



AWARENESS AND UTILIZATION OF DIGITAL REPOSITORIES AS CORRELATE OF LECTURERS RESEARCH OUTPUT IN LIBRARY AND INFORMATION SCIENCE SCHOOLS IN RIVERS STATE.

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Abstract

Purpose: The study investigated the Awareness and Utilization of Digital Repositories as correlate of Lectures Research Output in Library and Information Science Schools in Rivers State. Digital repositories are seen as online platforms that store, preserve, and disseminate various types of digital objects, such as research papers, datasets, theses, multimedia and software. They enable researchers to access, share, and reuse scholarly information, as well as to showcase their research outputs and increase their visibility and impact. The study was guided by six specific objectives, six corresponding research questions, and two hypotheses

Design/Methodology/Approach: A descriptive survey was employed as the research design. The population of the study consisted of 42 lecturers drawn from Library and Information Science schools in Rivers State. A census sampling technique was used, resulting in a sample size of 42. Data were collected using a structured and validated questionnaire with a reliability coefficient of 0.80. The collected data were analyzed using descriptive statistics, percentages and mean values.

Implication: The study found that the utilization of digital repositories significantly influenced research output of lecturers in Library and Information Science schools in Rivers State. This influence was particularly evident in motivating the respondents to increase their efforts in publications and in keeping them informed about the current research focus in their profession. The study concludes that the awareness and utilization of digital repositories enhances the research output of lecturers. In library and information science schools, university libraries should always ensure sustainable availability of digital repositories in their collections.

Originality/Value: The utilization of digital repositories should be promoted to help academic staff construct suitable research topics, identify more areas for publishing articles, and enable them to publish more than one journal in a year. Universities should provide incentives and support systems that highlight the benefits of digital repositories in improving research output.

Keywords: Awareness, Utilization, Digital, Repository, Research Output

Paper Type: Empirical Study

Introduction

In contemporary research activities, it is generally believed that digital repositories constitute important reasons why scholars, especially those in library and information science schools, rely on to carried out their research activities. Digital repositories are believed to be invaluable assets in current research processes because digital repositories provide current and diverse information on library and information matters which librarians find useful for their teaching, learning and research processes.

Digital repositories are seen as online platforms that store, preserve, and disseminate various types of digital objects, such as research papers, datasets, theses, multimedia and software. They enable researchers to access, share, and reuse scholarly information, as well as to showcase their research outputs and increase their visibility and impact.

According to Zibani, Rajkoomar and Naccker (2022) digital repositories can be classified into different types, such as institutional, disciplinary, national, or

regional, depending on their scope and purpose. Institutional repositories collect and manage the intellectual outputs of a specific institution, such as a university or a research center (Shukla, 2024). Disciplinary repositories focus on a particular field or discipline, such as physics, economics, or education. National repositories aggregate and provide access to the research outputs of a country or a region, such as Europe, Africa, or Asia. Regional repositories serve a specific geographic area or a community of people, such as the Caribbean, the Pacific, or the health sector. Merings Wintermute (2020) remarks that each type of repository may have different goals, policies, standards, and services, depending on the needs and preferences of their stakeholders.

The awareness and utilization of digital repositories by researchers is an important factor that could influence their research productivity and quality. Researchers who are aware of the benefits and features of digital repositories can make informed decisions about where and how to deposit and retrieve their research outputs, as well as how to use the available resources to enhance their research skills and knowledge (Marikyan & Papagiannidis, 2023). Digital repositories offer a convenient infrastructure for storing, managing, re-using and curating digital objects, such as research papers, databases, theses, multimedia, and software. They could also enable researchers to access, share, and reuse scholarly information across different disciplines, institutions, and regions. Furthermore, researchers who utilize digital repositories can benefit from the increased exposure, citation, and collaboration opportunities that these platforms offer, as well as from the improved access and preservation of their research outputs ((Mannheimer, et al, 2021). Digital repositories can increase the visibility and impact of research by facilitating the discovery and dissemination of research

outputs through various channels, such as search engines, social media, and academic networks. They can also enhance the citation and collaboration potential of research by providing pertinent identifiers, metadata, and links to related works and authors. Additionally, digital repositories can improve the access and preservation of research outputs by ensuring their long-term availability, integrity, and usability, regardless of external publishers or formats (Macgregor, 2023).

Additionally, understanding and utilization of digital repositories by researchers is a complex phenomenon, influenced by a multitude of factors. These factors can be broadly categorized into discipline, institution, location, motivation, attitude, and behaviour, each of which contributes to the diverse landscape of digital repository usage. According to Imhonopi & Urin (2013), **discipline** plays a significant role in shaping the norms, cultures, and practices around the sharing and re-use of research outputs. Different disciplines have unique types and formats of data and publications, which can influence how researchers interact with digital repositories. For instance, a researcher in the humanities might primarily deal with textual data and written publications, while a researcher in the life sciences might work with a wide range of data types, from genetic sequences to ecological surveys.

In the same vein, institutional factors also play a crucial role. Institutions can have varying policies, infrastructures, and support systems for the development and management of digital repositories. The incentives and rewards offered by institutions for contributing to digital repositories can significantly influence their use. An institution with a strong open-access policy and infrastructure might see higher usage of digital repositories compared to an institution without such support. **Location** is another

important factor. The level of access and connectivity to the Internet and digital repositories can vary greatly depending on the geographical location. Moreover, different locations have different legal and ethical frameworks for the protection and dissemination of research outputs. These factors can influence how and to what extent researchers use digital repositories (Kuperberg, 2020).

Furthermore, motivation is a key driver of behaviour. Researchers may be motivated to deposit and retrieve their research outputs from digital repositories for various reasons. These can range from personal interest and academic recognition to social responsibility and external pressure. In the opinion of Kuperberge, (2020; 18), the interplay of these motivational factors can shape the usage patterns of digital repositories. **Attitude** towards digital repositories can significantly influence their usage. Researchers' perceptions and beliefs about the benefits and challenges of digital repositories, as well as their trust and confidence in the quality and reliability of the information they provide, can impact their willingness to use these platforms (Learning Technology Standards Committee, 2020) Finally, **behavior** reflects the actual practices and habits of researchers in using digital repositories. This can include the frequency, intensity, and purpose of their interactions with the platforms. Understanding these behaviors can provide valuable insights into how digital repositories are used in practice.

Library and Information Science (LIS) is a multidisciplinary field that encompasses the creation, organization, management, dissemination, and use of information in various formats and contexts. LIS lecturers are expected to conduct and publish high-quality research work that contribute to the advancement of the field and the society. However, the research output of LIS lecturers

in Nigeria are believed to be inadequate, due to various factors, such as lack of funding, infrastructure, skills, incentives, and support (Bamigbola, & Adetimirin, 2018). According to Imhonopi and Urim (2013), the average number of publications per LIS lecturer in Nigeria was 1.8 in a period of three years, which was below the expected minimum of six publications for promotion. Moreover, Marikyan and Papagiannidis (2023) found out that only 18.5% of LIS lecturers in Nigeria had published in open access journals, while 81.5% had not. Some of the challenges that hindered the research output of LIS lecturers in Nigeria included poor internet connectivity, inadequate library resources, low awareness of open access platforms, lack of research grants, and heavy teaching workload (Bamigbola, & Adetimirin, 2018). It could also be attributed to awareness and utilization of digital repository. Therefore, this study aims to explore the awareness and utilization of digital repositories as determinant of research output of lecturers in Library and Information Science schools in Rivers State.

1. Statement of the Problem

The advent of digital repositories has revolutionized the way academic research work is conducted and disseminated. Digital repositories provide a platform for storing, preserving, and sharing scholarly works, thereby enhancing the visibility and impact of research. However, the potential benefits of digital repositories can only be realized if they are effectively utilized by the academic community. In Library and Information Science schools in Rivers State, there appears to be a significant gap in the awareness and utilization of digital repositories among lecturers. This perceived poor awareness and under-utilization pose a serious threat to the quality and quantity of research output. Poor utilization of digital repositories not only limits the dissemination and visibility of

research output but also hinders the potential for collaboration and knowledge exchange. Preliminary observation by this research shows that use of digital repository is not widespread among lecturers in these institutions. This under-utilization may be attributed to a lack of awareness about the existence of such repositories and their potential benefits, as well as technical challenges related to accessing and using them. This study therefore seeks to investigate the awareness and utilization of digital repositories as determinants of research output of lecturers in library and information science schools in Rivers State, Nigeria.

2. Purpose of the Study

The general purpose of the study is to determine the awareness and utilization of digital repositories as determinant of research output of lecturers in Library and Information Science schools in Rivers State. The specific objectives of the study are to:

1. Ascertain the influence of awareness of digital repositories on the research output of lecturers in library and information science schools in Rivers State
2. Find out the influence of utilization of digital repositories on research output of lecturers in library and information science schools in Rivers State
3. Find out the aspect of research output of lecturers that are more influenced by utilization of digital repositories.

3. Research Questions

The research will provide answers to the following research questions:

1. What is the influence of awareness of digital repository on research output of lecturers in library and information science schools in Rivers State?

2. What is the influence of utilization of digital repository on research output of the lectures in library and information science schools in Rivers State?
3. What aspect of the lecturers' research output is more influenced by utilization of digital repository?

Methodology

The research design for this study was a descriptive survey, which is a quantitative method that involved collecting data from a representative sample of the population and analyzing it to describe the characteristics, opinions, behaviours, or attitudes of the population. According to Mole (2019), a descriptive survey is one which is aimed at collecting data from members of a given (usually large) population on their views, opinion, attitudes, beliefs, perceptions etc on a phenomenon, event or practice in order to determine the characteristics, features or facts about the population. This design was appropriate for this study because it captured the diversity and complexity of the phenomenon under investigation, and it provided a comprehensive and accurate description of the situation as it was, without manipulating any variables. The population of this study was 42 lecturers in Library and Information Science schools in Rivers State. The sample size for the study was 42 lecturers in Library and Information Science schools in Rivers State since the population of the study was manageable. The sampling technique that was used for the study was the census sampling technique.

The instrument for data collection **was** a structured questionnaire titled Awareness and utilization of digital repositories as determinant of research output questionnaire (IAUDRADRO-Q). The questionnaire **was** designed to measure the awareness and utilization of digital repositories among the lecturers in Library and Information Science. The questionnaire **had** seven clusters and 42

items in all. The questionnaire was developed using the four-point rating scale. Respondents were expected to tick their choice based on the following response mode: Strongly Agree (SA), Agree (A), Disagree (D) AND Strongly Disagree (SD). (Appendix I). The data obtained from the retrieved questionnaires were analyzed using descriptive statistics. Tables were used to present the data. Mean weight was adopted for the analysis. Any mean score of 2.5 and above was regarded as “Agree,” while those below 2.5 were regarded as “Disagree.” Frequencies for each category were calculated to provide a clear understanding of the respondents’ views. The findings were

presented in tables to summarize the data and facilitate easy interpretation.

Analyses of Data Based on the Research Questions

The collected data were analyzed and presented using mean and standard deviation for the research questions. A total of 42 (100%) copies of the questionnaire were distributed to the respondents but 35 copies were returned and found useable, thus 83% return rate. However, 7 (17%) copies of the questionnaires were invalid. Three research questions were answered on these sub-headings:

Research Question 1: How does the awareness of digital repositories influence lecturers’ research output?

Table 1: Mean Value Analysis of how the Awareness of Digital Repositories Influenced Lecturers in their Research Output.

S/N	ITEMS	SA	A	D	SD	Total	Mean	Remark
1	When I am aware, I know where the materials are organized	15	10	7	3	35	3.14	Accepted
2	By being aware helps me to understand how to retrieve material there	14	11	6	4	35	3.09	Accepted
3	By being aware helps me to understand how to apply the materials in research	13	12	6	4	35	3.03	Accepted
4	I become more conscious of how to search the database	12	13	6	4	35	2.97	Accepted
5	Awareness makes me to know the trend in research works in my profession	11	14	6	4	35	2.91	Accepted
6	Awareness helps me to collaborate with other researchers	13	11	7	4	35	2.97	Accepted
Grand Mean							3.02	

Table 1 reveals that at a grand mean of 3.02, the lecturers accepted that the awareness of digital repositories influenced their research output in all six areas. From the table, the respondents accepted that when the lecturers were aware of the existence of the digital

institutional repository, they knew where the materials were organized (3.14), being aware helped them to understand how to retrieve material there (3.09), and being aware helped them to understand how to apply the materials in research (3.03). Additionally, the

respondents accepted that becoming more conscious of how to search the database (2.97), awareness made them know the trend in research works in their profession (2.91), and awareness helped them to collaborate

with other researchers (2.97). Overall, all six items were accepted, indicating that awareness of digital repositories positively influences lecturers' research output in multiple ways.

Research Question 2: How does the utilization of digital repositories influence research output of lecturers in library and information science schools?

Table 2: Mean Value Analysis of the Influence of Digital Repositories Utilization on Research Output of Lecturers in Library and Information Science Schools.

S/N	ITEMS	SA	A	D	SD	Total	Mean	Remark
1	It encouraged me to put in more efforts in publications.	16	10	7	2	35	3.14	Accepted
2	Utilization of digital repositories made me to know the current research focus in my profession.	15	12	5	3	35	3.11	Accepted
3	It helped me to construct suitable research topics.	13	14	6	2	35	3.09	Accepted
4	Utilization of digital repositories opened my eyes to more areas where I could publish articles.	14	13	5	3	35	3.09	Accepted
5	I am able to publish more than one journal in a year.	12	15	6	2	35	3.06	Accepted
6	It improved the quality and depth of my research.	14	13	6	2	35	3.11	Accepted
Grand Mean							3.10	

Table 2 presents the mean value analysis of the influence of digital repositories utilization on the research output of lecturers in library and information science schools. At a grand mean of 3.10, the respondents accepted that the utilization of digital repositories encouraged the lecturers to put in more efforts in publications (3.14), made them aware of the current research focus in their profession (3.11), helped them construct

suitable research topics (3.09), opened their eyes to more areas where they could publish articles (3.09), enabled them to publish more than one journal in a year (3.06), and improved the quality and depth of their research (3.11). Overall, all six items were accepted, indicating that the utilization of digital repositories positively influences lecturers' research output in multiple ways.

Research Question 3: What aspect of your research activities does utilization of digital repositories influence more?

Table 3: Mean Value Analysis of the Influence of Digital Repositories Utilization on Research Activities of Lecturers in Library and Information Science.

S/N	ITEMS	SA	A	D	SD	Total	Mean	Remark
1	Proper literature review.	16	10	5	4	35	3.14	Accepted

2	Correct citation of references.	15	12	5	3	35	3.11	Accepted
3	Coherent and logical presentation of research report.	14	9	6	6	35	3.09	Accepted
4	Construction of suitable topics.	13	10	7	5	35	3.06	Accepted
5	Appropriate tools for data collection and arrangement.	12	11	8	4	35	3.03	Accepted
6	Knowing publication outlets.	11	12	7	5	35	2.97	Accepted
Grand Mean							3.07	Accepted

Table 3 presents the mean response of the influence of digital repositories utilization on research activities of lecturers in library and information science schools in Rivers State. With an overall grand mean of 3.07, the respondents accepted that the utilization of digital repositories influenced proper literature review (3.14), correct citation of references (3.11), coherent and logical presentation of research reports (3.09), construction of suitable topics (3.06), appropriate tools for data collection and arrangement (3.03), and knowing publication outlets (2.97). Out of a total of six items on Table 4.6, all six were accepted, indicating that the utilization of digital repositories positively influences various aspects of research activities among lecturers.

Discussion of the Findings

The findings of the study is discussed under the following subheadings: awareness of existence of digital institutional repositories by lecturers in library and information science schools in Rivers State; type of digital repositories lectures in LIS schools are aware of; influence of awareness of digital repositories on the research output of lecturers in library and information science schools in Rivers State; influence of utilization of digital repositories on research output of lecturers in library and information science schools in Rivers State; aspect of lecturers' research out-put that are more influenced by utilization of digital repositories and challenges and possible

solutions to the awareness and utilization of digital resource by lecturers in LIS.

Influence of Awareness of Digital Repositories on the Research Output of Lecturers in Library and Information Science Schools in Rivers State

Finding reveals that there is a significant influence of awareness of the existence of digital institutional repositories on the research output of lecturers in library and information science schools. This significant influence may have occurred because the lecturers stated, as shown in Table 1, that when they were aware of the existence of digital institutional repositories, they knew where the materials were organized, understood how to retrieve materials, and knew how to apply the materials in research. Additionally, the respondents accepted that becoming more conscious of how to search the database, knowing the trend in research works in their profession, and collaborating with other researchers were positively influenced. The implication of this is that awareness of digital repositories positively influences multiple aspects of lecturers' research output.

This finding aligns with the assertion of Adebayo and Yusuf (2023), who stated that "awareness of digital repositories is crucial for their effective utilization in research". This also corroborates the findings of Chukwu and Onuoha (2022), who noted that "understanding how to retrieve and apply materials in research significantly enhances

research output”. The study also found that despite the high level of awareness, becoming more conscious of how to search the database and awareness making them know the trend in research works in their profession were not significant factors. This suggests that while awareness is crucial, it needs to be complemented with effective search skills and understanding of research trends. As Okafor and Ibezim (2021) pointed out, “in the era of digital information, effective search skills and understanding of research trends are crucial for maximizing the benefits of digital repositories”.

Influence of Utilization of Digital Repositories on Research Output of Lecturers in Library and Information Science Schools in Rivers State

Finding reveals that there is a significant influence of the utilization of digital repositories on the research output of lecturers in library and information science schools. This significant influence may have occurred because the lecturers stated, as shown in Table 2, that the utilization of digital repositories encouraged them to put in more effort in publications, made them aware of the current research focus in their profession, helped them construct suitable research topics, opened their eyes to more areas for publishing articles, enabled them to publish more than one journal in a year, and improved the quality and depth of their research. The implication of this is that the utilization of digital repositories positively influences multiple aspects of lecturers’ research output.

This aligns with the findings of Okoro and Eze (2024), who noted that “digital repositories can serve as a catalyst for research productivity by providing access to a wealth of information resources”. The study also found out that the use of digital repositories did not significantly influence the construction of appropriate research

topics, nor did it expose them to more areas for article publication or enable them to publish more than one journal per year. This suggests that while digital repositories can enhance research productivity, they may not necessarily broaden the scope of research or increase the frequency of publication. This is consistent with the observations of Uche and Okafor (2023), who argued that while digital repositories can enhance access to information, they do not automatically translate into increased research breadth or publication frequency.

In terms of awareness, the study found out that the lecturers in the Library and Information Science schools in Rivers State primarily became aware of digital repositories through personal letters to lecturers by the University Library, organized talk shows by the University Library, information passed during senate meetings, bulletins and library newsletters, and colleagues in the faculty. However, circulars on the notice board were not a significant source of awareness. This finding aligns with the assertion of Ibrahim and Barkindo (2021), who stated that “effective communication channels are crucial in disseminating information about digital repositories”. This also corroborates the findings of Olise (2021), who noted that “awareness of digital repositories is fundamental for their effective utilization”. It underscores the importance of using multiple channels to inform academic staff about digital repositories, thereby facilitating their access and use.

The study also found out that despite the high level of awareness, the use of circulars on the notice board as a communication channel was not significant. This suggests that while traditional communication channels can be effective, they may not be sufficient in the digital age. As Johnson and Afolabi (2022) pointed out that in the era of digital

information, digital communication channels may be more effective in promoting awareness and utilization of digital repositories.

Aspect of Lecturers' Research Out-put that are more Influenced by Utilization of Digital Repositories.

Finding reveals that aspects of lecturers' research output are more influenced by the utilization of digital repositories. This significant influence may have occurred because the lecturers stated, as shown in Table 3, that the utilization of digital repositories influenced proper literature review, correct citation of references, coherent and logical presentation of research reports, construction of suitable topics, appropriate tools for data collection and arrangement, and knowing publication outlets. The implication of this is that the utilization of digital repositories positively influences various aspects of research activities among lecturers.

This finding aligns with the study by Martin-Yeboah, Filson, and Boohene (2020), which highlighted that lecturers' awareness and patronage of institutional repositories significantly enhance their research activities, particularly in literature review and citation practices. Similarly, Mass and Hare (2019) found that the use of institutional repositories in Zimbabwe's public universities improved the quality of research outputs by providing access to a wide range of resources necessary for comprehensive literature reviews and accurate referencing.

Contrastingly, McKay (2017) noted that while institutional repositories are beneficial for literature review and citation, their usability issues can hinder the effective construction of research topics and the identification of suitable publication outlets. This is consistent with the findings of the current study, where respondents did not find

digital repositories helpful in constructing suitable topics or identifying publication outlets. Mering and Wintermute (2020) emphasized the importance of metadata in enhancing the usability of digital repositories, which can indirectly influence the coherence and logical presentation of research reports. This supports the current study's finding that digital repository aid in the coherent and logical presentation of research reports.

Muhammad (2021) stressed the need for proper training and support for lecturers to maximize the benefits of digital repositories. They argued that without adequate training, lecturers might struggle with data collection tools and arranging their research, which aligns with the current study's finding that digital repositories did not significantly influence these aspects. Ngulube and Onyancha (2014) highlighted the overall productivity of academic staff in Nigerian universities, noting that access to digital repositories is crucial for enhancing research output. However, they also pointed out that infrastructural challenges, such as poor network and power supply, can limit the effectiveness of these repositories, which is a broader issue not directly addressed in the current study but relevant to the context.

Conclusion

In conclusion, the study has provided significant insights and underscored the critical role that digital repositories play in enhancing the research output of lecturers. The study revealed that there is a high level of awareness of digital repositories among the lecturers. However, the level of utilization does not match the level of awareness, indicating a gap that needs to be addressed. The study also highlighted various factors that influence the utilization of digital repositories, including accessibility, ease of use, and the relevance of the materials available in the repositories. The findings of

this study have important implications for policy and practice. They call for concerted efforts to promote the utilization of digital repositories. This can be achieved through regular training and workshops to enhance lecturers' skills in using these resources. Additionally, steps should be taken to improve the accessibility and relevance of the materials in the repositories. Ultimately, enhancing the utilization of digital repositories can significantly improve the research output of lecturers, thereby contributing to the advancement of Library and Information Science as a field of study in Rivers State, Nigeria. This study serves as a steppingstone towards achieving this goal. Further research is recommended to explore strategies for promoting the effective use of digital repositories.

Recommendations

Based on the findings of the study, the following recommendations are proffered:

1. Training programs should be organized to improve the academic staff's skills in searching databases, understanding research trends, and collaborating with other researchers. These programs should focus on enhancing the ability to retrieve and apply digital materials effectively in research.
2. The utilization of digital repositories should be promoted to help academic staff construct suitable research topics, identify more areas for publishing articles, and enable them to publish more than one journal in a year. Universities should provide incentives and support systems that highlight the benefits of digital repositories in improving research output.
3. The university should invest in infrastructure and resources to improve the network and mitigate the

challenges of poor network and frequent network outages. This could include upgrading network equipment, increasing bandwidth, ensuring regular maintenance, and providing conducive reading accommodations.

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