



Utilization of ICT by Postgraduate Students in Ignatius Ajuru University

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Abstract

This paper examined Utilization of ICT by Postgraduate Students in Ignatius Ajuru University. The study sought to: examine the ICT facilities available for students of Ignatius Ajuru University, Rivers State, Nigeria; find out the extent of utilization of ICT facilities by the students; ascertain reasons for using ICT facilities by the students and examine the challenges to the utilization of ICT facilities by the students. The survey research design was used for this study. The population of this study is made up of 960 postgraduate students in the Faculty of Education in Ignatius Ajuru University of Education, Rivers State, Nigeria. The sample of the study is 320. Data for this study were gathered using a rating scale while research questions were answered using mean scores. It was discovered that there are ICT facilities available for postgraduate students; they use ICT facilities to a high extent. The main challenges faced by postgraduate students in using ICT facilities are man power and high cost of subscription fee. It is recommended that the government as a matter of urgency should recruit more staff into the University Library. Also the Nigerian Communication Commission (NCC) should standardize the services of telecommunication firms and also regulate their subscription fees.

Keywords: ICT Utilization, Postgraduate Students

t1.1 Introduction

Information is increasingly becoming a critical determinant of the success of human endeavour. It is crucial to the performance of scholars and academia who are both consumers and producers of information. Therefore, information resources and services should be sufficient in quality, depth, diversity and currency. The introduction of ICT into the university library is one way by which librarians can adequately satisfy the

information needs of students in the academic environment. In other words, the advancement in computer technology has necessitated the current shift from the age-long conventional means of providing library services to technological approaches.

The main objective of Information and Communication Technology (ICT) investment in the library is to enhance accessibility to information resources as to achieve optimum usage levels. Students

therefore are able to access up-to-date international literature as soon as it is published on the internet. Libraries in institutions can now provide information access to off-campus students wherever they are located even to sites many miles away. Services have evolved from the days of closed stacks, through shelf browsing and card catalogues, punched cards and OPACs to the concept of open access and institutional repositories.

The term Information and Communication Technology (ICT) evolved from Information Technology (IT). Whereas Information Technology is used to refer to the latest trend and devices that enhance information proceeding and usage, Information and Communication Technology (ICT) on the other hand is used to represent the process or act of exchanging or sharing information using the existing technological facilities. Nwachukwu (2005) defines ICT as a device or tool that allows for the collection, storage, processing or the communication of information. It is a kit or equipment used for capturing, processing, storing and accessing information (Ekoja, 2007).

ICT facilities according to Adebayo (2011) are in different formats and medium but the most important fact is that they are all computer based. Computers, CD-ROM (compact disk – read only memory), library software, data bases, internet facilities, which include searching, electronic mail, electronic publishing, portals and websites are all forms of ICT facilities available in academic libraries. The introduction of computer and other telecommunication technologies in libraries has changed the concept of a library as the information seeker is no longer confined to the walls of the library. University libraries now depend on both electronic and print media based on network and physical facilities. In this way, university libraries are able to offer their patrons remote services and access to the vast networked resources. The

users of this type of libraries (e-library) require basic ICT and information searching skills unlike in the traditional libraries where users are required to have only the ability to read.

Utilization of ICT library resources is to put to use available ICT resources in the library for effective result. University libraries must therefore make sure that their ICT resources are well utilized as this is essential for the educational development of the students. In agreement with this, Rathinasabapathy (2005) posited that the library is an important intellectual resource of the academic community, and helps them fulfil the curriculum requirements and to promote studies and research. In essence, to fulfil the curriculum requirements, ICT library resources need to be available and effectively utilized to provide those functions. The postgraduate students therefore, in their need for current information expect much from ICT library services for their day-to-day research needs. This is because, in an ideal university or college library, the following services can be identified and expected: reference services, selective dissemination of information, current awareness services, bibliographic control services, inter-library loan services, indexing and abstracting services, cataloguing and classification of resources, university repositories organization and control, circulation services, consultancy services, reading and research services.

In order to make effective use of ICT in libraries, postgraduate students should possess certain skills. These skills may include typesetting, surfing the net, sending mails among others. The acquisition of these skills can be organized by the library or the students can on their own seek for ways of getting these skills.

The hierarchy of postgraduate degrees is as follows: Postgraduate Diploma, Master's Degree and Doctorate Degree. Precisely,

these postgraduate students, because of the intensity and quality of their research work need easy access and use of these relevant information resources especially the digital library resources for their utmost satisfaction. In this era of information explosion, ICT plays significant roles in organization, management and control of information.

In view of the above, this study therefore seeks to know how postgraduate students of Ignatius Ajuru University, Rivers State, utilize ICT.

1.2 Objectives of the Study

The main objective of this study is to examine the utilization of ICT by students of Ignatius Ajuru University, Rivers State, Nigeria.

Specifically, the study seeks to:

1. examine the ICT facilities available for students of Ignatius Ajuru University, Rivers State, Nigeria;
2. find out the extent of utilization of ICT facilities by the students
3. ascertain reasons for using ICT facilities by the students;
4. examine the challenges to the utilization of ICT facilities by the students.

2.1 Review of Related Literature

Availability of information and communication technology in libraries is the presence of ICT facilities in the provision of information to library users. Also it is only when the ICT resources are available and effectively utilized that the satisfaction can be ensured. In the context of this study availability of ICT refers to the existence of ICT resources in the university libraries. Akodolu (2002) defined Information and Communication Technology as all kinds of electronic devices that are used for broadcasting, telecommunication and all forms of computer based technology and the internet to make information and

communication services available to a wide range of users.

Different types of ICT facilities as observed by Nwigwe (2005) include, computers, printers, scanners, photocopiers, telephone, fax machine, files, magnetic tapes and type writers. These facilities are used extensively to provide library services. Ekoja (2007) observed that all ICT facilities depend largely on telecommunication facilities to function effectively. Omogor (2006) stated that radio, television and telephones are ICT tools that have enhanced man's ability to communicate across vast distances. Sann's (2007) study highlighted the types of ICT facilities used in the library. According to him, they include, computer system, communication system (telecom, telephone, satellite, telefacsimile, internet, e-mail, video text, document delivery etc); reprographic systems, (micrographic, electronic copies, word processing and Data Transfer protocol (DTP) and microwave systems (Radio, television). He posited that every Librarian should be conversant with the use of these ICT facilities to enable them perform their duties effectively and efficiently. All the literature reviewed in this section showed that there are different categories of ICT facilities in use in both libraries and other sectors of the economy.

Adeniyi, Adeniji and Oguniyi (2011) in their study revealed that Internet is the most used ICT resources, while computer, e-publication, printers and scanner were also used by the respondents as sources for information in their various fields of learning. Uhegbu (2007) identified the following as types of ICT facilities available in libraries and information centres: computers, internet, CD-ROM, worldwide web (www), E-mail, technology and the like.

With the introduction of the internet, the attention of the Nigerian students have been shifted from the use of library to the use of internet. The internet no doubt has been

acclaimed to be the world reservoir of information and gateway to knowledge. The traditional encyclopaedias in our libraries are gradually becoming of less value to students especially when they can access them through the internet. The proliferation of mobile technology especially the smartphones have helped to make the internet more popular among students. The student can now use the mobile technology to access the internet any day, anytime, anywhere provided there are network signals on their phones. Non-availability of computer, laptop and desktop is no longer a constraint to students' use of the internet. The internet has changed the way information is published and disseminated and opened a huge opportunity to scholars from the developing world (Idowu, Idowu & Adagunode, 2004). Ejechi (2013) stated that it is common to see young people and students patronising cybercafés to use internet facilities on campuses and in the cities of Nigeria.

The application of ICT to libraries has made it possible for students in Nigerian institution to have access to vast information resources with ease. As rightly observed by Womboh and Abba (2008), with the installation of the ICT in libraries, there will be simultaneous access for many people at the same time, and library users will have self-services to replace the unreliable services they may have received from library staff. It allows for collaborative learning, multi-media learning experiences, and in general, it address national learning intelligence of students (Hassan & Jacob, 2010). Considering this, university libraries must make sure ICT library resources are well utilized. In support of this, Rathinasabapathy (2005) posited that to fulfill the curriculum requirement and to promote studies and research academic libraries ICT resources need to be utilized.

Adequate, current and authentic information is an indispensable tool for research work. Mohammed (2008) asserts

that Information and Communication Technology (ICT), particularly the internet, intranet and other network technologies have continued to impact positively on the methods of library and information service delivery. This can be observed in the conversion of printed bibliographic cabinets in Online Public Access Catalogue (OPAC) and Machine Readable Catalogue (MARC), in the digitization of reference service and circulation services, (such as charging and discharging, on – hold services, registration of library users, quick/telephone reference services), in the use of online cataloguing against the traditional method, etc.

Given this, students are now expected to be aware of and capable of using and demonstrating emerging Information and Communication Technologies (ICTs). They must be competent in the use of some basic ICT packages like MS office, online database, internet searches etc. Similarly, Ikpahindi. Csapo (2002) noted some basic IT competencies .required for success in a work place. These include, using the computer and managing file, word processing, spreadsheet, databases, presentation, internet and E-mail

In addition, Hossain (2010) asserted that in today's digital environment libraries must improve their services in order to survive in a competitive environment. However, there are challenges to the use of ICT facilities. Ogbomo and Ogbomo (2008) identified some problems militating against the use of ICT as follows: power blackout, the high cost of connectivity, lack of ICT skills, interconnectivity problem, and poor infrastructure, lack of basic education, obsolete equipment, and high cost of equipment. Omolayole (2002) pointed out three strong reasons that stand against the effective use of ICTs in Nigerian academic libraries. Each of the factors she has mentioned has a resultant effect on availability and use of ICT. The factors are:

low level of computer culture; poor telecommunications infrastructure; and general lack of awareness. The major constraints to effective use of internet by students according to Anyanwu and Ossai-Onah (2013) include poor power supply and high fees charged by cyber cafes and internet services providers (ISP). Omotayo (2006) found that the major barriers to efficient Internet use by students include slowness of the server.

3.1 Research Methodology

The survey research design was used for this study. The population of this study is made up of 960 postgraduate students in the Faculty of Education in Ignatius Ajuru

University of Education, Rivers State, Nigeria. This is made up of 275 PGDE students, 501 M.Ed students and 184 Ph.D students. The sample of the study is 320 which was drawn using Taro Yamene's (1969) statistical formular $(N/1+N(0.05))^2$. Simple random sampling technique was used to select the individual respondents. Data for this study were gathered using a rating scale. The research questions were answered using mean scores. The value 2.5 is taken as the criterion expected mean for answering research questions. This means that any item with mean scores below 2.5 is regarded as negative while those with 2.5 and above are regarded as positive.

4.1 Data Analyses and Presentation

Table 1: ICT Facilities Available for Students.

S/N	Facilities	SA	A	D	SD	Mean	Rem.
1.	Computer	284	36	-	-	3.9	Positive
2.	Printers	23	76	78	143	1.7	Negative
3.	Internet	198	64	35	23	3.37	Positive
4.	Telex-equipments	-	-	-	320	1	Negative
5.	CD-ROM	78	145	67	30	2.85	Positive
6.	Reprographic machines	187	97	45	9	3.56	Positive
7.	E-mail	276	30	14	-	3.82	Positive
8.	Wide Area Networks (WAN)	98	143	67	12	3.02	Positive
9.	Mobile phones e.g. GSM and Cellular	320	-	-	-	4	Positive
10.	Database	167	98	35	20	3.29	Positive
11.	Fax Machines	-	-	-	320	3.73	Positive
12.	World Wide Web	234	86	-	-	2.10	Negative
13.	Online public access catalogue	56	41	109	106	2.24	Negative
14.	Scanners	56	62	106	96	1.71	Negative
15.	Digital camera	25	45	63	187	2.15	Negative
16.	Data Transfer Protocol	34	56	154	76	1.71	Positive
17.	Radio	90	106	84	40	2.77	Positive
18.	Television	67	54	107	92	2.3	Negative

On the availability of ICT facilities, it was discovered according to Table 1 that computer (3.9), internet (3.37), CD-ROM (2.85), reprographic machines (3.56), email (3.82), Wide Area Network (3.02), Mobile phones (4), database (3.29), world wide web (3.73) and radio (2.77) are available while the remain ICT facilities as represented in items 2, 4, 11, 13, 14, 15, 16 and 18 have mean scores below 2.5 and hence regarded as unavailable.

Table 2: Extent of Utilization of ICT facilities

S/N	Facilities	VHE	HE	LE	VLE	Mean	Rem.
1	Sending email	145	98	61	16	3.16	Positive
2	Typesetting documents	67	121	90	42	2.67	Positive
3	Printing my own documents	45	68	145	62	2.3	Negative
4	Sending fax/telex messages	-	-	89	231	1.28	Negative
5	Run photocopies of documents	67	98	106	45	2.56	Positive
6	Using social media	239	81	-	-	3.75	Positive
7	Have personal blogs	34	23	74	189	1.69	Negative
8	Browsing with my Mobile phones	204	65	51	-	3.48	Positive
9	Have access to databases	165	89	54	12	3.27	Positive
10	Can use different search engines	67	182	53	18	2.93	Positive
11	Retrieve information through Online Public Access Catalogue	23	85	108	104	2.08	Negative
12	Scan documents	42	34	176	68	2.16	Negative
13	Take photographs	21	54	164	80	2.04	Negative
14	Listen to radio programmes	34	23	98	165	1.77	Negative
15	Watch television	45	65	98	112	2.13	Negative
16	Grand Mean					2.52	

The result of the analysis in Table 2 indicates that the postgraduate students utilize ICT facilities to a high extent with items 1, 2, 5, 6, 8,9 and 10 are the extent to which postgraduate students of Ignatius Ajuru University of Education can utilize ICT facilities. This is shown by their mean scores which are above 2.5 which is the criterion mean. The Table further shows that items 3, 4, 7, 11, 12, 13, 14 and 15 are negative because their mean scores are below 2.5.

Table 3: Reasons for Using ICT Facilities.

S/N	ITEMS	SA	A	D	SD	Mean	Rem.
1	For research work	300	20	-	-	3.94	Positive
2	For class assignments	320	-	-	-	4	Positive
3	For social interaction and entertainment	234	86	-	-	3.73	Positive
4	To gain current and general information	121	78	48	73	2.77	Positive
5	To widen knowledge	76	84	74	86	2.47	Negative
6	It saves time	143	78	72	27	3.05	Positive
7	It is easily accessible	87	43	92	98	2.37	Negative

Table 3 shows that the reasons for using ICT by postgraduate students are: for research work (3.94), class assignments (4), social interaction (3.73), gain current and general information (2.77) and it saves time (3.05). To widen knowledge and easily accessible are not seen as reasons for using ICT facilities. Both items got mean scores of 2.47 and 2.37 respectively.

Table 4: Challenges Faced by Postgraduate Students in Using ICT Facilities.

S/N	ITEMS	SA	A	D	SD	Mean	Rem.
1	Man Power	121	62	87	50	2.79	Positive
2	Unreliable Telecommunication infrastructure	62	57	145	56	2.39	Negative
3	Insufficient number of ICT facilities	52	38	127	103	2.12	Negative
4	Interconnectivity problem	72	67	98	83	2.4	Negative
5	Obsolete equipment	31	23	184	82	2.01	Negative
6	High cost of Subscription	67	132	101	20	2.77	Positive
7	Power outage	23	47	69	181	1.73	Negative

The analysis in Table 4 reveals that the main challenges faced by postgraduate students in using ICT facilities are man power and high cost of subscription. These items got means of 2.79 and 2.77 which are above the criterion mean of 2.5. However, items 2, 3, 4, 5 and 7 with mean scores of 2.39, 2.12 2.4, 2.01 and 1.73 respectively are not seen as challenges due to the fact that their scores are below 2.5.

4.2 Discussion of Findings

It was discovered that the available ICT facilities for the postgraduate students of the institution studied are computer, internet, CD-ROM, reprographic machines, email, Wide Area Network (WAN), Mobile phones, database, World Wide Web (www) and radio. This finding is in agreement with Uhegbu (2007) who identified the following as types of ICT facilities available in libraries and information centres: computers, internet, CD-ROM, worldwide web (www), E-mail, technology and the like. However, it disagrees with Nwigwe (2005) who stated that different types of ICT facilities include, computers,

printers, scanners, photocopies, telephone, fax machine, files, magnetic tapes and typewriters.

The result of the analysis in Table 2 indicates that postgraduate students utilize ICT facilities to a high extent. They mainly use them for sending email, typesetting documents, run photocopies of documents, using social media, browsing with my mobile phones, have access to databases, use different search engines. This finding agrees partly with Adebayo's (2011) assertion that ICT facilities are in different formats and medium which are used for searching, electronic mail, electronic publishing, portals and websites. And that of Csapo (2002) who noted some basic IT competencies required using the computer and managing file, word processing, spreadsheet, databases, presentation, internet and E-mail.

The reasons for using ICT by postgraduate students are: for research work, class assignments, social interaction, gain current and general information and it saves time. This finding consolidates that of

Womboh and Abba (2008) who stated that with the installation of ICT in libraries, there will be simultaneous access for many people at the same time and that of Rathinasabapathy (2005) who posited that to fulfill the curriculum requirement and to promote studies and research academic libraries ICT resources need to be utilized.

The analysis in Table 4 reveals that the main challenges faced by postgraduate students in using ICT facilities are man power and high cost of subscription. This contradicts Anyanwu and Ossai-Onah (2013) who reiterated that the major constraints to effective use of ICT include poor power supply. A big kudos to Ignatius Ajuru University Library because, it is encouraging and interesting to note that power outage is their least problem.

Recommendations

The government as a matter of urgency should recruit more staff into the University Library. Also the Nigerian Communication Commission (NCC) should standardize the services of telecommunication firms and also regulate their subscription fees.

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