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INFORMATION RETRIEVAL SKILLS OF UNDERGRADUATES ON THE USE OF ONLINE PUBLIC ACCESS CATALOGUE IN UNIVERSITY LIBRARIES IN KADUNA STATE, NIGERIA

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Abstract

This study investigated the Information Retrieval Skills of Undergraduates on the Use of Online Public Access Catalogue in University Libraries in Kaduna State, Nigeria. The objectives of the study were to identify the information retrieval skills strategies used on online public access catalogue by undergraduate students, level of undergraduate students' use of the online public access catalogue, find out if undergraduate students had access to online public access catalogue, and the factors influencing undergraduate students use of the online public access catalogue. The study adopted the use of quantitative methodology using a cross-sectional survey design. The targeted population comprised all the level 400 undergraduate students of the universities in Kaduna State (14,271). Research adviser table 2006 was used in selecting the sample size of 370 for the study, simple random sampling was used to sample the respondents. The questionnaire was the only instrument used for data collection. Descriptive statistics were used to analyze the relevant data for the study. The study revealed that more than half of the respondents indicated that they used the author's name in the search for library materials, the majority of them had access to and used the online public access catalogue in the university libraries, and less than half of them used online public access catalogue monthly. Finally, the study established that the major challenges encountered were a lack of a sufficient number of computers, poor Internet connectivity to access OPAC online, access was password protected and *lack of guidance/orientation from the library staff on the use of the online public access catalogue. Based on the findings, the study concluded that undergraduate students' access to and use of OPAC was high in the university libraries. The study recommended that the university library management should provide more computers in*

the OPAC workstations, reliable Internet connectivity to access OPAC online, open access to OPAC workstations and *orientation on the use of an online public access catalogue and advanced search strategies, should be done at regular intervals.*

Keywords: *Information Retrieval, Information Retrieval skills, Online Public Access Catalogue, Kaduna State, Undergraduate Students, University Libraries*

Introduction

Information retrieval skills on the use of online public access catalogue are very crucial in this information explosion era, where information users, especially students rely on electronic sources to retrieve information from information resources to satisfy their research needs. Students' efforts to successfully retrieve information relevant to their needs may be limited due to a lack of skills, therefore students with informational retrieval skills should be able to recognize information needed for learning, research and distinct ways of addressing the gap and locating information stored in electronic databases. So there is a need to provide more effective software that will assist the patrons of the library in accessing what resources a library holds. As such it resulted in the integration of an online public access catalogue (OPAC) into library operation. An online public access catalogue is a device of a change in today's libraries as it helps users search for library resources and find out the availability of such documents in the library at a given point in time, it also allows users to search for a document using authors, titles, subject and keywords indexes from a terminal and also allows printing, downloading or exporting records via different electronics means ***(Swaminathan, 2017***).

On the other hand, Msagati (2016) described an online public access catalogue (OPAC) as an information retrieval system composed of a database of detailed bibliographic records describing the collections owned by a library or library system, online public access catalogue is accessible online regardless of geographical location making it convenient for remote users or via work stations usually concentrated near the library reference desk to make it easy for a user to request the assistance of a trained reference librarian. The university library, which is commonly referred to as the nerve centre of the university is primarily set up for the achievement of the university's set goals and objectives by providing information materials and services that satisfy the information needs of the entire university community, apart from the fact that university library provides needed information sources and reading materials, at the same time promote teaching, learning and research functions through other various means such as loan services, interlibrary lending services and selective dissemination of information

(Ukachi, 2013). On this note, an online public access catalogue is an important library retrieval tool that is critical to the effective and efficient functioning of the university library. Undergraduates' ability to effectively use the online public access catalogue would aid in retrieving relevant information resources for academic purposes and self-enhancement. These information resources in Nigerian university libraries are stored in the library in electronic format and printed format, however, the Undergraduates students' use of these resources may be very difficult, this has to the application of online public access catalogue in library operation.

The online public access catalogue has indeed become more important for library users in accessing up-to-date collections of libraries at the right time and in the right form. Thus, the main objective of this study is to investigate whether undergraduates' use of online public access catalogue would determine their use of university library information resources. University libraries in Kaduna State, Nigeria have invested in acquiring and installing online public access catalogues (OPACs) to meet up with the global best practices and standards. In Kaduna state Nigeria, university libraries have adopted online public access catalogue to improve services to their patrons. Regrettably, personal observation during a preliminary visit and the study by David-West (2020) revealed that the use of online public access catalogue was very low by undergraduate students. Another study by Tyopev, Igbudu and Ver (2020) revealed that there was low usage of online public access catalogue by undergraduate students in university libraries. It is on this basis that the study set out to examine the Information retrieval skills of undergraduate students on the use of online public access catalogue in university libraries in Kaduna State, Nigeria.

Research Objectives

The objectives of the study were to:

1. Identify the information retrieval skills strategies used on online public access catalogue by undergraduate students in the university libraries in Kaduna State.
2. Find out if undergraduate students have access to an online public access catalogue in the university libraries in Kaduna State.
3. Identify the level of **undergraduate** students' use of **the online public access catalogue in** the university libraries in Kaduna State.
4. Determine the challenges encountered by undergraduate students in the use of online public access catalogue in the university libraries in Kaduna State.

Review of Related Literature

Generally, **information** retrieval skill is the skill that will enable users to identify and retrieve quality information to satisfy their information needs (Anyaoku, Ezeani and Osuigwe, 2015). While Sejane (2017) asserted that students' information retrieval skill is necessary for retrieving relevant and up-to-date information. Thus Boakye (2015) indicated that information retrieval skills are the skills needed by a student to attain the ability to look for information in such a way that non-relevant data (noise) are excluded, while relevant information is needed. The online public access catalogue has brought a changing relationship between libraries and their users in the changing ICT environment, The library online public access catalogue first emerged in the late 1970s and by the early 1980s and has gone through several cycles of change and development all geared towards improvement. The library's online public access catalogue is an automated catalogue system that was developed as an information retrieval tool to locate information resources that had been acquired and stored by the library itself (Ogbole and Morayo 2017). *On the other hand, Swaminathan (2017)* defined Online Public Access Catalogues as one of the technologies that facilitate access to any of the information items in the library. According, Kumar (2017) ascertained that online public access catalogues provide the facilities for readers to search with different types of strategies like a simple search, Boolean search and advanced search of a document quickly and easily.

In a study conducted by Kumar (2017) on 180 mathematics students, 132 English students and 244 commerce students on how they access online public access catalogue, the finding showed that 96(53.33%) out of 180 mathematics students, 96(72.73%) out of 132 of English students and 155(63.52%) out of 244 of commerce students access online public access catalogue 'through library kiosks'. while 66(36.67%) mathematics students, 30(22.73%) English students and 77(31.56%) commerce students' access through 'kiosks and mobile phones'. A**ccordingly,** Ogbole and Morayo (2017) study on the frequency of use of online public access catalogue showed that 22 (10.5%) of the respondents use online public access catalogue daily, 33 (15.8%) of the respondents use online public access catalogue once in two weeks, 45 (21.5%) use online public access catalogue once in a month.

While **Kumar and Singh (2017)** study of the frequency of use of online public access catalogue by users showed that 71(39.0%) of the users use online public access catalogue daily, followed by 69(37.9%) of the users use online public access catalogue twice or more in a week and 22(12.1%) of users use online public access catalogue weekly. Accordingly, Rout and Panigrahi (2018) study showed that more than half of the respondents 147(54.24%) use online public access catalogue

when necessary, 58(21.40%) respondents use online public access catalogue rarely, 29(10.70%) respondents using online public access catalogue once a week whereas 22(8.12%) users using online public access catalogue more than once a week and 15(5.54%) respondents using daily. The usage rate is quite low among the library users of Odisha. For instance, Fati and Adetimirin (2017) study shows that OAU 35 (16.2 %) of the respondents had a high level of online public access catalogue use and 55(25.5%) of the respondents had a low level of online public access catalogue use. While UNILAG 37 (19.2%) of the respondents had a high level of online public access catalogue use and 49(25.5%) of the respondents had a low level of online public access catalogue use. The level of online public access catalogue use by undergraduates in the two universities was extremely low since a greater percentage of the respondents did not take advantage of their library online public access catalogue at all, despite their high computer literacy level.

Therefore, Siddagangaiah and Muthuraja (2017) study revealed that less than half of 30 (33.34%) rarely use the library's online public access catalogue followed by 26 (28.89%) weekly, 22 (24.44%) of the users twice or more in a week, and the least 12 (13.33%) daily. Therefore, it showed that more users use the library's online public access catalogue. In another view, Aneesh, Jayakrishnan and Joseph (2018) study shows that the majority of the respondents 165(76.4%) are satisfied with the online public access catalogue /web OPAC provided by the college library. A study conducted by Nwobu, Oyewole and Apotiade (2016) study showed that the students accessed online public access catalogue through various access points. However, the most used access point by the respondents was the title of publications as noted by more than half 125 (61.6%), while the second most used access point was through the names of authors of publications as noted by 114 (56.1%) as access points to retrieve information resources from the online public access catalogue (OPAC).

On the other hand, Kumar (2019) stated that users are using a different strategy to search for online public access catalogue in the university libraries of Maharishi Dayanand University, Rohtak and Central University of Haryana, Mahendergarh. At Maharishi Dayanand University, Rohtak users used simple search methods and advanced search methods, whereas, at the Central University of Haryana, Mahendergarh users also used simple search methods and advanced search methods. Although Rout and Panigrahi (2018) study showed that more than half 171(63.24%) of users are searching for information from online public access catalogue by the author whereas 156(57.62%) prefer title search, while 102(37.76%) users use subject to search, 83(30.86%) using keyword search and

80(29.58%) prefer publisher search, it is also found that searching option place of publication is used by very few numbers of users. In a study conducted by, Kumar (2017) the findings showed that the most popular search approaches used by students in the use of online public access catalogue are the title search followed by the author search and search through the subject. Most of the respondents preferred to search online public access catalogue to get the information resources from a library by using the author and title respectively.

Research Methodology

The survey research design was adopted for this study. A survey is the most appropriate design that can generate a great amount of quantitative data from a large number of respondents by collecting the views of as many people as possible. **A simple** sampling technique was adopted to sample the target population of level 400 undergraduate students with a target population of 14,271 in the universities, Kaduna State and taking the confidence interval of 95% with a margin error of 5% as recommended by a research adviser (2006). The respondents' table recommended 370 sample sizes which were selected at random from the target population. The questionnaire was administered by the researcher and with the help of a research assistant from each of the university libraries studied, retrieved from the respondents 318 copies of the questionnaire by the researcher and with the help of research assistants from each of the university libraries studied. The questionnaire was the only instrument used by the researcher in the form of questions that were administered to the respondents. The study used descriptive statistical tools to analyze the primary data obtained from the respondents; the data collected was analyzed in frequency and percentage counts.

Data Analysis

Table 1: Information Retrieval Skills Strategies Use on Online Public Access Catalogue

Table 1 revealed that more than half 205(64.5%) of the respondents indicated that they used the author's name in the search for library materials. This was followed by title 199(62.6%) and by subject 175(55.0%), while the least search strategy used to search for library materials by the respondents was by wildcards 47(14.8%) and 45(14.2%) by truncation. This showed that more than half of the students were more aware of simple search strategies to search for information than advanced search strategies. The study is in line with Asokan and Dhanavandan (2015) who stated that the majority of the respondents used the author as a search strategy to search for information followed by a title search, the type of search used to get the information from a library by author and the title was in the first and second position respectively.

Statements	**Frequency/Percentage (%)**		**Total**
	Yes	**No**	
By author name	205 (64.5%)	113(35.5%)	318(100%)
By title	199 (62.6%)	119(37.4%)	318(100%)
By call number	112(35.2%)	206(64.8%)	318(100%)
By Subject	175(55.0%)	143(45.0%)	318(100%)
By accession number	91 (28.6%)	227(71.4%)	318(100%)
By Boolean operators	50 (15.7%)	268(84.3%)	318(100%)
By phrase	63(19.8%)	255(80.2%)	318(100%)
By truncation	45 (14.2%)	273(85.8%)	318(100%)
By wildcards	47(14.8%)	271(85.2%)	318(100%)

Table 2: Access to Online Public Access Catalogue

Statements	**Frequency**	**Percentage (%)**
Yes	299	80.8%
No	19	19.2%
Total	**318**	**100%**

Table 2 showed that the majority of 299 (80.8%) of the respondents had access to **an online public access catalogue** in their university library. 19 (19.2%) indicated that they had no access to **an online public access catalogue** in their university library. The study showed that the majority of the respondents had access to **an online public access catalogue** in their university library. This implied that the university libraries studied had made a lot in creating awareness of the **online public access catalogue through** library orientation and other training programmes for the students. The study was contrary to the study carried out by Shorunke, Eluwole and Gbenu (2014) which indicated that there was a lack of remote access to the OPAC. The study is in line with the finding of

Narayanaswamy **(**2019) which indicated that the majority of the respondents access Web OPAC from remote areas.

Table 3: Use of Online Public Access Catalogue

Statements	Frequency	Percentage (%)
Yes	276	86.8%
No	42	13.2%
Total	**318**	**100%**

Table 3 showed that the majority 276 (86.8%) of the respondents had used online public access catalogue in their university libraries. Only 42(13.2%) indicated that they had not used the online public access catalogue in their university library. The study showed that the majority of the respondents had used the online public access catalogue in their university library; this implies that the university libraries studied had made a lot in providing access to the online public access catalogue through the provision of computers in the OPAC workstation for use by the students. The study is contrary to Chewe and Chitumbo (2018) study which stated that the majority of respondents did not use OPAC, while only a few respondents used OPAC to retrieve library materials.

Table 4: Frequency of Use of Online Public Access Catalogue

Statements	Frequency	Percentage (%)
Daily	43	13.5%
Twice a Week	61	19.2%
Weekly	58	18.2%
Monthly	137	43.1%
Bi-Annually	19	6.0%
Total	**318**	**100.0%**

Table 4 showed that less than half 137 (43.1%) of the respondents used the **OPAC monthly.** This was followed by 61(19.2%) who used the **OPAC twice a week and** 58(18.2%) of the respondents who used the **OPAC** weekly. While the least 19(6.0%) used the **OPAC Bi-Annually.** The frequency of use of online public access catalogue by undergraduate students of the university in Kaduna State Nigeria showed that less than half of the respondents used the **OPAC monthly.** This was followed by those who used the **OPAC twice a week and** the respondents who used the **OPAC** weekly. **This mirrors that more than half of the students in the Universities** studied **used the OPAC** frequently due to the availability of OPAC in the library**.** The study is contrary to **Kumar and Singh**

(2017) study that showed that the majority of respondents used the online public access catalogue daily, followed by those who used the online public access catalogue twice or more in a week and those who used it weekly. **It** was also contrary to **Narayanaswamy** (2019) study which indicated that the respondents were using OPAC daily; this was followed by the respondents who used the **OPAC** when they needed, once a week, monthly and occasionally.

Table 5: Level of Satisfaction with the Use of OPAC

Level of Satisfaction	Frequency	Percentage (%)
Very Satisfied	49	15.4%
Satisfied	119	37.4%
Fairly Satisfied	92	29.0%
Dissatisfied	31	9.7%
Strongly Dissatisfied	27	8.5%
Total	**318**	**100%**

Table 5 showed that less than half 119(37.4%) of the respondents indicated that they were satisfied with using **the online public access catalogue. This was followed by** 92(29.0%) who were fairly satisfied with using **online public access catalogue, while the least** 27(8.5%) of the respondents were strongly dissatisfied with using **online public access catalogue in the library.** The study showed that less than half of the respondents indicated that they were satisfied with using **an online public access catalogue. This was followed by those** who were fairly satisfied using **the online public access catalogue.** This implied that more than half of the students in the universities studied who used OPAC were satisfied with it**., It was in line with** Thanuskodi (2012) study which showed that one-fifth of the users were fully satisfied with OPAC use, almost half of the respondents were satisfied with OPAC use, one-third of the respondents were moderately satisfied with OPAC use, Only a few were dissatisfied and very dissatisfied with OPAC use.

Table 6: Challenges Encountered in the Use of Online Public Access Catalogue

Statements	Frequency/Percentage(%)		Total
	Yes	No	
Lack of a sufficient number of Computers	283(89.0%)	35(11.0%)	318(100%)
Lack of guidance/orientation from library staff on the use of the Online Public Access Catalogue	223(70.1%)	95(29.9%)	318(100%)
Poor internet connectivity to access OPAC online	267(84.0%)	51(16.0%)	318(100%)
Computer systems are not near the stack area	81(25.5%)	237(74.5%)	318(100%)
Inadequate power supply	125(39.3%)	193(60.7%)	318(100%)
The software is not users friendly	82(25.8%)	236(74.2%)	318(100%)
Difficult to use the user's interface	117(36.8%)	201(63.2%)	318(100%)
Irrelevant search result	37(11.6%)	281(88.4%)	318(100%)
Access was password-protected	261(82.1%)	57(17.9%)	318(100%)

Table 6 showed that the majority of 283(89.0%) of the respondents indicated **that** the lack of a sufficient number of computers was the challenge encountered when using the online public access catalogue. This was followed by 267(84.0%) with poor Internet connectivity to access OPAC online. Also, 261(82.1%) of the respondents indicated **that** access was password protected and 223(70.1%) lacked guidance/orientation from library staff on the use of the online public access catalogue. This showed that the majority of the students under study had challenges in using the online public access catalogue, particularly the lack of a sufficient number of computers, poor internet connectivity to access OPAC online, access was password protected and lack of guidance/orientation from library staff on the use of online public access catalogue.

This reaffirmed the findings of Adenike and Akin (2014) study which revealed that the constraints Students had in using the online public access catalogue were that the computer systems were not enough, no library staff to assist them when they ran into difficulty and no prior orientation before using it. It was in line with **Narayanaswamy** (2019) study that a lack of orientation, with books not in the proper place, followed by a lack of skilled library professionals to assist, a lack of time to retrieve the enormous information and a lack of expertise in search.

Conclusion

The study established that undergraduate students had access to the online public access catalogue and used the online public access catalogue in the university libraries in Kaduna state. The use of the online public access catalogue enabled them to access information collections in the libraries. The study further established that they had challenges in the use of the online public access catalogue, particularly lacked a sufficient number of computers in the OPAC workstation, poor internet connectivity to access OPAC online, access was password protected and lacked guidance/orientation from the library staff on the use of online public access catalogue. It concluded that these challenges encountered by undergraduate students had limited the access and use of OPAC.

Recommendations

Consequently, on the findings of the study and the conclusion drawn from the findings, the following recommendations were raised.

1. The university library management should provide more computers in the OPAC workstations.
2. The university library management should provide reliable Internet connectivity to access OPAC online.
3. The university library management should provide open access to OPAC workstations.
4. The university library management should conduct orientation on the use of an online public access catalogue and advanced search strategies, should be done at regular intervals.

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