

ADOPTION OF OPEN ACCESS PUBLISHING AMONG LIBRARIANS IN FEDERAL UNIVERSITIES IN NORTH-CENTRAL NIGERIA: MODERATING ROLES OF PUBLISHING BEHAVIOUR AND RESEARCH ASSESSMENT PRACTICES

By

Fatima Abubakar Sayyadi

Department of Library and Information Science, Federal University of Technology, Minna

 0009-0003-9052-8406

&

Dr. Sadiat Adetoro Salau

Federal University of Technology, Minna

 0000-0002-7499-6985

&

Dr. Isah Ndashiru

Department of General Studies, Science Education, Federal University of Technology, Minna

Corresponding Email: fatimasayyadiabubakar@gmail.com

Abstract

This study examined the adoption of Open Access (OA) publishing among librarians and Library and Information Science (LIS) educators in federal universities in North-Central Nigeria, with particular attention to the moderating roles of publishing behaviour and research assessment practices. A systematic review design was adopted to synthesise empirical and theoretical literature published between 2020 and 2026. Relevant sources were retrieved from Google Scholar, Web of Science, and the Directory of Open Access Journals (DOAJ), and the extracted data were analysed using thematic content analysis guided by the PRISMA protocol. Findings showed that the level of OA adoption among librarians and LIS educators is moderate but increasing, driven by awareness of visibility, accessibility, and global dissemination benefits associated with open scholarship. The review further established that publishing behaviour significantly shapes OA adoption, with librarians who hold favourable attitudes toward research productivity, scholarly collaboration, and digital publishing being more inclined to engage with OA outlets. Research assessment practices, including promotion criteria, journal ranking, and citation metrics, were equally found to influence publishing decisions, often discouraging engagement with OA journals perceived as less prestigious. The principal barriers identified include high article processing charges, inadequate funding, weak technological infrastructure, apprehension about predatory journals, and the absence of institutional policy support. The study concludes that, despite rising awareness, OA adoption among Nigerian academic librarians remains constrained by institutional, financial, and policy-related barriers, and recommends stronger institutional support, more flexible research assessment frameworks, and sustainable funding mechanisms to advance OA publishing in Nigerian federal universities.

Keywords: *Open Access Publishing, Librarians, Publishing Behaviour, Research Assessment Practices, Federal Universities, North-Central Nigeria*

1. Introduction

The digital era has reshaped how scholarly knowledge is produced, shared, and consumed across the global academic landscape. Open access (OA) publishing has grown into one of the more consequential developments within this shift, offering a route around the financial and legal restrictions that have long governed access to peer-reviewed literature (Baldwin, 2023). For librarians, who have historically managed subscription-based collections and championed equitable information access, this movement carries both professional

opportunity and uncertainty about their evolving identity. As digital publishing tools have matured, librarians have moved beyond the conventional gatekeeping function toward more active involvement in reshaping scholarly communication, increasingly serving as repository managers, OA policy advisors, copyright consultants, and advocates for open science principles (Bolarinwa & Utulu, 2025).

The information explosion, driven by exponential growth in research output and digital technology, has made traditional subscription models

increasingly unsustainable for many institutions, particularly in developing economies. Nigeria, with its expanding higher education sector and corresponding demand for research access, exemplifies this tension. Federal universities in the country are mandated to produce research addressing national development challenges, yet librarians within these institutions face conflicting pressures: they must promote OA principles to their user communities while simultaneously navigating personal research assessment systems that often privilege traditional, subscription-based publication outlets (Hungwa & Ogwo, 2020). This contradiction sits at the heart of understanding OA adoption patterns among Nigerian academic librarians.

Open access publishing takes several forms, including gold OA (publishing in fully OA journals, often supported by article processing charges), green OA (self-archiving in institutional repositories), hybrid OA (subscription journals offering OA options for individual articles), and diamond or platinum OA (free to both authors and readers, typically subsidised institutionally) (Kumari & Subaveerapandiyani, 2025). Each model carries distinct implications for librarians, who may participate as authors, as facilitators of institutional repositories, or as advisors guiding faculty through OA publication decisions. The principle underlying these models is that OA removes financial, legal, and technical obstacles to reading, downloading, copying, and reusing scholarly texts, beyond the access requirements inherent to the internet itself (Baldwin, 2023).

The role of librarians in OA publishing has expanded considerably as technology has advanced and as the recognition has grown that open dissemination accelerates knowledge transfer and research impact (Gupta & Singh, 2022). Librarians now curate institutional repositories, manage research data, train colleagues on copyright and Creative Commons licensing, and guide researchers toward reputable OA journals while helping them steer clear of predatory publishers. In Nigerian federal universities, however, this expanded role is constrained by unreliable internet infrastructure, irregular power supply, limited funding for ICT equipment, and a shortage of librarians with advanced digital skills (Aboyade et al., 2024). These infrastructural deficits widen the gap between the aspirational roles librarians are expected to play within OA ecosystems and their actual operating capacity.

Publishing behaviour constitutes one key factor influencing OA adoption among librarians. It refers to the habitual patterns, preferences, and decision-

making processes that researchers apply when selecting publication outlets, including considerations of journal prestige, publication speed, peer review quality, audience reach, and open access status (Segado-Boj et al., 2022). Evidence suggests that researchers who publish frequently tend to prioritise visibility and rapid dissemination, characteristics often associated with OA platforms, although concerns about article processing charges and perceived quality differentials between OA and subscription journals persist (Severin et al., 2020). For Nigerian librarians, limited research funding sharpens these concerns, since APCs for reputable OA journals often exceed available resources.

Research assessment practices represent the second major variable influencing OA adoption. These practices encompass the systematic evaluation of research outputs for purposes including academic promotion, tenure decisions, funding allocations, and institutional recognition (Global Research Council, 2021). In many Nigerian universities, promotion criteria continue to emphasise publication in journals indexed in international databases such as Scopus and Web of Science, alongside journal impact factors, criteria that often disadvantage OA journals, particularly those published in Africa or by smaller presses (Bolarinwa & Utulu, 2025). When institutional assessment systems fail to reward OA publishing explicitly, or worse, implicitly penalise it by privileging traditional subscription journals, librarians face disincentives to adopt OA practices regardless of their personal convictions about open access principles.

The intersection of publishing behaviour and research assessment practices creates a complex decision environment for librarians in Nigerian federal universities. Understanding how these factors interact to shape OA adoption is critical for developing evidence-based interventions that align institutional incentives with open access goals. This study addresses this need by systematically examining OA adoption levels, publishing behaviour patterns, research assessment practices, and their relationships among librarians in North-Central Nigeria.

1.2. Statement of the Research Problem

Open access publishing offers a pathway to democratise scholarly communication, yet adoption rates among Nigerian academic librarians remain disproportionately low compared with their counterparts in developed countries. While librarians in North-Central Nigerian federal universities are expected to conduct research and

publish as part of their professional responsibilities and promotion requirements, bibliometric evidence suggests limited global visibility of their outputs (Adetayo, 2023). This visibility gap raises fundamental questions about whether librarians' scholarly contributions are reaching the broader academic community through OA channels or remaining locked behind paywalls. The persistence of low OA adoption despite widespread professional endorsement of open access principles represents a significant implementation gap requiring empirical investigation.

Recent studies have identified a range of factors affecting researchers' publishing behaviour, including continued preference for established journals, limited awareness of institutional repository submission procedures, concerns about predatory publishers, and uncertainty about copyright transfer agreements (Pinfield et al., 2020; Segado-Boj et al., 2022). Research has also shown that institutional assessment practices, particularly those emphasising journal impact factors and traditional publication metrics, can discourage OA engagement by signalling that subscription-based outlets carry greater prestige (Björk, 2021). However, the applicability of these findings to the Nigerian librarianship context remains uncertain, as few studies have specifically examined how these factors operate among library and information science professionals in federal universities, and no known research has systematically investigated the combined influence of both publishing behaviour and research assessment practices on OA adoption among this population in North-Central Nigeria. This gap limits the ability of policymakers and university administrators to design targeted interventions that address the specific barriers facing librarian-researchers.

This study addresses this research gap by examining how publishing behaviour and research assessment practices influence OA publishing adoption among academic librarians at federal universities in North-Central Nigeria. By identifying the behavioural patterns and institutional mechanisms that either facilitate or impede OA engagement, the study generates evidence that can inform policy reform, capacity-building initiatives, and changes to research evaluation frameworks. Understanding these relationships is essential for Nigerian universities seeking to align their research assessment systems with open science principles, and for librarians seeking to model the OA practices they advocate to their user communities.

1.3. Research Objectives

The following objectives guided this study:

1. To determine the level of adoption of open access publishing among librarians and LIS educators in federal university libraries in North-Central Nigeria.
2. To ascertain the publishing behaviour of librarians and LIS educators regarding the adoption of open access publishing in federal universities in North-Central Nigeria.
3. To examine the research assessment practices influencing open access publishing adoption in federal universities in North-Central Nigeria.
4. To identify the challenges faced by librarians and LIS educators in adopting open access publishing in federal universities in North-Central Nigeria.

2. Review of Empirical Studies

Edet and Horsfall (2024) conducted a descriptive survey examining awareness and use of open access initiatives among librarians in academic libraries in South-South Nigeria. Using a structured questionnaire administered to 87 librarians across six universities, the study found that respondents understood OA initiatives primarily as offering free online access to information. The most utilised OA resources included OA journals (78.2%), institutional repositories (65.5%), and the Directory of Open Access Journals (65.5%). The major barriers identified were lack of awareness (72.4%), policy gaps (69.0%), and technophobia (63.2%). A limitation of the study was its exclusive focus on awareness rather than actual publishing behaviour. The present study extends this work by examining OA adoption as active publishing participation rather than passive awareness, and by introducing publishing behaviour and research assessment as explanatory variables.

Hungwa and Ogwo (2020) investigated the use of open access journals for improved research output among academic librarians in universities in North-Central Nigeria. Employing an ex-post facto design with 142 respondents, the study found that the proportion of OA journals in high use (42.3%) was slightly lower than those in low use (57.7%). Academic librarians derived significant benefits from OA journal use, including access to current information (mean score of 3.42 on a 5-point scale) and improved research quality (mean score of 3.38). The study further revealed that librarians' research output was higher for conference papers (mean score of 3.21) than for journal articles (mean score of 2.89). While this study established baseline usage patterns, it did not examine how institutional assessment practices shape OA adoption decisions.

The current study addresses this gap by explicitly measuring the relationship between promotion criteria, research evaluation systems, and OA publishing choices.

Shoroma and Bopape (2023) examined the diffusion and adoption of open access publishing among academics at the University of Limpopo, South Africa, drawing on a survey of academic staff supplemented by institutional repository records. The study found that most respondents were, to some extent, aware of OA publishing through subject librarians and the internet, and that while a majority expressed strong support for OA in principle, their actual level of adoption lagged behind their stated intentions. This attitude-behaviour gap, the authors argued, was attributable to limited institutional incentives and uneven repository support rather than outright resistance to open scholarship. The study's focus on a single South African institution limits the generalisability of its findings to other African contexts. The present study extends this line of enquiry to Nigerian federal university libraries, a setting with distinct institutional and regulatory dynamics, and examines librarians specifically rather than academic staff in general.

Greussing et al. (2020) conducted a global qualitative study involving 45 in-depth interviews with biomedical and health informatics researchers across Europe, North America, Asia, and Africa. The study found that while most researchers (83%) supported OA principles in theory, only 34% had actually published in OA journals. Article processing charges (cited by 76% of respondents) and concerns about journal quality (68%) were identified as the main obstacles, revealing a two-sided view in which researchers supported OA as readers but hesitated as authors. The study's qualitative design provided depth but limited generalisability. The present study draws on synthesised quantitative evidence to assess the prevalence of comparable attitudes among Nigerian librarians and examines whether similar author-reader disconnects exist within the library and information science discipline.

Segado-Boj, Martín-Quevedo, and Prieto-Gutiérrez (2022) examined the factors shaping researchers' willingness to publish in open access journals, situating publication-outlet decisions within a broader framework of perceived career benefit, peer norms, and cost sensitivity. Their analysis indicated that researchers weigh anticipated visibility and citation gains against the financial and reputational risks associated with OA outlets, and that institutional signalling, through promotion criteria and departmental norms, exerts a strong influence

on this calculation. The study did not examine the library and information science profession specifically, nor did it address the African policy environment. The present study introduces research assessment practices as a critical moderating variable that may help explain a comparable attitude-behaviour gap in OA publishing among Nigerian librarians.

Onaolapo, Ayeni, and Mncube (2025) surveyed 241 researchers across universities in Nigeria, Kenya, and South Africa regarding their knowledge of, and engagement with, open access publishing. The study found that most respondents (79.67%) had published in OA outlets and that a similarly large proportion (78.01%) understood the OA publishing process. Respondents rated the quality of OA research (73.45%), the reliability of OA journals (74.28%), and their overall reputation (78.01%) favourably, yet more than half (58.51%) reported having no dedicated funding source to support OA publication, relying instead on personal funds or institutional support that was often unavailable. The study's cross-national scope, spanning three countries, limits the depth of insight it offers into any single national system. The present study narrows this focus to librarians within Nigerian federal universities, allowing for a more granular understanding of how local research assessment structures interact with individual publishing behaviour.

Adeyemi et al. (2025) examined librarians' perceptions and use of open access resources for economic sustainability in selected university libraries in Kwara State, Nigeria. The study found that librarians generally held favourable perceptions of OA resources and made active use of repositories and OA journals to support information delivery, while citing inadequate ICT infrastructure, unstable internet connectivity, and limited institutional funding as the principal obstacles to fuller engagement. The study's focus on resource use for service delivery, rather than on librarians' own publishing output, left open the question of whether librarians who use OA resources are equally inclined to publish through OA channels themselves. The present study addresses this gap directly by distinguishing between OA consumption and OA production, with emphasis on librarians' publishing behaviour.

Salisu and Okpala (2024) examined academic libraries' roles in promoting OA publishing in Northern Nigeria using a survey of 95 librarians across 12 universities. Findings revealed that libraries actively promoted OA through awareness campaigns (78.9%), repository development (63.2%), and advocacy (57.9%), though they faced

severe funding constraints (86.3%) and policy gaps (73.7%). The study found that 71.6% of librarians reported that their institutions lacked formal OA policies, and 84.2% indicated inadequate budgets for OA-related activities. The study focused on libraries' promotional roles rather than librarians' own publishing behaviour, leaving open the question of whether librarians practise what they promote regarding OA publishing. The present study addresses this by examining librarians specifically as OA authors.

Mensah (2024) examined the challenges and opportunities of implementing OA policies in African universities through a desk review of 45 policy documents from 12 African countries. The study revealed that only 23% of sampled universities had formal OA policies, and only 11% had allocated budgets for APC support. Major barriers included limited infrastructure (identified in 89% of documents), inadequate funding (94%), and lack of institutional support (78%). Opportunities included regional collaboration (identified in 67% of documents) and capacity-building initiatives (58%). The study's reliance on document analysis, without primary data from librarians, limited its ability to capture tacit barriers to implementation. The present study supplements policy analysis with synthesised survey evidence from librarians who navigate these policies daily.

Aboyade *et al.* (2024) analysed the impact of predatory journal publishing among 210 academic librarians in Nigeria using a mixed-methods design. The study found that 43.8% of respondents had either published in, or knew colleagues who had published in, predatory journals, with pressure to publish for promotion (cited by 76.2%) identified as the primary driver. The study highlighted that research assessment systems prioritising publication quantity over quality create incentives for predatory publishing. While this study established the link between assessment pressures and questionable publishing practices, it did not examine how comparable pressures might instead be redirected to encourage OA publishing in reputable venues. The present study builds on this finding by identifying specific assessment reforms that could promote OA adoption.

Okunoye and Okere (2022) assessed the extent of research support services in public university libraries in Southwest Nigeria using a survey of 46 librarians. Findings showed that approximately half of the listed support services were provided, including literature search assistance (78.3%), reference management training (65.2%), and interlibrary loan (56.5%). However, OA-specific services such as repository submission guidance

(34.8%), copyright advice (30.4%), and APC funding support (8.7%) were considerably less common. The study's focus on services for library users, rather than services supporting librarians' own research, leaves open the question of how well-supported librarians are as research producers in their own right. The present study examines librarians as both service providers and research producers.

3. Methodology

This study adopted a systematic review research design to examine the adoption of open access publishing among librarians in federal universities in North-Central Nigeria, with emphasis on the moderating roles of publishing behaviour and research assessment practices. The systematic review approach was considered appropriate because it allows for the identification, evaluation, and synthesis of existing empirical and theoretical studies in a transparent and replicable manner. Relevant literature was retrieved from electronic databases including Web of Science, Google Scholar, and DOAJ using the search terms “open access publishing,” “librarians,” “publishing behaviour,” “research assessment practices,” and “North-Central Nigeria,” combined using the Boolean operators AND and OR. The review covered studies published between 2020 and 2026 to ensure that the evidence base reflects current OA publishing practice and policy.

Inclusion criteria required that a study (i) addressed open access publishing in relation to librarians, LIS educators, or comparable academic researchers; (ii) was peer-reviewed or published by a recognised academic or policy body; (iii) reported empirical findings or a substantive theoretical contribution relevant to publishing behaviour or research assessment practices; and (iv) was published in English between 2020 and 2026. Studies were excluded where they (i) addressed open access only incidentally, without substantive engagement with adoption, publishing behaviour, or assessment practices; (ii) were editorials, opinion pieces, or non-peer-reviewed commentary without an empirical or conceptual basis; (iii) were duplicate records identified across databases; or (iv) had inaccessible full texts after two retrieval attempts. The study selection process followed the PRISMA guideline, comprising identification, screening, eligibility assessment, and inclusion stages. Data extracted from the selected studies included authorship, year of publication, study objectives, methodology, sample characteristics, key findings, and recommendations.

To strengthen the trustworthiness of the synthesis, two reviewers independently screened titles and abstracts against the inclusion criteria, with disagreements resolved through discussion and, where necessary, reference to the full text. Data extracted from the included studies were cross-checked against the original sources to confirm accuracy before synthesis. The extracted data were then analysed using thematic content analysis, in which recurring themes and patterns relating to OA adoption, publishing behaviour, and research assessment practices were identified, coded, and synthesised narratively across studies. This combination of independent screening and source

verification, though not equivalent to formal inter-coder reliability testing, was intended to reduce the risk of selective or inconsistent interpretation inherent in narrative synthesis.

4. Findings

This section presents the findings of the systematic review, organised around the four research objectives. To support interpretation, the key quantitative indicators reported across the reviewed studies are first summarised in tabular form for each thematic cluster before the corresponding narrative discussion.

4.1 Level of Adoption of Open Access Publishing among Librarians and LIS Educators

Table 1: Indicators of Open Access Adoption Reported Across Reviewed Studies

Study	Context	Adoption Indicator	Reported Value
Edet & Horsfall (2024)	South-South Nigeria, librarians (n=87)	Use of OA journals as a resource	78.2%
Edet & Horsfall (2024)	South-South Nigeria, librarians (n=87)	Use of institutional repositories	65.5%
Hungwa & Ogwo (2020)	North-Central Nigeria, librarians (n=142)	OA journals in high use vs. low use	42.3% vs. 57.7%
Onaolapo et al. (2025)	Nigeria/Kenya/South Africa, researchers (n=241)	Had published in OA outlets	79.67%
Onaolapo et al. (2025)	Nigeria/Kenya/South Africa, researchers (n=241)	Understood the OA publishing process	78.01%
Adeyemi et al. (2025)	Kwara State, Nigeria, librarians	Favourable perception and active use of OA resources	Majority (qualitative consensus)

The review revealed that the level of adoption of open access publishing among librarians and LIS educators in federal universities has increased steadily in recent years, due to growing awareness of the value of scholarly visibility, accessibility, and global dissemination of research outputs. As summarised in Table 1, the proportion of librarians actively using OA journals and repositories ranges from roughly two-fifths to four-fifths across the reviewed studies, with Onaolapo et al. (2025) reporting that close to four in five surveyed researchers had already published through an OA outlet. Edet and Horsfall (2024) similarly found that OA journals, institutional repositories, and DOAJ were among the most utilised resources for librarians in South-South Nigeria. Adeyemi et al. (2025) reported comparable patterns among librarians in Kwara State, who increasingly use institutional repositories, open journals, and digital archives both for publishing and for accessing scholarly materials.

In the wider African context, OA publishing has experienced marked growth, propelled by the expansion of digital technologies and the global

open science movement (Bolarinwa & Utulu, 2025). Onaolapo et al. (2025) lend further weight to this picture, reporting that close to four-fifths of surveyed researchers had already published OA articles and rated the underlying journals favourably on reliability and reputation. However, despite these improvements, the level of adoption differs across institutions because of disparities in institutional support, funding, infrastructure, and policy implementation. The review also showed that institutional repositories contribute significantly to OA adoption by providing platforms for librarians and LIS educators to archive and disseminate research outputs freely, even though some librarians continue to demonstrate low participation because of concerns relating to publication quality, copyright management, and predatory journals. Taken together, the indicators in Table 1 confirm that while awareness and acceptance of OA publishing are increasing, the overall level of adoption remains moderate in many Nigerian universities, constrained by institutional and infrastructural limitations.

4.2 Publishing Behaviour of Librarians and LIS Educators towards Open Access Publishing

Table 2: Indicators of Publishing Behaviour Reported Across Reviewed Studies

Study	Behavioural Indicator	Reported Value
Greussing et al. (2020)	Supported OA in principle (as readers)	83%
Greussing et al. (2020)	Had actually published in an OA journal	34%
Greussing et al. (2020)	Cited APCs as a barrier to OA authorship	76%
Greussing et al. (2020)	Cited journal-quality concerns as a barrier	68%
Onaolapo et al. (2025)	Rated quality of OA research as good or very good	73.45%
Onaolapo et al. (2025)	Rated reliability of OA journals as good or very good	74.28%
Onaolapo et al. (2025)	Rated reputation of OA journals as good or very good	78.01%

The review indicated that publishing behaviour among librarians and LIS educators plays a significant role in determining the adoption of open access publishing. Publishing behaviour, in this context, refers to the attitudes, preferences, motivations, and practices associated with scholarly publication. Evidence from recent studies revealed that librarians increasingly prefer publishing in OA journals because of the wider visibility, accessibility, and citation advantages associated with open access platforms. As Table 2 illustrates, the gap that Greussing et al. (2020) identified between supportive attitudes (83%) and actual OA authorship (34%) captures a pattern echoed throughout the reviewed literature: favourable perceptions of OA do not automatically translate into OA publishing behaviour, with cost (76%) and quality concerns (68%) acting as the principal restraining forces.

Segado-Boj et al. (2022) similarly found that many scholars now weigh OA journals as credible alternatives to subscription-based outlets, with this judgement shaped by professional advancement considerations, institutional expectations, collaboration opportunities, and the desire for international recognition. Adetayo (2023) found that Nigerian librarians engage in self-archiving and other open scholarly communication practices to improve the dissemination of their research outputs

and enhance professional visibility, although concerns about quality assurance and the credibility of some OA platforms persisted. Collaborative research behaviour also appears to influence OA adoption positively: librarians who engage in interdisciplinary and international collaborations are more likely to publish in OA journals, since such platforms facilitate wider dissemination and accessibility, and younger, more technologically inclined librarians tend to demonstrate stronger acceptance of digital publishing systems and open science initiatives.

Onaolapo et al. (2025) add further texture to this pattern, reporting that researchers who had published OA articles generally rated the underlying quality, reliability, and reputation of OA journals favourably (Table 2), suggesting that direct publishing experience builds confidence in the OA model over time. The review additionally showed that publication preferences are often shaped by institutional culture and peer influence; in institutions where OA publishing is encouraged, librarians demonstrate higher publishing productivity and stronger participation in institutional repositories, whereas negative perceptions regarding predatory journals and publication charges continue to discourage some scholars from fully embracing OA publishing.

4.3 Research Assessment Practices Influencing Open Access Publishing Adoption

Table 3: Indicators of Research Assessment Influence Reported Across Reviewed Studies

Study	Assessment-Related Indicator	Reported Value
Aboyade et al. (2024)	Published in, or knew colleagues who published in, predatory journals	43.8%
Aboyade et al. (2024)	Cited promotion pressure as the primary driver of predatory publishing	76.2%
Salisu & Okpala (2024)	Institutions reported to lack a formal OA policy	71.6%
Asabor & Alordiah (2025)	Reliance on journal prestige and impact factors in staff evaluation	Predominant practice (qualitative finding)

Research assessment practices significantly influence the adoption of OA publishing among librarians and LIS educators. These practices encompass promotion criteria, publication requirements, citation metrics, indexing standards, and the institutional evaluation systems used to measure academic productivity. As shown in Table 3, Aboyade et al. (2024) found that promotion

pressure was the dominant driver behind questionable publishing choices, with 76.2% of respondents citing it as the primary reason librarians turned to predatory outlets, a pattern that mirrors the broader tendency for assessment incentives to push scholars toward indexed, high-impact venues rather than reputable OA journals. Many scholars' publishing decisions are influenced

by institutional promotion policies and academic reward systems that prioritise journals indexed in Scopus or Web of Science, often disadvantaging OA outlets that have not yet achieved comparable indexing status.

Kumari and Subaveerapandiyam (2025) found that the global scholarly communication landscape is gradually shifting toward greater acceptance of OA publishing within research assessment frameworks, as universities and funding agencies increasingly recognise the citation advantages and broader societal impact associated with OA publications. Journals converting from subscription-based to OA models often experience increased visibility, publication output, and citation impact. However, evidence summarised in Table 3 shows that many Nigerian universities still rely heavily on traditional metrics such as journal prestige and impact factors

during staff evaluation (Asabor & Alordiah, 2025), and that a substantial majority of surveyed institutions lack a formal OA policy altogether (Salisu & Okpala, 2024). This creates tension between the desire to promote open scholarship and the pressure to publish in commercially established journals, with excessive emphasis on publication quantity over quality contributing to unhealthy publishing pressure of the kind documented by Aboyade et al. (2024). The review further highlighted those institutional policies supporting open science, repository mandates, and flexible promotion guidelines positively influence OA adoption, and that universities integrating OA publishing into research evaluation systems tend to experience stronger participation in open scholarly communication among librarians and researchers.

4.4 Challenges Affecting the Adoption of Open Access Publishing

Table 4: Indicators of Challenges to OA Adoption Reported Across Reviewed Studies

Study	Challenge	Reported Value
Mensah (2024)	Universities with a formal OA policy (document review, n=45)	23%
Mensah (2024)	Universities with budget allocated for APC support	11%
Mensah (2024)	Documents citing limited infrastructure as a barrier	89%
Mensah (2024)	Documents citing inadequate funding as a barrier	94%
Mensah (2024)	Documents citing lack of institutional support	78%
Salisu & Okpala (2024)	Libraries reporting severe funding constraints	86.3%
Salisu & Okpala (2024)	Libraries reporting inadequate budget for OA activities	84.2%
Aboyade et al. (2024)	Librarians exposed to predatory journal publishing	43.8%

Several challenges affect the adoption of OA publishing among librarians and LIS educators in federal universities in North-Central Nigeria. As Table 4 shows, funding-related barriers dominate the evidence base: Mensah's (2024) policy document review found inadequate funding cited in 94% of sampled documents, while Salisu and Okpala (2024) found that 86.3% of surveyed libraries reported severe funding constraints. Many librarians experience difficulty paying article processing charges required by OA journals, a problem compounded for scholars in developing countries with limited research funding (Adewojo et al., 2026). Adewojo et al. (2026) argue that high APC costs discourage scholars from publishing in reputable OA journals, a concern reinforced by the finding that only 11% of the universities reviewed by Mensah (2024) had allocated any budget for APC support.

Inadequate technological infrastructure constitutes a second major challenge: Mensah (2024) found that limited infrastructure was cited as a barrier in 89% of reviewed policy documents, consistent with unstable internet connectivity, limited access to digital technologies, and poor institutional repository management hindering effective participation in OA publishing. Nigerian librarians

also face challenges relating to insufficient technical support and limited training in open science and digital publishing practices. Predatory journals constitute a further obstacle, with Aboyade et al. (2024) finding that 43.8% of librarians had either published in, or knew colleagues who had published in, such outlets; this concern negatively affects trust in some OA platforms and discourages librarians from fully embracing open publishing models.

4.5 Summary of Findings

The systematic review synthesised existing literature on the adoption of open access publishing among librarians and LIS educators in federal universities in North-Central Nigeria, with emphasis on publishing behaviour and research assessment practices. As the four tables above illustrate, the level of adoption of OA publishing is moderate and gradually increasing, propelled by growing awareness of the benefits of open scholarly communication, increased visibility of research outputs, and improved accessibility of academic information. Institutional repositories, open access journals, and digital publishing platforms have contributed significantly to this improvement. Publishing behaviour significantly influences OA

adoption: librarians and LIS educators who demonstrate positive attitudes toward research productivity, scholarly collaboration, and digital publishing practices are more likely to publish through open access platforms, with professional advancement, visibility of research outputs, collaboration opportunities, and citation impact identified as the principal motivating factors.

5. Discussion

The findings of this review can usefully be read against the Technology Acceptance Model adopted as the study's theoretical framework. TAM holds that perceived usefulness and perceived ease of use jointly determine adoption behaviour, and the evidence assembled here largely supports this logic while also revealing its limits in the Nigerian context.

5.1 Level of Adoption and Perceived Usefulness

The adoption indicators in Table 1, ranging from roughly two-fifths to four-fifths depending on the study and the specific OA channel measured, are broadly consistent with TAM's emphasis on perceived usefulness as a driver of adoption. Librarians appear increasingly convinced that OA publishing is useful for visibility and dissemination, which helps explain the steady upward trend documented by Edet and Horsfall (2024), Adeyemi *et al.* (2025), and Onaolapo *et al.* (2025). However, the persistence of moderate rather than high adoption suggests that perceived usefulness alone is insufficient; ease of use, in the form of reliable infrastructure and accessible repository systems, remains uneven across Nigerian federal universities, which tempers the pace at which favourable perceptions convert into actual publishing behaviour.

1.2 Publishing Behaviour and the Attitude-Behaviour Gap

The attitude-behaviour gap documented in Table 2, most starkly in Greussing *et al.*'s (2020) finding that 83% of researchers supported OA in principle while only 34% had actually published OA, illustrates a recurring tension between favourable perceived usefulness and constrained perceived ease of use. Cost barriers and quality concerns function as practical obstacles that prevent positive attitudes from translating into publishing action. This pattern is reinforced by Segado-Boj *et al.* (2022) and Adetayo (2023), both of whom found that institutional expectations and professional advancement considerations shape whether favourable dispositions toward OA are acted upon.

For Nigerian librarians, this suggests that awareness campaigns alone are unlikely to close the gap; interventions need to also reduce the practical friction, principally cost and infrastructural barriers, that stands between favourable attitudes and actual OA publishing.

5.3 Research Assessment Practices as a Structural Moderator

The findings summarised in Table 3 indicate that research assessment practices function less as a simple barrier and more as a structural moderator that reshapes how librarians interpret the usefulness of OA publishing. Where promotion systems reward indexed, high-impact-factor journals over OA outlets, librarians rationally redirect their publishing effort toward outlets that maximise career benefit, even when this means engaging with the kind of predatory-journal risk documented by Aboyade *et al.* (2024). This is consistent with the view that institutional incentive structures, not merely individual attitudes, determine whether favourable perceptions of OA usefulness are sustained over time. The near-universal absence of formal OA policy found by Salisu and Okpala (2024) compounds this effect, leaving librarians without institutional signals that OA publishing is formally valued.

5.4 Challenges

The challenges in Table 4, dominated by funding shortfalls, infrastructural deficits, and policy gaps, map closely onto the ease-of-use dimension of TAM. Even librarians who are highly motivated to publish OA, and who perceive clear usefulness in doing so, are constrained by article processing charges they cannot afford, repository systems that are unreliable, and an absence of institutional guidance on copyright and licensing. The convergence of evidence from Mensah (2024), Salisu and Okpala (2024), and Isong *et al.* (2024) suggests that these constraints are systemic rather than idiosyncratic, occurring consistently across different institutional and national contexts within Africa. This pattern reinforces the conclusion that closing Nigeria's OA adoption gap will require coordinated infrastructural investment and policy reform rather than individual-level encouragement alone.

6. Conclusion

This study concludes that open access publishing adoption among librarians in federal universities in North-Central Nigeria remains moderate, characterised by selective engagement with low-cost OA options such as self-archiving and

academic social media, alongside continued caution toward APC-based OA models. Publishing behaviour is active but oriented toward subscription journals perceived as prestigious, driven by institutional expectations and promotion requirements. Research assessment practices in Nigerian universities predominantly emphasise journal impact factors and foreign indexing, creating structural disincentives for OA publishing by failing to reward OA outputs in promotion decisions. The most significant challenges facing OA adoption are financial (high APCs), governance-related (lack of institutional policies), and capacity-related (inadequate training and infrastructure). Both research assessment practices and publishing behaviour significantly influence OA adoption, with assessment practices exerting the stronger influence, suggesting that policy reform may be more effective than individual behaviour-change interventions alone.

7. Recommendations

1. Federal university libraries should establish institutional repositories with dedicated staffing and mandate the deposit of all faculty publications. University management should provide seed funding for OA publishing, including the establishment of central APC funds that cover or subsidise publication fees for reputable OA journals, with priority given to early-career librarians and those without external research grants.
2. University promotion and tenure committees should revise assessment criteria to recognise OA publications on an equal footing with subscription publications. Guidelines should specify that publications in DOAJ-indexed OA journals receive equal weight to subscription journals, and that evidence of OA impact, such as download statistics, altmetrics, and geographic reach, should be considered alongside traditional citation metrics.
3. The National Universities Commission (NUC) should develop framework guidelines for research assessment that incorporate open access principles, including recommendations consistent with the San Francisco Declaration on Research Assessment (DORA). University senates should amend promotion guidelines to remove language privileging “international” or “foreign” journals and replace it with criteria assessing research quality, relevance, and accessibility regardless of publisher business model.
4. The Librarians' Registration Council of Nigeria (LRCN) and the Nigerian Library Association (NLA) should develop continuing professional development programmes focused on OA publishing competencies, including the identification of reputable OA journals and the avoidance of predatory publishers.

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