

# **The Impact Of Information And Communication Technology (Ict) Compliant Librarians On Library Services Delivery In Academic Library: The Case Of National Open University Of Nigeria(Noun)Library**

**By**

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## **-----ABSTRACT-----**

*The study aimed at examining the impact of information and communication Technology (ICT) compliant librarians on library services delivery on NOUN library. The paper traces briefly the history of National Open University Library. The e-resources, staff strengths are highlighted. The study adopted the descriptive survey method. The questionnaire was used as instrument for data collection. A total of fifty (50) questionnaires were distributed and collected back. The data collected were analyzed with the use of tables and simple percentages. From the analysis of the data collected, it was found that the use of ICT compliant librarians on library service delivery aids immensely in the development of NOUN library, quick delivery of information services, access and easy retrieval of information by users. The study shows that Inadequate ICT skilled professional Librarians, Inadequate provision of ICT training programmes, Inadequate Power supply and inadequate ICT infrastructures hinder the effective use of ICTs in NOUN library. Therefore, it was recommended that there should be massive injection of funds and financial assistance from both the Nigerian government and some international donor agencies for the provision of ICT infrastructural facilities and training and retraining of librarians to enable them meet the standard of technology age for effective library services. This will result in the delivery of the effective information services and make it easily accessible to users.*

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## **I. INTRODUCTION**

### **Information and communication technology (ICT) and library**

Modern information and communication technology have created a global village because of information revolution and the consequent computer based messaging system, and electronic networks for access to information and library services. ICT is a growing phenomenon in the society. Library is a dynamic and evolving enterprise in education. The trend now is information and communication technology, library and information have undergone various stages on transformation, storage and retrieval of information application in delivering library services. Such as oral tradition, letters, and figures on leaves and skins, while the librarians then were custodians. Ranganathan(1957) says in his five laws of librarianship which cut across all ages that “Library is a growing organism”

Notably, Information and communication technology is an electronic means of capturing, processing, storing and disseminating information (Adeyemi, 2005; Marshall, 2000 ). For Okentunji (2000), information communication technology facilitates access to electronic information which has become invaluable in complementing traditional library resources. Several studies have adequately addressed the impact of ICT facilities in library operation and more have seen the need to use ICT facilities, especially in areas of creating digital libraries (be it in virtual format or on CD-ROM) in order to make access to information or document faster and easier for users at lesser cost than it used to be when using the traditional manual system. Information and Communication Technology (ICT) has brought many revolutions in the human life. One very important, impressive and effective revolution is the enhancement in the speed and span of information production, sharing and recycling. It has changed the basic concepts of proprietorship into sharing and preservation into access. Library science is among the fields which have been influenced by this revolution up to

a great deal. Library science has been transformed into information science or library and information science (LIS). Libraries have been transformed into information centers. Formal tools and techniques have been replaced by the modern technologies. Information and communication technology has become an integral part of the modern libraries. Databases are replacing the huge amounts of inventories. Resource sharing has become a necessary requirement and is easier through modern techniques. The previously required basic skills have also been of lesser primary requisites. Along with strong and in depth knowledge of cataloguing and classification skills, nowadays, knowhow of databases, copy catalogue and reaching the sources available online has also taken an important place. Lengthy and complex subject headings have been replaced by the keywords. It has also transformed the overall routines, activities and behaviours of the LIS professionals. At the time, there is no concept of an effective, efficient and impressive library service without the ICT aids. Advanced countries are no doubt, ahead in this area but the gap, known as *digital divide* that had been between advanced countries and developing countries is eliminating and being abridged with the passage of time. Therefore, since Academic libraries are not exempted from these radical changes, as they are the most affected in terms of how information are packaged, preserved and disseminated. Academic libraries in Nigeria make use of ICT as tools to meet the information need of users who in this context are students and faculty staff. Academic libraries are established to support the objectives of their parent institutions which are to promote teaching, learning and research. Therefore, academic libraries are expected to serve the students, lecturers and other members of the academic community. To meet the information need of users, academic libraries provide various services such as user education (orientation/instruction services), inter-library loan/connection services, abstracting and indexing services, referral services and circulation services. Other services provided include library book loan, reference services, photocopying, online services, compilation of reading list and bibliographies, e-mail, internet connectivity, CD-Researching and publishing (Ifidon, 2006).

ICT in libraries has changed the mode of information storage and retrieval, acquisition, cataloguing and classification, circulation of materials, serials control, management statistics and administrative activities such as budgeting. This achieved the provision of more efficient information services to the users and the overall improvement in the performance of the libraries and other related information institution (Chisenga, 1999). Librarians, therefore, are encouraged to soil themselves with the challenges of grabbing this opportunity of learning the new skills to use the multimedia in information packaging, repackaging and delivery for optimal service delivery in the 21<sup>st</sup> century.

### **Brief History and Online Delivery Services of National Open University E- Library**

The NOUN E-Library also called information gateway came into limelight in 2007. The major aim of the e-library is to facilitate access to scholarly information resources. There are policies that guide the nature of services in the e-library. Facilities are provided to enable library achieve its objectives.. The main Library is located at the headquarters of the National Open University of Nigeria in Lagos. It is situated along Ahmadu-Bello way, Victoria Island. In addition to the headquarters' Library are other libraries in various study centers all over the country. The objective of the library is to support teaching, learning, research etc. activities of the university. Its major aim is to facilitate access to scholarly information resources. The Library provides Reference, Information Literacy, Circulation, Current Awareness Services, training, workshops, and user orientation, among others. Internet access through local area networks and wireless connectivity is running 24/7. The [E-Library](#) laboratory is equipped with 45 state-of-the-art high speed computers and internet access. The library building is being renovated to provide services to users who prefer print copies of books and periodicals. Registered students are welcomed to use our rich resources, surf the net, and consult our journals and other periodicals. The Library's collection is expected to grow to 60,000 volumes of books and 400,000 volumes of electronic resources by December 2013. It also has a growing periodical and audio-visual collection. Our classification scheme remains the popular Library of Congress Classification and cataloguing. The National Virtual Library provides an online service center for accessing databases in other e-libraries all over the world. Databases include:

- **AGORA:** Access to Global Online Research Agriculture. Provides a collection of 918 journals in agriculture and life sciences to institutions in 107 countries,
- **Bibliomania:** Collection of resources in various subjects
- **HINARI:** The Health InterNetwork Access to Research Initiative
- **QUESTIA:** The world's largest online library of books (humanities & social sciences)
- **Bioline International**
- **BLDS:** British Library for Development Studies at IDS-Institute of Development Studies.
- **EBSCO host**
- **OARE :** Online Access to Research in the Environment
- World Development Report
- Armed conflict Database

- World Bank E - Library
- British Library
- Database of African and Dissertation-DATAD
- Social Science Online Periodicals
- Multi – Science Journal
- Lexis Academics
- **LEXISNEXIS**
- Electronic Journals Library
- Chemistry Central
- Directory of Open Access Journals
- World Bank Documents
- Electronic Journals and Magazines on the Middle East, among others –**see also**
- NOUN E – Library online (nou.edu.ng)

### **Statement of the problem**

Considering the enormous benefits that are experienced in the impact of ICT in NOUN Library, ICT has become an important subject for all information providers. This is because of its relevance and application to tasks in the Library such as quick and easier ways of performing increased workload of library tasks with greater efficiency, enables library to establish positive correlation in the networked world, concretizes the prospects and hope for information users as academic library are now involved in resource sharing enabled by ICT, enhances adequate ICT for easy accessibility of information needed by patrons in academic library, enables academic Library precisely universities to fully adopt the use of ICT in information handling and library activities/services such as indexing, cataloguing, reference and information retrieval services, circulation, serial control/ management and the provision of other technical services. Despite its acclaimed relevance and as tool to drive the 21<sup>st</sup> century digital libraries, there are still issues envisaged asset- backs for NOUN library to cope with. These setbacks include the following-

- Inadequate provision of ICT training programmes
- Absence of policy to regulate standards in ICT facilities in Libraries
- Inadequate provision of ICT facilities in Libraries
- Interruption of electrical power supply
- Inadequate provision of funds to purchase a standby generators for the library
- Installation of absolute ICT facilities in Libraries
- Absence of knowledge of ICT implementation policies
- Lack of proper planning for ICT in Libraries
- High cost of maintaining ICT facilities
- Negative altitude of supervising authorities towards ICT to facilities
- Lack of awareness of ICT potentials by Library users
- Inadequate maintenance of ICT facilities in the libraries
- Inadequate provision of hardwares and softwares standardization for the libraries
- Inadequate automation processes in some areas of library services
- Inadequate ICT skilled professional Librarians
- Inadequate maintenance attitude of ICT facilities and proper uses

Therefore, despite the series of reports on the impact of ICT, many of the reports have not addressed the changes that results from the impact of ICT. Hence this work seeks to address these changes.

### **Objectives of the Study**

1. To ascertain the level of computerization/automation of academic Libraries.
2. To determine the efficiency and effectiveness of ICT in academic library.
3. To determine how skillful and knowledgeable the staff are in the use of ICT resources.

### **Research Questions**

1. What is the level of computerization/automation of academic libraries?
2. How efficient is the use of ICT resources in Academic Libraries?
3. Do the staff of the academic Libraries have the required knowledge and skills in using ICT resources?

### **Methodology**

The research design used for this study is descriptive survey method. The population of study consisted of 50 academic librarians of National Open University of Nigeria (NOUN) Library. The multi-dimensional approaches were used as an instrument for data collection. These approaches were questionnaire for primary

data and library research for secondary data. Copies of the questionnaire were administered randomly by the researcher. A total of fifty (50) copies of questionnaire were distributed and collected back. The data generated from the study were analyzed with the use of tables and simple percentages. The questions are divided into two sections, first section was designed to derive information and order relevant bio data while the second section borders on the issue of the research.

**Result and Discussion of Findings**

**Research Question 1:** To what extent has ICT been employed in Nigerian University libraries?

**Table 1:** Percentages scores of the extent the ICT has been employed in Nigerian University libraries

S/N	OPTIONS	NO OF RESPONDENT	PERCENTAGES
1	Fully applicable	14	28%
2	Averagely applicable	36	72%
3	Not applicable	-	-
	Total	50	100%

From the table above, 14(28%) of respondents believe that ICT is fully applicable, while 36(72%) believe that ICT is averagely applicable. No response marked that the ICT is not applicable in the library.

**Research Question 2:** How efficient is the use of ICT resources in academic libraries?

**Table 2:** Percentages scores of the efficient use of ICT in academic libraries

S/N	OPTIONS	FREQUENCY NO OF RESPONDENT	PERCENTAGE
1	Yes	44	88%
2	No	3	6%
3	Undecided	3	6%
	Total	50	100

From the table above, 44(88%) of the respondent says yes that there is effective use of ICT resources in the library while 3(6%) of the respondent says no, that effective use of ICT are not make use of in the library, while 3(6%) of the respondents were undecided.

**Research question 3:** Do the staff of the academic libraries have the required knowledge and skills in using ICT resources?

**Table 3:** Percentages scores of the areas ICT are effectively use

S/N	OPTIONS	FREQUENCY	PERCENTAGE
1	Information retrieval	8	16%
2	Storage of information	10	20%
3	Cataloguing&classification	20	40%
4	Reference services	7	14%
5	Research	5	10%
	Total	50	100%

From the above table, it can be seen that the area of library where ICTs are mostly used include: Cataloguing and Classification (40%), Storage of Information (20%), Information retrieval (16%). This table equally shows that ICTs are used in reference services (14%) and Research (10%).

**Table 4:**Percentage scores for the required skills and knowledge of staff in the use of ICT resources

ICT	PH.D.	MA/M.SC	B.SC/B.A./B.L.	SSCE	PERCENTAGE
Formal computer knowledge	-	8(16%)	10(20%)	6(12%)	
On the job training	-		8(16%)	8(16%)	
Off the job training	-		10(20%)	-	
Total	-	8(16%)	28(56%)	14(28%)	

The responses in table 4 above shows that staff with master’s degree (16%) have formal computer knowledge while staff with B.SC., B.A.(20%) have formal computer knowledge, 16% acquired computer knowledge through on the job training and 20% acquired formal computer knowledge through job training. Finally,

S.S.C.E. (12%) acquired formal computer training before a secured employment in National Open University of Nigeria while 16% acquired computer knowledge on the job and 28% acquired computer knowledge off the job.

### **Discussion of the Findings**

From the study it was found that in National Open University of Nigeria

- ICTs are averagely applicable for library services. Some of the ICTs readily available are computers, internet, printers, telephone, spine labeling machine, Barcode machines etc. These ICTs gadgets are used in carrying out different aspects of library services in the library.
- The ICTs resources are greatly used effectively in processing materials in the library services such as cataloguing and classification, indexing, bibliographic checking, spine labeling etc.
- The use of ICTs effectively in library services has impact on the whole process. It was found that with ICTs there is reduction in research, reference services and information retrieval because of the inability to make use of ICTS and there is inadequate skilled librarians who could put other assistant librarians through on the use of the ICTs appliances.
- Most of the challenges identified in some academic institutions such as poor funding, internet access were not found in NOUN. This shows the level of improvement and determination in NOUN library. However, it was found that there is no handful of skilled librarian and poor power supply which greatly affects the use of ICTs in library services.
- Majority of respondent had B.SC/B.A certificate
- The major reason attached to the use of ICT resources by the respondent is storage and retrieval of information.
- ICT has impacted enormously base on its effectiveness on the Nigerian University libraries.

The implication of the above findings is that there are factors acting as impediments to the impact of ICT on Nigeria academic libraries were inadequate funding which has given birth to some other problems e.g. automation at infancy level, lack of training facilities, lack of competent search skill on librarians at both strategic and operational level. Some that are caused by the government for example, epileptic power supply etc. which has become a thorn in the flesh of an average Nigerian organization or establishment which also acts as a breakdown to computer. More so, interrupted network caused by poor electronic gadgets and so many others that also hinders the positive impact of ICT on Nigerian academic libraries.

### **Recommendation**

- There should be massive injection of funds and financial assistance from both the Nigerian government and some international donor agencies for the provision of ICT infrastructural facilities for effective library services in academic libraries in Nigeria;
- Every division of the Nigerian academic libraries should be automated in order to facilitate and create an avenue for effective services.
- The academic libraries should organize short computer training and retraining programs from time to time to assist librarians who do not have knowledge and computer skill, thereby promoting computer awareness of computer potentials and capabilities.
- Orientation programs on the use of computer for information retrieval should be conducted and made compulsory for new entrants into the profession so as to cope with the current trend or the new technological revolution.
- The Nigerian librarians should seek for effective and efficient power supply supplemented with standby generators so to check the menace of frequent electricity power failure with this library and information

services will become ennobled through the acquisition of adequate ICT knowledge/skill and its full application in Nigerian university libraries or else they become obsolete in this era of ICT.

- Government at both the federal and state levels in Nigeria must develop a more pro-active and progressive attitude to the implementation of the national policy for Information Infrastructure and Facilities.
- Academic libraries in Nigeria will need to be effectively involved in inter-connectivity to facilitate resource sharing. They should work at forming consortium which will eventually progress towards their active involvement in delivery their library services. The efforts of the National Universities Commission of Nigeria in this direction should be intensified;
- There should be collaboration between experts in ICT know-how in the computer centres in the higher institutions and their academic libraries to fast-track the active participation of academic libraries in Nigeria in delivery of their library services.

Basically, Librarians should be fully articulated with ICT competencies required as follows:

- Have basic knowledge of computers and their capabilities;
- Competency with search engines;
- Competency with internet facilities;
- Competency with e-mail;
- Competency with internet navigator tools;
- Competency with web browsers and web file formats;
- Competency with database softwares;
- Internet development and management know-how.

### CONCLUSION

In conclusion, it must be observed that Information and communication technology (ICT) has fulfilled its promise in academic libraries; there is high percentage in the use of ICT. It has tremendously changed the way information is stored and disseminated. It has threatened the traditional approaches to the academic libraries and its services. Use of ICT has also led to the speed on library operations services such as cataloguing and classification, acquisition, processing storage, retrieval and dissemination operations. Moreso, the discussions on the state of ICT infrastructural facilities in Nigeria in relations to the requirements for the library service delivery in this electronic age, several benefits derivable from ICT impact on compliant librarians on library services delivery as well as the problems inhibiting easy implementation of academic library services have been highlighted. It is obvious that academic libraries and librarians in Nigeria will be required to do a lot more for them to adequately bring the benefit of library services to their clientele. Government lukewarm attitude at both the federal and state levels to the funding and provision of ICT infrastructure and facilities in Nigerian libraries should change and be more supportive. The training and re-training of librarians in the necessary ICT skills is a necessity for the benefits of library services to be impacted on academic libraries and their users in Nigeria. Some of the academic libraries are now ICT driven. This is the only way librarians can retain a place of relevance in the challenging world of information services delivery or else they become obsolete. Therefore, academic libraries in this era will be assessed more on their ability to satisfy their current user needs for information and their ability to link their users to electronic databases scattered worldwide and not necessarily on their ability to buy or subscribe to information materials on paper formats.

### REFERENCES:

- [1] Adedoyin, A.T. (2000). Information and Communication Technologies and the Information Professionals in the Information Age: The Nigerian Perspectives. In Compendium of Papers Presented at the Annual National Conference and AGM of the Nigerian Library Association, Owerri June, 2004. 72-82.
- [2] Adomi, E.E. and Igun, S. (2009). ICT Policies. In Africa. In: Cartelli, A. and Palma, M. *Encyclopedia of Information Technology*. Vol. I (A-Im), Hershey: IGI Global. 384-389.
- [3] Afullo, T.J. (2000). Global Information and Africa: The Telecommunication Infrastructure for Cyberspace. *Library Management*. 21(4) 205-213.
- [4] Akanni, S.B. (2008). Globalization: Challenges and Opportunities for Nigerian Libraries. In Compendium of Papers Presented at the 46th Annual National Conference and AGM of the Nigerian Library Association, Kaduna, 1-6 June, 2008 1-12.
- [5] Alasa, M, and Kelechukwu, I. (1998). Internet and Academic Library Services Development In Nigerian. *Nigerian Libraries* 33(1) 17-28.
- [6] Asnafi, A. R. (2005). What is e-learning and where is the place of virtual libraries in this process? *Fasname-ye ketab* 16 (3):133-148.

- [7] Blakes, Esbra (2006). ICT Availability and Resource Sharing In Some Academic Libraries In Nigeria In: Compendium of Papers Presented at the 44th Annual National Conference and AGM of the Nigerian Library Association, Abuja. 18-23 June, 2006. 53-60.
- [8] Chisenga, M. (1999). ICT in libraries: an overview and general introduction of ICT in libraries in Africa. Paper presented at INASPICT workshop, held in Johannesburg, South Africa On 21-23 July 2004.
- [9] DAVARPANAH (M R). Level of information technology application in Iranian university libraries. *Library Review*, 50(9) 2001, p.444-450.
- [10] Hayati, Z. (1998). The impact of information technology on library education with special emphasis on curriculum development. *Faslname-ye ketab* 9 (1):14-27.
- [11] Ifidon, S. E. (2006). Modern theory and practice of library collection development. Benin City: Justice Jeco Publishers.
- [12] Ifidon, S.E. & Ifidon, E. I. (2007). *New directions in African library management*. Ibadan: Spectrum books limited.
- [13] Information technology. (2009, April 27). In *Wikipedia, The Free Encyclopedia*. Retrieved 18:02, April 27, 2009, from [http://en.wikipedia.org/w/index.php?title=Information\\_technology&oldid=286429039](http://en.wikipedia.org/w/index.php?title=Information_technology&oldid=286429039)
- [14] Jagboro, K.O. (2007). Digitization of Library Materials: The Obafemi Awolowo University Experience In: Compendium of Papers Presented at the National Workshop on Digitization of Library Materials: Processes and Tools held on 16th – 20th July, 2007 at the University of Jos. P.7
- [15] Jerry, L.M. (1998). *Automated library system: A history of constraint and opportunities in advances in librarianship* vol. 22
- [16] Jowkar, A., & Hamdipoor, A. (2001). The need for change and development in library and information science education in Iran. *Faslname-ye ketabdarivaetelaesani* 4 (2): 9-25.
- [17] Mahdavi, M. (2000). *Information technology and technology information*. Tehran: Chapar.
- [18] Marshall, C. (2000) *Beginner's Guide to Information on Technology*. London: Butterworth & Co (Publishers) Ltd.
- [19] Oketunji, I. (2000). Agenda for Putting Information Technology to work In Nigerian Libraries In the New Millennium. In Compendium of Papers Presented at Annual National Conference and AGM Owerri, June 2000. 17-21.
- [20] Okiy, R.B. (2003). Towards Improving The Relevance of Nigerian Academic Libraries And Librarians In The Knowledge Age. *The Academic Forum*. Vol. 4 (3), 63-68.
- [21] Okorie, A.M. and Ekere, J.N. (2008). Information Professional and Knowledge Management In Global Library and Information Services. In: Compendium of Papers Presented at the 46th Annual National Conference and AGM of the Nigerian Library Association Kaduna, 1-6 June. 2008. 53-62.
- [22] Omekwu, C.O. and Echezona, R.I. (2008). Emerging Challenges and Opportunities for Nigerian Libraries In a Global Information System. In: Compendium of Papers Presented at the 46th Annual National Conference and AGM of the Nigerian Library Association, Kaduna. 1-6 June, 2008. 62-76
- [23] Omekwu, C.O. (2003). Information Professionalism In the Digital Age: Cutting Edge Competencies In a Competitive Community. Lagos: *Journal of Library And Information Science*. Vol. I(2): 95-105.
- [24] Omekwu, C.O. (2006). Managing Information and Technology: cited in Roles for Libraries in Developing Countries. *The Electronic Library*, Vol. 24(6), 861.
- [25] Ramzan, M. & Singh, D. (2009). Status of Information Technology applications in Pakistani Libraries. *The Electronic Library*, 27 (4), 573-587
- [26] Robertson (1992). Globalization: Social Theory and Global Culture. Cited In: Omekwu, C.O. and Echezona, R.I, "Emerging Challenges and Opportunities for Nigerian Libraries In a Global Information System. Compendium of Papers Presented at the 46th Annual National Conference and AGM, NLA, Kaduna, 1-6 June 2008, 63-72.
- [27] Sarkar, De S. (2005). ICT Policy. Retrieved March 11, 2008, from <http://www.14donline.net/june05/ictpolicy.fully.asp>
- [28] STOREY (C) The impact of information technology on management and organization: the case of Hong Kong Polytechnic University Library. *Library Management*, 16(2) 1995, p.22-33
- [29] United Nations Economic Commission for Africa (2001). Information and Communication Technologies Policies and Strategies. Retrieved March 11, 2008, from <http://www.uneca.org/adf99/adfpdicy.htm>
- [30] VENKATARAMAN (P) and RAO, (Chandrasekhar). Impact of information technology on library operations and services. In B. Satyanarayana et al (Eds.). *Information technology: issues and trends*, v.1. New Delhi: Cosmo Publication, 1998, p.184-193.
- [31] Zins, C. (2007). Conceptions of information science. *Journal of the American Society for Information Science and Technology* 58(3): 335-350. 5) Lack of ICT Competencies by many Librarians