BARRIERS TO OPEN ACCESS PUBLISHING AMONG ACADEMIC STAFF IN STATE-OWNED UNIVERSITIES IN SOUTH-SOUTH NIGERIA

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Abstract

The study examined the barriers to open access publishing among academic staff in state-owned universities in South-South Nigeria. The study aims to assess awareness of open access publishing, identify its major barriers, evaluate the influence of institutional support and recommend strategies for improving engagement with Open Access publishing. Descriptive survey research design was adopted, with a structured questionnaire titled: Questionnaire on Barriers to Open Access Publishing in South-South Universities (BOAPSSU). A non-probability sampling technique using purposive approach was adopted. Participants were chosen based on their accessibility and relevance to the study. A total of 250 academic staff drawn from Rivers State University, Akwa Ibom State University and Niger Delta University, Bayelsa were purposively selected and given questionnaires. Out of these, 221 questionnaires were properly completed and returned. Data were presented in tables for clarity and analyzed using mean scores and standard deviation. Results indicated a moderate level of awareness of open access publishing among respondents. Major barriers identified were inadequate ICT facilities, unreliable internet access, costly article processing charges, and weak institutional repositories. In addition, insufficient institutional support and the absence of capacity-building initiatives were found to restrict staff engagement with open access publishing. The study concludes that although open access publishing offers significant benefits such as wider visibility, increased citations and global academic recognition, systemic and financial obstacles also remain barriers. The paper recommends improving ICT facilities, subsidizing article processing charges, strengthening institutional repositories and organizing training to enhance sustainable open access publishing adoption among academic staff in state-owned universities.

Keywords: Open Access Publishing, Academic Staff, Barriers, Universities, Nigeria

Introduction

The current digital revolution has significantly advanced open access publishing by making scholarly works freely available and unrestricted globally. The open access movement sought to provide open platforms for the dissemination of scholarly materials faster, cheaper and inclusive. It challenged the traditional publishing system that often has long publication pipeline and disseminates scholarly works through subscription-based journals which are largely controlled by commercial publishers. The traditional system operates slowly and restricts equal access to knowledge materials particularly for researchers in developing countries who cannot afford subscription fees (Chen, 2024). Therefore, open access publishing has emerged to provide alternative publishing routes especially for researchers in developing economies to publish their works in open platforms and preprint servers for wider visibility and impact. In developing countries,

researchers comprised scholars in universities and research institutes across diverse fields. They produce valuable knowledge through open access publishing which provide opportunity for them to share their works and contribute to global scholarship.

Open access publishing makes scholarly works freely accessible to the general public. According to McKenna (2024) this initiative ensures that academic resources are provided to readers at no cost and can be reused for educational purposes. The author highlights several types of open access including Gold which refers to publishing in fully open access journals, often requiring authors to pay an article processing charge. There is Green which involves depositing research outputs in institutional or subject-based repositories, also known as self-archiving. Diamond is another type where works are made freely available without any article processing charge. The last in the category is Hybrid where subscription-based journals allow authors to make individual articles open access for a fee.

The visibility and impact of scholarly works are enhanced by open access publishing. It provides several advantages to researchers such as overcoming access barriers, attracting wider audience across different regions of the world, increasing citations and generates academic recognition as well as utilization of findings for policy making beyond the academic circles (Pecora et al, 2025). The discovery of research findings at a global level helps researchers in less developed countries to strengthen their academic reputation and institutional research profiles. Universities and research institutions leverage open research output of their faculty because it strengthens visibility that attracts international collaboration, grants and partnership. This ultimately promotes university or institutional competitiveness. Open access publishing plays a significant role in citation counts which further add value to universities' performance in ranking indicators (Baldock, 2016). Thus, open knowledge sharing is increasingly recognized in international assessments of academic excellence of universities as faculty scholarly outputs are more widely read, cited and utilized.

Barriers to open access publishing among researchers in less developed countries are the obstacles that hinder them from freely disseminating their research outputs (Mensah, 2024). Although, many open access platforms do not impose publishing fee, some reputable open access journals charge article processing fees. At the same vein, researchers in less developed societies still face certain challenges that limit their ability to freely publish their scholarly works. Barriers such as lack of adequate budgets persist in educational systems of the developing countries. Limited financial resources mean that universities operate with insufficient funds which affect staff motivation to publish due to low wages and inadequate research support (Ogunode, Attah & Ebute, 2024; Lund et al, 2021). This situation widens the publishing gap between researchers in developed and less developed countries. However, researchers are expected to take the full advantage of open access opportunities, but weak technological infrastructure such as poor internet connectivity and limited access to digital devices as well as poorly developed institutional repositories posed another barrier to open access publishing. In a situation where universities lack adequate and functional digital infrastructure, staff will lack the technical means to upload and share their work freely. This has the potential of reducing the visibility of research output. In addition, there are challenges related to low awareness of open access platforms and opportunities, lack of institutional policy support, concerns over journal credibility and insufficient training in digital publishing tools (Greussing et al, 2020).

Statement of the Problem

Open access publishing has been embraced globally as a means of advancing the reach and impact of research outputs. However, in the Nigerian context, particularly in state-owned universities, academic staffs encounter significant obstacles that limit their ability to publish widely in open access platforms. While many the platforms do not impose publishing fees, journals with article processing charges present major

financial obstacles for academics with limited funding. Beyond financial constraints, infrastructural inadequacies such as poor internet connection, poorly developed institutional repositories and lack of digital publishing facilities undermine open knowledge dissemination. Institutional policy gaps further discourage faculty engagement with open publishing practices, while uncertainty regarding journal quality, driven by the prevalence of predatory journal outlets, reduces confidence in open access publishing. Limited training and awareness equally compound the problem, restricting scholars' ability to navigate the open publishing system effectively. These barriers ultimately limit the visibility and global competitiveness of research from state-owned universities. This study therefore seeks to explore and map these challenges, analysing their impact on academic staff publishing practices in open platforms.

Objectives of the study

The following are the objectives of the study:

1. To examine the level of awareness of open access publishing among academic staff in state-owned universities in south-south Nigeria.
2. To identify the major barriers in adopting open access publishing among academic staff in state-owned universities in south-south Nigeria.
3. To assess the extent of infrastructure available for promoting open access publishing in state-owned universities in south-south Nigeria.
4. To suggest strategies for overcoming the barriers to open access publishing among academic staff in state-owned universities in south-south Nigeria.

Research questions

The study seeks to answer the following research questions:

1. What is the level of awareness of open access publishing among academic staff in state-owned universities in south-south Nigeria?
2. What are the major barriers in adopting open access publishing among academic staff in state-owned universities in south-south Nigeria?
3. What is the extent of infrastructure available for promoting open access publishing in state-owned universities in south-south Nigeria?
4. What are the strategies for overcoming the barriers to open access publishing among academic staff in state-owned universities in south-south Nigeria?

Methodology

The study adopted a descriptive survey design to investigate the barriers to open access publishing among academic staff in state-owned universities in South-South Nigeria. The population of the study consisted of 250 academic staff drawn from three universities, namely Rivers State University 120, Akwa-Ibom State University 85 and Niger Delta University Bayelsa 45. A non-probability approach using purposive sampling was adopted to specifically target academic staff who were reachable and willing to participate. This method was adopted since the precise size and composition of the population across the three universities could not be confirmed by the researcher. The instrument for data collection was a structured questionnaire titled: Questionnaire on Barriers to Open Access Publishing in South-South Universities. It was divided into four sections covering awareness of open access publishing, barriers to adoption, availability of infrastructure and strategies for overcoming barriers, with items measured on a five-point Likert scale. Two experts were engaged to validate the research questionnaire, while Cronbach's alpha

formula was used to establish its reliability with an acceptable overall internal consistency of 0.70. Furthermore, 221 questionnaires were correctly filled and returned out of the 250 distributed resulting in 88.4% response rate. Descriptive statistics of mean and standard deviation was used for the research data analysis. Data were presented in tables showing the distribution of responses and statistical results.

Decision Rule

The study employs a decision rule to interpret mean scores from survey responses. The scale provides a structured method for analyzing survey data objectively as follows:

Response	Rating Scale	Mean Range
Very High Agreement	5	4.50 – 5.00
High Agreement	4	3.50 – 4.49
Moderate	3	2.50 – 3.49
Low Agreement	2	1.50 – 2.49
Very Low Agreement	1	0.50 – 1.49

Results

Table 1: Level of Awareness of Open Access Publishing

RQ1: What is the Level of Awareness of Open Access Publishing?

S/N	Items	$\bar{X}$	SD	Likert Interpretation	Decision
1	I am aware of the concept of open access publishing.	3.85	0.82	4	High Agreement
2	I understand the difference between open access and traditional subscription-based journals.	3.60	0.95	4	High Agreement
3	I am aware of open access platforms relevant to my field.	3.20	1.05	3	Moderate Agreement
4	I know how to identify reputable open access journals.	2.95	1.12	3	Moderate Agreement
5	I have previously published or considered publishing in open access journals.	2.40	1.30	2	Low Agreement
	Grand mean	**3.20**		**3**	**Moderate**

The table reveals a moderate level of awareness regarding open access publishing. While a majority of respondents demonstrated high agreement in understanding open access (Mean = 3.85) and its distinction from traditional subscription-based journals (Mean = 3.60), awareness of specific open access platforms (Mean = 3.20) and the ability to identify reputable journals (Mean = 2.95) were rated moderately. Notably,

engagement with open access publishing, as reflected in prior experience or consideration of publishing in such journals, was low (Mean = 2.40). The grand mean of 3.20 situates the overall awareness at the moderate range.

Table 2: Major Barriers in Adopting Open Access Publishing
RQ2: What are the Major Barriers in Adopting Open Access Publishing?

S/N	Items	$\overline{X}$	SD	Likert Interpretation	Decision
1	Article processing charges (APCs) prevent me from publishing in open access journals.	4.15	0.90	4	High Agreement
2	Limited institutional funding restricts my ability to publish in open access journals.	3.90	0.85	4	High Agreement
3	Lack of awareness or training on open access publishing hinders my participation.	3.35	1.00	3	Moderate Agreement
4	Poor internet connectivity affects my ability to access or submit to open access journals.	4.60	0.88	5	Very High Agreement
5	Concerns about the quality and credibility of some open access journals discourage me from publishing.	2.80	1.10	3	Moderate Agreement
6	Lack of institutional policies or incentives for open access publishing reduces my motivation.	3.75	1.05	4	High Agreement
7	Time constraints due to teaching and administrative duties hinder my ability to publish in open access journals	3.20	1.25	3	Moderate Agreement
	Grand mean	**3.54**		**4**	**High Agreement**

The table reveals that financial limitations were strongly acknowledged by the respondents, with high agreement that article processing charges (Mean = 4.15) and limited institutional funding (Mean = 3.90)

restrict open access publishing. Poor internet connectivity emerged as the most critical infrastructural barrier, receiving very high agreement (Mean = 4.60). Institutional factors also played a significant role, as lack of policies or incentives (Mean = 3.75) was widely seen as demotivating factor. Moderate agreement was observed for lack of awareness or training (Mean = 3.35), concerns about journal credibility (Mean = 2.80), and time constraints due to academic workload (Mean = 3.20). The grand mean of 3.54 places the overall barrier at the high agreement range.

Table 3: Infrastructure Available for Promoting Open Access Publishing

RQ3: What is the Extent of Infrastructure Available for Promoting Open Access Publishing?

S/N	Items	$\overline{X}$	SD	Likert Interpretation	Decision
1	My university provides access to online repositories for open access publishing.	3.40	0.95	3	Moderate Agreement
2	Adequate internet facilities are available for research and publication activities.	3.30	0.90	3	Moderate Agreement
3	The university library offers resources and guidance on open access publishing.	3.25	1.00	3	Moderate Agreement
4	Institutional support exists for covering article processing charges in open access journals.	2.40	1.10	2	Low Agreement
5	Training or workshops on open access publishing are regularly provided by my university.	2.35	1.20	2	Low Agreement
	Grand mean	**2.94**		**3**	**Moderate Agreement**

The table indicates a moderate level of provision of infrastructure for supporting open access. Respondents reported moderate agreement regarding access to online repositories (Mean = 3.40), internet facilities (Mean = 3.30), and library resources (Mean = 3.25). However, low agreement was recorded for institutional support in covering article processing charges (Mean = 2.40) and the provision of training or workshops (Mean = 2.35). The grand mean of 2.94 places the overall response at the moderate range.

Table 4: Strategies for Overcoming Barriers to Open Access Publishing
RQ4: What are the Strategies for Overcoming Barriers to Open Access Publishing?

S/N	Items	$\overline{X}$	SD	Likert Interpretation	Decision
1	Providing institutional funding for article processing charges would encourage open access publishing.	4.60	0.85	5	Very High Agreement
2	Organizing regular workshops and training on open access publishing would increase adoption.	4.10	0.90	4	High Agreement
3	Developing clear university policies supporting open access publishing would improve engagement with open access publishing.	4.55	0.80	5	Very High Agreement
4	Improving internet infrastructure and access to online research tools would enhance my ability to publish in open access journals.	4.70	0.75	5	Very High Agreement
5	Establishing mentorship programs for early-career researchers on open access publishing would help overcome barriers.	3.95	0.95	4	High Agreement
	Grand mean	**4.38**		**4**	**High Agreement**

The table shows that respondents expressed very high agreement that providing institutional funding for article processing charges (Mean = 4.60), developing clear university policies (Mean = 4.55), and improving internet infrastructure and access to online research tools (Mean = 4.70) would significantly enhance their ability and motivation to publish in open access journals. High agreement was also recorded for organizing regular workshops and training (Mean = 4.10) and establishing mentorship programs for early-career researchers (Mean = 3.95). The grand mean of 4.38 places the overall response at the high agreement range

Discussion

The findings of this study provide a comprehensive view of the multifaceted barriers to open access publishing among academic staff in state-owned universities in south-south Nigeria. Results of the study

reveal a moderate level of awareness of open access publishing among the academic staff. The respondents equally understood the concept of open access and its distinction from traditional publishing. Based on the findings of the study, their familiarity with specific platforms and ability to identify reputable open access journals was limited. Engagement with open access publishing was also notably low. This aligns with the findings from the study conducted by Nobes and Harris (2019) which revealed that the perception of open access publishing was remarkably good among researchers in low- and middle-income countries. This is important because a moderate level of awareness or a good perception of open access publishing will depict the fact that academic staffs have some understanding of the benefits offered by open access platforms such as wider visibility, accessibility and impact on open knowledge dissemination.

In this study, financial constraints is seen as dominant barrier to open access publishing with article processing charges receiving high agreement among the respondents. The respondents strongly indicated that article processing charges and inadequate institutional funding limit their ability to publish in open access journals. Another barrier highlighted was infrastructural challenges depicting internet connectivity as the most critical issue. This finding corroborates with Papin–Ramcharan and Dawe (2006) that the lack of robust ICT infrastructure and dependable internet connectivity continues to constrain both access and engagement with open access publishing. In addition, the respondents pointed to the absence of institutional policies and incentives as significant barriers with moderate concerns about open journal credibility.

The lack of training and time constraints also restrict their engagement with open access platforms, while access to online repositories was rated as moderate. The results generally show that lack of structured policies significantly affect publishing behavior among academic staff. Moreover, the absence of clear open access policies and incentives discourages academic staff from engaging in open access publishing. The finding agrees with McKenna (2024) who noted that Nigeria lacks an open science policy, thereby hindering scholars' access to research materials. Finally, the respondents have shown strong agreement on the need for strategies to enhance their motivation to publish in open access platforms. These strategies are the provision of institutional funding for article processing charges, adoption of clear open access publishing policies in the universities, improved internet connection and organizing open access publishing workshops and training particularly for early career researchers.

Conclusion
The digital revolution and the open access movement have created opportunities for academic staff in universities to disseminate their scholarly works for wider accessibility. Beside this, it enhances scholarly impact by breaking down access barriers, improving research inclusivity and increasing citations. In this study, findings reveal a moderate level of awareness of open access publishing among academic staff in state-owned universities in south-south Nigeria. Despite this advantage, the academic staff in these universities still face notable barriers in open access publishing. There is presence of weak technological infrastructure, unreliable internet connectivity, limited institutional repositories and financial constraints which remain significant obstacles. This highlights the need for improving infrastructure, institutional policies and financial support mechanisms to enable researchers in state-owned universities in south-south Nigeria take full advantage of the benefits of open access publishing.

Recommendations

Based on the findings of the study, the following recommendations are hereby offered:

1. The state-owned universities in south-south Nigeria should invest heavily on infrastructure such as modern digital tools, reliable internet connectivity and well-developed institutional repositories to support access and engagement in open access publishing by academic staff. This can be achieved by engaging in partnership with ICT providers to improve bandwidth and internet coverage on campuses. Also investment should be made in institutional repositories, digital publishing platforms and campus-wide Wi-Fi while libraries should be equipped with the necessary tools for supporting open access publishing initiatives.

2. The universities should establish dedicated funding schemes or grants to cover article processing charges thereby reducing the financial burden that prevents many academics from publishing in reputable open access journals. This can be achieved by creating a special research funds or grants earmarked for open access publishing. The universities can set aside part of their research budget to subsidize article processing charges for staff, particularly early-career researchers. Partnerships with reputable open access publishers can also help secure discounts or waiver.

3. Libraries in the universities should organize regular training workshops and seminars on open access publishing, identifying predatory journals and maximizing research visibility. Also online modules and orientation programs can be integrated into staff development plans. There should be collaboration with international open access networks; this can help by harnessing training resources on open access publishing.

4. There is need for clear policies that encourage open access publishing and integrating open access into research evaluation frameworks. This can be achieved by drafting and adopting policies that encourage depositing research outputs in institutional repositories to make them freely available.

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