EFFECTS OF INTERNET ON THE ACADEMIC PERFORMANCE OF TERTIARY INSTITUTIONS’ STUDENTS IN NIGER STATE, NIGERIA

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Abstract
This research work investigates the effects of internet on the academic performance of students in tertiary institutions within Niger state, Nigeria. Five research questions were formulated to guide the study. The research design adopted was the survey method using questionnaires as the instrument of data collection. Three institutions were selected and sample of 300 students was randomly selected from these institutions. A questionnaire was distributed for data generation. Data collected were analysed using descriptive statistics. The finding reveals that internet is one of the beneficial tools in this era of Information and Communication Technology (ICT) used in academic exercise. The study also revealed some of the problems encountered in the usage of internet which include slow internet speed and lack of stable power supply. It was recommended among others that the school management should embark on awareness programmes that will sensitize the students to take the advantages derived from the use of the internet for academic purpose.

Keywords: Academic, Performance, Computer, Network, Internet, Institution
1.0 Introduction

The use of technology is changing the way things are done, including the work in tertiary institutions where the teaching and learning process required a great deal of improvement. Knowing fully that internet is an essential tool for facilitating academic activities in tertiary institutions in Nigeria, for a number of years now, the managers of these tertiary institutions of learning have invested heavily in establishing internet services in their schools. The services provided by internet have had a major impact in the university context, in organisation and in teaching and learning methods. The Internet has made computers across the globe interconnected.

According to Emeka and Nyeche (2016) the internet today is a worldwide entity whose nature cannot be easily or simply defined. To many, the internet is a large computer network linking together millions of smaller computers at numerous sites in various countries belonging to thousands of business, government, research, educational and other organisations. To the internet users, the internet is a global community-one with a very active life. In today world, the Internet plays a vital role in the teaching, research and learning process in academic institutions. Thus, the advent of the Internet has heralded the emergence of a new form of knowledge production and distribution – the soft form.

This new form of information resources have as their greatest advantage, a virtually unlimited wealth of information resources which is widely readily available and accessible to hundreds of millions of people simultaneously in many parts of the world (Kumar & Kaur 2006). In addition, Amaoge and Igwebuike (2016) believe that the internet has increasingly become an invariable asset in education in terms of learning, teaching and research. The use of internet in the tertiary institutions is an exciting prospect especially when the rugged terrain is the significant impediment to obtain information for the vast majority of people.

Fasae and Aladeniyi (2012) pinpoint that for the developing countries like Nigeria to grow and attain its economic and social status; such country must be fully ready in strengthening and empowering its academic institutions, both in science and technological capacity. Hence, the students in their respective fields will need an array of reliable and interactive means of accessing and retrieving information without wasting much time. Similarly, the use of this Internet is greatly dependent on some associated factors such as purposes, students experience, locations, Internet facilities and services available, among others on academic pursue of the students in their institutions.

1.1 Statement of the Problem

Students of tertiary institutions in Nigeria employ the Internet in educational matters such as writing papers, searches for answers to questions and communicating with classmates on homework. However, time spent in activities where “surfing the net” occurs could substitute away from time allocated to reading, studying and completing homework. This may hurt academic performance in the short term. So, the study assessed the effectiveness of the use of internet services and its effects on students’ academic performances.
1.2 Objective of the Study

The main objective of this study is to find out the use of internet service and its effects on student’s performances. Specifically, the aims of the study are to:

i. Examine the effect of internet use on the academic performance of the students.
ii. Investigate the problems that militate against the student’s access to the internet.
iii. Investigate the frequency of internet use among students.

1.3 Research Questions

The following research questions were formulated to guide this study:

i. What is the frequency of internet use among the students?
ii. How useful is the internet to students in their daily academic activities?
iii. Which is the most used internet service?
iv. Do the internet services influence students’ academic performance?
v. What are the problems faced by students in using internet services?

2.0 Literature Review

According to Oghenetega and Igere (2014), over the years, the internet has been a very important instrument for facilitating academic activities in tertiary institutions in Nigeria. The information and communication technology revolution is sweeping through the world and the gale has even caught up with developing countries like Nigeria. Internet can broadly be defined as worldwide network of computers communicating via an agreed upon protocol (rules for exchange of information). It provides access to the most diversified source of information hosted by individuals and various organisation worlds wide on a vast network of servers (Ogungbeni, et al, 2016). Various studies have found that Internet use can have positive benefits on educational achievement (Chen & Fu, 2009). One puzzling question is the effective impact of the internet on student performance.

Ogedebe (2012) conducted a research at university of Maiduguri Nigeria on students’ academic performance and internet usage. A questionnaire was designed and administered to students. The analysis showed that most of the respondents were computer literate, since 65% of the respondents agreed that they are computer literate, while 29% were not, 6% of the respondents neglected the question. The investigation also shows that 79% of the respondents accepted that their academic performance actually improved by using the internet, as 13% thought otherwise, 8% made no response to that question. When respondents were asked on how internet services have helped their academic pursuit? The study shows that 8% believed that their GPA has improved remarkably as a result of the use of the internet, 6% of the respondents agreed that their GPA has been declining, 28% responded that it aids them in preparing better for CA and semester examinations, while 22% were indifferent about the options and therefore did not respond. Majority of the respondents constituting 36% of the total respondents refused to respond to the question.

A similar research was conducted by Luambano and Nawe (2004) on Internet Use by Students of the University of Dar es Salaam. The study was to determine if students were using the Internet for academic purposes, investigate the level of students’ access to the Internet, as well as the problems students faced in Internet use. The survey method was used as the basic method for data collection. The study revealed that the level of students’ access to the Internet was low, and the major reason was that at the time of the study, computers with Internet
facilities were inadequate. The findings also revealed that the students who had access to the Internet were not using it effectively. They used it mainly for communication with friends and relatives more than for academic purposes. The cause of this was found to be lack of skills required for effective use of the internet.

A study by Ben and Dahamani (2008) on the relationship between the use of Information and Communication Technologies (ICT) and student performance in higher education revealed that, so far economic research has failed to provide a clear consensus on the effect of ICT investments on student's achievement. The findings also revealed that since a student's performance is mainly explained by a student's characteristics, educational environment and teachers' characteristics, ICT may have an impact on these determinants and consequently the outcome of education. The differences observed in students’ performance are thus more related to the differentiated impact of ICT on standard explanatory factors. The researchers agreed that ICT uses need a change in the organisation of higher education.

In another study, Emeka and Nyeche (2016) conducted a research on Internet Usage on the Academic Performance of Undergraduates Students at University of Abuja, Nigeria. Results gotten from the research shows that 111(55%) of respondents use the internet every day, 31(15%) use internet once a week, 9(5%) use the internet once in two weeks, 26(13%) use the internet once in a month, 20(10%) use the internet occasionally while 3(2%) do not use the internet. The findings show that majority of students use the internet every day. The study revealed that Paying for online services was a problem however; the study shows that Internet is one of the beneficial tools in this era of IT not only for business but for academic point of view and enhances the skill and capability of students which assist them in studies and professional life.

In addition, Sahin, Balta and Ercan (2010) in their study on the use of internet resources by university students during their course projects elicitation shows that 57% of the participants were male and 43% were female. The study also shows the students' views about the reliability of the sources obtained from the Internet. It shows that 70% of students compared information obtained through the Internet with other information resources. Besides, the preferred rate of reliable sites is about 41%. Many of students take care that these resources are up-to-date, for educational purposes, and free from bias.

A study by Ogungbeni at el, (2016) investigated the appropriate and inappropriate use of Internet among undergraduates in Nigeria. Respondents were asked to indicate their main source of connection to the internet. The result shows that 84.5% of the respondents connect to the internet through their telephone network service provider. Respondents who connect to the internet through the library are 8.2%. Just 3.1% of the respondents' access internet through their university information and communication technology (ICT) centre. These results show that access to the internet through mobile devices is the trend among undergraduate students. Respondents were asked if they use internet for reading and downloading e-books, e-journals and e-dictionary. The results shows that majority of the respondents (57.7%) agreed that most journal articles they access are from the internet. 67.0% of the respondents read dictionaries on the internet. However, only 41.2% agreed that they download electronic books from the internet. The result shows that undergraduate students in Nigeria use the internet for their academic development. Respondents were also asked if they are aware of existence of policies on internet use in their university student's handbook and their university library guide. The result shows that 49.5% of the respondents agreed that they are not aware of policy regulating the use of internet in their university student's handbook. For library guide, 64.0% of the respondents agreed that there is no policy on the use of internet in their library guide. These results coupled with the personal observation of the authors are pointers to the fact that there are no enough policies to regulate the use of internet in Nigerian universities.
Amaoge and Igwebuike (2016) carried out a study on Assessment of Internet Awareness and Use by the Undergraduate Students of College of Agricultural and Science Education in Michael Okpara University of Agriculture Umudike. A descriptive survey design was used for the study. The study revealed that all the respondents are aware and use the internet. The data analysis shows the various purposes to which the undergraduate students use the internet services. Learning Purpose has the highest percentage as 118 respondents representing (52.7%) indicated that they use the internet mainly for learning purposes. Sending of e-mail has response rate of (23.7%), Entertainment and recreation has (13.8%) while Charting has (9.8%) respectively. The study also revealed the self-assessed impact of the internet on the students’ academic performances. (43.3%) of the respondents claimed that the internet has exercised very high level of impact on them while (29.9%) of the respondents claimed that the impact is simply high. (14.7%) of the respondents agreed that the impact is low while (8.5%) of the respondents asserts the internet has very low level of impact on them. It is unfortunate that (3.6%) of the respondents indicated that the internet has no impact on them.

A study was conducted by Quadri (2011) on the Challenges and Prospects of Using Internet Facilities in Federal College of Education (Technical) Library Omoku, Rivers state, Nigeria. Survey research design was adopted for the study because of the large number of respondents. Respondents were asked whether they use the internet more than the library to obtain academic information. The result show that 39(30.5%) of the respondents did not make use of internet facilities at all while 20(10%), 11(5.5%) use a day, 81(40.5) and 74(37%) use 2 days in both the library and internet facilities in searching for information respectively while 69(34.5%) and 49(24.5%) use 3 days, 16(8%) and 15(7.5%), 9(4.5%) and 7(3.5%) and 5(2.5%) uses 4 days, 5 days and 6 days respectively to search both the library and internet facilities for information for academic work. Respondents were also asked on challenges on the use of the internet. The challenges according to them reveals slow speed of server 49%, distance to the library 21%, power failure 72%, and attitude of library staff 11.5%, other challenges identified are system breakdown 59%, poor knowledge of usability 20%, insufficient workstations 50.5% and time constrains 27.5%.

Shehu, Urhefe and Promise (2015) investigated the Accessibility and Utilization of Internet Service in Nigeria Libraries. The study was carried out using a social survey method. In the study, Participants were asked on the Factors Inspiring Use of Internet Service in the Libraries. The study revealed that (92%, 89%, 100% and 92%) of the participants strongly agreed that, internet contain more information, internet is more convenient to use, internet is usefulness in the library and internet is easy to use. On the reasons for which the staff used the internet, the result revealed that, (67%, 97%, 94%) strongly agreed on the reasons for which staff used the internet in Nigeria libraries such as for research purpose, for current awareness purpose/update of knowledge and to develop personal competencies among others.

According to Rosenberg (2005), In 2004 International Network on the Availability of Scientific Publications (INASP) commissioned a survey of the current status of digital libraries in sub-Saharan Anglophone Africa, so as to draw conclusions on where future developments and investments might be made, and what can be learnt from the implementation of digital libraries within the continent. The study covers all aspects of digital librarianship including library automation, ICT facilities, electronic and digital resources, local content, electronic resources, finances, management and training, user education and future plans. The study revealed that the number of libraries that can make effective use of the e-resources that are now generally available to them is small. As only 15% of libraries provide more than one computer for every 100 students and in over half of the libraries, less than 75% of the computers are Internet connected. Only 45% of the libraries consider their Internet connectivity to be adequate or above in speed and reliability. And only 31% of libraries are connected to university-wide networks.
3.0 METHODOLOGY

This study focused on Effects of Internet on the Academic Performance of Tertiary Institutions Students in Niger state, Nigeria. A descriptive survey design was adopted for this study. According to Nworgu (2006), a descriptive survey design describes a condition or phenomenon as it exists naturally without manipulations. The sample for this research comprises three hundred (300) students drawn from the Federal University of Technology Minna, Ahmadu Bello University Zaria (Affiliated to FCE Kontagora), and Federal College of Education Kontagora. The research instrument used was structured questionnaire tagged: Effects of Internet on the Academic Performance of Tertiary Institutions Students Questionnaire (EIAPTSQ) developed by the researchers. The questionnaire was divided into two sections. Section A dealt with demographic data of the respondents which include gender, age and institution. Section B covers items on Effects of Internet on the Academic Performance of Students. Six items were developed in this section that will measure how frequent the respondents use Internet, reveals the usefulness of internet to students in their daily academic activities and also indicate their major challenges in using the internet. To ensure that the instrument collected valid and reliable data that can provide answers to the research questions, the instrument was tested for face and content validity by an expert in measurement and evaluation. Based on the expert’s suggestions, necessary modifications were made in the preparation of the final draft.

4.0 Results and Findings

The section below is the presentation and analysis of data from the responses obtained from the distributed questionnaires. The results were based on the various data obtained from the use of questionnaires.

As shown in figure 1, 59% of the respondents are Male while 41% are Female. Based on this analysis it could be concluded that majority of the respondents are male students.

Figure 1: Distribution of Respondents According to Gender

Figure 2, Shows the distribution of the respondents from the sampled institutions. It revealed that (30%) of the respondents were from Federal University of Technology Minna, (27%) of the respondents were from Ahmadu Bello University Zaria and (47%) of the respondents were from Federal College of Education Kontagora.
Figure 2: Distribution of respondents according to institutions

Figure 3 shows the distribution of respondents according to age. (19%) of the respondents are within the age of 15-20, (51%) are within the age of 21-25, (24%) are within the age of 26-30, (2%) are within the age of 31-36, (4%) are within the age of 37 and above.

Figure 3: Distribution of Respondents According to Age

Figure 4 shows the frequency of internet use, 21% agreed that they make use of the internet every day, 15% of the respondent make use of the internet in 0-4 days a week, 11% use the internet for 0-2 days a week, 19% of the respondent make use of the internet for at least 3 to 6 hours in a week, 13% uses the internet for at least 2 hours a week.

Figure 4: The Frequency of internet use of the respondents
On rating the use of internet for academic activities, figure 5 indicates that 23% of the respondent rated it as excellent, in the same line, (42%) of the respondent rated it as very good, 29% as good and 6% as poor. Obviously, majority of the respondent rated the use of internet for academic activities as very good.

![Rating the use of Internet](image)

**Figure 5: Rating the use of Internet for academic activities.**

Figure 6 shows the usefulness of internet for academic activities by respondents, 30% of the respondent indicated that the internet make academic activities much easier, 61% indicated that the internet improved their academic performance, 6% of the respondents indicated that it make academic activities difficult, and only 3% of the respondents indicated decreased in academic performance. This revealed that majority of the respondents agreed that, the internet is an important factor for improving academic performance.

![usefulness of Internet on academic activities](image)

**Figure 6: The usefulness of internet on academic activities.**

Figure 7 shows that (65.3%) of the respondents use the Google search engine, (14%) use Yahoo search engine, (12.7%) use Ask search engine while (8%) use other search engine. This analysis shows that most of the respondents use Google search engine.
Figure 7: Most Used Search Engine by the Respondent

On the Influence of Internet on student Performance, Figure 8: reveals that (58.30%) of the respondents use the internet to aid research, (13%) accept that the internet Provide access to current information sources, (21%) reported that the internet to helps prepare for examinations, tests and also assignment, and (7%) reported that the internet aid communication between lecturers and students. The findings revealed that a great proportion of the students use the internet to aid research.

Figure 8: Influence of Internet on student Performance Percentage

Figure 9 shows the problems encountered in the use of internet services. (21%) of the respondents reported that they encountered the problem of slow internet speed, (53%) faced the problem of power failure, (8%) had poor computer skills, (10%) had the problem of inadequate numbers of personal computers, (6%) had challenges in paying for online services and others (2%). From the findings, we can reveal that the major problem encountered by students in the use of internet services is power failure followed by slow internet speed.
5.0 Discussion

In order to investigate the effect of internet on the academic performance of students, several questions were asked. Participants were asked how frequent they make use of internet for academic activities. Figure 4 shows that (21%) of the respondents make use of the internet every day. This is followed by (15%) of the respondents who make use of the internet in 0-4 days a week. 11% of the respondents use the internet for 0-2 days a week, (19%) of the respondents make use of the internet for at least 3 to 6 hours in a week and (13%) uses the internet for at least 2 hours a week. This finding is in conformity with the study findings by Emeka and Onyeche (2016), in a similar research that showed that the majority of respondents 111 (55%) access the internet every day. The results generally indicate that the majority of respondents use the internet every day of the week for academic activities.

The result in Figure 6 revealed that majority of the respondents 63% accepted that the internet is very useful as it improve their academic performance; also 30% of the respondents point out that internet is useful as it make academic activities much easier for them. Only 6% of the respondents said that the internet makes academic activities difficult and also 3% of the respondents indicated decreased in academic performance. This finding is in agreement with Oghenetega and Igere (2014) who found in a similar study that majority of the respondents 4500 (90%) indicated that with the help of the internet for academic pursuit, their GPA has improved significantly. Respondents were asked to identify their most used search engine, The findings in Figure 7 shows that majority of the respondents (65.3%) use the Google search engine most, (14%) use Yahoo search engine, (12.7%) use Ask search engine while (8%) use other search engine. This result conforms to Emeka and Onyeche (2016), which revealed that the Google was the most accepted search engine and mostly used by students. This analysis shows that most of the respondents use Google search engine.

On the Influence of Internet on student Performance, Figure 8 reveals that (58.3%) of the respondents use the internet to aid research, (13%) accepted that the internet provide access to current information sources, (21%) reported that internet helps prepare for examinations, tests and also assignment, and only (7%) reported that the internet aid communication between lecturers and students. This results agree with Ben & Dahmani (2008) who revealed in accordance with the findings that ICT use can help students exploit enormous possibilities for acquiring information for schooling purposes and can increase learning through communication.

Respondents were asked on the problems they encounter when using the internet services. Figure 9 shows that majority of the respondents (53%) indicated the problem of power failure, (21%) of the respondents reported that they encountered the problem of slow internet speed, (8%) had poor computer skills, and (10%) had the problem of inadequate numbers of personal computers. This is in line with (Quadri, 2011, Shehu, Urhefe & Promise, 2015). Quadri, 2011
found that the major challenge faced by the students while using the internet was power outage. The majority (72%) of participants indicated power outage as the major challenge. Shehu, Urhefe and Promise, (2015) highlighted several challenges faced by the participants while accessing the internet in Nigeria libraries. The study reveals that majority (65%) of the respondent indicated power outage as the major factor that hinders the access and the use of internet in schools. Also, Rosenberg (2005) observed that speed and reliability of Internet connection is a major challenge faced by students in retrieving resources. In addition, Luambo and Nawe (2004), in a similar research reveal that the slow Internet connections attributable to small bandwidth is also a major factor hindering Internet access and use in Africa.

6.0 Conclusion and Recommendations

The purpose of this study was to investigate the effect of internet on the academic performance of students in selected tertiary institutions in Niger state, Nigeria. It was paramount for this kind of study to be conducted so as to determine the frequency of internet use among the students, to find out the usefulness of internet to students in their daily academic activities, determine the influence of internet services on academic performance, find out also the most used internet service and the challenges encounter by students for using internet services. The study reveals that internet has great influence on the academic performance of students in these tertiary institutions. However, lack of stable power supply was among the challenges students encountered. Therefore, provision of a solar power and adequate internet services will enhance access to information needed by the students which in turn would have positive effect on their academic performance. It is recommended that:

i. Government should as a matter of necessity invest on solar power generation in tertiary institutions in the country.

ii. There is a need for extensive training programmes organised at regular intervals so that all categories of users can improve their efficiency in the use of the internet.

iii. To solve the problem of slow functioning of internet connectivity, the institution's body should acquire high speed internet connection with maximum bandwidth.

iv. Lecturers should endeavour to give assignments that will encourage students to make use of the internet for academic Pursuit.

v. There is the need for the school management to embark on awareness programmes that will sensitize the students to take the advantages derived from the use of the internet for academic purpose.

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