academicresearch Journals

Vol. 9(4), pp. 213-223, May 2021 doi: 10.14662/ljarer2021.175

Copy © right 2021

Author(s) retain the copyright of this article ISSN: 2360-7866

Full Length Research

# Usability and Use of Koha Opac by Students in Selected Polytechnic Libraries in South-West, Nigeria

<sup>1</sup>Otuyalo, Modupe Atinuke and <sup>2</sup>Babalola, Yemisi T.

<sup>1</sup>Department of Information Resource Management, Babcock University, Ilishan-Remo, Ogun State, Nigeria. E-mail: Otuyalo.m@mylaspotech.edu.ng, E-mail: tinux2003@yahoo.com

<sup>2</sup>Department of Information Resource Management, Babcock University, Ilishan-Remo, Ogun State, Nigeria. E-mail: babalolay@babcock.edu.ng, E-mail: yemisiolutayo@yahoo.com

Accepted 24 May 2021

## **Abstract**

Literature revealed that many students in Polytechnics browse through the library shelves directly instead of using the OPAC to retrieve information that could be a link to information resources on the shelves. The usability of the OPAC in terms of its efficiency, effectiveness and userfriendliness could be the challenge. Therefore, the study examined the influence of usability on the use of Koha OPAC by students in Polytechnic libraries in South-West, Nigeria. Survey research design was adopted for the study. The population comprised 10,615 registered library users in the three Polytechnic libraries in South-West, Nigeria. A sample size of 374 was obtained using Krejcie and Morgan sample size determinant method. A structured and validated questionnaire was used to collect the data. Response rate was 94.4%. Findings revealed a significant, positive relationship between usability and use of OPAC by students in Polytechnic libraries in South-West, Nigeria (N =354, r =254, P<0.05). The use of OPAC and the usability of OPAC were average indicating that its use was not yet optimized among the students. The study concluded that usability has influence on the use of OPAC by students in Polytechnic libraries in South-West, Nigeria. Therefore the study recommended that user education programs in the Polytechnic libraries should include practical sessions where students would be taught various search strategies.

**Keywords:** Koha, Usability, Use of OPAC, OPAC, Information resources

Cite This Article As: Otuyalo, M. A., Babalola, Y. T.(2021). Usability and Use of Koha Opac by Students in Three Polytechnic Libraries in South-West, Nigeria. Inter. J. Acad. Res. Educ. Rev. 9(4): 213-223

#### INTRODUCTION

Library resources are of no value if they remain inaccessible to users. Accessibility enhances utilization of library resources hence, the main objective of libraries is to provide access to their wealth of information resources with minimum efforts on the part of the users and without delay. The library catalogue is an important tool used by library users to acquaint themselves with the materials in the library, and to access and retrieve them. Use of Online Public Access Catalogue (OPAC) in academic libraries is to empower students to be able to use the library independently. However, it has been observed that

most users do not use the OPAC as a reference point for accessing or retrieving of information. Thus, information retrieval still proves problematic. Aneesh, Jayakrishnan & Joseph (2018) assert that many library users are not interested in using the OPAC to search for information and librarians are not providing the required support in assisting students on how to make use of the OPAC.

Perhaps, this was why (Ogbole & Atinmo, 2017) stated that users were obviously confused at the OPAC desk because they are not familiar with the interface. Most users were tagged as novice and therefore end up in frustration due to the unfriendly interface. Similarly, Onuoha, Umahi, & Bamidele (2013) found out that OPAC

utilization among the library users was poor, and majority of the respondents confirmed not to use the OPAC at all to access or retrieve information. This was also submitted by Omeluzor, Bamidele, Onoyeyan, & Aluko-Arowolo (2014) that majority of the users in Babcock University were not aware that the OPAC can be used to retrieve materials either within the library premise or through the Web OPAC.

Adekunle, Olla and Oshiname (2016) described Library Management Software (LMS) as an enterprise resource planning system for a library that is used to track items owned, orders made, bills paid and patrons who have borrowed. Many academic libraries in Nigeria through automation, adopted the use of library management software such as CDS/ISIS, GLAS, X-Lib, Libplus, Alice for windows, Software for Universities Libraries (SOUL), Newgenlib, Millennium, Strategic Library Automation Management (SLAM) and Koha, for their house keeping operations in order to meet up with the demand of users and to provide better services. OPAC is a module in Library Management System (LMS). It is a database that contains the bibliographic records of resources owned by a library, which can be accessed through computer terminals (Skorka, 2017).

Koha has become popular and accepted among academic libraries in Nigeria; however it was adopted for several distinctive reasons. According to Omopupa, Ayansewa & Sulyman-Haroon (2019), whose study focused on the adoption and use of koha integrated library software in the university of Ilorin library. The study submitted that koha was adopted by the University library basically because of its affordability and user friendliness. Adekunle, Olla & Oshiname (2016) confirmed in the study on reports generation with Koha ILS that several libraries in Nigeria implemented Koha Integrated Library System (ILS) because of its popularity, user friendliness, webbased feature, support and integration with social media platforms. Others are opportunity for future expansion of collections, its interoperability with other databases due to Z39.50 search facility, and the fact that it is an Open Source Software (OSS) with accessible technical supports from a community of users known as Koha Community.

Sobalaje, Ajala and Salami (2018) study on assessment of koha for online library management in Nigerian academic library submitted that academic libraries in Nigeria adopted koha because of its robust functionalities such as cataloging, charging and discharging, web based OPAC, printing of barcodes and other features that aids administration such as report generation and library stock management. Uzomba, Oyebola & Izuchukwu (2015) reaffirmed in a study on the use and the application of open source integrated library system in academic libraries in Nigeria using Koha as a case study that several academic libraries migrated to Koha based on its flexibility, reliability, and user friendliness.

This study focused on the usability and the use of koha OPAC by students in the Polytechnic libraries under study. Thus, investigated on the use of Koha OPAC in terms of the type of search performed, purpose of use and frequency of use of the OPAC. Usability was examined in the light of International Standard Organisation (ISO) 9241-11 standard based on effectiveness, efficiency, learnability, flexibility, friendliness, and understandability.

#### Statement of the Problem

Access and retrieval of information have been a major concern in academic libraries and one of such medium to facilitate this is through the use of Online Public Access Catalogue (OPAC) to access the resources. Use of OPAC in academic libraries is to empower students to be able to use the library independently. However, it has been observed that most users do not use the OPAC as a reference point for accessing or retrieving of information. Thus, information retrieval still proves problematic. Many library users are not interested in using the OPAC to search for information similarly librarians are not providing the required support in assisting students on how to make use of the OPAC (Aneesh, Jayakrishnan & Joseph, 2018).

Several indicators have been used to express usability such as ease of use, efficiency, pleasurable interaction, memorability, low error rate, reliability and satisfaction. The interface designed for users for information retrieval have become competitive and has made designers of user-interface to design different platforms that allow ease-of-use so that users can have access to information they need. Although, it seems majority of this interfaces such as the OPAC are not really effective in assisting users during their search for information. Most OPAC's in academic libraries are not user friendly and would not allow interactivity with the users search sessions which render the interfaces less effective, inefficient and bring low satisfaction on users. Library OPAC's are one of the visible end user searching tools. OPAC studies have revealed among other findings that library users have the most difficulty with information searching and place the highest priority for improvements on various information search enhancements (Ruzegea, 2011). It is in the light of this that this study seeks to investigate the influence of usability on the use of Koha online public access catalogue by students in selected Polytechnic libraries in South-West, Nigeria.

## **OBJECTIVES OF THE STUDY**

The main objective of this study was to determine the influence of OPAC usability on use of OPAC by students in Polytechnic libraries in South-West, Nigeria. The specific objectives are to:

- 1. What is the level of use of the OPAC by students in the Polytechnic libraries in South-West, Nigeria?
- 2. What is the usability of the OPAC in the Polytechnic libraries in South-West, Nigeria?

## **HYPOTHESIS**

The following null hypothesis guided the study and was tested at 0.05 level of significance:

Ho: There is no significant relationship between OPAC usability and actual use of the OPAC.

# LITERATURE REVIEW

Access and retrieval of library resources are critical to utilisation of library resources. It is generally presumed that if resources are accessible to library users in academic libraries, user satisfaction with library operations and services could be enhanced. Library resources are of no value to users except they can be accessed and utilized (Ntui & Udah, 2015). Academic libraries around the world have embraced technological innovation in form of Library Management Software to enhance library operations such as acquisition, cataloging, classification, charging and discharging, Selective Dissemination students' registration, Information (SDI), Current Awareness Services (CAS) and information retrieval.

OPAC use is meant to facilitate access and retrieval of resources through several search approaches such as basic search, advanced search, Boolean search and through diverse access points such as author, title, keywords, ISBN, ISSN and class number (Kumar & Vohra, 2017)). However, Bamidele, Omeluzor, Onoyeyan and Aluko-Arowolo (2014) found that OPAC was the least method used by the faculty members to retrieve information resources but rather retrieved resources by browsing the shelves. A study conducted by Umar, Abareh and Basaka (2017) on awareness and utilization of library public access catalogue by undergraduate students of Abubakar Tafawa Balewa University (ATBU) Bauchi, Nigeria showed that majority of the students lacked the awareness of OPAC, thus, never used the OPAC in exploring the resources available in the library but rather performs shelf-to-shelf browsing.

Usability is the measure of perceived ease of using a particular software or system to perform prescribed tasks. It measures the quality of the user's experience when interacting with the system and depicts the extent to which a system enables users to achieve specified goals (Akinbobola & Adeleke, 2013). Studies on usability of the OPAC among library users in academic libraries showed that users encountered problems during their search for information. Ukpebor's (2012) study of library OPAC

usability at the University of Benin suggests that library users are more comfortable with the flexibility, friendliness and performance of the internet based applications than with the library OPAC. The study recommends upgrade of library OPAC and alignment of the OPAC interface with web 2.0 technology.

Hall (2014) noted that a number of library software may have good functionality but have very poor usability. This is because usability evaluation of the software is often ignored at the development stage. Most software projects focus on the software functionality rather than the user interfaces. Absence of usability evaluation usually result to failure of the software systems which may lead to user dissatisfaction, staff low productivity, substantial monetary loss and waste of time (Qureshi, 2013; Al-Rawashdeh, 2015). The performance of the OPAC should be based on criteria such as ease of use, reliability, usefulness, effectiveness, efficiency, learnability and user satisfaction (Khatun, 2014).

Usability is a concept that entails various aspect of system evaluation. Several indicators have been used to express usability such as ease of use, efficiency, pleasurable interaction, memorability, low error rate, reliability and satisfaction. The interface designed for users for information retrieval have become competitive and has made designers of user-interface to design different platforms that allow ease-of-use so that users can have access to information they need. Although majority of this interfaces such as the OPAC are not really effective in assisting users during their search for information. Most OPAC's in academic libraries are not user friendly and would not allow interactivity with the users search sessions which render the interfaces less effective, inefficient and bring low satisfaction on users. Library OPAC's are one of the visible end user searching tools. OPAC studies have revealed among other findings that library users have the most difficulty with information searching and place the highest priority for improvements on various information search enhancements (Ruzegea, 2011).

The benefits of OPAC service could be hindered by several factors which can affect its effective usage. These are physical infrastructure like space for the computer terminals, computer furniture, inadequate internet connection and low bandwidth, poor power supply and backup, insufficient computer terminals and lack of searching skills. Others are quality of computer systems, adequate number of computers to cater for the user population, adequate funds for the project, inadequate training on how to use ICT resources, hardware maintenance, user education and training of library staff. All these stand as strong barriers that affect OPAC sustainable use (Ogbole& Atinmo, 2017; Mohammed & Saka, 2016).

Usability evaluation of OPAC in academic libraries is a means of measuring how well students can use the interface for their intending academic purpose. Usability

evaluation tries to find out the level of user friendliness of the system which is usually subjective. There are various means of testing for usability of an interface such as repeated interviews, surveys, video recording of user sessions, and other techniques of task analysis such that tasks are assigned to users and observations are made for further analysis. Academic libraries OPAC users exhibit unique needs and problems during their search for information. Hence, the need for exclusive user studies on how users interact with the OPAC (Umarani, Nagarkar & Jagtap, 2008).

According to White, Wright and Chawner (2006) study on usability evaluation of library online catalogues, several usability problems were discovered during the usability testing of OPAC. The problems were classified into six categories namely layout, ease of use, functionality, terminology, feedback and help. However, it was concluded that if usability principles had been taken into consideration at the development stage, majority of the problems associated with the OPAC would not have emerged. Usability of the OPAC according to (Mboni, 2011) is a step towards the improvement of the OPAC interface functionality for optimal service to the users. It aids developing a good OPAC system for the library, and deals with the technological factor, mechanisms for a better interface, sensitive preparation and awareness of the users through constant education programmes. These are the areas that deserve immediate attention. A study on usability is aimed to explore the common pitfalls of design and functional issues of OPAC systems used in academic libraries and suggest solutions to approach such problems.

From the literature reviewed, the various experience of the users will be used as a guide for this study, however most literature did not indicate the type of software OPAC reviewed. This study has a definite OPAC to be studied which will serve as a guide on the choice of software for intending academic library planning to migrate to Koha. It will steer their preparation towards adequate provision for effective library services in order to satisfy the library

users. This study is set to fill the gap by trying to find out if usability has influence on the use of OPAC by students in Polytechnic libraries in South-West, Nigeria.

#### **METHODOLOGY**

The study employed survey research design using a population of Ten Thousand, Six Hundred and Fifteen (10,615) registered library users in the three Polytechnic libraries in South-West, Nigeria (Lagos State Polytechnic Ikorodu, The Polytechnic Ibadan, and Federal Polytechnic, Ado-Ekiti). The population of the study includes all registered Ordinary National Diploma (ND I and ND II), and Higher National Diploma (HND I and HND II) students in the selected Polytechnic libraries in South-West, Nigeria that makes use of Koha. This excludes the academic staff and other researchers who make use of the libraries. The total population of registered library users in all the Polytechnics libraries under study is 10,615 and was based on the records obtained from the library user registration records of the respective institutions. Multistage sampling technique was used to select participants for the study. At the first stage, simple random sampling technique in form of ballot system was used for the grouping of the states into zones and selection of the Polytechnics. The South-West, States were grouped into three Zones consisting of Zone I (Lagos and Ogun), Zone II (Oyo and Osun) and Zone III (Ondo and Ekiti). One state was selected from each Zone respectively namely: Lagos, Oyo and Ekiti. At the second stage, proportionate stratified random sampling was used to select students from each Polytechnic library. The data collection instrument was a structured questionnaire on usability and use of koha OPAC by students in three Polytechnic libraries in South-West, Nigeria. A total number of three hundred and seventy-five (375) library users were selected from the population giving 94.4% response rate. Data analysis was done using descriptive and inferential statistics.

#### **Results and Discussion**

Question 1: What is the level of Use of the OPAC by students in the Polytechnic libraries in South-West, Nigeria?

Table 1. Responses on the Use of OPAC

S/N	Statements	HU (%) 3	U (%) 2	RU (%) 1	NU (%) 0	Mean	SD
	Type of search						
1.	I search for books by author on the OPAC.	189 (53.4)	102 (28.8)	42 (11.9)	21 (5.9)	3.30	.897
2.	I use the OPAC to search for books by title.	168 (47.5)	86 (24.3)	79 (22.3)	21 (5.9)	3.13	.959
3.	I use the OPAC to search for information resources by subject.	125 (35.3)	123 (34.7)	43 (12.1)	63 (17.8)	2.88	1.084

Table 1. continuation

	<u>continuation</u>						
4.	I search OPAC using the advanced search type	196 (55.4)	37 (10.5)	-	121 (34.2)	2.87	1.382
5.	I search for books on OPAC by keyword.	103 (29.1)	64 (18.1)	107 (30.2)	80 (22.6)	2.54	1.134
6.	I search for information resources through ISBN/ISSN via the OPAC.	81 (22.9)	108 (30.5)	64 (18.1)	101 (28.5)	2.48	1.132
7.	I search OPAC using the Boolean search type i.e. using 'OR' and 'AND' combination.	87 (24.6)	102 (28.8)	59 (16.7)	106 (29.9)	2.48	1.159
8.	I search for books on OPAC by accession number.	104 (29.4)	43 (12.1)	86 (24.3)	121(34.2)	2.37	1.228
						2.76	1.121
	Purpose of use	HU (%) 3	U (%) 2	RU (%) 1	NU (%) 0	Mean	SD
9.	I use OPAC to check the availability of books and other materials.	168 (47.5)	144 (40.7)	21 (5.9)	21 (5.9)	3.30	.828
10.	I use the OPAC to search for information in the library.	163 (46)	128 (36.2)	21 (5.9)	42 (11.9)	3.16	.985
11.	I use the OPAC to access information needed for either my assignment, coursework, project, thesis, dissertation, examination, career development or for personal interest.	146 (41.2)	124 (35)	63 (17.8)	21 (5.9)	3.12	.904
12.	I use the OPAC to find the location of books and other materials on the shelf.	162 (45.8)	85 (24)	43 (12.1)	64 (18.1)	2.97	1.142
13.	I use the OPAC to retrieve information for my academic work.	109 (30.8)	139 (39.3)	85 (24)	21 (5.9)	2.95	.886
14.	I use the OPAC to locate books and other resources on the shelf.	151 (42.7)	59 (16.7)	85 (24)	59 (16.7)	2.85	1.147
15.	I use the OPAC to check the number of copies of materials available in the library.	88 (24.9)	139 (39.3)	63 (17.8)	64 (18.1)	2.71	1.033
16.	I use the OPAC to know the status of library stock.	131 (37)	80 (22.6)	42 (11.9)	101 (28.5)	2.68	1.238
17.	I use the OPAC to search for information based on personal interest.	60 (16.9)	172 (48.6)	63 (17.8)	59 (16.7)	2.66	.949
18.	I use the OPAC to find the bibliographic details of materials needed.	131 (37)	64 (18.1)	58 (16.4)	101 (28.5)	2.64	1.244
19.	I use OPAC to make online reservations of needed books and other materials.	81 (22.9)	146 (41.2)	21 (5.9)	106 (29.9)	2.57	1.142
20.	I use the OPAC to know the newly arrived materials.	88 (24.9)	86 (24.3)	100 (28.2)	80 (22.6)	2.51	1.097
						2.84	1.049
S/N	Statements	HU (%) 3	U (%) 2	RU (%) 1	NU (%) 0	Mean	SD
	Frequency of use						
21.	I use the OPAC once in a week.	109 (30.9)	59 (16.7)	85 (24)	101 (28.5)	2.50	1.200
22.	I use the OPAC twice in a week.	86 (24.3)	82 (23.3)	80 (22.6)	106 (29.9)	2.42	1.154
23.	I use the OPAC daily.	65 (18.4)	81 (22.9)	80 (22.6)	128 (36.2)	2.23	1.128

Table 1. continuation

		Grand Mean				2.60	
						2.21	1.134
25.	I use the OPAC once in a month.	44 (12.4)	59 (16.7)	80 (22.6)	171 (48.3)	1.93	1.070
24.	I use the OPAC twice in a month.	44 (12.4)	81 (22.9)	42 (11.9)	187 (52.8)	1.95	1.120

Source: Field work, 2018

Key: Highly Utilized (HU) = 3; Utilized (U) = 2; Rarely Utilized (RU) = 1, Never Utilized (NU) = 0

F (%) = Frequency and Percentages

Table 1 shows the students level of use of the OPAC in the Polytechnic libraries in South-West Nigeria in terms of type of search, purpose of use and frequency of use giving a (grand mean = 2.60) on a four point scale. The table further revealed the specific type of search employed by the students to locate library resources (mean = 2.76) by searching for books and information by author, by title, by subject and making use of the advance search type. The students also indicated the purpose of use of the OPAC (mean 2.84), to check for the availability of books, to search for information in the library, to access information needed for their academic work as well as to find the location of books and other materials on the shelf. In addition, most of the students affirmed the frequency of use of OPAC (mean = 2.21) used at different degree, once a week, twice a week and daily. Therefore, on the level of use of the OPAC, the result showed that OPAC was averagely used from the (grand mean=2.60) by students in Polytechnic libraries in South-West, Nigeria. This shows that the use of OPAC is not yet optimized by the students. This findings reflect the report of Mohammed & Saka (2016) who reported that OPAC was used to access resources both prints and electronic resources by students in three University libraries in the North Central, Nigeria in order to fulfill their academic purposes. The finding also conforms to that of Kumar and Vohra (2017) who found the frequency of use of OPAC in Guru Nanak Dev University to be low and also corroborates the purpose of use of OPAC to be high as in this study. On the contrary to this study, only few users search through the OPAC using author, title or subject approaches, rarely are users found searching through keyword or combined search.

Question 2: What is the level of Usability of the OPAC in the Polytechnic libraries in South-West, Nigeria?

Table 2. Responses on Usability of OPAC

S/N	Statements	SA (%) 4	A (%)	D (%) 2	SD (%) 1	Mean	SD
	Effectiveness						
1.	My library OPAC allows users to search for information materials by title.	204 (57.6)	124 (35)	13 (3.7)	13 (3.7)	3.47	.738
2.	My library OPAC allows users to search for information materials by subject.	173 (48.9)	156 (44.1)	14 (4)	11 (3.1)	3.39	.710
3.	My library OPAC allows users to search for information materials by call number.	128 (36.2)	187 (52.8)	33 (9.3)	16 (4.5)	3.23	.685
4.	My library OPAC allows users to search for information materials by ISBN/ISSN.	103 (29.1)	180 (50.8)	55 (15.5)	16 (4.5)	3.05	.792
5.	My library OPAC allows users to search for information materials by author.	173 (48.9)	68 (19.2)	55 (15.5)	58 (16.4)	3.01	1.142
6.	My library OPAC allows users to search for information materials by Boolean and advanced searches.	77 (21.8)	140 (39.5)	79 (22.3)	58 (16.4)	2.67	.994

**Table 2. continuation** 

	. continuation									3.14	.844
	Efficiency	S	A (%) 4	A	(%) 3		(%) 2	S	D (%) 1	Mean	SD
7.	The OPAC saves my time in searching for right materials in the library.		140 39.5)	l .	186 52.5)	l	23 6.5)		5 (1.4)	3.30	.653
8.	OPAC guides me to where to find the location of books and other materials on the shelf.		116 32.8)	l	155 13.8)	l	60 6.9)	23	3 (6.5)	3.03	.871
9.	Anytime the OPAC is queried, its response is usually slow.		109 30.8)	l .	90 25.4)		05 9.7)	50	(14.1)	2.73	1.048
10.	The processing time of the OPAC is rather too long.	81	(22.9)	l .	122 34.5)	l	96 7.1)	55	5 (15.5)	2.65	1.000
11.	I decide not to use the OPAC for search due to its incomplete search result.	40	(11.3)	l .	111 31.4)		49 2.1)	54	(15.3)	2.39	.878
12.	I don't find the search result easy to interpret.	(	26 (7.3)	l	118 33.3)	l	66 6.9)	44	(12.4)	2.36	.792
										2.74	.874
	Reliability		SA (% 4	<b>%</b> )	A (%	<b>%</b> )	D ( <sup>9</sup>		SD (%) 1	Mean	SD
13.	OPAC provides me with man options in searching for information.	У	128 (36.2		19: (54.		26 (7.5		7 (2)	3.25	.674
14.	With the OPAC one can easil gain access to materials availal in the library.		149 (42.1		14 (39.		36 (10.		28 (7.9)	3.16	.903
15.	I expect the OPAC to guide use on how to retrieve information needed.		73 (20.6	6)	169 (47.		7′ (20.		41 (11.6)	2.77	.906
16.	OPAC search result after querying is not often useful for need.	my	71 (20.1	)	94 (26.		14 (40.		47 (13.3)	2.53	.958
17.	The information about the use OPAC is confusing to follow.		36 (10.2	2)	90 (25.		16 (47.		60 (16.9)	2.29	.866
18.	OPAC search result after querying is not often useful for need.	my	37 (10.5	5)	(24.		15 (42.		79 (22.3)	2.23	.915
										2.71	.870
	Friendliness		SA (% 4	<b>%</b> )	A (%	<b>%</b> )	D ( <sup>9</sup>		SD (%) 1	Mean	SD
19.	OPAC helps me to have an ide of what books are available in t library.		174 (54.8		14 (49.		2´ (5.9		11 (3.1)	3.37	.735
20.	OPAC aids my confidence to gaaccess to library materials.		172 (48.6	3)	13 <sub>4</sub> (37.		48 (13.		-	3.35	.707
21.	OPAC helps in quick search for materials in the library.	or	126 (35.6		18: (51.		35 (9.9		11 (3.1)	3.19	.737

Table 1. continuation

	Gra	ınd Mean				2.91	
						3.05	.735
	rather too cumbersome.	(5.6)	(31.1)	(52)	(11.3)		
27.	Navigating round the interface is	20	110	184	40	2.31	.745
	to understand.	(15.3)	(57.9)	(17.5)	(9.3)		
26.	I do not find the interface complex	54	205	62	33	2.79	.812
	checker like search engines.						
	inbuilt features such as spelling	(25.4)	(59.3)	(13.3)	(2)		
25.	OPAC is supposed to have an	90	210	47	7	3.08	.679
	using the Google search engine.	(31.9)	(50.8)	(11.3)	(5.9)		
24.	Using the OPAC is as easy as	113	180	40	21	3.09	.815
	interface.						
	navigate around the OPAC	(30.5)	(54.8)	(12.7)	(2)		
23.	It is usually not difficult to	108	194	45	7	3.14	.703
	to use and interact with.	(30.5)	(57.6)	(9.6)	(2.3)		
22.	I find the OPAC interface friendly	108	204	34	8	3.16	.683

Source: Field work. 2018

Key: SA=strongly agree, A=agree, D= strongly disagree, D=disagree. (The value of SA =4, A = 3, D =2, SD = 1

In order to ascertain the level of usability of the OPAC in the Polytechnic libraries in South-West, Nigeria, Table 2 presents the responses of the students in the area of level of usability focused in this study. The level of usability focused on effectiveness, efficiency, reliability and friendliness. In the area of effectiveness, the average mean was (3.14) on a four point scale. Meaning that the respondents' level of usability of OPAC in the polytechnic libraries was on the average. In the section of efficiency, the average mean was (2.74) on a four point scale showing that majority of the respondents strongly agreed and agreed that OPAC was averagely efficient because some of the students could not interpret the search result though they know the OPAC can save their time while searching for materials in the library. In the section of reliability, the average mean was (2.71) on a four point scale. 35.6% of the respondents strongly agreed and agreed that the information about the use of OPAC is confusing to follow. While 31.7% expected the OPAC to guide users on how to retrieve information needed. Lastly, in the section of friendliness, the average mean was (3.05) on a four point scale. Respondents strongly agreed and agreed that the OPAC was friendly on the average 174 (54.8%) & 148 (49.2%) respectively because the OPAC helps them to have an idea of what books are available in the library. However, 110 (31.1%) found navigating round the interface rather too cumbersome. The result showed that the level of usability of the OPAC by the students is on the average, which implies that OPAC of the Polytechnic libraries are averagely effective, efficient, reliable and friendly.

This finding support the assertion of Al-Rawashdeh (2015) who emphasized that it is better to develop and implement acceptable and qualitative software if certain software usability characteristics are taken into consideration during software design and implementation of open source software, which are; learnability, understandability, efficiency, reliability, error prevention, memorability, operatability, familiarity, attractiveness and usability-compliance. This also buttressed the submission of Hall (2014) that open source software is often ignored at the development stage. He stressed that most software projects focus on the software functionality rather than the user interfaces. A software may have good and perfect functionality but have very poor usability.

## **Testing of Hypothesis**

The hypothesis which the researcher formulated at the beginning of the study was tested and the finding is presented below:

**H0:** There is no significant relationship between OPAC usability and actual use of the OPAC.

Table 3. Correlation analysis of relationship between OPAC usability and use of library OPAC by students in

Polytechnics in South-West, Nigeria.

Variables	Mean	Std. Dev.	N	R	P	Remark
OPAC Usability	78.9831	8.06101	354	.254	.000	Sig.
Use of OPAC	44.8305	15.34881				

The result in Table 4 shows the correlation analysis result between usability of OPAC and use of OPAC. The result indicates that there is a positive significant relationship (N=354, r = .254; p < 0.05) between usability of OPAC and use of OPAC. This implies that an increase in the usability of OPAC is likely to increase the use of OPAC. Based on this evidence, the null hypothesis that there is a significant relationship between usability of OPAC and use of OPAC in Polytechnic libraries in South-West, Nigeria is rejected.

## **Discussion of Findings**

The first research question sought to find the level of use of OPAC by students in the Polytechnic libraries in South-West, Nigeria. The result showed that OPAC is moderately used by the students in the Polytechnic libraries. This findings reflect the report of Mohammed & Saka (2016) who reported that OPAC was used to access resources both prints and electronic resources by students in three University libraries in the North Central, Nigeria in order to fulfill their academic purposes. Thus, the OPAC created enormous changes in their library operations and services having made the resources easily accessible to users. The finding also conforms to that of Kumar and Vohra (2017) who found the frequency of use of OPAC in Guru Nanak Dev University to be low and also corroborates the purpose of use of OPAC to be high as in this study. On the contrary to this study, only few users search through the OPAC using author, title or subject approaches, rarely are users found searching through keyword or combined search. The findings negate that of Asokan and Dhanavandan (2015) who discovered that more than half of the users make use of the OPAC daily while others make use of it once or twice a week in Aalim Muhammed Salegh College of Engineering library. The findings of Veena, (2015) also negate the findings of this study while investigating the use and awareness of online public access catalogue by users of college library in Bantwala, Manglore and found that more than half of the respondents were using the OPAC on a daily basis while few of them used it monthly. The second research question sought to find out the level of usability of the OPAC by students in the Polytechnic

libraries in South-West, Nigeria. The result showed that the level of usability of the OPAC by the students is on the average, which implies that OPAC of the Polytechnic libraries are moderately effective, efficient, reliable and friendly. This finding support the assertion of Al-Rawashdeh (2015) who emphasized that it is better to develop and implement acceptable and qualitative software if certain software usability characteristics are taken into consideration during software design and implementation of open source software, which are; learnability, understandability, efficiency, reliability, error memorability, operatabiltiy, prevention, familiarity, attractiveness and usability-compliance. This also buttressed the submission of Hall (2014) that open source software is often ignored at the development stage. He stressed that most software projects focus on the software functionality rather than the user interfaces. A software may have good and perfect functionality but have very poor usability. Similarly, Qureshi (2013) and Al-Rawashdeh (2015) reported that poor usability evaluation usually result to failure of the software systems which may lead to user dissatisfaction, staff low productivity, substantial monetary loss and waste of time. However, the authors emphasised the need for usability evaluation at the inception of software development, this will help users to find most interfaces usable with less effort and their expectations easily achieved with maximum satisfaction.

### CONCLUSION

OPAC allows quick access to resources by reducing the time users spends in retrieving relevant information. The

Polytechnic libraries surveyed possess a large volume of resources which users may not be able to access if adequate access point such as the OPAC is not provided to ease out the problem of locating resources. Users experience with the qualities of the koha OPAC had a significant positive relationship on use of OPAC. The effectiveness, efficiency, friendliness, and reliability of the koha OPAC determined the level of use of OPAC by the students of the Polytechnic. An increase in usability of the OPAC is expected to increase the use of OPAC.

#### RECOMMENDATIONS

The following were recommended based on the findings of the study:

- 1. The OPAC interface should be designed in a simple way, aimed to be self-sufficient for library users and also be Web 2.0 technology compliant.
- 2.All library staff should be given adequate ICT training and equipped with required tools needed to render OPAC services to library users.
- 3.User education programs in the Polytechnic libraries should include practical sessions where students would be taught various search strategies while using the OPAC.

## **REFERENCES**

- Adedibu, L.O. (2008). Catalogue se by the tudents in the University of Ilorin, Ilorin, Nigeria. *Libri: International Journal of Library and Information Services*. *58*(1), *58*-62
- Adekunle, P.A., Olla, G.O., Oshiname, R.M. (2016). Reports generation with Koha ILS: Examples from Bowen University Library, Nigeria. *Journal of Information and Knowledge Management Vol.* 6(4), 51-62
- Afolabi, A.F., and Abidoye, J.A. (2011). Integration of information and communication technology in library operations towards effective library services. *Journal of Educational and Social Research*, 1, 113-120.
- Akinbobola, O. I., & Adeleke, A. A. (2013). The influence of user efficacy and expectation on actual system use. *Interdisciplinary Journal of Information, Knowledge and management*, 8, 43-57.
- Al-Rawashdeh, T.A. (2015). Evaluating open source software usability using a multistage fuzzy model approach. *International Review on Computers and Software*, 10.
- Aneesh, C.A., Jayakrishnan, M.V., Jincy, J. (2018). Information retrieval through OPAC in the perspective of college. *International Journal of Scientific and Research Publications Vol.* 8(2), 77-82.
- Asokan, L., & Dhanavanda, S. (2015). Awareness and usage of online public access catalogue by students and faculty members: A case study. *Journal of Emerging Trends in computing and information sciences*, 6(4), 227-231.

- Dalling, J. (2011). Open source, open minds? An investigation into attitudes towards open source library management systems in UK higher education libraries. A dissertation submitted to Department of Information Studies, Aberystwyth University.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 319-340.
- Davis, F. R. Bagozzi & R. Warshaw. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, vol. 35, pp. 982-1003.
- Hall, J. (2014). Usability themes in open source software. A thesis submitted to the department of computer science, University of Minnesota, Minnesota, USA, 2014.
- Khatun, A. (2014). Open source integrated library system and usability issues: A study of Koha interfaces. A dissertation submitted to the department of information science and library management, University of Dhaka.
- Kumar S. & Vohra, R. (2017). Use of nline ublic ccess atalogue in Guru Nanak Dev University Library, Amritsar: A study. Research scholar, department of library and information science, Panjab University, Chandigarh.
- Kumar, S., & Vohra, R. (2013). User perception and use of OPAC: A comparison of three universities in Punjab region of India. *The Electronic Library*, 31(1), 36-54.
- Mohammed, A. S., & Saka, K. A. (2016). Relevance and use of online public access catalogue in University libraries in North Central, Nigeria. International Conference Information and Communication on Technology and its applications (ICTA 2016, Federal University of Technology, Minna, Nigeria November 28 -30, 2016.
- Momodu, O. M. (2015). Academic Libraries in Nigeria: Yesterday, Today and Tomorrow. *American Journal of Social Sciences* 3(4),115-119
- Nielsen, J. (1994). Enhancing the explanatory power of usability heuristics. In: Adelson B., Dumais S., Olson J. (Eds.), Proceedings of CHI '94 conference on human factors in computer systems: celebrating interdependence, Boston, Massachusetts, United States, April 24-28.New York: *ACM Press*, 152-158.
- Nielsen, J., & Levy J. (1994). Measuring usability: preference vs. performance. *Communications of the ACM*, 37(4), 66-75.
- Ntui, A. I., Udah, A. E. (2015). Accessibility and Utilization of Library Resources by Teachers in Secondary Schools in Calabar Education Zone of Cross River State, Nigeria. *Global Journal of social science, arts & humanities Psychology*, 15(8), 2015.
- Omeluzor, S., Bamidele, I. A., Onoyeyan, G., & Aluko-Arowolo, T. K. (2014). Faculty members awareness and use of online public access catalogue (OPAC) services at Babcock university, Nigeria: A study. *Journal of information and knowledge management*, 4(11), 29-37.
- Omopupa, K.T., Adedeji, A.A. & Sulyman-Haroon, O.S. (2019). Adoption and use of koha integrated library

- system in the university of Ilorin library. *International Journal of Information processing and Communication (IJIPC)*, Vol. 7 No. 1, 230-241
- Qureshi, M. F., & Al-Matroushi, G. I. G. (2013). Usability assessment of open source application. *International Journal of Advanced Research in Computer Science*, 4(1), 13-19.
- Reddy, T.R., & Kumar, K. (2013). Open source software's and their impact on library and information centre: An overview. *International journal of library and information science* 5(4), 90-96.
- Skorka, S. (2017). Next generation electronic catalogs in Polish libraries. Usability and information architecture. https://www.researchgate.net/publication/317816418
- Sobalaje, A. J. Ajala, I. O. and Salami, K. O. (2018). Assessment of Koha for Online Library Management in Nigerian Academic Library: A Case Study of Olusegun Oke Library, Lautech, Ogbomoso. *International Journal of Academic Library and Information Science*. 6(2): 23-32
- Tella, A., Dina, N., Olaniyi, O.T., Memudu, S. A., &

- Oguntayo, S.A. (2017). Assessment of Koha library software in four selected University libraries in Nigeria. *Journal of Applied Information Science and Technology*, 10(2), 1-14.
- Ukpebor, O.C. (2012). Restoring the Library OPAC towards Usability by Undergraduates Students of the University of Benin. *International Journal of Engineering and Technology Vol.2(4)*, 61-620.
- Umar, B.F., Abareh, H.M., & Basaka, A.A. (2017). Awareness and Utilization of Library Public Access Catalogue by undergraduates students of Abubakar Tafawa Balewa University (ATBU) Bauchi, Bauchi State of Nigeria. *International Journal of Research in Library Science. Vol* 3(1), 131-138
- Uzomba, E. C., Oyebola, O. J., and Chukwu A. C. (2015). The Use and the Application of Open Source Integrated Library System in Academic Libraries in Nigeria: Koha Example. Library Philosophy and Practice (e-journal) 1250.
- Veena, G., Mallaiah, T. Y., & Pushpalatha (2015). Use and awareness of OPAC facility by users of SVS College, Bantwala, Mangaloe: A study. *International Journal of Library and Information Science*, *5*(4).