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CATALOGUERS' COMPETENCIES FOR EFFECTIVE PROVISION OF ONLINE PUBLIC ACCESS CATALOGUE IN TERTIARY INSTITUTIONS IN IMO STATE, NIGERIA

BY

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Abstract

Purpose: *The researcher explored cataloguers' competencies for effective provision of Online Public Access Catalogue in tertiary institutions in Imo State. Two research questions were asked and answered while two corresponding hypotheses were formulated and tested at 0.05 level of significance.*

Methodology/Design*: The study adopted a descriptive survey research design. The population of the study comprises 1,316 professional librarians and library staff in the 11 tertiary institutions in Imo State. A sample size of 132 respondents, representing approximately 10% of the total population, was adopted for the study using purposive sampling technique. A researcher-constructed rating scale titled "Cataloguers' Competencies for Effective Provision of Online Public Access Catalogue Rating Scale" (CCEOPACRS) which contained 20 items was used for data collection. The instrument was subjected to face and content validation by three experts. A reliability coefficient of 0.79 was obtained using Cronbach alpha statistics. The research questions were answered using mean and standard deviation while sample t-test was used to test the hypotheses at 0.05 level of significance.*

Findings*: The result revealed that the level of cataloguers' technical competency and information retrieval competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State is high and significant. It was concluded that that cataloguers' competencies are fundamental to sustaining efficient and user-oriented OPAC services in tertiary institutions in Imo State.*

Implications*: Based on the findings of this study, it was recommended among others that tertiary institution library management should organize regular practical training and professional development programmes on automated cataloguing, MARC21, integrated library management systems, and basic OPAC troubleshooting to strengthen cataloguers' technical competencies.*

Originality/Value*: This paper has not been submitted elsewhere for publication.*

Keywords: *Cataloguers, Competencies, Online Public Access Catalogue, and Tertiary institutions.*

Introduction

The increasing application of information and communication technologies in libraries has transformed the ways in which information resources are acquired, organised, stored, accessed and retrieved in tertiary institutions. Academic libraries are expected to provide efficient and timely information services that support teaching, learning, research and other scholarly activities. Consequently, many libraries have moved from predominantly manual systems towards automated information services that enable users to

access and interact with library resources electronically. This transformation has also changed the nature of professional responsibilities within libraries, particularly in technical services where information resources are organised and prepared for discovery. The development of automated library systems has made electronic cataloguing an increasingly important component of contemporary library operations, requiring library professionals to adapt their practices to changing technological environments. Recent studies in Nigerian university libraries have similarly demonstrated the growing importance of electronic cataloguing, classification and digital cataloguing workflows in the provision of modern library services. One of the major technological developments that have emerged from this transformation is the Online Public Access Catalogue.

Online Public Access Catalogue (OPAC) is an electronic library catalogue that enables users to search and access bibliographic information about the information resources available in a library. It provides an interface through which users can search library holdings using access points such as author, title, subject, keyword and classification number. Unlike the traditional card catalogue, OPAC enables users to conduct searches electronically and facilitates the identification and location of relevant library materials. In tertiary institutions, Ayankola (2025) noted that an effective OPAC can support students, researchers and other library users in discovering books, journals, theses and other information resources required for academic and research purposes. Ukwueze and Eze (2024) observed that OPAC facilitates access to and retrieval of library resources, although issues such as system quality, internet accessibility, users' search skills and awareness can influence its effective use. Mesagan et al. (2021) similarly identified OPAC data-storage creation, knowledge of cataloguing tools, information literacy and technical knowledge of the catalogue among competencies expected for effective OPAC provision in Nigerian university libraries. The usefulness of an OPAC therefore depends substantially on the quality of the bibliographic records and the professional processes through which such records are created and maintained, bringing the role of cataloguers into focus.

Cataloguers are professional library personnel responsible for the intellectual analysis, description, organisation and provision of access to library resources. Their responsibilities include bibliographic description, determination of access

points, subject analysis, classification and the application of appropriate cataloguing standards and tools. The transition from manual to automated cataloguing has expanded these responsibilities to include electronic cataloguing, metadata creation, database management, bibliographic networking and the maintenance of digital catalogue records. Obiora and Chukwutoo-Ihueze (2025) asserted that contemporary cataloguing practice therefore requires professionals to combine conventional knowledge of bibliographic organisation with competencies in electronic systems and emerging information technologies. Obiora and Chukwutoo-Ihueze (2025) contended that although professional cataloguers demonstrated strong knowledge of traditional cataloguing practices, knowledge of RDA, MARC21, metadata standards, integrated library systems and digital cataloguing workflows required further development. These expanding responsibilities make the knowledge and skills possessed by cataloguers particularly important to effective contemporary library service delivery.

Cataloguers' competencies refer to the knowledge, skills, abilities and professional capacities required to perform cataloguing functions effectively and provide users with organised access to information resources. According to American Library Association (2023), cataloguers' competencies can be defined as the professional and technological capabilities possessed by cataloguers to create, manage and maintain accurate bibliographic records while using appropriate cataloguing standards, tools and information technologies to facilitate efficient discovery and retrieval of library resources. The competencies required in contemporary cataloguing may include knowledge of cataloguing rules and standards, classification and indexing skills, metadata creation, information and communication technology skills, database management, information management, record-structure knowledge, retrospective conversion, technical skills, problem-solving skills and information retrieval skills. Mesagan et al. (2021) identified OPAC data-storage creation, knowledge of cataloguing tools, information literacy, technical knowledge of the catalogue, technological competencies, classification and indexing, information management and knowledge of record structures as relevant competencies for OPAC provision. More recently, Obiora and Chukwutoo-Ihueze (2025) noted that emerging digital cataloguing standards and technologies constitute important areas of contemporary professional practice. Although cataloguers require a broad

range of competencies to perform effectively, the present study is concerned specifically with technical competency and information retrieval competency.

Technical competency can be defined as the ability of cataloguers to effectively use the technological systems, tools and applications required to create, edit, organise, manage and maintain electronic bibliographic records. It also refers to the knowledge and practical skills required to operate automated cataloguing systems and apply relevant technologies and standards in the organisation and provision of electronic library resources (American Library Association [ALA], 2023). A cataloguer who possesses technical competency can perform activities such as creating and editing OPAC records, operating integrated library management systems, applying cataloguing and metadata standards, managing bibliographic databases, and carrying out retrospective conversion. Technical competency is therefore important because the quality, accuracy, consistency and accessibility of electronic catalogue records depend partly on the ability of cataloguers to use the technological tools supporting their creation and management. Empirically, Mesagan et al. (2021), in a study of competencies for effective OPAC provision in selected Nigerian university libraries, found that technical knowledge of the catalogue was highly possessed by the cataloguers, with an overall mean of 3.47, while technological competency was also highly possessed, with a mean of 3.46 on a four-point scale. Their findings further showed that technical knowledge of record structure and retrospective conversion were highly possessed, with mean scores of 3.29 and 3.21 respectively. Similarly, Obiora and Chukwutoo-Ihueze (2025), in their study of professional cataloguers in ten university libraries in South-East Nigeria, found that respondents demonstrated high knowledge of traditional cataloguing practices, while their knowledge of RDA, MARC21, metadata standards, integrated library systems, bibliographic networking and digital cataloguing workflows was comparatively moderate.

Information retrieval competency refers to the ability of a cataloguer to organise, search, identify, locate and facilitate access to relevant information through catalogues, databases and other information retrieval systems. It can also be understood as the knowledge and skills required to apply appropriate access points, subject terms, keywords, classification schemes, indexing techniques and search strategies to make information resources readily discoverable by users. According to Olayemi et al.

(2025), cataloguers who possess information retrieval competency can determine appropriate access points, assign subject headings and classification numbers, construct or maintain bibliographic records that support searching, identify retrieval problems and improve the discoverability of resources through OPAC. The competency is important because the ultimate purpose of bibliographic organisation is not merely to describe library resources but to enable users to discover and retrieve relevant information efficiently. In a 2024 study of 112 librarians from eight Nigerian universities, Bankole et al. (2024) found that ICT competencies, web competencies and web-search strategies were positively related to effective research information retrieval, with the combined factors accounting for 68% of the variance in effective information retrieval. Although the respondents were librarians generally rather than cataloguers alone, the finding demonstrates the importance of technological and search competencies in effective information retrieval within university libraries. More directly related to cataloguing and OPAC, Mesagan et al. (2021) found that cataloguers in selected Nigerian university libraries highly possessed information-literacy-related competencies, with an overall mean of 3.50, while classification and indexing skills were also highly possessed, with a mean of 3.42.

Effective provision of Online Public Access Catalogue in tertiary institution libraries depends not only on the availability of appropriate technological infrastructure but also on the competencies of the cataloguers responsible for creating, organising, maintaining and facilitating access to bibliographic records. Although existing studies have examined cataloguers' competencies, electronic cataloguing practices and Online Public Access Catalogue provision in Nigerian academic libraries, important gaps remain that justify the present study. Mesagan et al. (2021) examined competencies expected for effective OPAC provision in selected Nigerian university libraries and established that cataloguers possessed high levels of several competencies, including technical knowledge of catalogues, technological competencies, information literacy, classification and indexing. However, the study examined a broad range of competencies and was conducted in selected university libraries outside Imo State while Obiora and Chukwutoo-Ihueze (2025) examined professional cataloguers' knowledge of traditional and emerging cataloguing standards in university libraries within the same geopolitical zone. Although these studies provide useful

evidence of cataloguers' competencies, they did not specifically determine the level of technical and information retrieval competencies of cataloguers across tertiary institutions in Imo State.

Statement of the Problem

The increasing adoption of Online Public Access Catalogue (OPAC) in tertiary institution libraries is expected to provide students, researchers and other library users with timely and convenient access to bibliographic information and available library resources. However, the effectiveness of OPAC depends not only on the availability of technological infrastructure but also on the competencies of cataloguers responsible for creating, organising, maintaining and updating the bibliographic records that support information discovery and retrieval. In practice, variations in cataloguers' technical knowledge, ability to operate automated cataloguing systems, application of appropriate cataloguing tools, classification practices and information retrieval skills may affect the accuracy, accessibility and discoverability of resources through OPAC. Although studies have examined cataloguers' electronic cataloguing skills and competencies in Nigerian university libraries, there is limited empirical evidence on the extent to which cataloguers in tertiary institutions in Imo State possess the specific technical and information retrieval competencies required for effective OPAC provision. The absence of such evidence makes it difficult to determine whether the competencies of cataloguers are adequate to support effective OPAC services and to identify areas where further professional development may be required. It is against this background that the present study investigates cataloguers' competencies for effective provision of Online Public Access Catalogue in tertiary institutions in Imo State.

Research Questions

The following research questions were asked and answered to guide the study:

1. What is the level of cataloguers' technical competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State?
2. What is the level of cataloguers' information retrieval competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

Ho_1: The level of cataloguers' technical competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State is not significantly greater than the criterion mean of 25 ($P < 0.05$).

Ho_2: The level of cataloguers' information retrieval competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State is not significantly greater than the criterion mean of 25 ($P < 0.05$).

Methodology

The study adopted a descriptive survey research design. The population of the study comprises 1,316 professional librarians and library staff in the 11 tertiary institutions in Imo State. A sample size of 132 respondents, representing approximately 10% of the total population, was adopted for the study based on the assertions of Nworgu (2015). The respondents were selected using purposive sampling technique, based on their direct involvement in cataloguing, classification and related Online Public Access Catalogue (OPAC) activities. Purposive sampling was considered appropriate to select respondents with relevant knowledge and practical experience in cataloguing and OPAC provision. A researcher-constructed rating scale titled "Cataloguers' Competencies for Effective Provision of Online Public Access Catalogue Rating Scale" (CCEOPACRS) which contained 20 items was used for data collection using the four-point response scale of Very High Level (VHL), High Level (HL), Low Level (LL), and Very Low Level (VLL). The instrument was subjected to face and content validation by three experts. Two of the experts were specialists in the Department of Library and Information Science, while one was a specialist in Educational Measurement and Evaluation, all in Imo State University, Owerri. A one-shot administration method was used to determine the reliability of the instrument and a reliability coefficient of 0.79 was obtained using Cronbach alpha statistics. The research questions were answered using mean and standard deviation while independent sample t-test was used to test the hypotheses at 0.05 level of significance. Decision rules: For the research question, mean scores of 1.00 – 1.49 = Very Low Level, 1.50 – 2.49 = Low Level, 2.50 – 3.49 = High Level, and 3.50 – 4.00 = Very High Level. For the hypothesis, when the t-calculated is greater than the t-tabulated, the null hypothesis is accepted but if otherwise, the null hypothesis is rejected.

Result

Research Question One:

What is the level of cataloguers' technical competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State?

Table 1: Mean rating scores on the level of cataloguers' technical competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State

S/N	Items	VHL	HL	LL	VLL	∑f	∑fx	X̄	SD	Remark
1	I can operate the library management system effectively when creating and maintaining OPAC records.	43	51	27	11	132	390	2.95	0.90	High Level
2	I can create and edit bibliographic records accurately in an automated library catalogue.	47	46	28	11	132	393	2.98	0.91	High Level
3	I have difficulty using automated library systems when creating or updating OPAC record.	12	19	54	47	132	260	1.97	0.91	Low Level
4	I can use MARC fields appropriately when entering bibliographic information into OPAC.	45	49	27	11	132	392	2.97	0.91	High Level
5	I can identify and correct errors in electronic bibliographic records.	44	52	25	11	132	393	2.98	0.89	High Level
6	I can use appropriate technological tools to support automated cataloguing activities.	39	55	27	11	132	386	2.92	0.89	High Level
7	I can maintain and update bibliographic records in the library database.	46	48	27	11	132	393	2.98	0.91	High Level
8	I can perform basic troubleshooting when technical problems affect OPAC cataloguing activities.	35	47	35	15	132	366	2.77	0.96	High Level
9	I can apply appropriate cataloguing standards when creating electronic bibliographic records.	41	54	25	12	132	388	2.94	0.90	High Level
10	I lack the technical skills required to resolve common problems encountered during electronic cataloguing	15	17	51	49	132	262	1.98	0.94	Low Level
	Grand Mean							**26.44**	**0.91**	**High Level**
	Overall Criterion Mean							**25.00**		

Data in Table 1 showed the mean and standard deviation scores on the level of cataloguers' technical competency for effective provision of OPAC in tertiary institutions in Imo State. The results indicate that items 1, 2, 4, 5, 6, 7, 8 and 9 recorded mean scores above the criterion mean of 2.50, with mean scores ranging from 2.77 to 2.98, indicating a high level of technical competency. However, items 3 and 10 recorded mean scores of 1.97 and 1.98 respectively, indicating a low level to the stated competencies. The overall grand mean of 26.44 is above the overall criterion mean of 25.00 and standard deviation which recorded 0.91 indicated that the level of cataloguers' technical competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State is high.

Hypothesis One:

Ho_1: The level of cataloguers' technical competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State is not significantly greater than the criterion mean of 25 ($P < 0.05$).

Table 2: One-sample t-test of cataloguers' technical competency for effective provision of OPAC

Variable	n	Mean	SD	Criterion Mean	df	t-cal	t-crit	P-value	Decision
Technical competency	132	26.44	0.91	25.00	131	18.18	1.98	< .001	Reject Ho1

The result in Table 2 shows that cataloguers' technical competency for the effective provision of Online Public Access Catalogue had a mean score of 26.44 and a standard deviation of 0.91, compared with the criterion mean of 25.00. The calculated t-value of 18.18 with 131 degrees of freedom is greater than the critical t-value of 1.98 at the 0.05 level of significance. Since the calculated t-value is greater than the critical value and the p-value is less than 0.05, the null hypothesis is rejected. Therefore, the finding indicates that cataloguers possess a significantly high level of technical competency for the effective provision of OPAC in tertiary institutions in Imo State.

Research Question Two: What is the level of cataloguers' information retrieval competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State?

Table 3: Mean rating scores on the level of cataloguers' information retrieval competency for effective provision of OPAC

S/N	Items: Cataloguers	VHL	HL	LL	VLL	∑f	∑fx	X̄	SD	Remark
11	I can assign appropriate subject headings to bibliographic records to facilitate information retrieval.	42	53	26	11	132	390	2.95	0.89	High Level
12	I can assign appropriate classification numbers to information resources for easy retrieval through OPAC.	45	49	27	11	132	392	2.97	0.91	High Level
13	I can determine appropriate access points such as author, title and subject for catalogue records.	48	46	27	11	132	395	2.99	0.91	High Level
14	I find it difficult to determine appropriate access points when creating OPAC records.	11	18	52	51	132	253	1.92	0.92	Low Level
15	I can organise bibliographic information in ways that enable users to retrieve relevant resources through OPAC.	44	51	26	11	132	392	2.97	0.90	High Level
16	I can identify and correct errors in catalogue records that may hinder information retrieval.	41	52	28	11	132	387	2.93	0.90	High Level
17	I can use indexing techniques to improve users' access to information resources through OPAC.	43	49	29	11	132	388	2.94	0.92	High Level
18	I have difficulty organising bibliographic information in a way that supports effective information retrieval through OPAC.	14	17	49	52	132	257	1.95	0.94	Low Level
19	I can apply keywords and other search-related elements that improve the discoverability of library resources.	40	55	26	11	132	388	2.94	0.89	High Level
20	I can structure bibliographic records to support efficient searching and retrieval by library users.	38	57	26	11	132	386	2.92	0.88	High Level
	Grand Mean							**26.38**	**0.90**	**High Level**
	Overall Criterion Mean							**25.00**		

Data in Table 3 show the mean and standard deviation scores on the level of cataloguers' information retrieval competency for effective provision of OPAC in tertiary institutions in Imo State. The results indicate that items 12, 3, 5, 6, 7, 9 and 10 recorded mean scores above the criterion mean of 2.50, with mean scores ranging from 2.92 to 2.99, indicating a high level of information retrieval competency. Conversely, items 4 and 8, recorded mean scores of 1.92 and 1.95 respectively, indicating low-level responses to the stated competency areas. The grand mean of 26.38 is greater than the overall criterion mean of 25.00 with a

standard deviation of 0.90 indicated that the level of cataloguers' information retrieval competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State is high.

Hypothesis Two:

Ho_2: The level of cataloguers' information retrieval competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State is not significantly greater than the criterion mean of 25 ($P < 0.05$).

Table 4: One-sample t-test of cataloguers' information retrieval competency for effective provision of OPAC

Variable	n	Mean	SD	Criterion Mean	df	t-calculated	t-critical	P-value	Decision
Information retrieval competency	132	26.38	0.90	25.00	131	17.61	1.98	< .001	Reject Ho2

The result in Table 4 shows that cataloguers' information retrieval competency for the effective provision of Online Public Access Catalogue had a mean score of 26.38 and a standard deviation of 0.90, compared with the criterion mean of 25.00. The calculated t-value of 17.61 with 131 degrees of freedom is greater than the critical t-value of 1.98 at the 0.05 level of significance. Since the calculated t-value is greater than the critical value and the p-value is less than 0.05, the null hypothesis is rejected. Therefore, the finding indicates that cataloguers possess a significantly high level of information retrieval competency for the effective provision of OPAC in tertiary institutions in Imo State.

Discussion of Findings

The result revealed that the level of cataloguers' technical competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State is high. The recorded high level of technical competency indicates that cataloguers possess considerable practical knowledge and skills required to operate automated library systems and perform essential electronic cataloguing activities. The result further established that the level of cataloguers' technical competency was significantly greater than the criterion mean. This implies that the observed high level of competency is statistically significant and that cataloguers in the institutions possess the technical capacity required to support effective OPAC provision. The finding is consistent with

Mesagan et al. (2021), who found that cataloguers in selected Nigerian university libraries highly possessed technical knowledge of the catalogue, with an overall mean of 3.47, while technological competency was also highly possessed, with a mean of 3.46 on a four-point scale. Mesagan et al. further reported high possession of technical knowledge of record structure and retrospective conversion, with mean scores of 3.29 and 3.21, respectively. The finding also agrees with Obiora and Chukwutoo-Ihueze (2025), who, in their study of professional cataloguers in ten university libraries in South-East Nigeria, found that respondents demonstrated high knowledge of traditional cataloguing practices, while their knowledge of RDA, MARC21, metadata standards, integrated library systems, bibliographic networking, and digital cataloguing workflows was comparatively moderate. While the present study established an overall high level of technical competency, the finding of Obiora and Chukwutoo-Ihueze indicates that competency may not be equally strong across all emerging areas of automated cataloguing. This may explain why some respondents in the present study reported difficulties with automated systems and resolving technical problems despite the overall high competency level.

The result also revealed that the level of cataloguers' information retrieval competency for the effective provision of Online Public Access Catalogue in tertiary institutions in Imo State is high. The finding indicates that cataloguers possess considerable competence in organizing bibliographic information in ways that facilitate effective discovery and retrieval of library resources through OPAC. Specifically, the high ratings suggest that cataloguers are able to assign appropriate subject headings, apply classification numbers, determine access points, organize bibliographic information, identify and correct errors that may affect retrieval, use indexing techniques, apply keywords and other search-related elements, and structure bibliographic records to support efficient searching. The result further established that cataloguers' information retrieval competency was significantly greater than the criterion mean of 25.00, indicating that the observed level of competency is statistically significant. The finding is strongly supported by Mesagan et al. (2021), who found that cataloguers in selected Nigerian university libraries highly possessed information-literacy-related competencies, with an overall mean of 3.50, while classification and indexing skills were also highly possessed, with a mean of 3.42. The present finding is

further supported by Bankole et al. (2024), who, in a study of 112 librarians from eight Nigerian universities, found that ICT competencies, web competencies, and web-search strategies were positively related to effective research information retrieval, with the combined factors accounting for68% of the variance in effective information retrieval. Although Bankole et al. examined librarians generally rather than cataloguers specifically, their findings provide relevant evidence that technological and search-related competencies are important determinants of effective information retrieval within university library environments.

Conclusion

OPAC has become an essential component of modern library services, requiring cataloguers to possess relevant professional, technical, and information retrieval competencies. Effective provision of OPAC depends on the ability of cataloguers to combine sound cataloguing knowledge with technological skills for organizing and making bibliographic resources readily discoverable. The study indicates that the quality of electronic cataloguing and information retrieval is closely connected with the competencies of the professionals responsible for creating, managing, and maintaining OPAC records. In conclusion, the study establishes that cataloguers' competencies are fundamental to sustaining efficient and user-oriented OPAC services in tertiary institutions in Imo State.

Recommendations

Based on the findings of this study, the researcher made the following recommendations:

1. Tertiary institution library management should organize regular practical training and professional development programmes on automated cataloguing, MARC21, integrated library management systems, and basic OPAC troubleshooting to strengthen cataloguers' technical competencies.
2. Library management should provide continuous capacity-building programmes in classification, indexing, subject analysis, access-point creation, and advanced search techniques to enhance cataloguers' information retrieval competencies and improve the discoverability of resources through OPAC.

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