

EVALUATING THE USE OF INFORMATION TECHNOLOGY FACILITIES FOR ENHANCING PRODUCTIVITY OF ACADEMIC LIBRARIANS IN TERTIARY INSTITUTIONS OF IMO STATE, NIGERIA.

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Abstract

Information and communication technology facilities are important appendages for any academic library. They have made information access, retrieval and dissemination much easier and available in the administration of the academic libraries. In this study, Information and Communication Technology (ICT) in the library services of tertiary institutions in Imo State was evaluated. The five tertiary institutions used in the study include: Imo State University Owerri, Federal University of Technology Owerri, Imo State Polytechnic Umuagwu, Federal Polytechnic Nekede and Alvan Ikoku Federal College of Education Owerri. Specifically, the study identified the areas of ICT use in the libraries, determined the extent ICTs have been utilized to enhance productivity, ascertained the extent to which the management of these libraries support or hinder ICT use, determined the problems that inhibit the use of ICT in academic libraries and suggested ways through which utilization of ICT facilities could be improved for effective job productivity of academic librarians. Sampling survey method of investigation was used in the study, rating scale was the instrument for data collection and chi-square statistical analysis was used in testing hypothesis aspect of the study. Results of the study indicated that ICT facilities are used only in Browsing, E-mail and Reprographic sections. The study also indicated lack of ICT policies for manpower development, inadequate funding and inadequate power supply in the studied academic libraries. It is recommended that there should be regular power supply through the use of big generating sets.

Keywords: Information Communication Technology, Tertiary Institutions, Academic librarians, Test of hypotheses.

1.0 Introduction:

The term Information and Communication Technology is a set of technological tools and resources used for communicating, creating, disseminating, storing and managing information (Anyanwu and Ossai-Onah, 2011). Information technology facilities encompass a range of rapidly evolving technologies such as computers, telegraphs, Networks, mobile telephones, Worldwide Web etc. (Chisenga, 2006). As knowledge expands, the need to organize it becomes more pressing. The vast output of knowledge has much demand on library information storage and retrieval system which can hardly be met by the traditional methods (Akparobore 2011).

Before the application of ICT facilities in libraries, academic libraries were regarded as noiseless zones (a placement meant for silent reading alone) characterized by traditional tools incapable of coping with the high degree of information retrieval and dissemination (Badaru and Oyegunle 2012). Today with the use of ICT facilities, a functioning academic library system characterized as a harmonious and interactive union of people, materials and technologies has emerged. With e-library in operation, pooled resources of various tertiary institutions' libraries are made available electronically to each library site. In that way, the networking libraries have the potential for providing the latest and comprehensive resources and can deliver same instantaneously to users. The users can equally have interactive sessions whereby the librarian teaches them how to make use of computers and connect them to the library automated system if available.

Anyakoha (2005) maintained that ICT influences the success of information services and has gone a long way in enhancing the productivity of academic librarians. He also stated that its applications are numerous but are mainly used in converting paper print records to the entire process of storage, retrieval and dissemination. Madu (2004) also recognised these numerous applications but lamented on why libraries are reluctant in using ICT facilities. It is truly lamentable that most academic librarians in Nigeria still struggle with manual operation methods and make little or no use of ICT facilities in service delivery. As a result of this, library users show dissatisfaction and complain of poor information service provided to them. Operating with manual methods maybe as a result of lack of appropriate funding system, lack of infrastructure to provide access to electronic information or erratic power supply. Whatever be the reason, in libraries where ICT facilities are not utilized, librarians find their jobs tasking and that consequently jeopardizes productivity enhancement.

Productivity enhancement is the extent to which use of ICT facilities promote library operations and services. It is largely felt by the impacts and values created by using information communication facilities in performing library operations. Considering these values and impacts therefore, Ajayi (2003) opined that there is need for all academic libraries to embrace information technologies as tools that aid the enhancement of their job productivity.

In this study, the researchers attempted to determine extent of use of ICT facilities for effective job performance among academic librarians of tertiary institutions in Imo State.

2.0 Research Methodology:

Sampling survey method was adopted for this study. It aimed at evaluating the use of ICT facilities for enhanced productivity of academic librarians in five tertiary institutions in Imo State Nigeria. The population of the study consists of seventy one (71) librarians from Federal Polytechnic Nekede Owerri, Imo State University Owerri, Alvan Ikoku Federal College of Education, Federal University of Technology Owerri and Imo State Polytechnic Umuagwo. These seventy one librarians were all represented in the study.

The research questions used in the study are:

- (i) What are the areas of ICT use in the academic libraries under study?
- (ii) What is the extent of utilization of ICT facilities in academic libraries under study?
- (iii) What problems inhibit the use of ICT in academic libraries under study?
- (iv) What are the ways of improving the use of ICTs for effective job productivity of academic librarians?

The following two null hypotheses were formulated to guide the study.

- (i) The mean rating score of librarians on the job productivity is not significantly less than the expected mean.
- (ii) There is no significant difference in the use of ICT facilities in the five tertiary institutions' libraries.

3.0 Results

Research Question 1: What are the areas of ICT use in your library?

This research question sought to determine the areas in the libraries where ICT facilities are used and it is presented in table 1 below.

Table 1: Areas of ICT facilities use in the libraries under study

S/N	Factors	SA	A	D	SD	ΣFX	X	Remarks
1.	Reference services	6	5	50	10	149	2.1	R
2.	Cataloguing & Classification	6	5	50	10	149	2.1	R
3.	Indexing	6	5	50	10	149	2.1	R
4.	Publishing	6	5	50	10	149	2.1	R
5.	Browsing	10	20	40	1	181	2.5	A
6.	E-mail services	10	20	40	1	181	2.5	A
7.	Reprographic services	40	11	10	10	232	3.1	A

Grand mean = 2.4

R = Rejected

A = Accepted

The result of the analysis in Table 1 above has the grand mean of 2.4 indicating that these libraries do not make use of ICT facilities in their libraries, though a close look at the analysis indicates that they make use of ICT facilities in very few areas of the libraries like in browsing, e-mail services and reprographic services.

Research Question II: What is the extent of utilization of ICT facilities in your library?

This research question sought to know the extent of utilization of ICT facilities in the libraries studied. The respondents' reactions are presented in Table 2 below

Table 2: The extent ICT facilities have been utilized in the various areas of the library by these academic librarians

S/N	Factors	SA	A	D	SD	ΣFX	X	Remarks
1.	Maximally used in reference services	6	5	10	50	109	1.5	R
2.	Maximally used in cataloguing & classification	6	5	10	50	109	1.5	R
3.	Maximally used in indexing	6	5	10	50	109	1.5	R
4.	Maximally used in publishing	2	2	8	59	89	1.3	R
5.	B Maximally used in browsing	4	4	12	51		1.5	R
6.	Maximally used in E-mail services	4	2	3	2	150	2.1	R
7.	Maximally used in reprographic services	4	2	63	2	150	2.1	R

Grand mean = 1.6

From the analysis therefore, it is evident that the facilities are not maximally utilized in the libraries studied. They are not fully engaged in the performance of duties in the libraries.

Research Question 3: What problems inhibit the use of ICT facilities in your library?

This question sought to know the factors that inhibit the use of ICT facilities in these academic libraries. The respondents' reactions are presented in Table 3 below.

Table 3: Problems inhibiting the use of ICT facilities in the libraries

S/N	Factors	SA	A	D	SD	ΣFX	\bar{X}	Remarks
1.	Negative attitudes of librarians toward ICT	60	3	5	3	262	3.7	A
2.	Erratic power supply	71	0	0	0	284	4	A
3.	Lack of funds to acquire relevant ICT tools	70	1	0	0	283	3.98	A
4.	Lack of functional ICT policy for manpower development	69	2	0	0	282	3.97	A
5.	Poor level of computer literacy	50	10	10	1		3.7	A

Grand mean = 3.8

The analysis in the table above shows that the problems inhibiting the use of ICT facilities in these libraries range from erratic power supply, lack of fund to acquire relevant ICT tools, lack of functional ICT policy for manpower development, negative attitude of librarians towards ICT and poor level of computer literacy among librarians.

Research question 4: What are the ways of improving the use of ICT facilities for effective job performance of academic librarians?

This research question sought to determine ways of improving the use of ICT facilities and the suggestions are presented in Table 4 below.

Table 4: Ways of improving the use of ICT facilities

S/N	Factors	SA	A	D	SD	ΣFX	\bar{X}	Remarks
1.	Provision of regular power supply	71	0	0	0	284	4	A
2.	Provision and implementation of ICT policies	70	1	0	0	283	3.9	A
3.	By providing more relevant ICT facilities	60	5	5	1	266	3.7	A
4.	Making provisions for training and retraining of staff	65	5	1	0	266	3.7	A
5.	Allocation of funds to academic librarians for the provision of ICT facilities	40	20	5	6	236	3.3	A

Grand mean = 3.7

There is a clear indication from the Table above that all the factors are ways of improving the use of ICT facilities in these academic libraries under study.

Testing of Hypotheses

HO₁: The mean rating score of librarians on the job productivity is not significantly less than the expected mean.

Rating Value

Very high	-	5
High	-	4
Average	-	3
Low	-	2
Very low	-	1

Rating Score

FUTO	-	5 x 30	=	150
IMSU	-	3 x 10	=	30
FED PONEK	-	4 x 11	=	44
AIFCE	-	2 x 14	=	28
IMO POLY	-	2 x 6	=	12

Since the calculated mean rating score (3.72) of librarians on the job productivity is significantly less than the expected mean (5.0), we reject the hypothesis. What this means is that the average rating score of these librarians' productivity is significantly less than the average score expected of them.

HO₂: There is no significant difference in the use of ICT facilities in the five academic libraries (see Table 5)

Table 5: Test analysis of differences in the use of ICT facilities

Option	O	E	O - E	(O - E) ²	(O - E) ² E
SA	18	17.75	0.25	0.06	0.003
A	16	17.75	-1.75	3.06	0.172
D	17	17.75	-0.75	0.56	0.032
SD	20	17.75	2.25	5.06	0.285
Total	71				0.492

Where O = Observed value

E = Expected value

From the above result presented, the null hypothesis is accepted. This is because the calculated value (χ^2) which is 0.492 is less than the table value (7.815).

This implies that there is no significant difference in the use of ICT facilities among the five academic libraries studied.

4.0 Discussion

There are many areas where ICT facilities can be used in the library operations/services. These areas include reference services, cataloguing and classification, indexing, publishing, browsing, E-mail services and reprographic services. It is gathered from the analysis on Table 1 that except in reprographic services, E-mail services and browsing, ICT facilities are not used in other areas of the libraries studied. This is in conformity with the research findings of Krubu and Osawaru (2011), Ahunanya (2009), Islam and Islam (2006) and Okon et al (2005) where they assert that many of the university libraries they studied are yet to use ICT facilities in many areas of their libraries. Mohammed (2012) asserts that where ICT tools are not used in the libraries, information is not easily accessed. It then means that these libraries studied do not render or have easy access to quality information for the library patrons.

The success or failure of university libraries in our contemporary society is measured by the extent of ICTs (Oladapo, 2005). However, from the data presented and analysed in Table 2, it is obvious that the few available ICT tools are not maximally utilized in the libraries studied. This could be as a result of the librarians' poor attitude to the use of ICT tools or because of epileptic power supply. Though whatever reason is given these libraries are heading towards failure if measured according to Oladapo (2005).

Research question 3 sought to establish the factors that inhibit the use of ICT facilities in academic libraries studied. From the data presented and analyzed in table 3, it is evident that these libraries have variety of factors that inhibit their use of ICT facilities which include, negative attitudes of librarians towards ICT, erratic power supply, lack of functional ICT policy

for manpower development, lack of funds and poor level of computer literacy among librarians. The numerous number of factors confirm the findings of the studies of Yacob (2011), Ahunanya (2009), Krubu and Osawaru (2011) where they assert that the use of ICT facilities in academic libraries has numerous factors affecting it.

Research question 4 sought for ways in which utilization of ICT facilities could be improved in the academic libraries studied. The respondents in their suggestions emphasized regular power supply which has the highest score amongst others. It means that if there will be regular and steady power supply, utilization of ICT facilities will be assured in the libraries studied. Other suggestions include provision and implementation of ICT policies, providing more relevant ICT facilities, making provisions for training and retraining of staff as well as allocation of funds to academic libraries for the provision of ICT facilities. This is in conformity with the suggestion made after the research findings of Okon and Jacob (2005), Ahunanya (2009) and that of Krubu and Osawaru (2011).

The first hypothesis sought to assert that the mean rating score of librarians on the job productivity is not significantly less than the expected mean. The expected mean is assumed to be 5.0 for the institutions' libraries studied. They are expected to carry out their library duties to the maximum productivity level but quite unfortunate that their mean rating score of 3.72 is far below the expected mean. This low performance of duties as shown in the rating score is traceable from the fact that they make little or no use of ICT facilities in their library functions.

Finally hypothesis 2, asserted that there is no significant difference in the use of ICT facilities in the five academic libraries studied. The use and extents of use of ICT facilities in the library functions and services are synonymous in the five academic libraries studied. Therefore the null hypothesis of no significant differences is accepted.

5.0 Conclusions and Recommendations:

On the basis of the research carried out, some conclusions and recommendations were made.

5.1 Conclusions

Having evaluated the use of ICT facilities in these tertiary institutions' libraries, it is noteworthy to assert that ICT facilities are used only in few areas of the libraries like in browsing or internet sections and reprographic sections. Though the extent of use of these facilities in the available sections is discouraging; Federal University of Technology library is on the lead, they make more use of these facilities than other academic libraries. This is followed by Federal Polytechnic Nekede library, Imo State University, Alvan Ikoku Federal College of Education and lastly Imo State Polytechnic Umuagwo. Some factors were identified as responsible for the setbacks in the use of ICT facilities in these studied libraries and they include: negative attitudes of librarians towards ICT, erratic power supply, lack of functional ICT policy for manpower development, lack of funds to acquire relevant ICT tools and poor level of computer literacy among these academic librarians.

5.2 Recommendations

On the basis of the study, the under-listed recommendations are made as remedies to the problems identified:

- (i) There is need for regular power supply to the libraries through the use of big generating sets.
- (ii) There is need for provision of adequate ICT facilities to the libraries by relevant authorities
- (iii) Academic libraries should organize regular training and retraining of staff.
- (iv) Corporate organizations as well as philanthropists should be requested to donate ICT facilities to the libraries.
- (v) There should be functional ICT polices that must be implemented by both the management and the academic librarians of the institutions studied.

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