

Skills and Competencies of Librarians in the use of Information Communication Technologies (ICT) in Public Libraries in South West Nigeria

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Abstract

The study was conducted to examine skills and competencies of librarians in the use of information communication technologies (ICT) in public libraries in We South West, Nigeria. The study was based on a questionnaire survey of librarians in three (3) public libraries in Lagos, Oyo and Ogun State in Nigeria. The study had three (3) objectives which are, to find out the skills that librarians possess in the discharge of their duties, to examine the level of competency of librarians in handling ICTs and to investigate the factors that hinder the effective use of ICTs by librarians. The target population of the study was librarians in Oyo State Library Board (OYSLB), Simeon Adebo Library, Ogun State (SAL) and Lagos State Library Board (IOSL). A total population (census) was considered in the study. A structured questionnaire was used for data collection and data was analyzed using simple tables and percentages. Findings from the study revealed that the ICT skills librarians possess include: the use of internet, the use of social media, word processing; the use of Microsoft Excel, the use of e-mail; knowledge of computer hardware, the use of smartphones; the use of PowerPoint, the use of Open Access Catalogue (OPAC) and other databases. Findings also showed that librarians had the required, competency in the use of most of the ICT facilities mentioned. However it was discovered that some of the factors that hindered the effective use of ICTs include inadequate funding, lack of technical skills, absence of training, erratic power supply and inadequate ICT infrastructure. Recommendations were made on how to tackle the problems that were identified.

Introduction

Information communication technology (ICT) is any system designed to gather, process, or distribute information. It could also be referred to as the science and skill of all aspects of computing, data storage, and communication. It may be any combination of tools and procedures that enables the generation acquisition, storage, organization, searching, retrieval, and transmission of information using electronic means (Nagarajan, 2012). Vijayakumar and Vijayan (2011) also defined ICT as the application of computers and technologies for the acquisition, organization, storage, retrieval, and dissemination of information.

Public libraries on the other hand are non-profit organizations, established, supported and funded by the community, either through local, regional or national government or through some other form of community organization. They provide access to information and attend to the needs of diverse categories of clients irrespective of race, gender, nationality, educational status, employment status, religion, and language (Obinyan, Obinyan, and Aidenojie, 2011).

The application of Information Communication Technologies (ICT) has brought about tremendous changes in libraries worldwide. For libraries to be able to satisfy the needs of the patrons, librarians are faced with the responsibility of being able to adjust as a result of these changes. There exist lots of new skills, new working environments, new routines that librarians need to contend with. Dhanavandan, Esmail, & Nagarajan, (2012) noted that the use of ICTs has significantly changed the entire human activities including the operations of libraries. They noted that libraries are intensely engaged in modernizing their operations to deliver fast, integrated, interactive and comprehensive services to their clients.

Public Libraries in Nigeria are not left behind amid this transformation and librarians need to update their skills to cope with the needs of the electronic age. Opara (2008) noted that based on the fact that clients of public libraries are diverse; it is vital for information professionals to be able to meet their diverse needs. In meeting these needs, the librarian requires skills and capability to be able to access and gather information resources from different sources.

Ugwuanyi (2009) stressed the importance of ICT skill acquisition by librarians to live up to their professional responsibilities. Erlendsdóttir (1998) emphasized that as librarians, “We are no longer just the guardians of books. We are information providers in an environment that is constantly changing and where information needs to be gathered quickly and effectively. Today, our mission is to promote services for the ever-increasing amount of information.

Malesky (2002) also noted that librarians need first-class computer skills and the kind of temperament that allows them to evaluate and embrace or reject new technologies. He further stated that the capability to communicate with computer technicians is becoming an important skill and one that can be of great benefit to any organization.

Skill and Competency

Skill and competency are often used interchangeably in research. It is important in this study to distinguish between skill and competency. Skill is described as the practical ability to carry

out a task. Skill can be seen in an action while competency is described as the mental ability that directs how a person interacts with the world. Competency is concealed in a person but impacts the way he/she carries out a task. Hence, competencies are the skills, technical knowledge and personal attributes that contribute to a person's achievement in a certain position, whereas skill is the proficiency developed by a person via training to effectively complete a particular job (Singh and Pinki, 2009).

Sreenivasulu (2000) in a study of the roles of a digital librarian in the management of digital information systems opined that for a digital librarian to be referred to as competent, he/she must have diverse skills, attitudes and values. One of such skills is the ability to manage an electronic library successfully. Other skills identified include a good knowledge of web publishing, imaging technologies, optical character recognition and markup languages.

Similarly, Choi and Rasmussen (2006) in a study of certified librarians in the United States surveyed librarians' activities, competencies and gaps in training. Forty-eight (48) respondents were selected from 39 libraries. Data was collected through the use of questionnaires. It was discovered that the top five skills that a librarian is required to possess were: communication and interpersonal skills: administration/leadership skills; understanding of electronic library architecture and software: familiarity with the needs of users; knowledge of technical and quality standards,

Sinclair (2009) also asserts that it is vital for a librarian to be "blended". He stressed that librarians can no longer afford to fold their arms and wait for patrons to come to their desks. He emphasized that to satisfy the information needs of the 21st-century patron, digital skills must be developed. Likewise, Mahmood and Ajmal Khan (2007) think that librarians must become familiar with the latest developments in ICTs in libraries. Hashim and Mokhtar (2012) also admonished librarians to avoid being threatened by improvements in technology; rather, they ought to follow the trend.

However, Hashim and Mokhtar (2012) emphasized that traditional skills such as information cradling skills, training and facilitating skills, evaluation skills, and patron care skills are still germane in the digital era. They noted that what is required of librarians is to review these skills. For example, classification and bibliographic description skills can be used to improve a patron's knowledge of information retrieval on the internet.

Chisenga (2004) suggested that the management of public libraries should put more effort into improving the proficiencies of staff to effectively and efficiently use different forms of

ICTs. This can be achieved by organizing training programs and workshops. Still, on training, the International Federation of Library Association (IFLA) public library service guidelines (2010) posits states that: “Training is a vital element of the activities of a public library. There must be a planned and continuous program of training for librarians at all levels, which should include both full-time and part-time staff The rapid developments in information technology make the need for regular training even more essential, and the importance of networking and access to other information sources should be included in training programs”.

Objectives of the Study

1. To find out the skills that librarians possess in the discharge of their duties.
2. To examine the level of competence of librarians in handling ICTs.
3. To investigate the factors that hinder the effective use of ICTs by librarians

Research Questions

1. What are the skills that librarians possess in the discharge of their duties?
2. What is the level of competence of librarians in handling ICTs?
3. What are the factors that hinder the effective use of ICTs by librarians?

Methodology

A structured questionnaire was designed and distributed to librarians. In the three public libraries under studied. The questionnaire was preferred because it is relatively quick to gather data from a large number of people and at a moderately low cost. It is also easy to access geographically dispersed respondents (Rowley, 2012)

The total population of librarians in the three libraries studied was 35. A census 35 of librarians was used in the study. Israel (2009) opined that a census method must be adopted for a small population (i.e. 200 respondents or less). The target population of this study was librarians in Oyo State Library Board (Oyo State), Simeon Adebo Library (Ogun State) and Lagos State Library Board (Lagos State). Data analysis was done using tables and percentages.

The relative number of the population is revealed in table 1 below

Table 1: Relative Distribution of the Population

Librarians	Oyo State (OYSLB)	Ogun State (SAL)	Lagos State (IOSL)	Total
Professional librarians	5	5	6	
Paraprofessional librarians	10	5	4	
Total number of librarians	15	10	10	35

Table 1 revealed that the total population that is expected to participate in the study was thirty-five (35). The number of OYSLB is 15, 10 participants from SAL and 10 participants from IOSL.

Table 2: Responses Rate for Professional and Non-Para-Professional Librarians

Public Libraries	Frequency	% Responses
Ikeja Old Secretariat (IOSL) (n=8)	8	80%
Simeon Adebo Library (SAL) (n=7)	7	70%
Oyo State Library Board (OYSLB) (n=10)	10	67%
Total	25	71%

The response rate revealed that thirty-five librarians were meant to partake in the study. However, only 25 participated in the study which resulted in a response rate of 75%.

Gender of Librarians

Table 3

Library	Male	%	Female	%
Ikeja Old Secretariat (IOSL)	6	75	2	25
Simeon Adebo Library (SAL)	4	57.1	3	42.9
Oyo State Library Board (OYSLB)	6	60	4	40
Total	16		9	

Findings from Table 3 revealed that in IOSL, there were 6(75%) males and (25%) females in IOSL. SAL recorded 4(57.1%) males and 3(42.9%). Obvious that male respondents were more than females in the three libraries that were involved in the study.

Age of Librarians

Table 4

Age range	21-30	%	31-40	%	41-50	%	51-60	%
Ikeja Old Secretariat Library (IOSL)	2	25	2	25	2	25	2	25
Simeon Adebo Library (SAL)	1	14.3	4	57.1	1	14.3	1	14.3
Oyo State Library Board (OYSLB)	1	10	6	60	2	20	1	10
Total	4		12		5		4	

For age of respondents, findings show that in IOSL 2 (25%) respondents were within the age group of 21-30 years, 31-40 were 2 (25%), 41-50 years were (25%), while 51-60 years were 2 (25%). In SAL, only 1 (14.3%) respondents was within the age of 21-30 years 4(57.1%) were 31-40 years 1(14.3%) 41-50 and 51-60 respectively. In addition, in OYSLB, only 1 (10%) respondent was within the age of 21-30 years 6(60%) were 31-40 years, 2(20%) were 41-50 years and 1(10%) was 51-60 years.

Highest Qualification of Librarians

Table 5

Library	Diploma	%	First Degree	%	Masters	%
Ikeja Old Secretariat (IOSL)	0	0	3	37.5	5	62.5
Simeon Adebo Library (SAL)	1	14.3	1	14.3	5	71.4
Oyo State Library Board (OYSLB)	0	0	2	20	8	80
Total	1		6		18	

Findings for the highest academic qualification revealed that in IOSL 3 (37.5%) respondents were first-degree holders and 5(62.5%) possessed a master's degree. In SAL only 1 (14.3%)

respondents had a diploma degree, 1 (14.3%) possessed a first degree while 5(71.4%) bagged a master's degree. Furthermore, in OYSLB 2 (20%) respondents bagged a first degree, while 8 (80%) had a master's degree. The overall result showed that 1(14.3%) of the librarians was a diploma degree holder. First-degree holders were 6(24%). Most of the librarians 18(72%) were master's degree holders while none of the respondents had a doctoral degree.

Designation of Librarians

Table 6

Designation	IOSL	%	SAL	%	OYSLB	%
Library Officer	1	12.5	1	14.3	1	10
Librarian II	2	25	1	14.3	1	10
Library I	1	12.5	2	28.6	4	40
Senior Librarian	2	25	2	28.6	3	30
Principle Librarian	1	12.5	0	0	0	0
Deputy Director	1	12.5	0	0	1	10
Director	0	0	1	14.3	0	0
Total	8		7		10	

The result in Table 6 showed that in IOSL only 1 (12.5%) respondent was library officer, librarian II was 2 (25%), only 1 (12.5%) was a Librarian I (12.5%) was senior librarian 1(12.5%) was a principal librarian and 1 (12.5%) was a deputy librarian. Furthermore, in SAL only 1 (14.3%) library officer was recorded 1(14.3%) librarian II 2(28.6%) librarian I, 2(28%) senior librarians and 1 (14.3%) director. Finally, in OYSLB, there was 1(10%) library officer 1 (10%) librarian II, 4 (40%) librarian I, 30(30%), senior librarians and 1(10%) deputy librarian.

Years of Experience of Librarians

Table 7

Library	1-5yrs	%	6-10yrs	%	11-15yrs	%	16-20yrs	%
IOSL	2	25	2	25	3	37.5	1	12.5
SAL	2	28.6	2	28.6	2	28.6	1	14.3
OYSLB	1	10	4	40	4	40	1	10
Total	5		8		9		3	

Result on respondents years of experience revealed that IOSL only 2(25%) librarians had worked for 1-5 years of experience, 2 (25%) had 6-10 year experience, 3 (37.5%), 11-15 years of experience and only 1 (12.5%) librarian 16-20 years of experience. Likewise, in SAL, outcome revealed that (28.6%) librarians had 1-5years of experience, 2 (28.6%) had 6-10years of experience, 2 (28.6%) possessed 11-15 years of experience, while 1 (14.3%) had 16-20 of experience, 4(40%) had 11-15years of experience and 1(10%) had 16-20 years.

Important ICT Skills that Librarians possess in the discharge of their Duty

Table 8

Designation	IOSL	SAL	OYSLB	Total
The use of internet	8	7	10	25
The use of social media	6	5	9	20
Word processing	7	7	9	23
The use of Microsoft Excel	6	5	8	19
The use of e-mail	8	7	10	25
programming	2	1	3	6
Knowledge of computer hardware	4	4	6	14
The use of smartphones	8	7	10	25
The use of PowerPoint	4	3	6	13
The use of open access catalogue (OPAC) and other databases	8	7	10	25

Findings revealed that all the librarians in the library studies possessed skills on the use of internet, electronic mail, smartphones, social media, word processing and Microsoft Excel. Programming skills had the least responses (6) as most of the librarians did not need these skills to carry out library routines.

Proficiency in the use of ICTs

Librarians were asked to indicate their extent of proficiency in the use of information communication technologies using the following scale: no skill, average skill and excellent skill.

DESKTOP/LAPTOP						
Library	No Skill	%	Average Level	%	Excellent Level	%
IOSL	0	0	5	62.5	3	37.5
SAL	0	0	5	71.4	2	28.6
OYSLB	0	0	6	60	4	40
Total	0	0	16		9	

SCANNERS						
Library	No Skill	%	Average Level	%	Excellent Level	%
IOSL	1	12.5	5	62.5	3	37.5
SAL	1	14.3	5	71.4	2	28.6
OYSLB	2	20	6	60	4	40
Total	4		15		9	

PRINTERS						
Library	No Skill	%	Average Level	%	Excellent Level	%
IOSL	0	0	5	62.5	3	37.5
SAL	1	14.3	5	71.5	1	14.3
OYSLB	1	10	7	70	2	20
Total	2		17		6	

PROJECTORS						
Library	No Skill	%	Average Level	%	Excellent Level	%
IOSL	3	37.5	4	50	1	12.5
SAL	2	28.6	4	57.1	1	14.3
OYSLB	3	30	5	50	2	20
Total	8		13		4	

SMARTPHONES						
Library	No Skill	%	Average Level	%	Excellent Level	%

IOSL	0	0	2	25	6	75
SAL	0	0	1	14.3	6	85.7
OYSLB	0	0	3	30	7	70
Total	0		6		19	
INTERNET						
Library	No Skill	%	Average Level	%	Excellent Level	%
IOSL	0	0	3	37.5	5	62.5
SAL	0	0	2	28.6	5	71.5
OYSLB	0	0	4	40	6	60
Total	0		9		16	

Findings from Table 9 revealed the level of proficiency of librarians on the use of ICTs. The results showed that all librarians in the 3 libraries were skilled in the use of desktop/laptop. Also for scanners, 4 respondents did not have any skill, 15 had average skill, 17 were average skilled while 6 were excellently skilled. Likewise, 8 respondents did not have any skill in the use of projectors, 13 had average skills while 4 had excellent skills. Furthermore, all the respondents had skills in the use of smartphones and Internet.

Factors that hinder the Effective Use of ICTs by Librarians

The study sought to find out the factors that hinder the effective use of ICTs by librarians. Responses from 25 librarians are presented in Table 10 below.

Table 10

INADEQUATE FUNDING				
Library	Strongly Agree	Agree	Strongly Disagree	Disagree
IOSL	8	0	0	0
SAL	7	0	0	0
OYSLB	10	0	0	0
Total	25	0	0	0
LACK OF TECHNICAL SKILL				
Library	Strongly Agree	Agree	Strongly Disagree	Disagree
IOSL	5	3	0	0
SAL	6	1	0	0
OYSLB	8	2	0	0
Total	19	6	0	0

ABSENCE OF TRAINING PROGRAMME				
Library	Strongly Agree	Agree	Strongly Disagree	Disagree
IOSL	5	2	1	
SAL	4	3	0	
OYSLB	9	1	0	
Total	18	6	1	
ERRATIC POWER SUPPLY				
Library	Strongly Agree	Agree	Strongly Disagree	Disagree
IOSL	8	0	0	0
SAL	6	1	0	0
OYSLB	8	2	0	0
Total	22	3	0	0
INADEQUATE INFRASTRUCTURE				
Library	Strongly Agree	Agree	Strongly Disagree	Disagree
IOSL	4	3	1	0
SAL	5	2	0	0
OYSLB	5	5	0	0
Total	14	10	1	0

Findings from Table 10 revealed that all librarians strongly agreed that inadequate finance, erratic power supply and lack of technical skills in public libraries. Major factors that hindered the effective use of ICTs in public libraries. Secondly, 24 librarians agreed and I strongly disagreed that the lack of programmes was a problem hindering the effective use of ICTs. Of training Furthermore, 24 librarians agreed that inadequate infrastructure hindered the use of ICTs in their libraries.

The use of ICTs by libraries no doubt has brought about extraordinary development in the way they operate (Emojorho, 2011; Eze, 2012; Krubu & Osawaru, 2010). However, the literature reveals that libraries encounter various challenges in adopting ICTs (Oyeniran & Tumba, 2011; Okojie, 2008; Gbaje, s 2007). The findings from this study corroborate the findings of Chisenga (2006) who identified challenges affecting the use of ICTs in Sub-Saharan Africa. These problems include inadequate funding, lack of commitment from stakeholders; lack of trained staff; inadequate ICT resources and lack of policies (Ani, Esin &

Edem, 2005; Kumar & Biradar, 2010, Ugwu & Onyegiri 2013). Issak (2000) also surveyed the state of public libraries in 10 Anglophone African countries. He noted that: “The public library movement in Africa has been very weak, with numerous problems regarding financial constraints, lack of human resources, outdated materials and poor use. The only sector in African society that uses public libraries is school children [who] do not use the materials held in the library but use libraries primarily as places for study because they are quieter and more spacious than their homes” (Issak, 2000).

Chisenga (2004) in another study on the uses of ICT in African public libraries surveyed ten (10) countries namely: Botswana, Ghana, Kenya, Malawi, Nigeria, South Africa, Tanzania, Uganda, Zambia and Zimbabwe. Twenty-two public libraries were included in the survey. It was discovered that computer hardware and software that were used were outdated. Also, subscriptions to CDC ROM stopped when donor agencies withdrew funding privileges. All the libraries included in the survey reported insufficiencies in in budget Furthermore, all the libraries relied on donor support for acquisition maintenance and expansion of ICT facilities.

According to Omotosho and Okiki (2012), developing countries including Nigeria, are overwhelmed by socio-economic and political problems. They emphasized that this situation has led to the neglect of educational security particularly public libraries by the government. The result of this neglect is that public libraries are not able to fulfill their goals and objectives. Omotosho and Okiki (2012) also noted that deficiency of knowledge at the policy level, paucity of training for librarians, inadequate funding, lack of awareness, lack of sufficient information resources were major hindrances to effective use of ICTs by public libraries in Nigeria. They recommended that international organizations should participate in funding public libraries in Nigeria, and these libraries should make their presence known in the community where they exist.

Recommendations

Librarians were asked to suggest how the challenges listed above could be surmounted. The following recommendations were made.

- Training programmes that will equip librarians with necessary skills to use ICTs must be put in place by the management to enable them to gain skills for the effective use of ICTs.
- Funds allocated to public libraries must be increased.

- Attitudinal change on the part of librarians who have technophobia.
- Attitudinal change on the part of the stakeholders of public libraries.
- Policies that will guide the use of Information Communication Technologies must be established. The employment process of librarians should emphasize the possession of ICT skills.
- There should be an alternative to the usual power supply from the Power Holding Company

Conclusion

As a result of the latest developments in technology, librarians have a very crucial role to play in satisfying the multidimensional information needs of their patrons. They need to utilize various ICTs that will satisfy the patrons. There is a need to possess essential competencies and skills for effective service delivery. The skills are not restricted to the use of ICTs but also, but there is also a need to be able to blend them with the traditional and generic skills

References

- Adeleke, O. A. (2017). *An investigation of the extent of automation of public libraries in South West Nigeria* [Doctoral dissertation]. <http://ukzn-dspace.ukzn.ac.za/handle/10413/14491>
- Ademodi, D.T. & Adepoju, E. O. (2009). Computer skills among librarians in Ondo and Ekiti States. *Library Philosophy and Practice. Paper 274, 1-8*. <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=12736>
- Adomi, E. E & Anie, S. O. (2006). An assessment of computer literacy professionals in Nigerian university libraries. *Library Hi Tech N 23(2):10-14*.
- Ani, O., Esin, J. & Edem, N. (2005). Adoption of information communication technology (ICT) in academic libraries: A strategy library networking in Nigeria. *The Electronic Library, 23(6), 701-708*
- Chisenga, J. (2004). The use of information and communication technology (ICTs) in African public library services; a survey of ten countries Anglophone Africa. http://www.inasp.info/uploads/filer_public/2013/01/29/infobrief 315
- Chisenga, J. (2006). Information and communication technology opportunities and challenges for National and University libraries in Eastern, Central and Southern Africa. Keynote paper presented a Standing Conference of African National and University Libraries Eastern, Central and Southern Africa (SCANUL-ECS), (pp1-26) Courtyard Hotel, Dar es Salaam.

- Choi, Y. & Rasmussen, E. (2006). What is needed to educate future librarians: A study of current practice and staffing patterns in academic and research libraries? *D-Lib Magazine*, 12(9), 1-10.
- Dhanavandan, S., Esmail, S. M. & Nagarajan, M. (2012). Access awareness of ICT resources and services in medical college libraries in Puducherry. *Library Philosophy and Practice (e-journal)*. <http://digitalcommons.unl.edu/libphilprac/750>.
- Emojorho, D. (2011). ICT and collection management in public libraries survey of South-South of Nigeria. *Library Philosophy and Practice Paper* 464, 1-7. <http://digitalcommons.unl.edu/libphilprac/474>
- Erlendsdottir, L. (1998). *New Technology, new librarians*. <http://www.ukoln.ac.uk/services/papers/bl1997/erlendsdottir/>
- Eze, J. (2012). Staff training programs in Nigerian public libraries: The case of Enugu State public library. *Library Philosophy and Practice. Paper* 1-10. <http://digitalcommons.unl.edu/libphilprac/775>.
- Farkas, M. (2006). *Skills for the 21st-century librarian*. <http://meredith.wolfwater.com/wordpress/2006/07/17/skills-for-the-21st-century-librarian/>.
- Hamada, D. & Stavridi, S. (2014). Required skills for children and youth librarians in the digital age. *International Federation of Library Association (IFLA) Journal*, 40(2), 102-109.
- Hashim, L. & Mokhtar, W. (2012). Preparing new era librarians and information professionals: Trends and issues. *International Journal of Humanities and Social Science*, 2(7), 151-156.
- BIFLA. (2001). The public library service: IFLA/UNESCO guidelines for e-development. <http://www.ifla.org/files/assets/hq/publications/archive/the-public-library-service/publ97.pdf>
- Issak, A. (2000). Public libraries in Africa: A report and annotated bibliography. *International Network for the Availability of Scientific Publications*. http://www.inasp.info/uploads/filer_public/2013/03/08/public_libraries_in_africa.pdf
- Israel, G. D. (2009). *Determining sample size*. University of Florida.
- Krubu, D. & Osawaru. K. (2011). The impact of information and communication technology (ICT) in Nigerian university libraries. *Library Philosophy and Practice. Paper* 583, 1-19. <http://www.webpages.uidaho.edu/~Mbolin/krubu-osawaru.htm>.
- Kumar, B & Biradar, B. (2010). Use of ICT in college libraries in Karnataka: A survey. *Program*, 44(3), 271-282.
- Mahmood, K. & Ajmal Khan, M. (2007). ICT training for LIS professionals in Pakistan: A needs assessment. *Program*, 41(4): 418-427.

- Malesky Kee (2012). *Advice to future corporate and special librarians*. <http://www.slis.cua.edu/courses/818/adv5h.htm>.
- Nagarajan, M. (2012). Information and Communication Technology Literacy among Library Professionals in the Universities of Tamilnadu. *Journal of Advances in Library and Information Science*, 1(2): 54-59.
- Obinyan, G. A., Obinyan, O. O., & Aidenojie, E. (2011). Use of Information Resources in Four Branches of a State Public Library in Nigeria. S of Chinese Librarianship: *An International Electronic Journal*, 31. <http://www.iclc.us/cliej/c13100A.pdf>.
- Odede, I. & Enakerakpo, E. (2014). ICT skills and Internet usage among library and information science students in Delta and Edo States, Nigeria. *International Journal of library and information science* 6(5), 98-107.
- Omotosho, A. & Okiki, O. (2012). Challenges of public libraries patrons in the use of information services for attainment of health millennium development goals. *Library Philosophy and Practice*. Paper 758, http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1832&context=library_philosophy_and_practice
- Opara, U. (2008). The public library in contemporary Nigeria: Challenges and the way forward. *International Federation of Library Associations (IFLA) Journal*, 34(4), 349-358.
- Oyeniran, O. & Tumba, J. (2011). An assessment of the state of readiness for library automation in Ibrahim Badamasi Babangida Library Yola and Ramat Library, University of Maiduguri. *Information and Knowledge Management*, 1(2), 1-6.
- Rowley, J. (2012). Conducting research interviews. *Management Research Review*, 35(3/4): 260-271.
- Sinclair, B. (2009). *The blended librarian in the learning commons: New skill for the blended library*. <http://crin.acrl.org/content/70/9/504.full.pdf+html>.
- Singh, S. P., & Pinki, H. (2009). New skills for LIS professional's technology-intensive environment. In International Conference Academic Library organized by University of Delhi, Delhi (India) (pp 5-8).
- Sreenivasulu, V. (2000). The role of a digital librarian in the management of digital information systems (DIS). *The Electronic Library*, 18(1), 12-20.
- Ugwu, C. & Onyegiri, D. (2013). Management problems of electronic information resources: A case study of UNN library. *International Journal of Library and Information Science*, 5(5): 126-133.
- Ugwuanyi, F. C. (2009). Information and Communication Technology (ICT) literacy among academic librarians in Enugu State. *Information Technologist (The)*, 6(1), 10-31

- Umeji, E., Ejedafiru, E. & Oghenetega, L. (2013). Information /ICT literacy levels and skills among librarians in Madonna University Libran Okija. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* 15(3), 70-75.
- Vijayakumar, A. & Vijayan, K. (2011). Information technologies in libraries. *International Information and Library Review*, 35, 375-382.