Academic Libraries' Roles in Open Access Publishing for Visibility and Accessibility of Scholarly Publications.

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Abstract

This study investigated Academic Libraries' role in Open Access Publishing for visibility and accessibility of scholarly publications. The study was guided by three specific objectives. The study adopted descriptive survey designed and employed the use of self-developed questionnaires to generate responses from librarians in academic libraries in Northern Nigeria. The questionnaire was administered via Google form through professional and institutional social media platforms of the librarians. 137 responses were found valid for data analysis. Findings revealed that academic libraries in Northern Nigeria are highly involved in the promotion of open access publishing initiatives. Strategies employed by these libraries to encourage open access publishing include promotion and awareness campaigns on the citation advantage of open publishing. Challenges of open access publishing as identified by the findings included funding and absence of institutional policies regarding open access publishing initiative. Partnership with development partners and continued advocacy in Northern Nigerian academic libraries are some of the recommendations proffered based on the findings of the study.

Keywords: Open Access Publishing Models, Scholarly Research, Visibility, Accessibility.

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Introduction

Open access publishing models have emerged as transformative mechanisms for disseminating scholarly research globally. This has helped in transcending traditional barriers to access, promoting the democratization of knowledge and visibility. By removing subscription barriers and providing free, unrestricted access to scholarly research, open access publishing models facilitate the widespread dissemination of research findings. Suber (2012) note that open access publishing embodies the principles of accessibility, affordability, visibility and inclusivity, aligning with the fundamental goals of academic scholarship to advance knowledge and foster innovation.

Libraries employ various strategies to increase open access (OA) publishing of scholarly publications, one of which is the establishment of institutional repositories. These repositories store and disseminate the research output of an institution, making it freely accessible online. By archiving preprints, post prints, and published versions of scholarly articles, institutional repositories help overcome access barriers posed by subscription-based journals. Libraries also negotiate transformative agreements with publishers, which often combine subscription and OA publishing costs. This allows authors affiliated with the institution to publish their research in OA journals without incurring additional fees, thereby increasing the availability of OA literature. Moreover, libraries advocate for and support the adoption of OA policies within their institutions, encouraging faculty and researchers to deposit their work in repositories and publish in OA journals (Pinfield, 2020)

Another significant strategy is providing financial support for OA publishing through the establishment of OA funds or publication grants. These funds help cover the article processing charges (APCs) that many OA journals require. Additionally, libraries offer educational programs and workshops to raise awareness about OA benefits, copyright issues, and how to comply with OA mandates. By equipping researchers with knowledge and resources, libraries foster a culture of OA publishing. Libraries also collaborate with academic consortia and networks to leverage collective bargaining power and share resources, further enhancing OA initiatives. These collaborative efforts often result in shared infrastructure, reduced costs, and increased advocacy for OA policies at regional, national, and international levels (Shieber, 2019)

The accessibility of scholarly research and the adoption of open access publishing models in North Nigerian libraries are crucial components of academic development and knowledge dissemination in the region. With limited access to academic resources, the promotion of open access initiatives has become imperative to bridge the gap and enhance scholarly communication. A study by Haruna, Yusuf, & Afolabi (2020) highlights the challenges faced by researchers in Nigeria due to limited access to scholarly materials, emphasizing the need for open access solutions to facilitate knowledge dissemination. North Nigerian libraries have increasingly embraced open access publishing models to address this issue, with institutions such as Ahmadu

Bello University and Bayero University Kano establishing institutional repositories to showcase research output (Ibrahim, 2018).

In recent years, there has been a growing recognition of the importance of making scholarly research accessible to a wider audience, especially in regions with limited access to academic resources. Open access publishing models facilitate free, unrestricted access to scholarly literature, thereby democratizing information and fostering collaboration among researchers across diverse disciplines. Furthermore, initiatives by government agencies, international organizations, and funding bodies have played a pivotal role in promoting open access publishing in North Nigerian libraries. For instance, National Universities Commission (NUC) has advocated for the adoption of open access policies in higher education institutions, encouraging researchers to publish their work in open access journals or deposit their manuscripts in institutional repositories. Similarly, organizations such as the International Network for the Availability of Scientific Publications (INASP) and the Open Access Nigeria Initiative have provided support and resources to North Nigerian libraries to strengthen their capacity in open access publishing and improve the visibility of scholarly research in the region. Through these collaborative efforts, the research therefore determined strategies employed by the libraries in promoting open access publications.

Statement of the Problem

Open access to scholarly research is crucial for advancing knowledge and innovation across the various disciplines. By removing paywalls and subscription barriers, open access ensures that scholarly researches are accessible to a global audience. This democratization of access foster greater collaboration and accelerates discoveries by allowing researchers to freely access and build on each other's work.

The lack of open access to scholarly research significantly hinders the dissemination of knowledge. When scholarly researches are locked behind expensive subscriptions, only those affiliated to well funded institutions can afford access to them. This limits the potential for cross-disciplinary and international collaborations, as many researchers cannot engage with the latest findings or contributes their findings.

Conducting a study on open access publishing in academic libraries in Northern Nigeria is essential to enhance the accessibility and visibility of scholarly research in the region. This study is therefore germane to identify some of the peculiar challenges of open access publishing in academic libraries within the borders of Northern Nigeria.

Research Questions

The study was guided by the following research questions:

1. How can libraries in Northern Nigeria increase the visibility and accessibility of scholarly publishing?

2. What is current involvement of academic libraries in Northern Nigeria in open access publishing initiatives?

3. What are the challenges faced by academic libraries in Northern Nigeria in promoting open access publishing?

Literature Review

Laakso and Björk (2016) conducted an extensive review of contemporary Open Access (OA) models, examining their impact on the accessibility and visibility of scholarly communication. Their study explored various OA models, including gold open access, green open access, hybrid journals, and institutional repositories. The findings underscored that while OA significantly enhances the accessibility of scholarly research, making it more widely available and increasing its visibility, challenges such as funding, sustainability, quality assurance, and copyright compliance remain critical barriers to its broader adoption.

Piwowar et al. (2018) conducted an in-depth investigation into the citation advantage of open access (OA) publishing compared to subscription-based publishing in scholarly journals. Their study employed citation metrics to evaluate the impact of OA on academic visibility. The findings revealed a substantial citation advantage for articles published in OA journals across various disciplines, highlighting the enhanced visibility that OA provides in the scholarly community.

In their examination of the patterns, drivers, and barriers of open access (OA) publishing models and their impact on the accessibility of scholarly research, McKiernan et al. (2016) utilized a comprehensive dataset comprising over 1.8 million articles from various academic disciplines. Their analysis focused on trends in OA publishing and the factors influencing researchers to choose open dissemination of their work. The study identified several barriers to OA publishing, including concerns about journal quality, article processing charges, and copyright restrictions, which hinder researchers from publishing openly.

Methods

A descriptive survey design was used with self-developed questionnaire entitled Visibility and Accessibility of Scholarly Research through Open Access Publishing Model (VASROAPM). The questionnaire has four sub-scales in four sections. Section A of the instrument focused on demographic characteristics of the respondents, Section B on the current involvement of academic libraries in Northern

Nigeria in open access publishing initiatives, Section C on the challenges faced academic libraries in Northern Nigeria in promoting open access initiatives while Section D covered strategies that could be used to enhance the role of academic libraries in Northern Nigeria in promoting open access initiatives.

The population of the study consists of all academic librarians working in Northern Nigeria; Convenience sampling was adopted in order to reach the libraries within the research domain. The instrument was prepared using Google form and shared on the various social media platforms (institutional and professional) of the librarians, in order to enable the researchers to obtain data. By 28th March (2024), 141, responses were recorded in the Google form, with 137 responses found valid for analysis. The data collected were then analysed using frequency count, percentages, mean, standard deviation, and the results presented in Tables 1-3.

Results

Table 1: The role of libraries in Northern Nigeria in increasing the visibility and accessibility of scholarly publishing

SN	Opinion	SA	A	D	SD	x̄	Std.	Decision
1	Engaging in outreach and awareness campaigns to promote the benefits of open access among researchers and stakeholders is an effective strategy	43	69	13	12	3.04	2.64	Agree
2	Establishing partnerships with publishers or organizations to negotiate favourable open access agreements is a viable strategy	36	79	13	09	3.04	2.61	Agree
3	Allocating dedicated funding and resources for supporting open access initiatives is necessary	31	81	17	08	2.99	2.55	Agree
4	Advocating for institutional policies that support open access publishing is an effective strategy	34	72	19	12	2.93	2.53	Agree
5	Providing training and workshops on open access publishing for library staff and researchers is an effective strategy	41	52	25	19	2.75	2.52	Agree
	Weighted x̄					**2.95**		

Source: Researchers' Survey, 2024

Key: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree.
Criterion Mean = 2.50

The result in Table 1 showed the strategies that need to be adopted in order to improve the visibility and accessibility of scholarly research in academic libraries in Northern Nigeria. With the highest $\bar{x} = 3.04$, outreach and awareness campaigns to promote the benefits of open access publishing among researchers is deem to be the best strategy to be adopted by the academic libraries. The overall $\bar{x} = 2.95$ indicated that all the other suggested strategies are equally vital in improving open access publishing in academic libraries in Northern Nigeria. This finding is in line with the findings of Burns (2014) who indicated that outreach campaign and partnership have been reported to be effective strategies of promoting open access initiatives across diverse institutions.

Table 2: Current involvement of academic libraries in Northern Nigeria in Open Access publishing initiatives

SN	Opinion	SA	A	D	SD	$\bar{x}$	Std.	Decision
1	Researchers in the institution are encouraged by our academic library to publish their work in open access journals by providing necessary information on OA outlets	37	65	19	16	2.90	2.52	Agree
2	Open access resources are easily accessible and prominently featured in our academic library	35	47	31	24	2.68	2.36	Agree
3	Our academic library collaborates effectively with publishers or organizations to promote open access initiatives.	29	63	28	17	2.76	2.3	Agree
4	Our academic library actively promotes open access publishing initiatives through the establishment of digital repositories	24	59	31	23	2.61	2.27	Agree
5	Our library staff demonstrate a strong understanding of open access publishing and provide support to researchers	23	31	59	24	2.39	2.06	Disagree
	Weighted $\bar{x}$					**2.67**		

Source: Researchers' Survey, 2024

Data presented in Table 2 showed the current level of involvement of academic libraries in Northern Nigeria in Open Access Publishing. With a highest $\bar{x} = 2.52$, encouragement of academic staff to publish their researchers in Open Access platforms represent the highest form of involvement of academic libraries in Open Access publishing. The overall $\bar{x} = 2.67$ is above the criterion $\bar{x}$ (2.50), this indicate that academic libraries in Northern Nigeria involvement in open access publishing

is at moderate level. These findings support the suggestion made by Musa et al (2023) in which the authors reported higher level of involvement of libraries in promoting open access.

Table 3: Challenges faced by academic libraries in Northern Nigeria in promoting Open Access publishing.

SN	Opinion	SA	A	D	SD	x̄	Std.	Decision
1	Cultural or institutional barriers hinder the adoption of open access practices by the academic library	38	74	12	13	3.00	2.60	Agree
2	Limited funding poses a challenge for supporting open access initiatives in our academic library	39	63	16	19	2.89	2.53	Agree
3	Resistance from publishers or academic institutions towards open access publishing presents a challenge	33	71	17	16	2.88	2.50	Agree
4	There is a lack of awareness and understanding of open access among our library staff	29	67	23	18	2.78	2.41	Agree
5	Technological infrastructure constraints hinder the hosting of open access repositories in the academic library	31	59	24	23	2.72	2.38	Agree
	Weighted x̄					**2.85**		

Source: Researchers' Survey, 2024

Results presented in Table 3 showed the challenges faced by Northern Nigerian academic libraries in open access publishing. The result showed that cultural and institutional barriers hinder the adoption of Open Access publishing in the libraries (**x̄ = 2.60**). Other challenges indicate in the instruments showed varying degrees of significance and hindrance to the adoption of Open Access publishing in the libraries. The overall x̄ = 2.85showed that the libraries faced various challenges in Open Access publishing. This finding corroborates the results reported by Jain (2014) in which several institutions indicated inadequate funding and poor technological infrastructure as some of the challenges facing open access publishing in African countries.

Discussion

The study revealed that outreach and awareness campaigns promoting the benefits of open access publishing (x̄ = 3.04) were the most effective strategy for improving the visibility and accessibility of scholarly research in academic libraries in Northern Nigeria. The overall x̄ = 2.95 indicated that all suggested strategies are important for enhancing open access adoption. Academic libraries have a moderate level of involvement in open access publishing (x̄ = 2.67), with the encouragement of academic staff to publish on open platforms being the most common activity (x̄ = 2.52). However, they face significant challenges, particularly cultural and institutional barriers (x̄ = 2.60), with an overall x̄ = 2.85 indicating various obstacles to open access publishing.

The findings suggest that academic libraries in Northern Nigeria must take proactive steps to increase awareness and support for open access publishing among researchers. A multifaceted approach, combining outreach with policy and technological improvements, is essential for expanding their involvement in open access. Overcoming cultural and institutional barriers will require strategic advocacy, institutional collaboration, and support for researchers to create an inclusive research environment. Enhancing open access publishing will help libraries promote equitable access to knowledge, fostering innovation and contributing to sustainable development goals in Nigeria.

Recommendations

The following are recommended based on the findings of this study:

1. Academic libraries in Northern Nigeria should continue to advocate for researchers and academics in their domain to publishing their researchers in open access platforms as this will increase their citation rates and visibility.
2. Academic libraries should be encouraged to establish digital repositories and come up with policies mandating researches emanating from their institutions to be uploaded in the repositories for visibility and access of their publications
3. International donors and development partners should be encouraged by academic libraries to support and provide assistance, financial and infrastructural, to the development of open access publishing platforms in their institutions.

Conclusion

The findings of the study underscore the importance of targeted strategies to enhance the visibility and accessibility of scholarly research in academic libraries in Northern Nigeria. Outreach and awareness campaigns, with the highest mean score (x̄ = 3.04), emerged as the most effective strategy for promoting open access publishing among researchers. This aligns with Burns (2014), who emphasized the efficacy of such campaigns in diverse institutions. The moderate level of involvement in open access publishing, with a mean score of x̄ = 2.67, indicates that academic libraries are

somewhat engaged in encouraging academic staff to publish on open access platforms, supporting Musa et al.'s (2023) findings. However, significant challenges persist, with cultural and institutional barriers ($\bar{x}$ = 2.60) being the most prominent, alongside other hindrances identified. These challenges reflect similar issues highlighted by Jain (2014), who pointed to inadequate funding and poor technological infrastructure as obstacles to open access publishing in African countries.

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