

PROBLEMS AND PROSPECTS OF ONLINE PUBLIC ACCESS CATALOGUE (OPAC) IN KWARA STATE UNIVERSITY LIBRARY, MALETE, KWARA STATE, NIGERIA

Kennedy Arebamen *EIRIEMIOKHALE, PhD*¹, Sodiq Olayinka *OLADIMEJI*² & Mosumade Opeoluwa *OLORUNTOLA*³

Department of Library and Information Science, College of Information and Communication Technology, Kwara State University, Malete, Nigeria^{1,2,3}

kennedy.iriemiokhale@kwasu.edu.ng¹ sojobara@gmail.com²

oloruntolamosun@gmail.com³

Abstract

Purpose: This study examined the problems and prospects of Online Public Access Catalogue (OPAC) in Kwara State University.

Design/Methodology/Approach: The study adopted descriptive survey research design. The population of the study consisted of 11,855 undergraduate students of Kwara State University. Using multi-stage sampling technique, 378 respondents were drawn from the population as the sample size of the study. Data were collected using questionnaire and all the copies of questionnaire administered were retrieved and used for the study. Data were analyzed using frequency counts and percentages.

Findings: The findings of the study revealed that OPAC saves users' time, information retrieval is made easy by OPAC and it allows multiple users at a time. The study further revealed the problems encountered when using the library OPAC. Such identified problems are, network problem, no/null output and lack of user assistance when using OPAC. The study concluded that the respondents derives numerous benefits and convenience with the use of Online Public Access Catalogue in Kwara State University Library.

Originality/Value: The study recommended that the library should ensure all their materials are available on the OPAC and the output given by the OPAC should be properly rechecked for better output and search result, staff should always be at the assistance of the library users in case the need arises, and the management should ensure the constant provision of network to the library for better OPAC services.

Keywords: Library, Online Public Access Catalogue (OPAC), Problems, Prospects, Retrieval, Kwara State University.

Paper type: Empirical research

Introduction

University libraries are established to provide adequate resources directed towards teaching, learning and research in universities. For libraries to achieve their goals, there is need to put in place adequate resources to support teaching, research, trained qualified librarians capable of organizing the information contents in the most scientific and helpful order, the reader who come to use the library and its resources as well as a library catalogue which is to facilitate easy retrieval of education resources in the library. For libraries to ensure its materials are accessible in a meaningful order to the users, the library ensures a systematic organization of its collection.

Libraries are known for the organization of their holdings in a catalogue which might be traditional or online/electronic. Wanigasoriya (2009) described a catalogue as facilitating users to library resources. The utilization of the new technology has improved the organization of library holdings. Fabunmi and Asubiojo (2013) suggested that it is expected that information searchers with access to the Internet whether at homes, offices, hostels or even on their smart phones should be able to access library to borrow their needed materials. This is because Online Public Access Catalogue has made it easy to access a library collection remotely from the library.

OPAC is a modern and flexible form of catalogue, usually instantaneous and

sophisticated access to any recorded information within a computer (Asokan and Dhanavandan, 2015). Online Public Access Catalogue is the fastest way to access information because of its multiple access point usage by author, title, name, keyword etc. It also allows users to access resources of libraries, publishers and online vendors. Guha and Saraf (2005) observed that, the new generation of online public access catalogue (OPAC) incorporates advance search features and new designs from other types of information retrieval (IR) systems. This is the way by which search is made on it and allows for easy browsing through, so as to retrieve needed information, have access to relevant information and also with the consideration of the fourth law of librarianship which states do not waste the time of user.

Despite the advantages assumed with the use of the Online Public Access Catalogue, some users find it not interesting. Ruzegea (2012) opined that search and retrieval of library materials has been observed in some instances that users are not coping with this change. This is the change that has been brought about with the revolution of the new information technology. Similarly, Umurani et al (2008) suggested that there seems to be two reasons for users not coping with changes in the new age in libraries which is either some users lack computer knowledge and hence are reluctant to accept the change or the design of the interfaces of some systems are not user friendly. Ogbole and Atinwo (2017) asserted that library users of OPAC are heterogeneous, as some have little knowledge of surfing the net while others are novice, also searching is difficult for undergraduates who shoulder the responsibility of typing words and searching for information when using OPAC.

Since libraries all over the world have been moving from the traditional organization and display of its resources to the online and electronic access provision to users, with notices made on some users not moving along with the change, there is need for the identification of the problems leading to step backs of some users and the benefits of its acceptance so as to ensure its wide acceptance. The library OPAC being a modern

and an automated catalogue was developed as a means to access information materials that constitute the holdings of a library. According to Wells (2007), the OPAC continues to be an essential tool for providing library users with quality access to information. Therefore, the study of the problems and prospect of OPAC is essential so as to correct the loopholes that might hinder the smooth use of OPAC in libraries and identify the benefits of OPAC to library users.

Objectives of the Study

The main objective of the study is to examine Online Public Access Catalogue (OPAC) in Kwara State University. Specifically, the study aimed at:

- i. investigating the problems affecting the use of OPAC by students; and
- ii. identifying the benefits of OPAC to users.

Research Questions

- i. What are the problems affecting the use of OPAC by the students?
- ii. What are the benefits of OPAC to users?

Literature Review

The mandate of the university library is to provide adequate and relevant information resources both in print and online for users to support class work, assignments, research, term papers, seminar presentation by providing relevant information service provision for effective and efficient achievement of academic pursuit (Ogbole and Atinwo, 2017).

In the world of today's technology with diverse means of online usage to access of information, the relevance of OPAC has started to be questioned from one time to the other. According to Wilson (2006), OPAC was probably the inspiration for many of the cutting edge services found on the internet and the electronic catalogue was among the vanguard of online services technology. But in today's world of information, services such as search engines has now surpassed the OPAC as evidenced by features such as Amazons spell checking (Ogbole and Atinwo, 2017). They further made the description of YouTube media on demand, social tagging, blogs, wiki's and twitter which has also changed the way users interact with each other and the

community around them. Yusuf (2011) opined that proliferation of web 2.0 services, the cutting-edge technology of OPAC has eroded, therefore, in order for the OPAC to stay relevant to users, it needs to keep up with web 2.0 technologies.

The revolution of networks, information and technology has constituted a great challenge for libraries so as to meet the trends in the world of information, although there are so many benefits automation has brought about in libraries which cover its disadvantages, its problem and challenges cannot be overlooked but need critical notice. Nwobu, Oyewole and Apotiade (2016) opined that the advent of computers and telecommunication technologies has transformed the process of organization of library resources because the era of the traditional card catalogue, where the bibliographic description of library resources was done on a card and filed in a cabinet appears to be passing away as Online Public Access Catalogue (OPAC) has taken the center stage. Hussain and Ansari (2006) postulated that Online Public Access Catalogue (OPAC) contains all the bibliographic information of an information centre or can be said to be a gateway to information center's collection. Similarly, Saha (2018) also opined that all types of users e.g. library staffs, faculty members, students can use OPAC the same time because it allows multiple access. Ukpebor (2012) highlighted the features of an OPAC as a system that: provides the public with direct access to a library bibliographic database through the use of terminal that is searchable through a variety of access points greater than those available through the card form of catalogue; is searchable with a common command language, which may be transferred when the public moves from one library to another; retrieve information from local library field, and if not successful, locally, retrieves information from other libraries' files; provide instructional help and display search result in readily understandable form; provide link card catalogues, reference help, circulation files, etc. and may be accessed from remote library's location; and multiple users can query the database simultaneously unlike the traditional catalogue box where users have to queue

when they are searching for similar materials with same search option.

According to Omonike and Oke (2014), despite the attention that OPAC is receiving worldwide, little seems to have changed. Ajulo (2007) asserted that much studies on the use of OPAC and its awareness has led to the increase in its use but the challenges militating against the use of OPAC seems still much visible. Library users are very much the main reason of all the information materials that has been acquired, stored and processed in libraries. Access to the materials with ease should be ensured and there must be conformation to the law of librarianship.

Library OPAC has different interface from the library websites in terms of graphics, user interface and design so users and students may see it different and also not familiar to them (Agbola, 2016). Similarly, Adebisi (2012) asserted that undergraduate students always baffle with OPAC interface when they come before the OPAC desk as it looks strange to many. According to Muhammad (2014), another concern with library OPAC is that it is often isolated from the rest of the library website and the web, which can be different to conduct search from the catalogue to the web or from the library website to the OPAC.

Isiaq (2017) asserted that research studies continue to report that users have great problems with the use of OPAC because its design does not incorporate sufficient understanding of searching behaviors and much problems associated with OPAC usage or non-usage found to be associated with lack of knowledge, complicated or confusing to use, null retrieval, lack of assistance from the library staff, slow speed and lack of computer system. Adedibu (2008) in his study on catalogue use by science students in the University of Ilorin reported that the OPAC and also the card catalogue being the most essential tool in accessing the library are not always consulted which was due to inadequate knowledge of how to use them.

Libraries all over the world are moving from the use of manual technique of information retrieval to the modern system of information retrieval. OPAC services are being provided by libraries as to help their users access their

needed information. According to Nwobu, Oyewole and Apotiade (2016) OPAC is used to search for resources as well having its benefits of accessing libraries information remotely and saving the time of a library user.

Thankodi (2012) noted that an OPAC database records are usually derived from Marc (machine-readable catalogue) format which the records are brief bibliographic descriptions enriched with a small number of controlled subject descriptors (often taken from the library of congress subject headings) and classification number. Users of a library have more access points with OPAC in comparison to the card catalogue (Husain and Ansari, 2009). They further noted that OPAC are provided with the help of internet on the web, so anybody can access it from anywhere. Swaminathan (2017) asserted that with the use of OPAC, library users can see collections and the issue status of each documents of the library; they can also reserve and renew a document of their interest when needed. As a means of meeting up with the challenges of ensuring that information materials are available and accessible, libraries provide an OPAC to help display available materials in the library and where they can be obtained (Onuoha, Umahi and Bamidele, 2013).

Aguolu (2009) opined that library catalogue makes the library an organized place in the university. For the location and easy access to stored items, it is necessary to ensure its arrangement in a style that will aid a convenient and better retrieval of such item. OPAC has also been referred to be the gateway to the library collections (Thirmugal, Mani and Saranakumar, 2018). This is because it is a passage that links to the holding of a library collections and the good thing about it is that OPAC is not restricted to the holdings of only a library, rather can include the holdings of a number of libraries.

Asokan and Dhanavandan (2015) also emphasized that OPAC have revolutionized the way to bibliographic information through search capabilities such as keyword searching, Boolean searching, truncation, proximity searching, and identity number searching. They also added that OPAC are searchable by author, title, subject, and keyword and also

allows user to print, download, or export records to an e-mail account. In the description of ALA Glossary of Library and information science, OPAC is a computer based and supported library catalog (bibliographic database) designed to be accessed via terminals so that library users may directly and effectively search for and retrieve bibliographic records within the assistance of a human intermediary such as specially trained member of the library staff.

Omoshola (2009) asserted that the primary advantage of OPAC is the ability of allowing retrieval in variety of ways and provision of rapid search. In a further note Omoshola (2009) highlighted some benefits of OPAC which are follows:

- a. OPAC can be used from far away location so that users can access a local, national and international cataloguing database.
- b. Filing of indexed is no longer a consideration
- c. Database in OPAC can be updated at frequent intervals when needed.
- d. OPAC provides instructional help.
- e. OPAC increases users satisfaction and comfort in accessing library materials.

M sagati (2016) also listed some merits of OPAC which are as follows: OPAC allows users simple or advance searched, eliminate repetitive nature of works; improve the quality and range or services; facilitates easy and wider access to all kinds of information sources, facilities faster information.

Similarly, Apagu, Temboge and Hassan (2018) examined the satisfaction, and challenges facing undergraduate with the use of Online Public Access Catalogue in university libraries in Gombe State, Nigeria. The study adopted a quantitative method using a cross-sectional survey research design. The population of the study was 2,840 registered undergraduates' students in Federal University Kashere and Gombe state University Library. 448 sample sizes were drawn from population and questionnaire was used for the collection of data. The survey revealed that 35.94% of the respondents agreed that OPAC provides hyperlink from the university website, and 37.5% agreed that the OPAC helps in in fast

retrieval of information resources from the shelf. It was concluded in the study that the students have a great benefit from the use of the OPAC and are also satisfied with its usage.

Review of Empirical Studies

Sankari et al. (2013) studied the use of OPAC by students and faculty members of Unnamalai Institute of Technology in Kovilpatti (Tamil Nadu). The study was conducted with the use of questionnaire. 150 respondents were used as the sample of study which was picked randomly between the staff and students of Unnamalai Institute of Technology in Kovilpatti. Out of 150 copies of questionnaire distributed, 130 were completed which makes valid questionnaire of 86.67% analyzed. Respondents were asked to give the reasons for not using OPAC. The result of the finding showed that 42(91.30%) of the respondents expressed lack of knowledge of OPAC, 36(78.26%) expressed complication in use, 16(34.78%) expressed no output/null retrieval, 29(63.04%) expressed lack of on screen help, 17(36.96%) expressed lack of assistance from library staff, 15(32.61%) expressed slow speed and 8 (17.39%) expressed lack of computer systems. The result of the study revealed that lack of basic skills among the users was found to be the major reason for not utilizing full features of OPAC.

Wanigasooriya (2008) investigated the problems faced by OPAC users in Sri Lanka University Libraries. 6 university libraries were selected through non-probabilistic purposive sampling method. The instruments used for the study were questionnaire and face to face interview. The sample used for the study included 150 students, 60 academic staff members and 30 library staff members which were picked by 25 students, 10 academic staffs and 5 library administrative department heads (librarians) from each university. The study identified 10 major issues as the problem of OPAC and OPAC usage. The results showed that only a university has everyday accessibility to OPAC out of the 6 universities. Among the major findings identified in the study were problem of language search ability, terminals were not sufficient for users, OPAC search not provided by all interface, and only a university has everyday access to OPAC.

Esarada and Okolo (2019) examined the use of OPAC in selected university libraries in South-south, Nigeria. The study adopted a descriptive survey design. Questionnaire was used as the instrument for data collection. The population of the study was made up of 18, 332 registered undergraduate library users and the sampling size of 920 registered undergraduate library users which led to the distribution of 460 questionnaires to each of the university libraries. The result of the study revealed that 399 of the respondents agreed that poor/irregular power supply is the challenge encountered in using OPAC; 281 agreed with lack of knowledge of OPAC; 125 of the respondents strongly agreed to inadequate computer terminal. In the mean result of the study recorded, poor/irregular power supply (4.1) lack of OPAC knowledge and unfamiliarity with OPAC system (3.6), inadequate computer terminals (3.5), navigational frustration (3.4), OPAC is not user friendly enough(3.3), lack of assistance from library and failed search or no record retrieved (3.2), inability to use appropriate search terms (3.1), complicated/confusing to me (3.0), retrieved unmanageably large number of records (3.0), and request terms are too broad or too narrow(3.0) are the major problems encountered while using OPAC which was examined according to this study.

Similarly, in another study by Ogbale and Atinmo (2017) on factors affecting OPAC provision and sustainable use by undergraduates in two selected university libraries in Ogun and Oyo States, Nigeria. The study adopted a survey design of Expo Facto. Multi-stage random sample and proportionate allocation were used to determine the sample of the population. 2019 respondents were used as samples for the study. The factors affecting OPAC provision was represented by seven aspects (ICT Skills, physical and ICT infrastructure, OPAC interface design, lack of enriched-content metadata, searching capabilities, poor OPAC awareness creation by library personnel and users, convenience/satisfaction). The result of the study showed that 37.3% of the respondents agreed that ICT skills possess by undergraduate affect OPAC provision. In the aspect of less

searching capabilities of OPAC. Another factor was poor OPAC awareness creation by library personnel. 40.7% disagreed. The study concluded that OPAC still remains a useful tool in the library for locating information, it is definitely still hindered by several factors.

Oguniyi and Efosa (2010) examined the usage of catalogue by students of Adeyemi College of Education, Ondo State. The study adopted a survey method with a questionnaire as the instrument of study. A random sample of 350 students were selected for the study. There were different issues raised as problems of OPAC usage but the most of the problems were associated with lack of knowledge of how to use the OPAC which recorded 52.7% of the respondents. In this study, it can be noticed most of the respondent's faced problems when using the OPAC.

Omonike and Oke (2014) examined the constraints students have in using OPAC in selected university libraries. A survey research was conducted and a questionnaire was used as the instrument of study. 303 students serve the sample of the study. The result of the study revealed that 102 of the students claimed that the computer systems are not enough in the library, 101 students claimed there is no staff to assist them when they run into difficulties and 100 of the respondents claimed there is no prior orientation before using the OPAC system. It is noted in this study that several problems of OPAC usage were identified with varying responses from the respondents.

Ismail (2016) itemized and described the problems and limitations of OPAC usage which are as follows:

- a. Do not provide online thesaurus aids which are useful for subject focusing terms that

are broader or narrower than topic searched.

- b. Do not automatically assist the user by providing alternative formulation of the search statement when the initial fails
- c. Do not rank the retrieval sets in decreasing order of probable relevance to users search criteria.
- d. Do not provide sufficient assistance in the translation of the query terms into the vocabulary used in the catalogue

Fabunmi and Asubiojo (2013) identified the challenges faced by students in the use of OPAC. The factors highlighted by them includes; breakdown and network failure, poor orientation, training and user education, library staff poor knowledge of OPAC system, unavailability of some materials via the OPAC and some irrelevant search results. In a further note, they affirm that network failure, irregular power supply and shortage of systems are the main problems of OPAC use.

Methodology

The survey research design was adopted for this study. Questionnaire was used as the instrument for data collection. The population of the study consists of 11, 855 undergraduate students of Kwara State University. A sample size of 378 respondents was drawn using the multistage sampling approach of proportional sampling technique and simple random sampling technique. Three hundred and seventy-eight (378) copies of the questionnaire were distributed to the respondents and all were appropriately completed and returned and all were considered usable which gave a 100% response rate. The returned questionnaires were analyzed using frequency counts and percentages.

Results

Table 1: Frequency and Percentage Responses on the Problems Affecting the use of Online Public Access Catalogue by Students

S/N	Problems Affecting the use of OPAC	Agreed		Disagreed		Remark
		F	%	F	%	
1	Complicated and confusing to use	93	24.6	285	75.4	Disagreed
2	Unstable power supply	158	41.8	220	58.2	Disagreed
3	Lack of user assistance	235	62.2	143	37.8	Agreed
4	Network problem	250	66.1	128	33.9	Agreed
5	No/null output	231	61.1	147	38.9	Agreed
6	Lack of assistance from the library staffs	174	46.0	204	54.0	Disagreed
7	Irrelevant search result	199	52.6	179	47.4	Agreed
8	I have difficulty in interpreting search result	278	73.5	100	26.5	Agreed
9	I am not a computer literate	53	14.0	325	86.0	Disagreed
10	No prior orientation before using the Online Public Access Catalogue	234	61.9	144	38.1	Agreed
11	The online public access catalogue is not user friendly	190	50.3	188	49.7	Agreed
12	It is time wasting	150	39.7	228	60.3	Disagreed

Table 1 shows the frequency and percentage distribution of respondents on the problems affecting the use of Online Public Access Catalogue by students of Kwara State University. The result reveals that 73.5% of the respondents agrees to have difficulty in

interpreting search results, network problem 66.1% and also 62.2% lack of user assistance, while 61.1% respondents agree to null output, 52.6% irrelevant search results and 61.9% no prior orientation before using the OPAC.

Table 2: Frequency and Percentage responses on the benefits of Online Public Access Catalogue

S/N	Benefits of OPAC	Agreed		Disagreed		Remark
		F	%	F	%	
1	It saves time	300	79.4	78	20.6	Agreed
2	I access materials remotely from the library	288	76.2	90	23.8	Agreed
3	It allows for the use of more access points	310	82.0	68	18.0	Agreed
4	Information retrieval is made so easy	313	82.8	65	17.2	Agreed
5	Multiple users use the Online Public Access Catalogue at the same time	312	82.5	66	17.5	Agreed
6	I see collections on their status in the library	278	73.5	100	26.5	Agreed
7	Information are available and accessible easily	322	85.2	56	14.8	Agreed
8	I can access other library's collection	290	76.7	88	23.3	Agreed
9	It provides links to full text databases and e-journals	290	76.7	88	23.3	Agreed
10	It allows downloading to email	277	73.3	101	26.7	Agreed

Table 2 shows the frequency and percentage distribution of responses on the benefits of Online Public Access Catalogue to library users. The result reveals that respondents unanimously agreed to all the constructs as benefits of the KWASU Library Online Public Access Catalogue.

irrelevant search results and lack of prior orientation before using the OPAC.

- Numerous benefits are derivable from the use of OPAC among which are that the use of OPAC saves time, materials can be accessed remotely, it allows multiple users at the same time, it allows for the use of many access points, among other benefits.

Summary of Findings

The summary of the findings of the study based on the research questions shows the following:

- The problems encountered by students when using the library OPAC include: difficulty in interpreting search results, network problem, lack of user assistance,

Discussion of Findings

Findings from this study has revealed the numerous benefits KWASU students derive from the use of OPAC in the library. With this it can be deduced that the users derive very high satisfaction and convenience from the use of Online Public Access Catalogue in Kwasu

Library. This finding is in conformity with that of Ogbole and Atinwo (2017) which revealed that majority of users of university libraries were satisfied with the use of Online Public Access Catalogue. The study revealed large number of respondents ranked users' satisfaction/convenience highest among other factors. This can be inferred to be due to the benefits they have derived from the use of the Online Public Access Catalogue that has led to a good satisfaction and the convenience.

It can be simply inferred that majority of the problems hindering the use of OPAC in Kwasu library are due to the lack of support from staffs and poor internet provision by the library. This result is in agreement with that of Kumar and Mahajan (2015) which reported that the major problem faced when using Online Public Access Catalogue is the problem of lack of proper guidance which rated 74.39%. It can be deduced that despite the benefits derived from the use of Online Public Access Catalogue usage, there are problems affecting its usage.

Implication of the study

It is evident that OPAC has numerous benefits over the card catalogue and as a result, libraries are fast migrating to OPAC. KWASU library should ensure adequate orientation of students on the use of OPAC in order to promote the use by students.

Conclusion and Recommendations

Today, Online Public Access Catalogue (OPAC) is an indispensable tool used to retrieve, access, locate, and identify status of information available in libraries. Information users and researchers of today are much in need of a better means of accessing the holdings of a library which will be fast, easy, effective and relevant to their use. It was concluded in this study that OPAC in Kwasu library has a very good potential and of excellent vision due to the great benefit derivable by the users from its usage. It is crucial to note that several problems affect the use of OPAC as identified in this study. The problems identified include, difficulty in interpreting search result, network problems, lack of user assistance, null/no output, irrelevant search result and no prior orientation before using OPAC.

Based on the findings of this study, it is recommended that:

- i. the library should ensure all their materials are available on the OPAC and the output given by the OPAC should be properly rechecked for better output and search result;
- ii. staff should always be at the assistance of the library users in case the need arises;
- iii. university management should ensure the constant provision of network to the library for better OPAC services.

References

- Adedibu, L. O. (2008). Catalogue use by science students in the University of Ilorin, Ilorin, Nigeria. *Libri: International Journal of Library and Information Services*, 58(1): 58-62.
- Agboola, I. O. (2010). Use of print and electronic resources by agricultural science students in Nigerian universities. *Library & Information Science Research*, 32(1):62-65.
- Agboola, T. D. (2010). *Do students have the relevant ICT skills they need to do their projects?* West-Point, New York USA: Sigite"11.
- Aguolu, C. C. (2009). *Library and information management in Nigeria*. Maiduguri: Ed-Linform services.
- Ajulo, A. V. (2007). *Co-operative cataloguing ventures: A discourse*. A paper presented at Nigerian Library Association, cataloguing, classification and indexing section 27th seminar/workshop held at Minna.
- Aliu, I. M. and Emese, G. I. (2011). The impact of computerization of library operations on library services and use: A case study of John Harris Library, University of Benin. *Information Impact*, 2(2), 17-26.
- Apagu, L., Temboge, A., and Hassan, M. (2018). Satisfaction and challenges facing undergraduates with the use of Online Public Access Catalogue in University Libraries in Gombe State, Nigeria. *International Journal of Applied Technologies in Library and Information Management* 4 (2), 57-68.
- Asokan, L. and Dhanavandan, S. (2015). Awareness and usage of Online Public Access Catalogue (OPAC) by students and faculty members: A case study. *Journal of Emerging Trends in Computing and Information Sciences*, 6(4), 67-75.
- Bamidele, A., Omeluzor, S. U., Onoyeyan, G. & Aluko-Arowolo, T. K. (2014). Faculty members awareness and use of Online Public Access

- Catalog (OPAC) services at Babcock University, Nigeria: A study. *Information and Knowledge Management*, 4(11), 29- 37.
- Esarada, R. and Okolo, S. E. (2019). The use of OPAC in selected university libraries in South-south Nigeria. *Library Philosophy and Practice*. Retrieved from <http://digitalcommons.unl.edu/libphilprac/2586>.
- Fabunmi, O. M. and Asubiojo, B. O. (2013). Awareness and use of Online Public Access Catalogue by students of Obafemi Awolowo University, Ile-Ife, Nigeria. *Library Philosophy and Practice*, 5(8), 1-19. Retrieved from <http://digitalcommons.unl.edu/libphilprac>
- Guha, T. and Saraf, V. (2005), OPAC usability: Assessment through verbal protocol. *The Electronic Library*, 23(4), 463-473. [Doi: 0.1108/02640470510611526](https://doi.org/10.1108/02640470510611526).
- Husain, R. and Ansari, A. M. (2006). From card catalogue to web OPACs. *DESIDOC Bulletin of Information Technology*, 26(2), 41-47.
- Isiaq A. (2017). The use of Online Public Access Catalogue (OPAC) by undergraduate students of University of Benin. *International Journal of Library and Information Science*, 7(9), 115-121. DOI: 10.5897/IJLIS2006.01.
- Ismail A. A. (2016). OPAC use of a special library: Problems and issues, OCLC Systems and Services: *Library Philosophy and Practice (e-journal)*. 24(2):73-81. Retrieved from <http://digitalcommons.unl.edu/libphilprac/>
- Kumar, R. and Singh, J. (2017). Use of OPAC in the university library of GGIPU, Delhi, India *Journal of Information Sources and Services*, 7 (1), 16-20.
- Msagati, N. (2016). Awareness and use of scholarly electronic journals by members of academic staff: A case study of Dar es Salaam University College of Education (DUCE). *Library Philosophy and Practice (e-journal)*. Retrieved from <http://digitalcommons.unl.edu/libphilprac/>.
- Muhammad, T. M., Husain, R. and Alam, A. M. (20014). From card catalog to web OPACs. *DESIDOC Bulletin of Information technology*. 26 (2), 41-47.
- Nwobu, B., Oyewole, O. and Apotiade, J. (2016). Computer self-efficacy as correlate of on-line public access catalogue use: A case study. *Information Impact: Journal of Information and Knowledge Management*, 7 (2), 15 – 26.
- Ogbole, J. U. and Atinwo, I. (2017). Factors affecting Online Public Access Catalogue provision and sustainable use by undergraduates in two selected university libraries in Ogun and Oyo States, Nigeria. *IOSR Journal of Research & Method in Education*. 7(4), 14-25. DOI: 10.9790/7388-0704021425.
- Ogunniyi, S. O. & Efosa, F. E. (2010). Use of library catalogue by students of Adeyemi College of Education, Ondo. *Tincity Journal of Library, Archival and Information Science* 1(2), 47-51.
- Oke, T. A., and Adenike, O. (2015). Online Public Access Catalogue (OPAC) in libraries: A case study. *International Journal of Library Science*. 13(2), 25-30.
- Omoshola, F. N. (2009). Use and benefits of OPAC in academic libraries. *Impact Journal of Library and Information Science, (IJOLS)*, 5 (9), 28-26.
- Onuoha, I., Umahi, U. and Bamidele, T. (2013). Use and satisfaction with online public access catalogue in selected university libraries in Ogun State, Nigeria. *Information and Knowledge Management*. 3(11), 87-95.
- Ruzegea, M. (2012). The usability of OPAC interface features: The perspective of postgraduate students at International Islamic University Malaysia (IIUM). *Library Philosophy and Practice (e-journal)*. Retrieved from <https://digitalcommons.unl.edu/libphilprac/691>.
- Saha, P. (2018). Use of OPAC system by library users and its services at Kiit University: A study of library professional KIIT University. *Bhubaneswar, Odisha, India*. 4(6), 176-183.
- Sankari, R. L. et al. (2013). A study on the use of online public access catalogue (OPAC) by students and faculty members of Unnamalai institute of Technology in Kovilpatti (Tamil Nadu). *International Journal of Library and Information Studies*, 3(1), 17-26.
- Swaminathan, K. S. M. (2017). Use and awareness of Online Public Access Catalogue (OPAC) by students and faculty members of Anna University Regional Campus, Coimbatore, Tamil Nadu: A case study. *International Journal of Scientific Research and Management (IJSRM)*, 5(5), 5345-5349.
- Tella, A. (2019). Use of Online Public Access Catalogue (OPAC) By Undergraduates in selected Nigerian universities. *International Journal of Web Portals*, 11(1). DOI: 10.4018/IJWP.2019010103.
- Thanuskodi, S. (2012). Use of Online Public Access Catalogue at Annamalai University Library. *International Journal of Information Science*, 2(6), 70-74. doi:10.5923/j.ijis.20120206.01
- Thirumagal, A. Mani, M. and Saravanakumar, R. R. (2018). Use of Online Public Access Catalogue

- (OPAC) at Sadakathullah Appa College, Tirunelveli District, Tamil Nadu: A study. *Library Philosophy and Practice (e-journal)*. 19(26), 71-78. Retrieved from <http://digitalcommons.unl.edu/libphilprac>.
- Ukpebor, C. O. (2012). Restoring the library OPAC towards usability by undergraduates students of the University of Benin. *International Journal of Science and Technology*, 1(4), 184.
- Umarani, A. (2008). Usability testing: Study of three WEB OPACS from three different countries. International Conference on Information and Knowledge Management, Kathmandu, At Kathmandu.
- Wanigasoriya, A. (2009). *Use of Online Public Access Catalogue (OPAC) in Sri Lankan national university libraries*. *Journal of Social Sciences Sri Lanka, University of Kelaniya*, 1(03), 76-86.
- Wells, D. (2007). What is a library OPAC? *The Electronic Library*, 25 (4), 386-394.
- Wilson, T. D. (2006). Information-seeking behaviour and the digital information world. *The Indexer*, 25 (1), 28-31.
- Yusuf, F. (2009). Management of change in cataloguing: A survey of practices in Covenant University and University of Lagos, Nigeria. *Library Philosophy and Practice*. Retrieved from: <http://digitalcomms.unl.edu/libphilprac/304>