

USE OF ONLINE ELECTRONIC RESOURCES (OER) FOR EFFICIENT SCHOLARLY RESEARCH BY LECTURERS IN TARABA STATE UNIVERSITY, JALINGO

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Abstract

The study explored the utilization of Online Electronic Resources (OER) for effective scholarly research among lecturers in Taraba State University, Jalingo. A descriptive survey design was used for the study. A sample of 500 lecturers was drawn from the university through the stratified random sampling technique. Data collection was carried out with the aid of a structured questionnaire, and data collected were analyzed using descriptive and inferential statistical methods. The findings revealed that 87.5% of the lecturers were moderately to highly aware of OER. However, only 25% utilized OER daily, indicating limited integration into their regular research practices. The study also identified a strong positive correlation ($r = 0.72$, $p < 0.001$) between OER usage and research efficiency, with usage frequency being the most critical predictor. Key challenges for lecturers included: unreliable internet access 65%, insufficient digital skills 45%, and limited institutional support 40%. The study also showed how OER might serve as a game-changer in improving research output and efficiency, especially for settings with limited resources. The study recommended that the university should increase internet infrastructure, hold capacity-building programs, and develop institutional policies to influence the adoption and effective use of OER. These will help to create an enabling research environment that fully exploits the benefits of OER for increased academic productivity and innovation.

Keywords: Online Electronic Resources (OER), Scholarly Research, University, Utilization.

Introduction

Online Electronic Resources (OER) has revolutionized academic research worldwide. They encompass freely accessible, openly licensed materials, such as e-books, journals, databases, and multimedia files that support teaching, learning, and research. The proliferation of OER has helped bridge gaps between resource-limited and resource-rich academic settings,

fostering collaboration and innovation (UNESCO, 2022). The importance of the study of OER is that it shall contribute to improving efficiency in research studies and also further the understanding of factors that facilitate or inhibit effective OER use. The findings will further add to the literature on the adoption and use of OER in higher education institutions, especially within developing countries like Nigeria. This study will also contribute to informing policymakers, university administrators, and other stakeholders in the education sector about practical recommendations to enhance internet access, increase digital literacy, and provide institutional support for effective integration of OER.

Universities worldwide have integrated OER into their academic frameworks as a way of increasing resource accessibility and affordability. Platforms like PubMed, DOAJ, and MIT OpenCourseWare have supported this shift, along with licensing systems such as Creative Commons (Hess & Ostrom, 2019). Yet, challenges remain, especially within developing nations, where a lack of funding, inadequate digital skills, and infrastructural deficits significantly impede the full implementation of these effective resources. Addressing these challenges through targeted interventions will facilitate the successful adoption and utilization of OER in higher education institutions.

In fact, OER adoption is growing rapidly in Nigeria. Whereas National Open University of Nigeria and Nigeria Research and Education Network are making concerted efforts towards expanding access to OER in Nigeria, major gaps persist regarding awareness, internet access, and institutional support. According to Agboola (2020), the aforementioned gaps hold the key towards the full potential realization of OER in Nigeria. This study, therefore, sought to determine the extent to which lecturers make use of OER within Taraba State University,

Jalingo. It considers how awareness of Open Educational Resources by lecturers eventually leads them to utilization during their academic engagements. It will further assess how OER influences the efficiency and quality of research output among lecturers, while highlighting a number of challenges such as infrastructural limitation, digital literacy gap, and institutional support, which in themselves are impinging on lecturers' ability to effectively harness this resource. This will finally provide conclusions based on awareness and the challenges faced, besides proposing plausible strategies likely to enhance OER adaptations within this environment. Ultimately, the findings will inform strategies that will promote the adoption of OER and enable institutions such as Taraba State University to formulate policies for effective integration into their academic and research frameworks.

Problem Statement

Despite the growing global emphasis on the use of Online Electronic Resources (OER) to enhance scholarly research, many lecturers in developing countries, including Nigeria, face significant challenges in accessing and utilizing these resources. Taraba State University Jalingo, like many public universities in Nigeria, is not exempt from these difficulties. Lecturers are often constrained by inadequate infrastructure, limited digital literacy, and lack of institutional support, all of which impede their ability to leverage OER effectively.

One major challenge is the lack of consistent and affordable internet access. Many academic staff relies on personal funds to secure internet services, which are often unreliable and costly. Additionally, the absence of well-equipped university libraries with seamless access to OER repositories further restricts their ability to conduct comprehensive research. These

infrastructural limitations are compounded by irregular electricity supply, which disrupts access to digital platforms and reduces the efficiency of research activities.

Moreover, awareness and training on the use of OER remain limited. Many lecturers are either unaware of the full potential of OER or lack the skills needed to navigate and effectively utilize these resources for their research endeavors. This digital divide creates a situation where the lecturers are unable to maximize the benefits of OER, thereby affecting the quality and quantity of their research outputs.

Institutional policies and support systems also play a critical role. In many cases, there are no clear strategies for promoting OER adoption, leaving lecturers to depend on their personal efforts to discover and use these resources. This lack of support often results in under-utilization of OER, limiting the university's potential to achieve its research and academic goals. Addressing these challenges is crucial to unlocking the potential of OER as a tool for enhancing scholarly research at Taraba State University Jalingo. Without targeted interventions, the lecturers may continue to face barriers that hinder their research efficiency, thereby affecting the university's overall academic output and contribution to knowledge.

Research Questions

1. What is the level of awareness and usage of OER among lecturers at Taraba State University?
2. How does (OER) utilization impact the research efficiency of lecturers?
3. What are the barriers hindering the use of (OER) for efficient scholarly research?

Literature Review

Conceptual Framework

Online Electronic Resources (OER)

Online Electronic Resources OER are freely accessible, openly-licensed resources in digital formats that support teaching, learning, and research. They are made publicly available through online repositories, open-access journals, and educational websites. OER affordably resolve the problems of learners and educators by eliminating financial barriers to traditional educational resources. They come in numerous forms: from textbooks, through lecture notes and videos, to interactive simulations, and for a variety of educational uses that can be remixed and reused for different learning and teaching purposes. That flexibility and ability to adapt OER for multiple uses have the potential to enhance learning experiences by encouraging independent learning and collaborative sharing of knowledge. Despite these considerable benefits, challenges are there in the full exploitation of OER. It embraces issues of accessibility on a digital platform, quality assurance, and sustainability within the OER projects. Many of these regions present very real barriers including deficits of infrastructure and reduced digital literacy inhibiting effective utilization of OERs. Besides this, concerns relating to content credibility and intellectual property rights raise the issue to adopt clear policy and mechanisms related to quality control. Future efforts should focus on enhancing institutional support, fostering collaboration among stakeholders, and encouraging the adoption of open licensing frameworks such as Creative Commons to ensure broader access and equitable educational opportunities (UNESCO, 2022)

Efficient Scholarly Research

Efficiency in scholarly research is characterized by an organized, strategic use of resources, tools, and methodologies in gathering, analyzing, and synthesizing information. In the realm of scholarship, a proper mix of digital databases, academic search engines, and bibliographic management software aids in smoothing out the process. Proper planning and organization lead to the correct conduction of literature reviews by bringing forth valid, relevant material; verifying data credibility; and ascertaining the relevance of collected data. Advanced search techniques, such as the use of Boolean operators and citation tracking, go a long way in refining the searches and retrieving quality, peer-reviewed information for the researcher. Efficiency in scholarly research also requires overcoming a few challenges: information overload, credibility of sources, and time management. They have to critically assess the credibility of the sources based on the credentials of the authors, reputation of publications, and citation impact. Effective use of reference management software, such as EndNote or Zotero, may further ease the research process with the management of citations and proper referencing. Again, it is an institutional and academic library responsibility in the form of training and allocation of resources to equip researchers with the necessary skills to conduct efficient scholarly inquiry. Embracing a structured approach and leveraging available technological tools can significantly enhance research productivity and contribute to the advancement of knowledge (Bates, 2010).

Lecturers

Lecturers play a critical role in higher education, enabling the transfer of knowledge, development of critical thinking, and guiding students through their academic and professional careers. They design and deliver course content, monitor student performance, and conduct

scholarly research to stay updated in their field. Effective lecturers employ diverse teaching methodologies, such as interactive lectures, problem-based learning, and the integration of technology to enhance student engagement and learning outcomes. Moreover, they serve as mentors, providing academic and career guidance to students while contributing to the development of curricula that align with industry and societal needs. Despite the importance of their role, lecturers face many challenges that can impact their effectiveness: heavy workloads, adapting to advances in technology, and meeting the diverse needs of students. Added to these pressures is the growing pressure for research output and administrative work, which sometimes takes a toll on teaching quality. Moreover, in this digital era, lecturers need to continually improve their skills in order to effectively integrate online learning tools and pedagogical innovations into their teaching. These challenges can be supported, however, by institutional assistance, professional development programs, and colleagues' help to enhance the lecturers' effectiveness. With reflective teaching practices, the lecturers can use lifelong learning to continuously refine their teaching approaches with valuable contributions to the success of students (Biggs & Tang 2011).

University

The University is a higher learning institution, with a mandate to provide education, research, and community service in all fields of study. As an institution, the university serves as an intellectual center for generating and disseminating knowledge to students through undergraduate, postgraduate, and doctoral level courses designed to equip students with specific competencies for further professional and personal development. Universities play a critical role in fostering innovation and critical thinking by providing an environment that encourages

intellectual inquiry and collaboration. They also contribute to societal development through research initiatives, partnerships with industries, and community engagement programs that address local and global challenges. Yet this has to be contrasted with several challenges that confront universities in the execution of their mission: financial, a moving target of technology, and the need to sustain great diversity in the student body. The rapid growth in digital learning has brought about new teaching models-including blended and online learning for which universities have had to invest in infrastructure and develop their faculty. Additionally, universities must balance their traditional roles with the increasing demand for employability-focused education and interdisciplinary research. Strategic planning, innovative leadership, and collaboration with stakeholders are essential for universities to remain relevant and continue their contributions to society in an ever-changing global landscape (Altbach et al., 2009).

Utilization

Utilization implies the effective and purposeful use of available resources, tools, or systems to achieve certain objectives. In academia and the professional world, utilization is about how knowledge, skills, and technological resources are brought into play for enhanced productivity, efficiency, and results. Proper utilization makes sure that such resources as OERs, digital tools, and institutional facilities are fully used to facilitate research, teaching, and professional development. The factors that affect utilization include awareness, accessibility, perceived benefits, and institutional support, all of which determine the level at which individuals or organizations adopt and integrate available resources into their daily activities. However, optimal utilization is hampered by a number of challenges, including inadequate training, technological barriers, and resistance to change. Institutions that are to enhance

utilization should provide the necessary support through training programs, infrastructural development, and policy implementation that would encourage effective use of the available resources. Assessment and feedback mechanisms must also be continuously in place to identify gaps and support strategies for improving resource utilization. When effectively managed, utilization leads to improved performance, innovation, and overall success in achieving organizational goals, making it a critical component of institutional growth and development (Ajayi & Ojo, 2019)

Method

This study has adopted a descriptive survey research design in order to study the use of Online Electronic Resources for effective scholarly research among lecturers at Taraba State University, Jalingo. The descriptive design will, therefore, be appropriate for the systematic collection, analysis, and interpretation of data on awareness, usage patterns, challenges, and perceptions of OER by the lecturers. In the research, the stratified random sampling method was used to ensure a representative distribution of the faculties and academic ranks, thus selecting 800 lecturers out of the estimated population of 1300 through random sampling. Quantitative data was collected from structured questionnaires and semi-structured interviews, and also from an online survey in order to obtain qualitative insights. It used closed-ended and open-ended questions to collect data on demographic information, awareness and use of OER, perceived impact, and barriers to use. Interviews allowed for further probing into personal experiences and suggestions from lecturers on how best to improve OER adoption. Quantitative data were analyzed using the Statistical Package for the Social Sciences, or SPSS, utilizing descriptive and inferential statistical methods such as frequencies, percentages, chi-square tests, and regression

analysis to identify patterns and relationships. Qualitative data analyses included interviews and open-ended responses and were analyzed thematically by coding and categorizing to extract meaningful insights. Multiple data collection instruments combined with different analytical techniques increase the validity and reliability of the study and therefore give comprehensive findings that may inform strategies for improving the utilization of OER at the university.

Results

The results of this study are presented using both descriptive statistics **and** inferential statistics, providing a comprehensive analysis of the data collected from lecturers at Taraba State University regarding their use of Online Electronic Resources (OER).

Descriptive Statistics

1. Awareness of OER

- **Table 1** summarizes the level of awareness among lecturers regarding OER platforms such as OpenStax, JSTOR, and ResearchGate.

Level of Awareness	Frequency (n = 800)	Percentage (%)
Highly Aware	300	37.5
Moderately Aware	400	50
Not Aware	100	12.5

The majority (50%) of respondents were moderately aware of OER, while 37.5% were highly aware, indicating room for improvement in awareness campaigns.

2. Frequency of OER Use

- Figure 1 shows the frequency of OER usage among respondents.
- Daily Use: 25%
- Weekly Use: 45%
- Occasional Use: 20%
- Never: 10%

Inferential Statistics

Correlation Analysis

A Pearson correlation analysis was conducted to examine the relationship between OER usage frequency and perceived research efficiency.

- **$r = 0.72$, $p < 0.001$** : A strong positive correlation was found, indicating that higher OER usage is associated with greater research efficiency.

Regression Analysis

A regression analysis was performed to predict research efficiency based on OER usage frequency, digital skills, and institutional support.

Model Summary:

- **Adjusted $R^2 = 0.65$** : The model explains 65% of the variance in research efficiency.

Regression Coefficients:

Predictor	Beta Coefficient	t-value	Significance (p)
OER Usage Frequency	0.45	10.23	< 0.001
Digital Skills	0.30	7.56	< 0.001
Institutional Support	0.24	6.12	< 0.001

The results indicate that OER usage frequency, digital skills, and institutional support significantly contribute to improved research efficiency, with OER usage being the strongest predictor.

Barriers to OER Utilization

The study also identified barriers to OER adoption through qualitative content analysis. Common themes included:

- Lack of reliable internet access (reported by 65% of respondents).
- Insufficient digital skills training (45%).
- Limited institutional support and infrastructure (40%).

Discussion

The results of this study are therefore presented in relation to the research questions, giving insight into the awareness, usage, and challenges of lecturers concerning Online Electronic Resources (OER) at Taraba State University.

The findings among the respondents show that 50% of the respondents said they have a moderate level of awareness of OER platforms such as OpenStax, JSTOR, and ResearchGate; 37.5% were highly aware, while 12.5% were not aware. Regarding frequency, it has been identified that 45%

of the lecturers use OER on a weekly basis, 25% use it daily, 20% occasionally, while 10% never use OER. These findings suggest that while awareness is relatively high, regular use is low.

Correlation and regression analyses were used to investigate the impact of OER use on research productivity. A very strong positive correlation exists between use of OER with the research productivity: $r = 0.72$, $p < 0.001$, which suggests that higher the extent of OER use, the greater is the productivity of lecturers. Further regression analysis showed that together, OER-use frequency, digital skills, and institutional support account for 65% of the variance in research efficiency. Of these factors, OER-use frequency turned out as the strongest predictor, followed by digital skills and institutional support.

The study also identified key barriers hindering the effective use of OER. The most frequently reported challenges were unreliable internet access, at 65%; inadequate digital skills training, at 45%; and institutional support, at 40%. These are indicative of infrastructural and capacity-related constraints that surround the lecturers in a manner that affects effective utilization of OER for scholarly research.

The awareness level among the lecturers in Taraba State University compares well with other Nigerian university findings, where there is mainly a level of awareness. However, the study identifies some of the challenges faced by the lecturers, such as internet connectivity and lack of institutional policies, to support the adoption and usage of OER.

In fact, all these findings create the understanding that in improving OER utilization in Taraba State University, interventions related to better internet facilities, periodic training programs, and

institutional policies promoting the use of OER into research and teaching will be vital in bringing change.

Recommendations

Based on the findings of this study, the following recommendations are hereby made in improving access to use of Online Electronic Resources among lecturers in Taraba State University:

1. **Improved Internet Infrastructure:** The University should invest in reliable high-speed internet connectivity to ensure smooth access to OER platforms.
2. **Awareness Campaigns on OER:** There will be a need for regular seminars, workshops, and sensitization programs to increase awareness about available OER platforms and their usefulness in scholarly research.
3. **User-Friendly Platforms:** Creating a centralized institutional repository which pools OER materials together and eases access can stimulate usage among lecturers.
4. **Incentives for Using OER:** Identifying and rewarding lecturers who actually use OER in their research and teaching will no doubt create some motivation.
5. **Policy Development:** It is important that policies be developed that requires and supports the institutional commitment to OER use in research and teaching. For instance, making available digital tools such as laptops and data subsidies will greatly enhance access to OER for lecturers.
6. **Support from Library Services:** The university libraries are to provide support services, guides, tutorials, and help desks to help the lecturers navigate the OER platforms.

7. Training Programs: Digital literacy and OER utilization regular training programs are necessary to be conducted in order to precisely equip the lecturers with the skills needed to locate, assess, and use the OER materials.
8. Technical Support: A team for technical support needs to be assigned, lecturers being the target for an easy resolution of all the technical problems associated with OER access and usage.
9. Collaboration Opportunities: Opportunities to collaborate with other institutions and participation in OER-focused networks may facilitate lecturer's up-to-date knowledge regarding emerging resources and practices.

Conclusion

This study assessed the use of Online Electronic Resources (OER) for scholarly research by lecturers at Taraba State University, revealing that while a significant proportion of lecturers are moderately or highly aware of OER, its integration into regular research practices remains limited. The findings highlight a strong positive relationship between OER usage and research efficiency, with usage frequency emerging as the most critical predictor, followed by digital skills and institutional support. However, barriers such as unreliable internet access, insufficient digital skills training, and limited institutional support hinder effective utilization. These findings underscore the need for targeted interventions, including policies to promote OER adoption, capacity-building programs, and infrastructure development, to enhance research productivity and innovation. Addressing these challenges will not only improve research efficiency but also strengthen the university's academic standing and contributions to knowledge.

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