

**EXPLORING THE EFFECTIVENESS OF ONLINE PUBLIC ACCESS
CATALOGUE IN ENHANCING INFORMATION RETRIEVAL
IN NNAMDI AZIKIWE LIBRARY, UNIVERSITY
OF NIGERIA NSUKKA.**

BY

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Abstract

The study explored the effectiveness of Online Public Access Catalogue (OPAC) in enhancing information retrieval in Nnamdi Azikiwe Library (NAL), University of Nigeria Nsukka (UNN). It ascertained whether OPAC in NAL is meeting the expectations of users in terms of facilitating effective information retrieval and access to the library resources. Three research questions guided the study. The study uses a descriptive survey research design. A total of seven hundred and seventy-four (774) users formed the population of the study. This population cut across all levels and modes of study in the university. The data for the research was gathered using questionnaire which was generated in line with the research objectives and distributed among the students. The collected data were analysed using frequency and percentage. From the analysis, the findings revealed that good number of users believe that there is lack of awareness of the advantages of OPAC over traditional catalogue system, and there is lack of information search skills that affect the ability to use OPAC. The users were also challenged by limited access to internet network of which without it, OPAC use will not be efficiently utilized. Based on the findings, the study recommended that the library should increase the awareness of OPAC services among the university community. It also recommended that the librarians should always be available to assist user on how to use the library OPAC.

Keywords: OPAC, Library catalogue, information resources, Information retrieval, University library.

Introduction:

The university library is characterised with its ability to provide information materials to support teaching, learning and research of its institution. It is charged with the responsibilities of acquiring, processing, organizing, storing, preserving and disseminating information resources to users on request. Collections in the library are documents like books, thesis, manuscripts, periodicals, pamphlets, maps, motion pictures, tapes and other printed and non-printed materials. With its vast collection, it can be well imagined what will become of the documents if they are not systematically organized. This is the reason why the library has a library catalogue. The library catalogue acts as the index to the library collections. Without this catalogue, it would be difficult for the library staff and library users to use the library resources. The catalogue, therefore, provide a retrieval system which enables the retrieval to the vast collections of the library either by subject, author, title or any other attribute to such materials.

The introduction of Information and Communication Technologies (ICTs) into the library system has impacted the library operations. The greatest of it all is the automation of the library catalogue. This automation gave rise to the Online Public Access Catalogue (OPAC). According to Ekeh and Atandah (2021) OPAC is a computerized form of library catalogue which is available online and has made searching and retrieval of bibliographic records easier and faster. It is also considered as one of the technologies which has changed the way in which libraries and information centres serve their users as well as how users access and retrieve information resources (Swaminathan, 2017). Hence, OPAC can be used as means of

getting access to library collection that are not only online but also those that are physically on the shelves.

The history of OPAC dates back to the 1970s. According to Sridhar cited by Gana, Ajibili and Dare (2019), the first generation of OPAC was developed with a model to emulate the card catalogue approach. However, it encountered challenges due to its inability to specify authority control over name and subject headings, lack of types of materials, portion of books and information about utility and availability of books. In the 2000s, the second generation of OPAC was developed. This model came with improved features such as remote access, varieties of search features, display and user interface, email delivery, holdings of other libraries, current awareness services, circulation information as well as ordering and processing of files. In other words, this model of library OPAC as an automated catalogue system was developed as a tool to locate those information resources that had been acquired and stored by the library itself (Ogbole & Morayo, 2017).

Based on its general acceptance, the OPAC is considered as the most modern form of information retrieval tool. This is due to the fact that it has successfully broken the physical boundaries of the library and is helping library users in accessing and retrieving library resources efficiently and effectively. According to Gohain and Saikia (2013), OPAC has become a database of bibliographic records describing the holdings of the library and allowing users to search a document by authors, title, subject and keywords from a terminal and also allows printing, downloading, or exporting records via different electronic means. Also, Edeka cited in Atanda and Ugwulebo (2017) affirms that OPAC appear to be the most extensively used tools for information search and retrieval, because of its bibliographic details and its reliance in quick access to usage.

Information retrieval is the process of searching. According to Tofi, et al (2021), information retrieval is the process of retrieving documents from a collection in response to a query (or search request). As the name implies, Information retrieval indicates that there are some documents or records containing information that have been organized in an order suitable for easy retrieval and as such there is need for a retrieval system. OPAC as an information retrieval tool, aids in location, access and retrieval of document from its storage system. According to Fabunmi and Asubiojo in Eserada and Okolo (2019) OPAC is an interface of information retrieval system which assists information searchers to access resources of libraries using several access points. Similarly, Ukpebor in Igere (2022), states that OPAC provides wider access since users can retrieve information from any participating library or even search online from their home computer. Therefore, retrieval of information resources in this study means having access and effectively locating a given information resources in the university library.

As a store house of knowledge, effective utilization of its resources is paramount for any library. This is the reason why information retrieval continues to be an important issue for university libraries. According to Yusuf (2012), some strategies are necessary for enhancing utilization of OPAC in libraries. In his recommendations, he stated that: the library should update entries in OPAC from time to time; library orientation should be prioritizing in the schools, also, that OPAC should be place closer to the reading areas. Similarly, Ogbole and Morayo (2017) also gives suggestions on improving OPAC provision and sustainable use to include: constant electricity power supply in libraries, train library staff and students; adequate funding of university libraries to sustain OPAC, increase number of computers in university library, OPAC should be designed like Google, maintaining and sustaining

technologies in libraries, as well as conducting of usability testing on OPAC on continuous basis. Therefore, it is imperative for university libraries to always evaluate the effectiveness of OPAC so as to get a realistic picture of its performance while also seeking measures for its improvement (Onuoha, Umahi & Bamidele, 2013)

Nnamdi Azikiwe Library (NAL), University of Nigeria, Nsukka, with its rich collections, has in the past adopted different cataloguing practices to ensure effective retrieval of its resources. The card catalogue and book catalogue were the retrieval tools which the library provided for accessing their resources. However, with the advance in technology and the age of digitalization, the manual catalogues were viewed as slow and inefficient retrieval tool that lacks the capacity to ensure retrieval and access to library resources. Consequently, as the library moved to her newly completed ultra-modern building in 2009, it acquired Koha open-source library software, which was used to convert the already existing library catalogue to automated format. This practice brought about the suspension of the production of card catalogue and the adoption of Online Public Access Catalogue (OPAC). The library OPAC was therefore, designed to be an effective retrieval tool for improved retrieval of information resources. This study is hence, designed to explore the effectiveness of the OPAC in enhancing information retrieval as against the manual catalogue which was believed to be ineffective.

Statement of problem

Access and retrieval of information has been a major cause of concern in all libraries. With the enormous growth of digital content and advent of web search engines, the library has continued to experience underutilization of the library resources. It is observed that this

advance in technology has drastically changed the searching behaviour of library users which in turn affects their retrieval strategy. Nowadays, users prefer Google searching, ChatGPT. instead of OPAC

Nnamdi Azikiwe Library at the University of Nigeria, Nsukka (UNN) is known for its rich collection of books, journals, multimedia materials, and digital resources. The library serves as a vital resource hub for students, faculty, researchers, and other community members. The need to continuously meet up with the users' demands has prompted the library to automate its cataloguing system and make available an Online Public Access Catalogue (OPAC) for its users. Despite the perceived benefits of use of OPAC in the University library, it has been observed that the library users who patronize the library do not make effective use of the OPAC. Also, literature reveals that even with the use of the OPAC, information retrieval still proves to be problematic and results are not always satisfactory. Where such is the case, users would spend more than the time required in searching for information materials and end up not getting what they want, even when such materials exist in the library's collections

Therefore, this study aims to ascertain whether OPAC in NAL is meeting the expectations of users in terms of facilitating efficient information retrieval and access to the library resources.

Purpose of study

The general purpose of this research is to investigate the effectiveness of OPAC in enhancing information retrieval in Nnamdi Azikiwe University, UNN. However, the following purpose will guide the study.

1. To find out how users perceive the usability of the library's OPAC.

2. To ascertain the importance of the OPAC on the effectiveness of information retrieval by library patrons.
3. To find out the challenges faced by library users in utilizing the OPAC for information retrieval.

Literature Review

The library catalogue is an important retrieval tool designed for library users to use in acquainting themselves with the materials in the library. The automated library system has brought enormous changes in library practices especially in complementing the traditional card catalogue with computerized system. According to Kumar and Vohra (2017), 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. Hence, the Online Public Access Catalogue (OPAC) in academic libraries therefore, is to empower library users to be able to use the library independently and effectively without barriers.

To enhance effective use of OPAC, the first thing is to increase the awareness of the availability of the OPAC. In confirmation, Ruzegea (2012) asserted that awareness of OPAC is a first step to increase usage of library educational resources to aid students in their learning process. Also, Ferdinand (2020) highlights that, there is a significant relationship between awareness and usage of OPAC and that the more the awareness of OPAC the more the increase in its usage. In support of this, the study conducted by Yusuf (2012) reported that the majority of students were aware of OPAC, and hence they used OPAC to satisfy their information need. Similarly, Katabalwa and Mnzava (2020) study on usage of Online Public

Access Catalogue (OPAC) by undergraduate students at Sokoine University of Agriculture, revealed that majority of respondents were aware of OPAC. The respondents used OPAC for various reasons including knowing the library materials available in the collection for a short time, locating library materials, and knowing the status of books.

However, a study conducted by Umar, Abareh and Basaka (2017) on awareness and utilization of library online 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. Again, Makun, Danjuma and Abel (2019) in a similar study, explored awareness and use of online public access catalogue by patrons of Bingham University Library, Karu, Nassarawa State, Nigeria. The findings revealed that most of the respondents - 124 (37.2%) - were aware of the OPAC to a very little extent, while 133 (39.9) were not aware of the OPAC services at all, they preferred to physically browse through the library shelves.

Considering the utilization of OPAC by library users, Ekeh and Atanda (2021) carried out a study on utilization of OPAC among library users in some selected tertiary institutions in Lagos state, the findings showed that OPAC usage rate is quite low among the library users. This could be as a result of the fact that most library users are unaware of all the facility available in the OPAC and encounter problem while searching. Likewise, Otuyalo and Babalola (2021) explored the usability and use of Koha OPAC by students in Polytechnic libraries in South-West, Nigeria. The use of OPAC and the usability of OPAC were average indicating that its use was not yet optimized among the students. Also, Eserada and Okolo

(2019) study on the use of OPAC in selected university libraries in south- south Nigeria shows that Students' use of OPAC in university libraries in South-South Nigeria is low.

On perceived effect of OPAC in retrieval of information resources in the library, a study by Tofi, et al (2020) investigated the perceived impact of OPAC on effective retrieval of information resources by postgraduate students in Benue State University, Makurdi. The findings show that there is a high perceived impact of OPAC on effective retrieval of information resources by postgraduate students in Benue State University, Makurdi. The OPAC is used for various purposes such as to know the available resources in the university library, to locate books by author, title and subject, assists in obtaining books from the university library, among others. 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. The study, which was on Faculty member's awareness and use of Online Public Access Catalogue (OPAC) services at Babcock University, Nigeria revealed that majority of respondents (71.4%) were not aware that OPAC can be used to facilitate retrieval of library information resources and thus only (26%) of the respondents used OPAC independently to retrieve library information resources.

On a similar note, Igere (2022) explored Information retrieval: role of OPAC in the utilization of library resources by students in university libraries. The study compared the role of OPAC in the utilization of library resources by students in two Universities which are known to have applied an e-library protocol. It was observed that 33.5% of the respondents utilize the OPAC as a library resource. This is an indication that although OPAC possess

numerous advantages, the students/respondents have not been able to harness such for useful academic need. It also reveals that OPAC is used to locate required documents in University of Benin, while in Benson Idahosa University, majority of the students browse through the shelves for documents.

Based on the literatures reviewed, it is evident that many library users are not aware of the various benefits in the use of OPAC. A low means of document location in the library in this technological age is an indication that users do not use the OPAC as a reference point for the retrieval of information. For this reason, this study tends to explore the effectiveness of Online Public Access Catalogue (OPAC) in enhancing information retrieval among the library users in the University of Nigeria Nsukka, having observed that no known study has been done in that aspect.

Methodology

This study explores the effectiveness of Online Public Access Catalogue (OPAC) in enhancing information retrieval among registered users of the library. The study uses a descriptive survey research design. It also used simple random sampling technique for the collection of data. The total population of registered users of the library is 15,483 users, 5% of the population is used as the sample size. This is in line with Mole (2019), he stated that for a population that runs in several thousands, 5% - 14% samples should be drawn. The data for the research was collected through use of a questionnaire which was generated in line with the research objectives and distributed among the students. A total of seven hundred and seventy-four (774) users formed the population of the study. This population cut across all levels and modes of study in the university. The questionnaires were shared, seven hundred

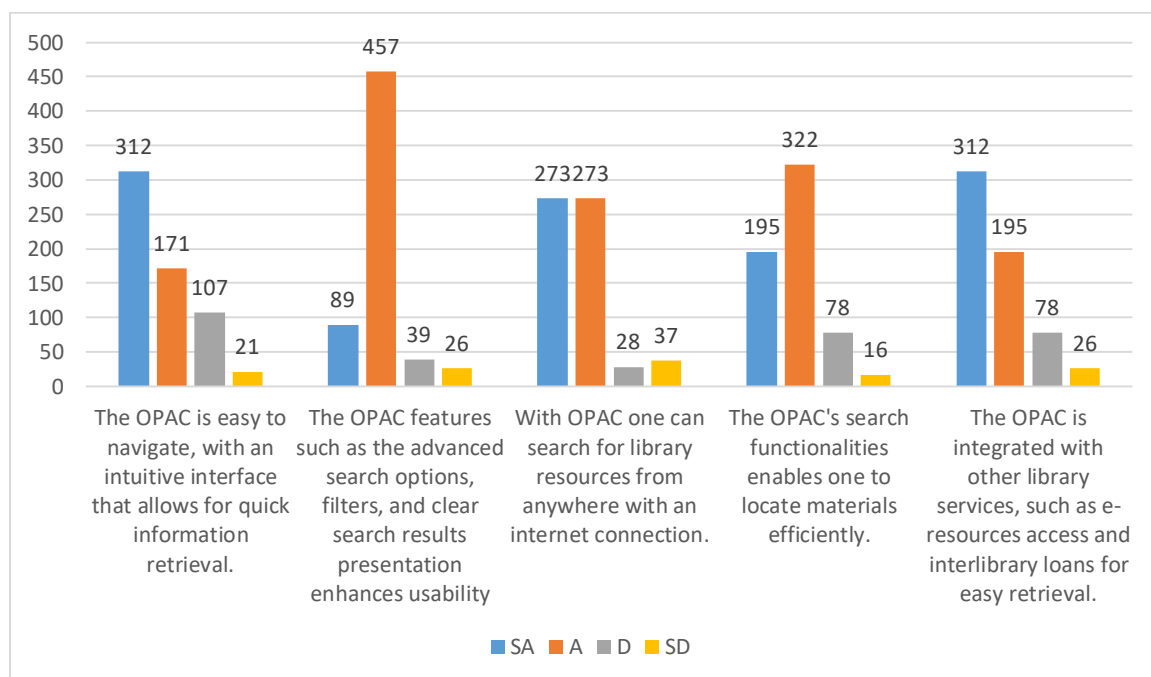
and fifty-seven (757) were collected, however, a total of six hundred and eleven (611) which is more than 40% of the population were considered useful and were analysed.

Data analysis and presentation

The data analysis and presentation were done in line with the research questions. The data were analysed using frequency and presented in charts.

Research question 1: How do users perceive the usability of the library’s OPAC?

Chart 1



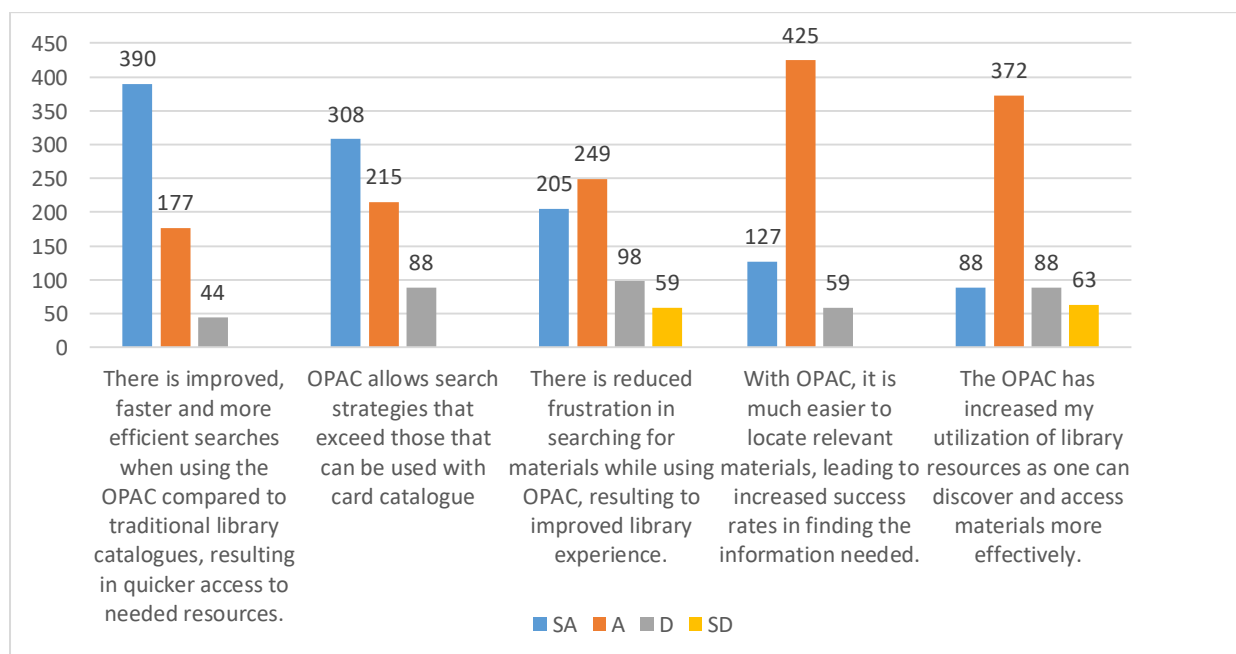
The respondents were asked their perceived usability of the library OPAC as regards to retrieval of information. The questions were asked in the areas of interface navigation, clear result presentation, accessibility and its integration to other services. The responses received show that 546 out of 611 respondents agree that with the internet, one can access the OPAC

anywhere. 517 responses also agreed that OPAC search functionality enables one to located materials efficiently and 507 agrees that the OPAC is integrated with other library services. However, 128 responses do not agree that OPAC is easy to navigate. 65 respondents disagree that OPAC features enhance usability. The positive responses here I believe is as a result of the general knowledge of OPAC as it relates to internet search. There is a general perception shows that OPAC influences retrieval of information resources positively.

This is in line with Vohra (2017), Ukpebor in Igere (2022), who are of the opinion that OPAC provides wider access since users can retrieve information from any participating library or even search online from their home computer.

Research question 2: What is the impact of the OPAC on the effectiveness of information retrieval by library patrons?

Chart 2

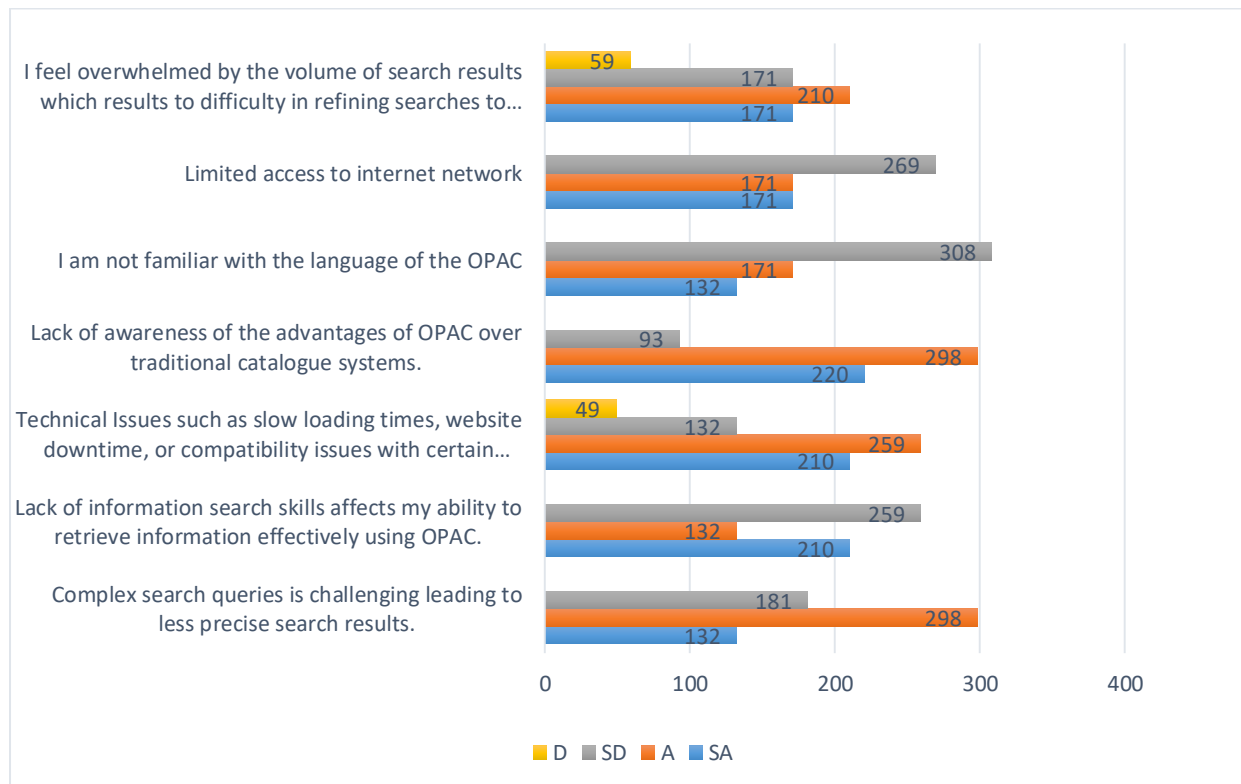


In chart 2 above, the respondents were asked the impact of the OPAC on the efficiency and effectiveness of information retrieval. The responses provided shows that the respondents agree that the OPAC improved searches when compared to traditional catalogue, OPAC reduces frustration in searching for materials and ensures utilization of library resources. With the cumulative sum of 523 out of 611 responses, the respondents affirm that OPAC allows search strategies that exceed those that can be used with card catalogue. Also, with the cumulative sum of 552 the respondents agree that OPAC makes it easier to locate materials leading to increased success rate in finding the information needed. However, 151 responses do not agree that OPAC increases their utilization of library resources also, 44 responses do not agree that OPAC is more efficient when compared to the card catalogue. The positive responses show that the OPAC has great impact on effectiveness of information retrieval in the library.

This finding confirms the study of Tofi, et al (2020) who affirmed that there is a high perceived impact of OPAC on effective retrieval of information resources by postgraduate students in Benue State University, Makurdi. The study shows that the OPAC is used for various purposes such as to know the available resources in the university library, to locate books by author, title and subject, assists in obtaining books from the university library, among others.

Research question 3: What are the challenges faced by library users in utilizing the OPAC for information retrieval?

Chart 3



The chart 3 above provides responses on the challenges faced by library users in utilizing the OPAC for information retrieval. 381 out of 611 respondents feel overwhelmed by the volume of search results from OPAC and 342 responses agree that there is limited access to the internet. On the other hand, 93 respondents disagree that they lack awareness of the advantages of OPAC over traditional catalogue system, meaning that there is a strong knowledge of the benefits of OPAC over card catalogue among the library users.

This finding, therefore, is not in line with the findings of Abareh and Basaka (2017) and Makun, et al (2019) who in their studies, discovered that there is little or no knowledge of OPAC among their respondents. Hence, Ruzgea (2012) asserted that awareness of OPAC is

a first step to increase usage of library educational resources to aid students in their learning process.

To enhance the effectiveness of OPAC in information retrieval, Ogbole & Morayo (2017) suggested the following strategies: provision of constant electricity power supply in libraries, conducting usability testing of OPAC on continuous basis, OPAC to be designed like Google to have user friendly template etc. In a similar vein, Tofi, et al (2020) highlighted the following strategies: employment of skilled/competent library staff to assist users, adequately training of students to make maximum use of OPAC; organizing user education programme to orientate the students on OPAC use; improvement of internet connectivity speed and wide publicity on OPAC to create awareness for its use.

Conclusion

The study was carried out to evaluate the effectiveness of Online Public Access Catalogue (OPAC) in enhancing information retrieval in Nnamdi Azikiwe Library, UNN. From the findings, the study revealed that OPAC is easy to navigate, it can search library resources from anywhere with internet connection and the clear search results enhance usability. The study also shows that the OPAC is integrated with other library services such as the e-resources for easy retrieval. The most significant way the OPAC has benefited the users is that there is improved and efficient search result when compared to the traditional library catalogue. For this reason, there is reduced frustration in searching for materials while using OPAC. Also, OPAC makes it easier to locate relevant materials leading to increased utilization of library resources.

However, some users feel overwhelmed by the volume of search results displayed with OPAC, a good number of them feel unfamiliar with the language of OPAC and most of them

experience technical issues such as slow loading, website downtime, etc. In a similar vein, a good number of users believes that there is lack of awareness of the advantages of OPAC over traditional catalogue system, and there is lack of information search skills that affect the ability to use OPAC. The users were also challenged by limited access to internet network of which without it, OPAC use will not be efficiently utilized.

Recommendations.

Based on the findings of the study, the following recommendation were made:

- That the library should increase the awareness of OPAC services among the university community. This can be done by printing instructions or guide on OPAC use. This guide can be in the form of a flyer or a post aimed to create awareness of OPAC.
- That the education on the use and importance of OPAC should be consistent and not a one-time activity. Faculty/departmental based orientation exercises can be organised to root the OPAC awareness.
- That the librarians should always be available to assist user on how to use the library OPAC. A trained librarian should be assigned the responsibility of assisting users on the issue of OPAC use. Students Assistants can also be recruited and trained to assisted where necessary in the area of OPAC especially in places where Library staff may not be accessible like in the classrooms and hostels.

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