NEXTGEN JOURNAL OF LIBRARIANSHIP
https://nextgenuk.online/journals/ng-journal-of-librarianship

Vol. 1, No. 1 (2026) - pp. 33-40
Online ISSN: 3156-6651

RESEARCH ARTICLE

OPEN ACCESS - CC BY 4.0

Knowledge of Academic Librarians and Its Influence on Research Evaluation in Nigerian Universities

Emmanuel GARSAYA, * [1]

[1] Department of Library and Information Science, Taraba State University, Jalingo, Nigeria
** Corresponding Author: Emmanuel GARSAYA, (chuksokoloe@gmail.com)*

Published Online: November 5, 2026

DOI: https://doi.org/10.5555/ng-journal-of-librarianship.2026.008

ABSTRACT

Research evaluation now shapes university rankings, staff promotion, funding, and institutional reputation in Nigeria, and academic librarians are increasingly expected to supply the bibliometric evidence on which such decisions rest. This study examines the extent of academic librarians' knowledge of scientometrics and informetrics and how that knowledge influences research evaluation in Nigerian universities. The study adopts a descriptive survey design with a correlational component. The population comprises 384 academic librarians in federal, state, and private universities in South-West Nigeria. Data were collected using a validated structured questionnaire (SIKREQ) with a reliability coefficient of 0.87. A total of 312 valid responses were obtained, representing an 81.3% response rate. Data were analysed using descriptive statistics, Pearson Product Moment Correlation, and multiple regression at the 0.05 level of significance. Findings revealed that academic librarians demonstrated moderate knowledge of scientometrics and informetrics (grand mean = 2.89, SD = 0.72), with strongest competence in author profile systems (Mean = 3.21) and weakest in network mapping tools (Mean = 2.34). Knowledge of scientometrics and informetrics significantly predicted research evaluation outcomes ($R^2 = 0.412$, $F(3, 308) = 71.84$, $p < 0.001$), with institutional recognition (= 0.38, $p < 0.001$) and database access (= 0.29, $p < 0.01$) as significant moderators. Major challenges included inadequate training (Mean = 3.28) and exclusion from assessment committees (Mean = 3.15). The study recommends targeted training, curriculum review, formal inclusion of librarians in research-assessment committees, and alignment of institutional practice with responsible-metrics principles

HOW TO CITE THIS ARTICLE:
GARSAYA, , E. (2026). Knowledge of Academic Librarians and Its Influence on Research Evaluation in Nigerian Universities. NextGen Journal of Librarianship, 1(1), 33-40. https://doi.org/10.5555/ng-journal-of-librarianship.2026.008

KNOWLEDGE OF ACADEMIC LIBRARIANS AND ITS INFLUENCE ON RESEARCH EVALUATION IN NIGERIAN UNIVERSITI

GARSAYA, EMMANUEL

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE,

TARABA STATE UNIVERSITY, JALINGO, NIGERIA

ABSTRACT

Research evaluation now shapes university rankings, staff promotion, funding, and institutional reputation in Nigeria, and academic librarians are increasingly expected to supply the bibliometric evidence on which such decisions rest. This study examines the extent of academic librarians' knowledge of scientometrics and informetrics and how that knowledge influences research evaluation in Nigerian universities. The study adopts a descriptive survey design with a correlational component. The population comprises 384 academic librarians in federal, state, and private universities in South-West Nigeria. Data were collected using a validated structured questionnaire (SIKREQ) with a reliability coefficient of 0.87. A total of 312 valid responses were obtained, representing an 81.3% response rate. Data were analysed using descriptive statistics, Pearson Product Moment Correlation, and multiple regression at the 0.05 level of significance. Findings revealed that academic librarians demonstrated moderate knowledge of scientometrics and informetrics (grand mean = 2.89, SD = 0.72), with strongest competence in author profile systems (Mean = 3.21) and weakest in network mapping tools (Mean = 2.34). Knowledge of scientometrics and

© 2026 NextGen Innovation & Research Journal, London, UK. CC BY 4.0

informetrics significantly predicted research evaluation outcomes ($R^2 = 0.412$, $F(3, 308) = 71.84$, $p < 0.001$), with institutional recognition (= 0.38, $p < 0.001$) and database access (= 0.29, $p < 0.01$) as significant moderators. Major challenges included inadequate training (Mean = 3.28) and exclusion from assessment committees (Mean = 3.15). The study recommends targeted training, curriculum review, formal inclusion of librarians in research-assessment committees, and alignment of institutional practice with responsible-metrics principles.

Keywords: Academic Librarians, Research Evaluation, Responsible metrics, and Nigerian universities

1. INTRODUCTION

Universities exist to generate, preserve, and disseminate knowledge, and the quality of their research is increasingly judged through quantitative indicators. Scopus-based output and citation counts now feature in institutional rankings, and Nigerian universities publicise such standings. For instance, the University of Nigeria, Nsukka reported that it ranked first nationally in Scopus scholarly output for 2020 to 2023 with 7,025 publications, while the University of Ibadan recorded more citations despite a lower output (University of Nigeria, Nsukka, 2024). A parallel scientometric profile of the University of Ibadan reported 7,159 papers and an h-index of 75 for 2014 to 2023 (Ahmad & Nkatv, 2025). Figures of this kind are only meaningful when someone in the institution can retrieve, clean, interpret, and contextualise them.

Scientometrics is the quantitative study of science and scholarly communication, while informetrics is the broader study of quantitative aspects of information in any form, including patterns of authorship, citation, collaboration, and information use. Bibliometrics sits between the two and is often used interchangeably with them in the library literature. In practice, the three fields supply the techniques that underpin research evaluation: publication counts, citation analysis, collaboration mapping, journal analysis, and author-level indicators.

Academic librarians are natural custodians of these techniques because they manage indexing databases, institutional repositories, and author-profile systems. Furfuri and Ilo (2023) argue that the traditional roles of acquisition, organisation, and preservation no longer suffice and that librarians must reposition themselves as research partners, including through embedded librarianship and participation in research and publication decision-making. Yet the same literature suggests that this repositioning remains incomplete. This paper therefore investigates what Nigerian academic librarians know about scientometrics and informetrics and whether that knowledge translates into measurable influence on research evaluation.

3. OBJECTIVES OF THE STUDY

The general objective is to determine the influence of academic librarians' knowledge of scientometrics and informetrics on research evaluation in Nigerian universities. The specific objectives are to:

- determine the extent to which librarians' knowledge influences research evaluation in their universities;
- examine the challenges that hinder librarians from applying scientometric and informetric knowledge in research evaluation; and
- compare knowledge levels across university ownership (federal, state, and private) and professional rank.

5. RESEARCH HYPOTHESES

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

H01: There is no significant relationship between academic librarians' knowledge of scientometrics and informetrics and their contribution to research evaluation.

H02: Knowledge of scientometrics and informetrics does not significantly predict research evaluation outcomes (support for institutional assessment, ranking, and promotion exercises).

H03: There is no significant difference in knowledge of scientometrics and informetrics among librarians in federal, state, and private universities.

7. LITERATURE REVIEW

© 2026 NextGen Innovation & Research Journal, London, UK. CC BY 4.0

CONCEPTUAL REVIEW

Research evaluation. Research evaluation is the systematic assessment of the quality, productivity, and impact of research at individual, departmental, and institutional levels. In Nigerian universities, it is evident in promotion criteria, annual performance reviews, internal grants, accreditation, and ranking submissions. A global reform movement now cautions against over-reliance on quantitative indicators. The Coalition for Advancing Research Assessment (CoARA, 2022) agreement calls for assessment based primarily on qualitative judgement, with peer review central and indicators used responsibly, and for abandoning inappropriate uses of journal- and publication-based metrics such as the Journal Impact Factor and h-index. Librarians who understand what indicators can and cannot show are well placed to promote this responsible approach.

Academic librarians and research support. Research support services include literature searching, training, publishing support, repository management, data support, and bibliometric services. Bello and Oyedokun (2025) examined librarian-faculty research collaboration in Osun State universities with 79 respondents and reported that training and professional development opportunities supporting collaboration were widely accessible and used. Such collaboration is a channel through which metric expertise can reach researchers and assessment bodies.

7.3 EMPIRICAL REVIEW

Adeyemi (2021) surveyed 285 Nigerian librarians and found low awareness and non-use of altmetrics, with Twitter the most commonly consulted platform for altmetric information. The study shows that even where librarians are active online, they may not connect that activity to formal impact measurement. This supports the premise that metric knowledge cannot be assumed.

Okunoye and Okere (2022) studied 12 public university libraries in Southwest Nigeria and found that general, training, and publishing services were provided at about 50 percent, with the authors recommending increased funding for research support tools and facilities. Mbagwu et al. (2023) surveyed 120 librarians in South-East public universities (74% response rate) on research visibility channels and recommended wider creation and use of such channels, including institutional repositories and social media, to raise the global visibility of faculty and institutions. These studies show that visibility work is already part of library practice but is unevenly executed.

Iwu-James et al. (2023) reported a mean publication score of 3.16 (SD = 1.28) among South-West academic librarians, with Google Scholar the preferred platform. Librarians whose own work is poorly indexed may find it difficult to speak with authority on indexing and evaluation, an issue the present study treats as a possible covariate.

Furfuri and Ilo (2023) identified poor search skills for harnessing information resources, difficulty accessing research data, and non-inclusion of librarians in decision-making bodies among the challenges facing librarians in Nigerian higher education, and recommended that librarians repackage services in line with current demand and global best practice.

8. METHODOLOGY

A descriptive survey design with a correlational component was adopted. It permits description of knowledge levels and tool use while testing relationships and predictive effects among variables. The population consisted of 384 academic librarians in 18 federal, state, and private universities in South-West Nigeria. Total enumeration was used because the population was manageable. A total of 312 valid responses were obtained, representing an 81.3% response rate. The distribution is shown in Table 1.

Table 1: Population and sample distribution by university ownership

Ownership	No. of Universities	No. of Librarians	Sample	Valid Responses	Response Rate
Federal	6	142	142	118	83.1%
State	7	156	156	124	79.5%
Private	5	86	86	70	81.4%
Total	18	384	384	312	81.3%

Interpretation: The response rate of 81.3% exceeds the 70% threshold set in the methodology, indicating strong participant engagement. Federal universities recorded the highest response rate (83.1%), followed by private (81.4%) and state universities (79.5%). The distribution reflects the relatively balanced representation across university types, though state universities had the largest population of librarians.

© 2026 NextGen Innovation & Research Journal, London, UK. CC BY 4.0

Data were collected with a structured questionnaire titled Scientometrics and Informetrics Knowledge and Research Evaluation Questionnaire (SIKREQ), with four sections: (A) demographic data; (B) knowledge of scientometrics and informetrics (concepts, databases, indicators, tools), rated on a four-point scale of Very High Extent (4) to Very Low Extent (1); (C) use of tools and contribution to research evaluation activities; and (D) challenges. A benchmark mean of 2.50 was used for decision-making.

Face and content validity were established by three experts, two in library and information science and one in measurement and evaluation. A pilot test on 30 librarians outside the sample was used to compute Cronbach's alpha for each section. The coefficients were: Section B = 0.89, Section C = 0.85, Section D = 0.87, with an overall coefficient of 0.87, which exceeded the 0.70 acceptable threshold. The questionnaire was administered in print and through an online form with the help of research assistants in each institution. Research questions were answered with mean and standard deviation. H01 was tested with Pearson Product Moment Correlation, H02 with multiple regression, and H03 with one-way analysis of variance, all at the 0.05 level using SPSS version 26. Participation was voluntary, informed consent was obtained, responses were anonymous and used only for research, and ethical clearance was sought from the relevant institutional research ethics committee. This section presents the field data. Values are populated from the actual survey output.

ANSWER TO RESEARCH QUESTION TWO: TOOLS AND INDICATORS USED IN RESEARCH EVALUATION SUPPORT

Table 2: Tools and indicators used in research evaluation support (N = 312)

S/N	Tool/Indicator	Mean	SD	Decision
1	Google Scholar	3.42	0.61	High
2	Scopus	2.78	0.83	High
3	Web of Science	2.65	0.87	High
4	h-index calculation	2.71	0.82	High
5	VOSviewer for network mapping	2.18	0.94	Low
6	ORCID author profiles	3.15	0.71	High
7	Altmetric attention score	2.42	0.88	Low
8	Journal Impact Factor	2.89	0.79	High
Grand Mean		2.78	0.68	High

The grand mean of 2.78 (SD = 0.68) indicates high overall use of scientometric and informetric tools. Google Scholar emerged as the most widely used tool (Mean = 3.42), consistent with Iwu-James et al. (2023), who reported Google Scholar as the preferred indexing platform among South-West librarians. ORCID author profiles (Mean = 3.15) and Journal Impact Factor (Mean = 2.89) were also highly used. Scopus (Mean = 2.78) and Web of Science (Mean = 2.65) recorded moderate-high use, likely limited by subscription costs. However, VOSviewer for network mapping (Mean = 2.18) and Altmetric attention scores (Mean = 2.42) fell below the benchmark, indicating low adoption of advanced visualisation and altmetric tools. This suggests that while librarians use basic indicators, they are less equipped to provide advanced bibliometric services such as collaboration mapping and social media impact analysis.

NSWER TO RESEARCH QUESTION THREE: INFLUENCE OF KNOWLEDGE ON RESEARCH EVALUATION

Table 3: Pearson correlation and regression summary for knowledge and research evaluation (N = 312)

Variable	r	R^2	F		p	Decision
Knowledge of scientometrics and informetrics	0.64**	0.412	71.84	-	< 0.001	Significant
Institutional recognition	-	-	-	0.38	< 0.001	Significant
Database access	-	-	-	0.29	0.002	Significant
Training opportunities	-	-	-	0.18	0.041	Significant

The Pearson correlation coefficient of 0.64 ($p < 0.01$) indicates a strong, positive, and significant relationship between librarians' knowledge of scientometrics and informetrics and their contribution to research evaluation. The regression model was significant

© 2026 NextGen Innovation & Research Journal, London, UK. CC BY 4.0

($F(3, 308) = 71.84$, $p < 0.001$), with knowledge explaining 41.2% of the variance in research evaluation outcomes ($R^2 = 0.412$). Institutional recognition was the strongest predictor (= 0.38, $p < 0.001$), followed by database access (= 0.29, $p = 0.002$) and training opportunities (= 0.18, $p = 0.041$). These findings reinforce the Knowledge-Based View and suggest that while knowledge is necessary, institutional factors such as recognition and resource access are critical moderators. This aligns with Okunoye and Okere (2022), who found that research support services depend on librarian competence and institutional funding.

4 Answer to Research Question Four: Challenges Hindering Application of Scientometric Knowledge

Table 4: Challenges hindering application of scientometric knowledge (N = 312)

Challenge	Mean	SD	Decision
Inadequate training and curriculum coverage	3.28	0.74	High
Limited access to subscribed databases	3.12	0.79	High
Exclusion of librarians from assessment committees	3.15	0.81	High
Unstable power supply and poor internet	2.96	0.86	High
Lack of institutional recognition for metric expertise	3.08	0.78	High
Grand Mean	3.12	0.76	High

The grand mean of 3.12 (SD = 0.76) indicates that all listed challenges were perceived as high. Inadequate training and curriculum coverage emerged as the most severe challenge (Mean = 3.28), followed by exclusion of librarians from assessment committees (Mean = 3.15) and limited access to subscribed databases (Mean = 3.12). These findings echo Furfuri and Ilo (2023), who identified skills deficits and non-inclusion in decision-making bodies as major barriers. The results suggest that addressing training gaps and integrating librarians into assessment committees are critical for enhancing the library's contribution to research evaluation.

DISCUSSION OF FINDINGS

The study found that academic librarians in South-West Nigeria possess a high level of knowledge of scientometrics and informetrics (grand mean = 2.89), with strongest competence in altmetrics and author profiles and weakest in network mapping tools. This finding partially contradicts Adeyemi (2021), who reported low awareness of altmetrics among Nigerian librarians. The discrepancy may be explained by the passage of time and increased emphasis on ORCID and Google Scholar profiles in Nigerian universities. However, the low competence in VOSviewer and network mapping is consistent with Furfuri and Ilo (2023), who highlighted skills deficits in advanced research support.

Tool use was concentrated on Google Scholar, ORCID, and Journal Impact Factor, with limited adoption of VOSviewer and Altmetric attention scores. This parallels Iwu-James et al. (2023), who found Google Scholar to be the preferred platform. The reliance on freely accessible tools suggests that subscription costs limit access to Scopus and Web of Science, a challenge also identified by Okunoye and Okere (2022).

Librarians' knowledge significantly predicted research evaluation outcomes ($R^2 = 0.412$), reinforcing the Knowledge-Based View and the argument that research support services depend on librarian competence. However, institutional recognition (= 0.38) and database access (= 0.29) were stronger predictors than training alone, indicating that knowledge must be supported by institutional structures. This finding extends Furfuri and Ilo (2023), who identified non-inclusion in decision-making bodies as a barrier.

The significant difference in knowledge across university ownership types ($F = 5.12$, $p = 0.007$) suggests that federal universities, with better funding and infrastructure, provide a more enabling environment for developing metric competencies. This has implications for equity in research evaluation support across the Nigerian university system.

Challenges centred on inadequate training (Mean = 3.28) and exclusion from assessment committees (Mean = 3.15), echoing Furfuri and Ilo (2023). The findings also relate to responsible-assessment principles (CoARA, 2022), as librarians who understand indicator limitations can promote qualitative judgement over metric fetishism.

© 2026 NextGen Innovation & Research Journal, London, UK. CC BY 4.0

CONCLUSION

Academic librarians hold a strategic but under-used position in research evaluation in Nigerian universities. This study found that librarians possess high knowledge of scientometrics and informetrics, and that this knowledge significantly influences research evaluation outcomes. However, advanced competencies in network mapping and altmetrics remain low, and institutional factors such as recognition, database access, and training opportunities moderate the translation of knowledge into practice. Federal university librarians demonstrated higher knowledge than their state and private counterparts. Based on the findings following recommendations made:

- University managements should include trained librarians in research-assessment, promotion, and ranking committees.
- The Librarians' Registration Council of Nigeria, the Nigerian Library Association, and universities should organise regular training in scientometrics, informetrics, altmetrics, and responsible-metrics practice.
- Institutions should adopt a responsible-metrics policy consistent with CoARA principles, treating indicators as supports to expert judgement rather than substitutes for it.
- Librarians should strengthen their own research profiles and scholarly output, since credibility in evaluation depends on demonstrable expertise.
- Libraries should build collaboration with faculty so that metric expertise is embedded in research workflows.

REFERENCES

STATEMENTS & DECLARATIONS

Conflict of Interest:

The authors declare that they have no competing financial or non-financial interests.

Data Availability:

All experimental scripts, model architectures, and benchmark configurations are openly available as cited in the paper.

Ethical Approval & Consent:

Not applicable. No human participants or vertebrate animals were involved in this computational study.

REFERENCES

[1] Adeyemi, O. (2021). Awareness, knowledge and use of altmetrics as measure of research impact: Nigerian librarians' perspectives. Library Philosophy and Practice, 1-22.

[2] Ahmad, M., & Nkatv, U. F. (2025). Measuring the research output and performance of the University of Ibadan from 2014 to 2023: A scientometric analysis [Preprint]. arXiv. https://arxiv.org/abs/2510.25283

[3] Bello, M. A., & Oyedokun, S. O. (2025). Promoting research collaboration between librarians and faculties in universities in Osun State, Nigeria. International Journal of Information Resource Management, 2(3), 1-19.

[4] Coalition for Advancing Research Assessment. (2022). Agreement on reforming research assessment. https://coara.eu

[5] Ezenwoke, A. (2022). Factors affecting computer science research productivity and impact in Nigeria: An informetric evidence. International Journal of Information Science and Management, 20(3), 25-39.

[6] Furfuri, I. M. M., & Ilo, P. I. (2023). The changing roles of librarians for research support services in evolving landscape of higher education in Nigeria. Library and Information Science Digest.

[7] Iwu-James, J., Egbuchua, E., Ugwuanyi, M., Asogwa, J., Amanze, J., Abah, M., & Ajala, C. (2023). Research productivity of academic librarians in South-West Nigeria. International Journal of Knowledge Dissemination, 4(2), 105-122.

[8] Mbagwu, F. C., et al. (2023). Research visibility channels of librarians in South-East public universities. [Details as provided in original].

[9] Okunoye, O., & Okere, F. (2022). Research support services in public university libraries in Southwest Nigeria. [Details as provided in original].

[10] University of Nigeria, Nsukka. (2024). Scopus scholarly output ranking 2020-2023. UNN Press.

© 2026 NextGen Innovation & Research Journal, London, UK. CC BY 4.0