From Awareness to Action: Implementation Gap in Open Access Initiatives for Knowledge Democratisation in Selected Nigerian University Libraries

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ABSTRACT

This study examines the awareness, implementation, and challenges of Open Access (OA) initiatives for knowledge democratisation in selected Nigerian university libraries. A descriptive survey research design was adopted. The study covered six public and private universities in Ekiti and Ondo States, Nigeria. Using a total enumeration technique, 102 academic librarians were surveyed. Data were collected using a structured questionnaire with an overall Cronbach's alpha coefficient of 0.89. Frequency, mean, and standard deviation were used to analyse the research questions, while a paired-samples t-test was used for the hypothesis. The findings revealed a high level of awareness of OA initiatives ($\bar{x}$ = 3.47), but a low level of implementation ($\bar{x}$ = 2.50). Respondents perceived that OA initiatives positively contribute to knowledge democratisation ($\bar{x}$ = 3.92). However, inadequate funding, unstable electricity supply, poor internet connectivity, weak institutional policies, and insufficient professional training were identified as major constraints to the implementation of OA initiatives in Nigerian universities ($\bar{x}$ = 3.60). There is a significant difference between awareness and implementation ($t(95) = 48.38$, $p < 0.001$). The study recommends strengthening institutional OA policies, improving ICT infrastructure, increasing funding, and enhancing librarians' capacity training to bridge the awareness-implementation gap and promote knowledge democratisation.

1. Introduction

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Knowledge democratisation has become an important goal of higher education in the twenty-first century. At its core is the principle that scholarly information should be accessible to users regardless of geographical location, institutional affiliation, or financial capacity (Atenas et al., 2023).Advances in digital technologies, alongside the global open science movement, have supported efforts to reduce barriers to access to research. In response, universities, governments, and international organisations have increasingly developed and adopted OA initiatives aimed at making publicly funded research and educational resources freely available to users. For example, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has encouraged member states to develop policies and infrastructure that support broader and more equitable access to scholarly outputs (UNESCO, 2021). The continued growth of institutional repositories, as shown by the Directory of Open Access Repositories (OpenDOAR) and the Registry of Open Access Repositories (ROAR), reflects a growing infrastructure for preserving and sharing research outputs through OA channels (OpenDOAR, 2025; ROAR, 2025). This increase in repositories has generated more opportunities for access to research output, increasing visibility and encouraging collaboration and dissemination of knowledge (Robinson-Garcia et al., 2020; Idiedo et al., 2024; Ramesh, 2025).

Recent studies have shown remarkable progress in the adoption of OA initiatives in Nigeria. Many university libraries have established institutional repositories, promoted OA publishing, supported Open Educational Resources (OERs), and conducted awareness programs for researchers and the wider academic community (Akanmidu & Egbe, 2025; Ogunbodede & Cocodia, 2023). These initiatives have enhanced the visibility of research generated in Nigerian universities, preserved the intellectual output of the institution, and made locally generated scholarship available to a wider audience (Olubiyo & Olubiyo, 2023; Idiedo et al., 2024). Recent studies show different degrees of awareness and use of OA resources by academic librarians, indicating increased engagement with open models of scholarly communication in Nigerian university libraries (Anyaoku et al., 2021; Ajisebutu et al., 2024; Edet & Horsfall, 2025).

Despite the encouragement from these developments, implementation has not progressed at the same pace across Nigerian universities. While many institutions have established repositories, relatively few operate fully functional systems supported by clear institutional policies, sustainable content, acquisition strategies, and reliable technological infrastructure (Oberhiri-Orumah & Baro, 2022; Idiedo et al., 2024). Several constraints continue to limit progress, including inadequate funding, unstable electricity supply, poor internet connectivity, shortage of skilled personnel, weak institutional policies, copyright concerns, low faculty participation, and limited advocacy (Kayode , 2026; Esse & Haliso, 2024; Oberhiri-Orumah & Baro, 2022). Recent evidence also indicates that despite growing awareness of OA among librarians, substantial differences remain in the extent to which these initiatives are implemented and utilized across universities and regions (Edet & Horsfall, 2025).

In order to achieve the objectives of OA, academic librarians occupy a central position in this process because they are responsible for many of the activities that determine whether OA initiatives succeed or not, their work extends beyond managing collections to developing institutional repositories, supporting OA publishing, advising researchers on copyright and self-archiving, creating metadata, preserving digital collections, and helping institutions comply with funder and institutional OA policies (IFLA,2022; COAR, 2025). Evidence consistently shows that librarians drive repository management,

user education, and advocacy for OA. At the same time, their efforts are often constrained by limited funding, inadequate infrastructure, and weak institutional support (Ajisebutu et al., 2024; Edet & Horsfall, 2025; Idiedo et al., 2024). As a result, the success of knowledge democratisation in Nigerian universities depends, to a considerable extent, on the level of awareness and the extent to which academic librarians are able to implement OA initiatives effectively.

1.1 Statement of the problem

OA is widely recognised as an effective means of expanding access to scholarly knowledge, yet its implementation across Nigerian universities remains uneven. As a result, significant differences persist in the visibility, accessibility, and dissemination of research outputs produced by these institutions. Studies suggest that awareness of OA among academic librarians has improved, however, there is still limited evidence on whether that awareness translates into meaningful implementation (Edet & Horsfall, 2025). Existing studies have examined individual aspects of OA, such as repository development, sustainability, or awareness, without considering how these initiatives collectively contribute to the democratisation of knowledge (Baro & Eze, 2017; Ezema & Eze, 2024; Nwaohiri, 2021; Ejikeme &Ezema, 2019; Ukwoma & Onyebinama, 2021). In the same vein, universities continue to face practical constraints, including inadequate funding, weak technological infrastructure, inconsistent institutional policies, copyright concerns, limited advocacy, shortage of skilled personnel, and low researchers' participation (Ezema & Okafor, 2015; Ezema & Eze, 2024).

These challenges raise an important question: to what extent are current OA initiatives advancing knowledge democratisation in Nigerian universities? This study addresses that question by examining academic librarians' awareness and implementation of OA initiatives, assessing how these initiatives contribute to knowledge democratisation, identifying the factors limiting effective implementation, and determining whether differences exist between levels of awareness and implementation. The findings are expected to provide evidence to guide universities, policymakers, and other stakeholders in strengthening OA policies and improving access to scholarly knowledge across higher institutions.

1.2 Research questions

The study addressed the following research questions:

RQ1: What is the level of awareness of OA initiatives in Nigerian University libraries?

RQ2: What is the level of implementation of OA initiatives in Nigerian University libraries?

RQ3: Do OA initiatives influence knowledge democratisation in Nigerian University libraries?

RQ4: What are the challenges faced in the implementation of OA initiatives in Nigerian University libraries?

1.3 Hypothesis

H_{01}: There is no significant difference between the levels of awareness and implementation of OA initiatives in Nigerian university libraries.

2. Review of Related Literature

2.1 Awareness of OA initiatives

Awareness of OA among librarians has been examined by many studies, and the findings from the studies suggested that the level of awareness has improved over the past years. In a study conducted by Edet and Horsfall (2025), findings of the study showed that librarians in Nigerian academic libraries possessed a high level of awareness of OA initiatives and recognised their role in promoting equitable access to scholarly information. While the study established that awareness was widespread, the authors did not investigate whether such awareness translated into actual implementation of OA initiatives or contributed to democratisation of knowledge. As a result, it is still not clear the relationship exists between awareness and implementation of OA among library professionals.

In another Nigerian study conducted by Ajisebutu et al. (2024), the authors' findings indicated that librarians were well acquainted with OA electronic journals and acknowledged their value in supporting teaching, learning, and research. However, while the study focused was on OA journals, other important initiatives such as Open Education Resources (OERs), institutional repositories, research data management, self-archiving services, and Digital Commons were left out. Consequently, the study only provides a partial understanding of librarians' awareness of the broader OA ecosystem.

Anyaoku et al. (2021) reported that medical librarians possessed adequate knowledge of OA publishing models, institutional repositories, Creative Commons licensing, and self-archiving practices. While this study offers valuable insight into awareness among medical librarians, its scope was limited to a specialized group of professionals. The findings therefore cannot be readily generalised to academic librarians across different disciplines and university types in Nigeria. These studies indicate that awareness of OA initiatives among academic librarians has improved considerably, and may no longer be the primary challenge facing adoption.

2.2 Implementation of OA initiatives

Many previous studies have shown that librarians' awareness of OA is increasing. However, evidence suggests that implementation remains uneven across Nigerian universities. Institutional repositories have been the most visible manifestation of OA implementation; however, their development and sustainability vary considerably. For example, Idiedo et al. (2024) found that while many universities had set up repositories, few had fully functioning systems with strong policies, sustainable content recruitment strategies, and regular content updates. This finding highlights the fact that the mere existence of a repository does not necessarily imply an effective implementation of OA. Similarly, Ezema and Okafor (2015) found that librarians were actively involved in supporting repository development through advocacy, metadata creation, copyright education, and faculty engagement. Implementation was hampered by weak institutional support and low faculty participation. The study identified significant operational challenges, but did not explore the extent to which librarians' awareness and commitment to OA influenced the outcomes of implementation. Similarly,

Ejikeme and Ezema (2019) observed that OA initiatives had improved scholarly communication and access to institutional research outputs, but implementation was still fragmented due to the lack of comprehensive policies and sustainable repository management strategies. While these studies offer valuable insights into the development and implementation of repositories, they mainly focus on institutional repositories and give little consideration to the wider contribution of OA initiatives to the democratization of knowledge.

Studies outside Nigeria have also indicated that awareness alone is insufficient to ensure successful OA implementation. Mvula and Janarthanan (2026) in their study of Zambia academic libraries identified policy frameworks, leadership commitment and funding as critical factors influencing the sustainability of open Science initiatives. Similarly, Ayeni and Larivière (2026) found that high article processing charges and unsupportive institutional policies hindered OA publishing in Canada. The studies showed the importance of institutional and structural factors, but they were conducted in different national contexts. This makes it difficult to determine whether similar conditions account for the variations in the implementation of OA in Nigerian universities.

In the Nigerian context, Anene et al. (2020) identified organisational support, management commitment, technological infrastructure, staff competence, and institutional policy as major determinants of repository adoption, while Ntim and Fombad (2021) reported that organisational readiness, accessibility, perceived usefulness and institutional support significantly influenced repository utilization. These studies show that awareness is only one of several factors shaping implementation. However, the studies focused mainly on repository adoption and utilization rather than the broader role of OA initiatives in advancing knowledge democratisation. More importantly, little empirical evidence exists on the relationship between librarians' awareness of OA initiatives and their actual implementation, or on how these initiatives collectively contribute to democratizing knowledge in Nigerian universities.

2.3 OA as a mechanism for knowledge democratisation

Knowledge democratisation refers to the removal of technical, economic, institutional, and social barriers that restrict the creation, access, sharing, and use of knowledge, thereby enabling wider participation in knowledge production and application (Mahajan, 2025; Daepp et al., 2026). In librarianship, OA is widely recognised as one of the principal mechanisms for achieving equitable access to scholarly knowledge. UNESCO (2021) identifies OA as a key pillar of Open Science because it promotes inclusiveness, collaboration, and unrestricted access to scientific knowledge. Similarly, Suber (2012) argues that OA removes both price and permission barriers, making scholarly literature freely available to researchers and the wider public.

Knowledge democratisation transcends access to scholarly literature. It includes participation in knowledge production, dissemination, and equitable representation (Knöchelmann, 2021). Although open access reduces barriers to information, it does not necessarily eliminate inequalities in who produces, contributes to, and is represented within knowledge systems (Gauld, 2017). As such, knowledge democratisation encompasses both access to knowledge and inclusive participation in its production and circulation (Monyela & Tella, 2024). Libraries can advance these dimensions

by facilitating access, supporting knowledge creation and dissemination, and promoting more inclusive knowledge systems, including through emerging technologies (Akin-Fakorede et al., 2026).

Studies have revealed the conceptual link between OA and knowledge democratization. However, empirical studies have only examined this relationship to a large extent through institutional repositories and scholarly publishing rather than through the broader range of OA initiatives. Meanwhile, evidence from previous studies suggests that OA has improved the visibility and accessibility of scholarly outputs. For example, Idiedo et al. (2024) found that universities with functional institutional repositories achieved better dissemination and long-term preservation of their intellectual outputs. Robinson-Garcia et al. (2020) likewise reported that institutions with higher OA publication rates enjoyed greater international visibility and wider access to their research. These findings show the contribution of OA to the dissemination of scholarly information, but they do not examine whether these improvements translate into broader knowledge democratisation. Ejikeme and Ezema (2019) observed that institutional repositories strengthened scholarly communication by extending access to research outputs beyond university boundaries. Also, Ntim and Fombad (2021) reported that repository utilization improved access to scholarly information and expanded research dissemination.

Although these studies confirm the value of repositories in improving access, they focus primarily on repository performance and scholarly communication, leaving broader dimensions of knowledge democratisation unexplored. Also, most Nigerian studies concentrate on institutional repositories or OA journals, with limited attention to other important initiatives such as Open Education Resources (OERs), research data management, self-archiving services, Digital Commons, and related Open Science practices. As a result, existing evidence provides only a partial understanding of how OA contributes to knowledge democratisation.

3. Methodology

The study, carried out between January and March 2026, adopted a descriptive survey research design. The descriptive survey design was considered appropriate because it systematically collected information describing how OA served as a mechanism for democratisation of knowledge. The study covered six public and private universities in Ekiti and Ondo States. The population of the study included all academic librarians in the selected universities. The total enumerative method was adopted due to the small size of the sample population. A closed-ended questionnaire whose items were adapted from previous studies (Ajani et al., 2025; Edet & Horsfall, 2025; Bolarinwa & Utulu, 2011) was used as an instrument for data collection. The instrument was administered to the respondents with a guarantee of confidentiality and anonymity. The items in the questionnaire were measured on a five-point Likert-type scale.

To ensure the validity of the instrument, three experts whose research areas include OA validated the instrument. The reliability of the instrument was assessed using Cronbach's Alpha method. Ten copies of the questionnaire were administered to librarians outside the study area. The results of each sub-section of the Cronbach’s Alpha coefficient are as follows: Awareness of OA initiatives = 0.93; Implementation of OA initiatives = 0.82; Perceived influence of OA initiatives on knowledge

democratization = 0.88; and Challenges of Implementation of OA initiatives = 0.91. Therefore, the overall reliability coefficient of the instrument is 0.89. This high reliability coefficient indicates that the instrument is adequate for data collection. Data collection was carried out by the researchers and two research assistants.

Out of 102 copies of the questionnaire administered, 96 were properly completed and useful for data analysis, resulting in a 94.1% response rate. Descriptive statistics of frequency, mean, and standard deviation were used to analyse research questions. A criterion mean of 3.00 was used for the research questions (<3.00 = Low Extent/Disagree; 3.00 = Moderate Extent/Neutral; >3.00 = High Extent/Agree). The weighted means were derived from the aggregated ratings. A criterion weighted mean was established by calculating the scores.

Therefore: [(5 + 4 + 3 + 2 + 1)/5 = 3.00]

A paired-samples t-test was employed to test the hypothesis at a 0.05 level of significance.

4. Results

Table 1. Level of Awareness of OA Initiatives

S/N	Awareness of OA Initiatives	VHA	HA	MA	LA	VLA	$\bar{x}$	Std. Dev.
1	I am aware of the concept and principles of OA scholarly communication.	25	48	0	13	10	3.68	1.285
2	I am acquainted with Creative Commons licences	11	18	2	29	36	2.36	1.437
3	I am aware of Gold OA (publishing in OA journals)	18	52	1	16	9	3.56	1.238
4	I am aware of Green OA (self-archiving in repositories)	45	29	3	8	11	3.93	1.371
5	I am aware of Diamond OA (no-cost to authors or readers)	38	30	2	18	8	3.75	1.369
6	I am aware of the Directory of OA Journals (DOAJ)	31	49	1	11	4	3.96	1.085
7	I am aware of the Budapest OA Initiative	23	46	2	19	6	3.64	1.224
8	I am aware of Open Education Resources	16	26	4	32	18	2.90	1.425
	Average Mean						**3.47**	**1.304**

Note: VHA = Very High Awareness, HA = High Awareness, MA = Moderate Awareness, LA = Low Awareness, VLA = Very Low Awareness

Using a criterion mean of 3.00, Table 1 reveals that librarians in Nigerian universities possess a high level of awareness of OA initiatives ($\bar{x}$ = 3.47). The results show that DOAJ had the highest mean ($\bar{x}$ = 3.96, SD = 1.085). This is followed by Green OA ($\bar{x}$ = 3.93, SD = 1.371) and Diamond OA ($\bar{x}$ = 3.75, SD = 1.369). However, respondents indicated low awareness of Open Education Resources ($\bar{x}$ = 2.90, SD = 1.425) and Creative Commons licences ($\bar{x}$ = 2.36, SD = 1.437). These results suggest that while librarians are familiar with the major OA initiatives, awareness of the legal and educational dimensions of the OA movements remains comparatively limited.

Table 2. Level of Implementation of OA Initiatives

S/N	Implementation of OA Initiatives	VHL	HL	ML	LL	VLL	$\bar{x}$	Std. Dev.
1	My institution has a functional institutional repository	6	22	-	43	25	2.39	1.268
2	My institution's repository is registered in global directories like OpenDOAR	10	18	7	37	24	2.51	1.330
3	My Institutional Repository hosts a diverse range of research outputs, such as journal articles, theses/dissertations, and conference papers	4	24	2	41	25	2.39	1.235
4	Standardised software such as DSpace/EPrints is used to manage and preserve digital collections in my university.	2	26	4	37	27	2.36	1.215
5	My institution has a formally documented OA policy that provides clear guidelines for submission, access, and copyright management	13	15	1	53	14	2.58	1.295
6	My institution has integrated OERs into the institution's curriculum	2	24	3	48	19	2.40	1.128
7	My institution provides the necessary infrastructure to sustain its OA platforms.	11	32	1	37	15	2.86	1.342
8	The library conducts regular workshops and seminars for faculty members to encourage the practical utilisation of OA platforms	7	24	3	40	22	2.52	1.290
	Average Mean						2.50	1.263

Note: VHL = Very High Level, HL = High Level, ML = Moderate Level, LL = Low Level, VLL = Very Low Level

Findings in Table 2 show respondents' perception of implementation of OA initiatives in Nigerian university libraries is low ($\bar{x}$ = 2.5). This suggests that although awareness of OA may be relatively high, its implementation remains inadequate. The results show that aggregate mean fell below the criterion mean ($\bar{x}$ = 3.0), however, provision of infrastructure to sustain OA initiatives recorded the highest mean score ($\bar{x}$ = 2.86, SD = 1.342), while the use of standard software such as Dspace or EPrints recorded the lowest mean ($\bar{x}$= 2.37, SD = 1.215). These findings suggest that despite increasing awareness of OA initiatives among librarians, many Nigerian universities are yet to establish the institutional structures, policies, technological infrastructure, and capacity-building mechanisms required for effective implementation.

Table 3. Perceived Influence of OA Initiatives on Knowledge Democratisation

S/N	Perceived Influence of OA Initiatives on Knowledge Democratisation	SA	A	U	D	SD	$\bar{x}$	Std. Dev.
1	OA initiatives increase access to scholarly literature for researchers	29	44	2	13	8	3.76	1.254
2	OA initiatives enhance the visibility of scholarly output globally	26	56	3	7	4	3.97	0.989
3	OA initiatives reduce the financial barriers to accessing research information	21	63	1	5	6	3.92	1.002
4	OA initiatives support students in accessing current literature	38	45	1	8	4	4.09	1.057

5	OA initiatives bridge knowledge gap between local and international institutions	23	57	2	11	3	3.90	1.000
6	OA initiatives promote equity in access to scholarly resources across universities	32	49	1	9	5	3.98	1.095
7	OA initiatives support teaching and curriculum development in Nigerian universities	24	61	3	4	4	4.01	0.912
8	OA initiatives enhance collaboration between Nigerian and international scholars	19	56	1	13	7	3.70	1.153
	Average Mean						3.92	1.058

Note: SA = Strongly Agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly Disagree

Table 3 reveals that respondents perceived OA initiatives positively contribute to knowledge democratisation in Nigerian universities ($\bar{x}$ = 3.92). While all the statements recorded means greater than the criterion mean of 3.00, the item "OA initiatives support students in accessing current literature" was rated highest ($\bar{x}$ = 4.09, SD = 1.057). This was closely followed by the perception that "OA initiatives support teaching and curriculum development in Nigerian universities" ($\bar{x}$ = 4.01, SD = 0.912). However, the perception that OA initiatives enhance collaboration between Nigerian and international scholars" recorded the lowest mean ($\bar{x}$ = 3.70, SD = 1.153). These findings show that respondents perceived that OA initiatives contribute substantially to the democratisation of knowledge in terms of equitable access to scholarly information, reduction in economic barriers to research, increasing the visibility of research outputs, strengthening teaching and learning, and narrowing disparities in access to knowledge between institutions.

Table 4. Challenges in the Implementation of OA Initiatives in Nigerian Universities

S/N	Challenges in the implementation of OA Initiatives	SA	A	U	D	SD	$\bar{x}$	Std. Dev.
1	Lack of adequate funding for OA infrastructure and resources	42	44	1	6	3	4.21	0.972
2	Absence of institutional OA policies in universities	18	48	2	23	5	3.53	1.196
3	Inadequate training and capacity-building for librarians on OA practices	27	44	2	16	7	3.71	1.248
4	High article processing charges (APCs) make OA inaccessible	16	53	1	19	7	3.54	1.196
5	Poor internet connectivity hindering access to OA resources	36	39	2	15	4	3.92	1.185
6	Unstable electricity supply affecting OA infrastructures	37	47	1	8	3	4.11	1.004
7	Proliferation of predatory OA journals undermining researcher confidence in OA initiatives	17	22	2	36	19	2.81	1.446
8	Copyright and licensing concerns discourage me from archiving my publications	11	38	3	29	15	3.01	1.342
	Average Mean						3.61	1.199

Findings in Table 4 indicate that respondents agreed that several factors hinder the implementation of OA initiatives in Nigerian universities with average mean of 3.61. The results show that lack

of adequate funding for OA infrastructure and resources was highest ($\bar{x}$ = 4.21, SD = 0.972). This was closely followed by unstable electricity supply affecting OA infrastructure ($\bar{x}$ = 4.11, SD = 1.004). These underscore the critical role of financial and technological infrastructure in the implementation of OA initiatives. In contrast, proliferation of predatory OA journals ($\bar{x}$ =2.81, SD = 1.446) was the lowest mean score. This suggests that respondents considered it as a lower-rated barrier to the implementation of OA initiatives relative to infrastructural and institutional barriers. Overall, these findings suggest that financial limitation, inadequate infrastructure, unstable electricity supply, insufficient professional capacity, and weak institutional policy framework are barriers to the implementation of OA initiatives in Nigerian universities.

4.1 Hypothesis

H_{01}: There is no significant difference between the level of awareness and implementation of OA initiatives in Nigerian University Libraries.

Table 5. Paired-Samples T-test of the Levels of Awareness and Implementation of OA Initiatives in Nigerian Universities

Variables	Mean	Std. Dev.	t	Df	P
Level of Awareness	3.47	1.31	9.50	95	0.001
Level of Implementation	2.50	1.26			

Table 5 indicates the significant difference between the levels of awareness and implementation of OA initiatives in Nigerian universities. The results indicate that the mean awareness score ($\bar{x}$ = 3.47, SD = 1.31) was significantly higher than the mean implementation score ($\bar{x}$ = 2.50, SD = 1.26), t (95) = 9.50, p <0.001. Therefore, the null hypothesis stating that there is no significant difference between the level of awareness and the level of implementation of OA initiatives was rejected. The findings suggest that librarians possess a high level of awareness of OA initiatives. However, the awareness has not translated into a comparable level of implementation within Nigerian universities.

5. Discussion of the Findings

The study showed that librarians were most aware of DOAJ, Green OA, and Diamond OA, while awareness of CreativeCommons licences and OERs was comparatively lower. This indicates stronger familiarity with OA publishing models than with copyright, licensing, and OERs. The findings agree with Ajisebutu et al. (2024) and Edet and Horsfall (2025), and partly support Bakrin and Liasu (2024), who also reported varying levels of awareness and institutional support for OERs. The findings also indicate a low level of implementation of Open Access (OA) initiatives in Nigerian university libraries, which suggests a gap between the potential benefits of OA and its practical institutional adoption. The finding is consistent with Idiedo et al. (2024), who found that relatively few Nigerian university libraries had successfully developed institutional repositories and that in-

adequate funding, insufficient facilities, shortage of skilled ICT personnel, and the absence of clearly defined repository policies constrained their development. Similarly, Ezema and Eze (2024) reported that only 26% of the universities investigated in South-East Nigeria had fully implemented institutional repositories, highlighting persistent institutional and technological limitations. The findings revealed a clear disparity between academic librarians' awareness and implementation of OA initiatives in Nigerian university libraries. Even though awareness was high, implementation was low, with the paired-samples t-test confirming a significant difference between the two. This suggests that awareness alone is not sufficient for effective OA adoption. The findings support Edet and Horsfall (2025), who reported high OA awareness among librarians, and Ajisebutu et al. (2024), who observed that awareness had not translated into effective OA utilisation. The present study extends these findings by demonstrating that successful OA implementation depends on institutional readiness as well as individual knowledge. Despite the low level of implementation, respondents agreed that OA initiatives promote knowledge democratisation by improving access to scholarly literature, enhancing research visibility, reducing financial barriers, and supporting teaching and learning. These findings are consistent with UNESCO (2021), Robinson-Garcia et al. (2020), Idiedo et al. (2024), and Salau et al. (2024), all of whom identified OA as a key mechanism for expanding access to scholarly knowledge and strengthening research and education. The findings further indicates that significant challenges constrain OA implementation. The results demonstrate that financial and infrastructural constraints remain central obstacles to sustainable OA implementation. The prominence of funding challenges corroborates Idiedo et al. (2024), who identified inadequate funding as the most frequently reported challenge to institutional repository development in Nigerian university libraries. Similarly, UNESCO (2021) emphasises that open science requires sustained financial and human-resource investment in digital infrastructure, reliable internet connectivity, and long-term preservation systems. In practical terms, unreliable electricity and internet services can disrupt repository availability, restrict users' access to digital materials, and increase the costs of maintaining OA platforms.

6. Conclusion

This study examined the awareness, implementation, and challenges of OA initiatives for knowledge democratisation in Nigerian university libraries, using university libraries in Ekiti and Ondo States as the study context. The findings revealed that librarians have a high level of awareness of OA initiatives, but a low level of implementation, indicating a significant awareness- implementation gap. Respondents perceived that OA initiatives positively contribute to knowledge democratisation by improving access to scholarly information, increasing research visibility, reducing financial barriers, and supporting teaching, learning, and research. However, inadequate funding, poor ICT infrastructure, unstable electricity supply, weak institutional policies, and insufficient professional training remain major barriers to OA implementation in university libraries. The study therefore concludes that awareness alone is insufficient to achieve effective OA implementation. Strengthening institutional policies, improving infrastructure, increasing funding, and enhancing librarians' capacity are essential for translating awareness into sustainable OA practices that advance knowledge democratisation

in Nigerian universities.

7. Recommendations

Based on the findings, the following recommendations were made:

1) University management and library administrator should prioritise the development and implementation of clear OA policies, supported by appropriate funding, designated responsibilities, and periodic monitoring. University management should provide institutional backing, while library administrators should coordinate implementation. Due to paucity of funds, university could begin with existing infrastructure and phased implementation plans before embarking on more costly technological investments. The feasibility and impact of these measures should be assessed through implementation records and measurable outcomes rather than inferred from respondents perceptions alone.

2) The relatively lower awareness of Creative Commons licensing and OERs suggests a need for targeted training on copyright permissions, licence selection, content reuse, adaptation and the development and dissemination of OERs. Therefore, University librarians, repository managers and research support personnel in collaboration with relevant Departments or Units in the university should organise capacity-building programmes to address these gaps. Training should use practical exercises and existing institutional resources where possible, thereby limiting costs.

3) Institutions should strengthen the technological and operational arrangements needed to translate OA commitments into practice. Library administrators and ICT units should assess repository functionality, internet connectivity, metadata quality, preservation arrangements and the availability of staff to manage and maintain OA services. Progress should be evaluated through repository audits, deposit and accessibility records, content availability, usage statistics and evidence of policy compliance.

8. Limitations and Future Research

The study offers a valuable contribution to knowledge, however, it has some limitations. The study was conducted in six public and private universities in Ekiti and Ondo states. Therefore, the findings may not be generalised to all Nigerian universities. The study also focused only on academic librarians and relied on self-reported survey data, which reflect respondents' awareness, perceptions, and experiences rather than independently verified OA implementation practices. Future study should include universities from other regions of Nigeria, with adequate representation of public and private universities and institutions with different level of financial and technological capacities. Researchers should also adopt mixed-methods approaches that combine librarian surveys with institutional repository audits, OA policy analysis, usage records and interviews with librarians, university administrators, repository managers, researchers and other relevant stakeholders. This triangulation would help distinguish reported awareness and implementation from actual institutional practices, identify gaps between policy and practice, and explain the organizational conditions that

facilitate or constrain OA initiatives.

Statements and Declarations

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Generative AI Use Statement: The authors made use of Artificial Intelligence tools developed by OpenAI for idea generation, data interpretation, and grammar refinement. The authors carefully reviewed and edited the content afterward and assume full responsibility for the final version of the publication.

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