage in the sense that 112 students agreed that students mostly use their mobile devices to solve their school assignment while connected to the internet. Meanwhile, 89 agreed that whatsapp mobile application is very useful to students' academic performance in FUTM.

The study found that mobile internet usage has both negative and positive influence on student academic performance, but the negative influence is more than the positive influence. Also there exist a significant relationship between the student academic performance and mobile Internet usage considering the fact that most students agreed that they use mostly use internet to solve their school assignments and the also agreed that whatsapp online application is very useful to their academic performance. This finding is in agreement with Soyemi, Oloruntoba and Okafor (2015) who found that students are mostly influenced negatively when using mobile phone to surf the internet simply because attention is focused on music, chatting and others other things while their academic activities are neglected and left to suffer. And the study also discovered that the use of mobile phone is difficult to control among students which are the leading cause of academic drawback or poor academic performance among students.

CONCLUSION

There is high level of awareness of mobile internet usage among undergraduate students of FUTM. Also FUTM undergraduate students are using the internet services in various ways, such as: charting on social network, solving their school assignment, accessing pornographic sites and downloading games. However, there are some negative effects attached to mobile internet usage in FUTM due to the fact that most students spend more time in doing other things on the internet than working on their academic activities. Interestingly, FUTM students normally spend more time online chatting while surfing the internet with their mobile devices. Also

116 students agreed that the time spent by undergraduate students of FUTM using internet enabled mobile devices in surfing the internet have caused drawback to their academic performance. Therefore, there exist some relationships between FUTM undergraduate's students' academic performance and mobile internet usage in the sense that 112 students agreed that they mostly use their mobile devices to solve their school assignment while connected to the internet. Similarly, 89 students agreed that whatsapp mobile application is very useful to students' academic performance in FUTM.

From the data presented, analyzed and findings obtained it was imperative to conclude that undergraduate students of Federal University of Technology Minna (FUTM) have full access to internet enabled mobile devices, due to the fact that majority of them strongly agreed that they own an internet enabled mobile device. However, these mobile devices have both negative and positive influence on their academic performance. Most students are negatively influenced due to the fact that they usually spend more time doing other things that has nothing to do with their academic, which in turn negatively affect their academic performance. While some of the students are positively influenced due to the fact that they use it as a medium of research and solve their school assignment problems.

RECOMMENDATIONS

1. There is need for students that use their mobile devices to surf internet to pay more attention to researches relating to their area of specialization.
2. For those undergraduates students of FUTM who find the use of online social networks distracting to their academics, there is need to reduce the time spent chatting on social networks
3. The time spent on online social networks activities should be devoted to more academic activities than social matters in order to maximize its use and to enhance academic performance.

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