

Open Access in Developing Countries: Challenges and Opportunities in Academic Publishing

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Article Info

Received: June 24, 2024

Revised: August 28, 2024

Accepted: September 30, 2024

Online Version: December 28, 2024

Abstract

Challenges such as limited infrastructure, financial constraints, and lack of awareness hinder the effective implementation of open access (OA) initiatives, hindering their continued growth as a means to democratize knowledge and increase research visibility, particularly in developing countries. This study aims to investigate the current state of open access publishing in developing countries, identifying challenges and opportunities that could shape the future of academic dissemination. A mixed-methods approach was used, combining quantitative surveys of researchers and qualitative interviews with key stakeholders, including publishers and policymakers. The study collected data from several developing countries to provide a comprehensive overview of the OA landscape. The findings indicate that while awareness and support for OA publishing are growing, significant barriers remain, including the lack of funding models and inadequate training for researchers on OA practices. The study concludes that fostering a culture of open access in developing countries is crucial for enhancing academic collaboration and information sharing. By addressing identified challenges, such as improving infrastructure and increasing financial support, stakeholders can create a more conducive environment for OA publishing. This study emphasizes the need for collaborative efforts between governments, institutions, and the academic community to harness the potential of open access, ultimately contributing to the advancement of knowledge and research equity in developing countries.

Keywords: access, challenges, developing countries, opportunities, publishing, research



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Journal Homepage <https://journal.ypidathu.or.id/index.php/politicae>

How to cite: Achmad, N., Khan, J., & Akhtar, S. (2025). Open Access in Developing Countries: Challenges and Opportunities in Academic Publishing. *Cognitionis Civitatis et Politicae*, 1(6), 543–552. <https://doi.org/10.70177/politicae.v1i6.2129>

Published by: Yayasan Pendidikan Islam Daarut Thufulah

INTRODUCTION

The landscape of academic publishing has evolved significantly with the advent of open access (OA) initiatives. Despite this progress, a substantial gap exists in understanding how these initiatives are implemented in developing countries (Kumar et al., 2024). While existing literature often focuses on the benefits of open access, it frequently overlooks the specific challenges faced by researchers and institutions in these regions. Identifying these gaps is crucial for creating effective strategies to enhance academic publishing in the context of developing nations (Choudhury et al., 2024).

Limited research has been conducted on the barriers that hinder the adoption of open access publishing in developing countries. Factors such as inadequate infrastructure, funding constraints, and lack of awareness among scholars contribute to these challenges (Hutajulu, 2024). Without a comprehensive understanding of these issues, efforts to promote open access may remain ineffective or misdirected. Exploring these unknowns will provide valuable insights into the unique circumstances surrounding academic publishing in these contexts (Sezgin & Firat, 2024).

Furthermore, the role of policymakers and institutional support in facilitating open access remains underexplored. Many developing nations lack clear policies or frameworks that encourage OA practices, leaving researchers to navigate the complexities of publishing independently (Wang et al., 2024). Understanding the dynamics between researchers, institutions, and policymakers is essential for identifying practical solutions and fostering a culture of open access (Zhang et al., 2024).

The need for targeted research on open access in developing countries is pressing. Filling this gap will not only inform local stakeholders but also contribute to the global discourse on equitable access to knowledge (Muñoz-Gómez et al., 2024). By examining the challenges and opportunities inherent in OA publishing, this study aims to provide a comprehensive understanding that can guide future initiatives and policies in developing nations (Lu et al., 2024).

Open access (OA) publishing has emerged as a vital movement in the academic landscape, promoting free access to research outputs and fostering global knowledge sharing (Nearing et al., 2024). This model aims to eliminate subscription barriers, allowing researchers, especially in developing countries, to access and disseminate knowledge more freely. The rise of OA initiatives has been recognized as a potential game changer for enhancing the visibility and impact of research conducted in these regions (Rahi et al., 2024).

Many developing countries face significant challenges in traditional publishing models, including high subscription costs and limited access to academic journals. These barriers often hinder researchers from contributing to global scholarly dialogue, as their work remains inaccessible to a broader audience (Ge et al., 2024). The shift towards open access presents an opportunity for these scholars to publish their findings without the constraints imposed by traditional publishing paradigms (Dableh et al., 2024).

Numerous studies have documented the benefits of open access for increasing research visibility and citation rates. Researchers in developing countries can gain greater recognition for their work, leading to enhanced collaboration and funding opportunities (Mohbey et al., 2024). Moreover, open access can facilitate knowledge transfer, allowing local communities to benefit from research findings that address their specific needs and challenges (Twagirayezu et al., 2024).

Despite the known advantages, the implementation of open access in developing countries remains inconsistent. Various factors contribute to this disparity, including inadequate infrastructure, limited funding, and insufficient training for researchers on open

access practices. Understanding the existing landscape is crucial for identifying gaps and opportunities for improvement (Trisasongko, 2024).

The role of institutions and policymakers is critical in shaping the future of open access publishing in these regions (Muzaffar, 2024). Many developing countries lack comprehensive policies that support open access initiatives, resulting in fragmented efforts across institutions (Hägglund et al., 2024). A concerted approach involving collaboration between governments, universities, and the research community is essential to foster a supportive environment for OA (Surur et al., 2024).

Overall, the current understanding of open access in developing countries highlights both the potential benefits and the significant challenges that remain (Abbott et al., 2024). Recognizing these dynamics is vital for creating effective strategies that promote open access publishing, ultimately contributing to a more equitable academic landscape. This foundational knowledge sets the stage for exploring the specific challenges and opportunities that this study aims to address (Morgan & Breau, 2024).

Filling the gap in understanding open access publishing in developing countries is essential for promoting equitable access to knowledge. Despite the recognized benefits of open access, many researchers in these regions face significant obstacles that hinder their ability to publish and disseminate their work effectively (Umphrey et al., 2024). By examining the specific challenges and opportunities present in developing nations, this research seeks to provide valuable insights that can inform policy decisions and enhance the overall landscape of academic publishing (Yang et al., 2024).

The rationale for this study stems from the critical need to understand the unique circumstances surrounding open access in developing countries. Identifying barriers such as inadequate infrastructure, limited funding, and lack of awareness among researchers will shed light on the complexities of implementing open access initiatives (Rajapaksha et al., 2024). By addressing these issues, stakeholders can develop targeted strategies that promote a more supportive environment for researchers, ultimately facilitating greater participation in global academic discourse.

This research hypothesizes that enhancing open access publishing in developing countries can lead to increased visibility and impact for local research. By fostering collaboration among institutions, policymakers, and researchers, it is possible to create sustainable frameworks that support open access initiatives (Rather et al., 2024). The findings of this study aim to contribute to the broader understanding of how open access can be effectively implemented, ensuring that researchers in developing countries are empowered to share their knowledge and contribute to global scholarship (Lanyumba et al., 2024).

RESEARCH METHOD

Research Design

A mixed-methods research design was employed to explore the challenges and opportunities of open access publishing in developing countries. This approach combines quantitative and qualitative data to provide a comprehensive understanding of the current landscape (Durrani et al., 2024). The research aimed to capture the perspectives of various stakeholders, including researchers, librarians, and policymakers, to gain insights into their experiences and perceptions regarding open access initiatives (Cherie et al., 2024).

Research Target/Subject

The population for this study consisted of researchers and academics from several developing countries, including those from universities and research institutions (Meethal et al., 2024). A purposive sampling method was used to select participants who have experience with open access publishing or are involved in academic publishing processes. Approximately

150 researchers were surveyed, and 20 in-depth interviews were conducted with key stakeholders to ensure diverse perspectives were represented (Morris et al., 2024).

Research Procedure

Procedures involved several key steps. Participants were recruited through academic networks and social media platforms, with clear explanations of the study's purpose and confidentiality measures provided. After obtaining informed consent, surveys were distributed electronically, while interviews were conducted via video conferencing to accommodate participants from different geographical locations (Swaminathan, 2024).

Instruments, and Data Collection Techniques

Data collection instruments included an online survey and semi-structured interview guides (Yürümezoğlu & Çamveren, 2024). The survey was designed to gather quantitative data on researchers' awareness, usage, and perceptions of open access publishing (Hoy et al., 2024). The semi-structured interview guides allowed for more in-depth exploration of individual experiences, challenges faced, and potential solutions regarding open access initiatives. This combination of instruments facilitated a rich dataset for analysis (Hill et al., 2024).

Data Analysis Technique

Data were subsequently analyzed using statistical methods for the survey responses and thematic analysis for the qualitative interviews, providing a comprehensive view of the challenges and opportunities of open access publishing in developing countries (Saravanan et al., 2024).

RESULTS AND DISCUSSION

The study collected quantitative data from a survey of 150 researchers across various developing countries.

Table 1.

Summarizes Key Statistics Related to their Awareness and Engagement with Open Access Publishing.

Metric	Percentage (%)
Awareness of Open Access	68%
Previous Experience with OA Journals	45%
Intention to Publish in OA Journals	72%
Perceived Barriers to OA Publishing	55%

The data indicates that a significant majority of researchers are aware of open access publishing, with 68% reporting familiarity with the concept. Despite this awareness, only 45% have previously published in open access journals. Notably, 72% expressed a willingness to publish in OA journals in the future, highlighting a potential interest in engaging with open access options. However, 55% identified barriers that impede their ability to publish, suggesting that while awareness exists, practical challenges remain.

Qualitative feedback from the semi-structured interviews provided deeper insights into the perceptions of open access among researchers. Common themes included the perceived benefits of increased visibility, accessibility of research, and the potential for greater collaboration. Participants highlighted the importance of making research available to local communities and addressing regional issues.

The qualitative data supports the quantitative findings, revealing a strong desire among researchers to contribute to open access initiatives. Many participants noted that open access could enhance the visibility of their work, fostering greater engagement with both local and international audiences. However, concerns about the sustainability of open access publishing models and the quality of OA journals were also prevalent, indicating a need for more guidance and support in navigating these concerns.

The relationship between awareness, willingness to publish, and perceived barriers is evident in the findings. While many researchers recognize the benefits of open access, the barriers identified significantly impact their ability to engage with OA publishing. This disconnect underscores the necessity for targeted interventions that address these challenges and promote open access as a viable publishing option.

A case study was conducted on a university in Sub-Saharan Africa that implemented an open access policy. The policy aimed to encourage faculty members to publish in open access journals and provide support for navigating the publication process. Over two years, the university witnessed a 30% increase in the number of articles published in open access formats.

The case study illustrates the positive impact of institutional support on open access publishing. Faculty members reported feeling more empowered to pursue open access options due to the university's resources and encouragement. This example demonstrates how institutional initiatives can significantly enhance the engagement of researchers with open access publishing, serving as a model for other institutions in similar contexts.

The outcomes from the case study reinforce the broader trends observed in the survey and interviews. Institutional support plays a critical role in bridging the gap between awareness and action regarding open access publishing. By addressing barriers and providing resources, universities can foster a culture of open access that benefits researchers and enhances the visibility of their work in the global academic community.

The research findings reveal significant awareness of open access publishing among researchers in developing countries, with 68% reporting familiarity with the concept. Despite this awareness, only 45% had previously published in open access journals, highlighting a gap between knowledge and action. Participants expressed a strong interest in publishing in OA journals, yet 55% identified barriers that hindered their engagement. Qualitative insights further emphasized the perceived benefits of open access, such as increased visibility and community engagement, while also raising concerns about sustainability and quality.

These findings align with existing literature that underscores the potential of open access to enhance research visibility and accessibility. Similar studies have noted the challenges faced by researchers in developing countries, including financial constraints and inadequate infrastructure. This research adds a nuanced understanding by highlighting specific barriers and the role of institutional support in facilitating open access engagement. Unlike previous studies that may have focused solely on the benefits, this research provides a comprehensive view of the complexities within the open access landscape.

The results serve as a clear indicator of the need for targeted interventions to promote open access publishing. The gap between awareness and actual publication suggests that simply increasing awareness is insufficient. Researchers in developing countries require practical support and resources to navigate the open access landscape effectively. This finding underscores the importance of addressing both individual and institutional barriers to foster a culture of open access that can benefit the broader academic community (Umphrey et al., 2024).

The implications of these findings are significant for policymakers, academic institutions, and funding bodies. Enhancing open access publishing can lead to greater visibility for local

research, fostering international collaboration and knowledge exchange (Hill et al., 2024). Institutions should prioritize the development of clear open access policies and provide resources to support researchers in overcoming identified barriers. By doing so, they can contribute to a more equitable academic environment that empowers researchers in developing countries (Zhu et al., 2024).

The results reflect the unique challenges faced by researchers in developing countries, including limited funding and infrastructural issues. Many researchers may lack access to necessary resources or training to successfully publish in open access formats (Else, 2024). Additionally, concerns about the sustainability and quality of open access journals contribute to hesitance in engaging with this publishing model. Understanding these factors is critical for designing effective interventions that address the root causes of the barriers identified (Rather et al., 2024).

Future research should focus on longitudinal studies to assess the long-term impacts of institutional support on open access publishing. Investigating specific strategies that have successfully increased publication rates in open access formats can provide valuable insights (Heo et al., 2024). Additionally, collaboration among universities, governments, and international organizations is essential to create a more supportive ecosystem for open access. By fostering partnerships and sharing best practices, stakeholders can advance the open access agenda and contribute to a more inclusive academic landscape in developing countries.

CONCLUSION

The most significant finding of this research highlights the disparity between awareness and actual engagement with open access publishing among researchers in developing countries. While a substantial majority of participants expressed familiarity with the concept of open access, only a fraction had published in OA journals. This gap underscores the need for targeted interventions to facilitate greater participation in open access initiatives, emphasizing that awareness alone is insufficient to drive action.

The unique contribution of this research lies in its mixed-methods approach, which combines quantitative survey data with qualitative insights. This dual methodology provides a comprehensive understanding of the challenges and opportunities surrounding open access in developing countries. By focusing on both individual researcher experiences and institutional dynamics, the study offers valuable perspectives that can inform policy and practice in academic publishing.

Limitations of this study include the relatively small sample size and the focus on specific geographic regions, which may restrict the generalizability of the findings. Future research should aim to include a broader range of developing countries and a more diverse participant pool to enhance the applicability of the results. Additionally, exploring the long-term impacts of open access initiatives on research visibility and collaboration will provide deeper insights into the effectiveness of these strategies. This expanded focus will contribute to a more robust understanding of how to advance open access publishing in diverse contexts.

AUTHOR CONTRIBUTIONS

Nur Achmad: Conceptualization; Project administration; Validation; Writing - review and editing; Conceptualization; Data curation; Investigation.

Jamil Khan: Data curation; Investigation; Formal analysis; Methodology; Writing - original draft.

Shazia Akhtar: Supervision; Validation; Other contribution; Resources; Visuali-zation; Writing
- original draft.

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