Utilization of Information Technology Facilities for Research by Undergraduate Students in Nigerian Tertiary Institutions

Nkoyo Edem *(Ph.D)

University Library,University of Calabar, CRS, Nigeria

ABSTRACT

Information Technology (IT) has added value to effective research productivity in Nigeria tertiary institutions and colleges. This study employed a survey research method on the availability and use of IT facilities for undergraduate students' research work in five schools of Federal College of Education, Obudu, Cross River State. The respondents were two hundred students who were randomly selected from the five schools of the college. A Questionnaire method was used for data collection. The findings of the study revealed that use of computer and internet were the major IT facilities used for students' research work but the extent of use were mostly occasionally 33(16.15%) for School of Education, Arts and Social Sciences 24 (12.0%) while Languages, Vocation and Sciences recorded 22(11.0%), 20(10.0%) and 10(5.0%) respectively. The major obstacles for non-use of IT were Inadequate IT facilities 70(35.0%), incessant power failure 60(30.0%) and Inadequate skills 50(25.0%) amongst others. However, the need for acquisition of more IT facilities in the various Schools as well as adequate training programmes for students would boost their knowledge skills in the effective use and access to scholarly information resources for research output.

Keywords: Information Technology Facilities, Federal College of Education, Undergraduate Students, CRS, Nigeria.

INTRODUCTION

The use of information technology has brought about new methods and trends in research work by both students and lecturers. Information technologies have given rise to new modes of organizing the education environment in terms of transferring and receiving information about ongoing research work. Information technology (IT) is basically made up of the computer, internet and the telecommunications Edem (2008). The adoption and integration of IT in various activities in Nigerian universities have tremendously increased. According to Oduwole, et al (2003) the most commonly used IT in Nigerian Universities are Computer, Electronic Mail (e-mail) and internet browsing. The study found that students constitute the major category of users in the university libraries survey. Adomi, Omodeke and Otolo   (2004) reported in his study about the use of IT in Delta state, that 77.8% of customers / users of cafes were students, while Kamba (2008) reported that e-mail is the most used IT facilities by staff and students.

Many Nigerian tertiary institutions are pushing fervently in research activities and development and the use of IT is very viable. Ani, Esin and Edem (2005), observed that technological development have created a shift from traditional information environment to an electronic environment such as computer use, internet use, CD-ROM use, online services as well as online database, but Aina (2004) in a study conducted on professional development, identified the negative attitude of lecturers and students in the use of computer, internet and other IT facilities for effective research output and admits an aggressive training program for staff and students as well as self development in IT skills to be able to compete in any academic community.

The recent advancement in information technology has strengthened further links between research knowledge and broad-based development. (World Bank, 2002). This is because of the huge relevance of IT to research output by students and researchers. The most confronting issues in research and productivity around the world and Nigeria in particular, is the cost of obtaining IT facilities, inability of users or researchers to operate the facilities, public power failure, poor internet and telecommunication network (Ani and Edem 2012).

The importance of information technology for research work cannot be overemphasized. Edem (2005) posits that the use of computers has revolutionize the way information is generated, collected, processed, stored, retrieved and disseminated one way of doing this is in effective utilization of electronic resources through internet for students effective utilization. The emergence of IT facilities have contributed immensely in a rapid

development of researchers in Nigeria. Ehikhamenor (2002) stated that IT is changing the ways in which academic and researchers seek information, communicate, with each other, conduct research and distribute research result. The researcher used Federal College of Education for the study because of the availability of information technology centre located in the school to determine the effective utilization of the available IT facilities by undergraduate students on their day to day research activities.

Federal College of Education Obudu, Cross River State (FCEO)

The Federal College of Education, Obudu is located in ward 1 in Obudu Local Government Area, Cross River State. The College has five schools viz: School of Vocation, School of Arts and social Sciences, School of Education and School o0f Sciences. The college also has twenty-five (25) departments under the five schools. The Local Government Area has boundaries with Benue State to the north, Obanliku Local Government area to east, Boki Local Government Area to South and Bekwara Local Government Area to the West. Obudu is a place where the most attractive tourist centre - Obudu Cattle Ranch is located.

OBJECTIVES OF THE STUDY

The main objective of the study is to determine the effective utilization of information technology facilities by students of Federal College of Education, Obudu for their research work. To achieve the objective, the following specific objectives are developed to:

- ascertain the availability of information technology facilities for students research work
- examine the extent of utilization of information technology facilities by students for their research work
- find out if the staff in information centre provide services needed for students' research work
- examine the constraints to effective use of information technology facilities by students for their research work.

Research Methodology

A survey research design was used for the study. The population for this study comprised all final year students of Federal College of Education, Obudu for 2014/ 2015 academic session who were doing their research work with the use of information technology. A total of 814 students in final year drawn from 5 schools in the college were used for the study. The various schools include: School of Vocation, School of Languages, School of Art and Social Sciences, School of Education and School of Sciences. A sample of 200 respondents was selected from 814 final year students of Federal College of Education, Obudu. The questionnaire was administered to the respondents with the assistance of a colleague working in the college. A total of 200 copies of questionnaire were administered and all were returned, completely filled, giving a total response rate of 100%. The distribution according to schools goes thus: School of Vocation 33(16.5%), School of language 42(21.0%), School of Art and Social Sciences 48(24.0%), School of Education 58(29.0%), while school of Sciences had 19(9.5%). Frequency and percentage tabulation was used for data analysis

Results of the study

The results of the analysis are presented as follows:

Table 1 indicates the percentage distribution of respondents by some demographic characteristics of the final year students (year three) in the various schools in Federal College of Education studied. Only the year three students were used for the study. Majority of the respondents (40.0%) are aged between 15 and 20, majority (60.0%) are male and are mostly single (84.0%) as presented in Table 1.

TABLE 1: DEMOGRAPHIC INFORMATION OF RESPONDENTS BY AGE, SEX, MARITAL STATUS, YEAR OF STUDY AND VARIOUS SCHOOLS IN THE COLLEGE.

DEMOGRAPHIC	FREQUENCY	PERCENTAGE %
AGE		
15-20	80	40.0
21-25	64	32.2
26-30	44	22.0
31- and above	12	6.0
TOTAL	**200**	**100.0**
SEX		
Male	120	60.0
Female	80	40.0
Total	**200**	**100**
Marital Status		
Single	168	84.0
Married	22	11.0
Divorced	10	5.0
Total	**200**	**100**
Year of Study		
Year 1	-	
Year II	-	
Year III	200	100
Total	**200**	**100.0**
Schools		
Vocation	33	16.5
Languages	42	21.0
Art/ Social Sciences	48	24.0
Education	58	29.0
Science	19	9.5
Total	**200**	**100.00**

Table 2: Information Technology Facilities available for Students' Research Work

	NAME OF SCHOOLS	COMPUTERS	CD-ROM	INTERNET	ONLINE DATABASE	OTHERS
1	Vacation	+	-	+	-	
2	Languages	+	-	+	-	
3	Art and Social Sciences	+	-	+	-	
4	Education	+	-	+	-	
5	Science	+	-	+	-	

Key: + = Available

   -- = Not Available

The findings in table 2 show that only two IT facilities are available in the five schools in the college studied. They include computer and Internet. Of particular interest is that none of the schools have online database and CD-ROM.

Table 3: Use of IT by Students in the various Schools for Research Work.

Name of School	Individual use by Students	Small group use for Practical and Research	Whole class use for practical and research
Vacation	+	-	-
Languages	+	-	-
Arts / Social Sciences	+	-	-
Education	+	-	-
Sciences	+	+	+

The findings in table 3 show that all the five schools of the college studied used the IT facilities individually to do their research work. Only the students in the school of science used as both small group and whole class in the science school for practical as well as research work as indicated in the table.

Table 4: **Frequency of use of IT facilities by Students in Schools for their Research Work**

Frequency/Percentage

SN	Schools	Daily	Weekly	Monthly	Occasionally	Rarely	Never
1	Vocation	0	0	13(6.5)	20(10.0	0	0
2	Languages	0	0	20(10.0)	22(11.0)	0	0
3	Art/social Sciences	0	0	24(12.0)	24(12.0)	0	0
4	Education	0	0	25(12.5)	33(16.5)	0	0
5	Science	0	0	9 (4.5)	10(5.0)	0	0
Total		0	0	91(45.5)	109(54.5)	0	0

In terms of frequency of use of IT facilities, the result of this study as shown in table 4 indicates that a total of 109(54.5%) used IT facilities occasionally while most of the respondents in the School of Education 33(16.5%) used IT more than other groups. when asked why they resorted to doing that. Some respondents indicated inadequacy of IT 70 (35.0 %) incessant power failure 60 (25.0%) and inadequate skills 50 (25.0%) as major obstacles to effective use of IT for their research work.

Constraints to effective use of IT Facilities

Obstacles	Frequency	%
Inadequate IT facilities	**70**	35.0
Incessant power failure	60	30.0
Lack of time	20	10.0
Inadequate skills in the use of IT facilities	50	25.0
Total	**200**	**100**

Similarly, questions were asked on the type of services provided in the college for effective research output.

Table 5: Services provided by Staff to in the various schools of the college under study.

Services	Schools									
	Vocation		Languages		Arts/ Social Sciences		Education		Sciences	
	F	%	F	%	F	%	F	%	F	%
Instruction on the use of IT facilities	5	2.5	5	2.5	8	4.0	6	3.0	5	2.5
Photocopying services	10	5.0	6	3.0	18	9.0	15	7.5	10	5.0
Laminating/ scanning services	6	3.0	5	2.5	10	5.0	10	5.0	5	2.5
Binding/ Printing Services	23	11.5	25	12.5	28	14.0	18	9.0	15	7.5
Instruction on the use of IT center	8	4.0	10	5.0	14	7.0	12	6.0	9	4.5

***Note that total percentage is greater than 100% since each respondent choose numerous services provided to them by staff in more than one area.**

The data in table 5 show the services provided by staff to students in the various schools of the college studied. The result shows that 28(14.0%) respondents in Arts and Social Science indicated that staff are providing more of Binding and Printing services to them followed by Photocopying services 18 (9.0%) as indicated by final students.

Table 6: Attitude of Staff towards effective use of IT for research work

Staff Attitudes	Schools										Total	
	Vocation		Languages		Arts/ Social Sciences		Education		Sciences		F	%
	F	%	F	%	F	%	F	%	F	%	F	%
Friendly	23	11.5	25	12.5	28	14.0	30	15.0	10	5.0	116	58.0
Harsh	5	2.5	10	5.0	10	5.0	14	7.0	5	2.5	44	22.0
Unapproachable	5	2.5	7	3.0	10	5.0	14	7.0	4	2.0	40	20.0
Total	33	16.5	105	52.5	48	24.0	58	29.0	19	9.5	200	100

The data in table 6 represent the responses of the respondents on the attitudes of staff in the five schools in the federal college of Education towards students' effective use of IT facilities. The result shows that 116(58.0%) students responded that staff in the various schools studied were friendly to them. However, 44(22.0%) and 40(20.0%) students were of the view that staff in the schools were rather harsh or unapproachable to them.

Discussion

Students' quests for information Technology are based on the fact that computer and internet applications are visible in most institutions, colleges and their libraries in Nigeria today. The use of computer and internet

application has come to stay because of its significant impact on availability and use in research and learning. This is consistent with the findings of Oketunji (2000) worldbank(2002) Edem, (2005) Ani, Esin and Edem (2005).The poor use of CD-ROM and other facilities can simply be explained in terms of non-availability and lack of awareness of these facilities in the various schools of the college studied.

In this study, only few facilities (internet and computer) are available for students' use in research and frequency of use shows that, students in school of Education 33(16.5%), school of Arts and Social Science 24(12.0%), school of languages 22(11.0%) , school of vocation 20(10.0%) and school of Science 10(5.0%) make use of available IT (computer & Internet) occasionally for their research work. when asked why they do not use the facilities effectively , majority of respondents indicated that inadequate IT facility 70(35.0%) followed by incessant power failure 60(30.0%) and inadequate skills in the use were the major constraints to effective use of IT facilities for research work. Many researchers have agreed with this findings (Ani and Esin, 2001: Aina 2004; Oketunji 2000, Oyesika and Oduwole 2004, Edem,2008) and stressed the importance of the provision of IT facilities, continuing education and instruction in IT use by all the students in tertiary institutions in Nigerian universities. The major services provided are Printing / Bindery 28(14.0%) and photocopying services 18(9.0%) provided by staff in the college studied but the attitude of staff to students was friendly 46(58.0%). However, 44(22.0%) and 40(20.0%) of students were of the view that the staff were rather harsh or unapproachable to them.

RECOMMENDATIONS

The researcher is of the view that the use of IT facilities by undergraduate students must be encouraged with the following recommendations:

1. Institutions of higher learning and colleges should endeavor to provide quality electronic resources and services in their libraries so as to make their students be more proactive in the utillisation for research work at all times.
2. Students should be encouraged to register in the library to be able to use the resources therein.
3. Students should be given more education on how to use the internet for research work and not to spend time watching other sites that are not relevant to research activity.
4. Alternative power source such as standby generating sets should be provided in the library and schools of the college to ease power shortage.
5. Regular maintenance and upgrade should be carried out on computer systems for the enhancement of IT facilities used by students.

CONCLUSION

Use of Information Technology facilities are integral part of educational sector, the world over. This is because of the changing nature of education and researches in the new information age. Schools and colleges in Nigeria have, to some extent use IT facilities like computer, internet, CD-ROM, e-mail etc for researches and other activities in the schools, but some colleges are lacking behind in this regard. However, there is need for the acquisition of more IT facilities in schools as well as training programmes for students for effective use in research and access to scholarly information.

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