LEAD CITY INTERNATIONAL JOURNAL OF LIBRARY, INFORMATION & COMMUNICATION SCIENCES

[LCIJLICS]. ISSN: 3027-0022, eISSN: 3027-0901

VOL 3. ISSUE 1. JANUARY, 2026 (DOI: https://doi.org/10.63741/lcijlics.2026.0301.15-j)

Digital Competence and Perception of Institution Repositories by Librarians in Research Libraries, Southwest, Nigeria

[1]Oluwaseun O. AJIBARE (PhD),
ajibare.oluwaseun@lcu.edu.ng
Department of information management,
Lead City University, Ibadan, Oyo State, Nigeria

[2]Zakariyau IBRAHIM (CLN)
zakariibrahim2009@gmail.com
Nigerian Institute for Oceanography and Marine Research, Library
Lagos State, Nigeria

[3]Folasade B. OGUNTOYE (PhD)
Oguntoye.folasade@lcu.edu.ng
Department of information management,
Lead City University, Ibadan, Oyo State, Nigeria

Abstract

Perception of institutional repositories (IRs) refers to how librarians, researchers, and other stakeholders view, understand, and value the role and usefulness of these repositories in supporting scholarly communication, knowledge preservation, and research visibility. Hence, this study examines digital competence and institution repositories perception by librarians of research libraries in Southwest Nigeria. The study adopted a descriptive survey research design. The study population consists of 110 librarians of research libraries in Southwest, Nigeria. The research instrument was a validated structured questionnaire with a Cronbach alpha score of 0.77. The data collected for the study were analysed using descriptive statistics to answer the research questions and demographic data. The study hypotheses were tested at a 0.05 level of significance using inferential statistics. The data analysis result revealed a very high level of librarians perception of institutional repositories, with a Mean = 3.50. It also found that the level of digital competency is very high (Mean =3.35), results also shows that the librarians in research libraries have a very high level of perception of institutional repositories, driven by the very high level of digital competency. The hypotheses test revealed that digital competence (Adj R2 =0.28) significantly influence on the perception of

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VOL 3. ISSUE 1. JANUARY, 2026 (DOI: https://doi.org/10.63741/lcijlics.2026.0301.15-j)

institutional repositories by librarians in research libraries, Southwest, Nigeria. In addition the study concludes that research librarians in Southwest Nigeria have embraced institutional repositories due to their high perception and digital competence, leveraging such to enhance the efficiency and quality of library services. The study recommended that government should encourage the implementation of IR in the research institutes of Nigeria to promote equity of access.

Keywords: Digital Competence, Digital Content Creation, Institutional Repository perception, Research Libraries.

Introduction

Libraries and organizations today rely extensively on institutional repositories (IRs) for modern information management and scholarly communication. They serve as a platform for long-term preservation and dissemination of scholarly work, promoting institutional visibility and academic collaboration (Bashir et al 2022). The perception of Institutional Repositories (IRs) in research libraries has been evolving rapidly due to the growing demand for open access, digital preservation, and long-term accessibility of research outputs. Many librarians and researchers perceive IRs as vital tools for, enhancing research visibility and accessibility. IRs make institutional research outputs globally available, thereby increasing citation impact and institutional reputation (Pinfield, 2020). Librarians view IRs as essential in archiving and preserving scholarly materials that might otherwise be lost (Bankier & Perciali, 2008). IRs is perceived as supporting the global open-access movement, reducing barriers to information access (Swan et al., 2015). Though with IRs, researchers can share findings, data, and preprints, fostering interdisciplinary collaboration.

Furthermore, Rogers, E. M. (2003) observed that institutional repositories perception in research libraries can be measured by the following four constructs. Relative advantage, Compatibility, Complexity, Trialbility and Observability. Relative advantage refers to the degree to which a librarian perceived an innovation as better than the idea it supersedes. In the context of IR perception, this means the extent to which research libraries see IRs as improving scholarly communication, increasing research visibility, and enhancing knowledge preservation. Rogers, E. M., Singhal, A., & Quinlan, M. M. (2020) investigated that libraries are more likely to adopt IRs when they perceive clear benefits such as wider dissemination of research outputs, increased citation rates, and institutional prestige. Compatibility is the degree to which a librarian perceived an innovation fits with the existing values, past experiences, and needs of potential adopters. Complexity describes the degree to which an

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innovation is perceived as difficult to understand or use. If an innovation is seen as complicated or demanding considerable skill and effort, the likelihood of adoption decreases. Innovations that are simple and user-friendly tend to diffuse more rapidly. Trialability refers to the degree to which a librarian perceived an innovation can be experimented with or tested before making a full commitment to adopt it. When individuals can try out an innovation on a limited basis, their uncertainty is reduced, making adoption more likely. Observability is the extent to which the results or benefits of an innovation is perceived by a librarian as visible to others. When potential adopters can easily observe the positive outcomes of an innovation from peers or institutions are more likely to adopt it themselves Dulle, F. W., & Minishi-Majanja, M. K. (2011).

Digital competence plays a critical role in the perception of institutional repositories (IRs) in research libraries, as it directly influences the ability of the librarians, other staff and users to effectively manage and utilize these systems. This competence encompasses a wide range of skills, from basic computer literacy to more advanced capabilities in digital curation, data management, and understanding of repository software and standards. Digital competence includes the technical skills necessary to operate and maintain an institutional repository. Librarians must be proficient in digital content management systems, metadata standards, and the protocols necessary for long-term digital preservation. According to a study by Faniel, & Connaway, (2018) argued that a higher level of digital competence among librarians is strongly correlated with the successful implementation and maintenance of institutional repositories. Digital competence involves information literacy, the skill to find, assess, and use information effectively, as well as the ability to manage research data. It was determined that researchers with higher levels of digital competence are more likely to deposit their work in institutional repositories, as they understand the benefits of open access, intellectual property issues, and the importance of metadata quality (Okiki et al 2020). Robinson & Ukaegbu (2024) revealed that libraries that struggle with digital competence among staff often face significant challenges in repository management, leading to lower perception rates.

European Commission (2019) opined that digital competence has the following constructs; Information and Data Literacy, Communication and Collaboration, Digital Content Creation, Safety and Problem solving. This construct involves the ability to identify, locate, retrieve, store, organize, and analyse digital information, judging its relevance and purpose. Communication and collaboration involve using digital technologies to interact with others, exchange information and resources, and participate in online networks and communities. It also encompasses developing intercultural understanding and the ability to manage one's

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digital identity (Carretero, Vuorikari, & Punie, 2017). Digital content creation involves the production and editing of new digital materials, as well as the integration and re-elaboration of existing knowledge and content to generate creative outputs, while also demonstrating an understanding of copyright and licensing issues (Vuorikari, Punie, Carretero, & Van den Brande, 2016). Safety**,** on the other hand, refers to the protection of digital devices, personal data, privacy, health, and the environment from potential digital risks, and it emphasizes the development of secure, responsible, and sustainable digital practices (European Commission 2019).

Carretero, Vuorikari, & Punie (2017) describe problem solving as the ability to recognize digital needs and appropriate resources, address technical challenges, apply digital tools creatively to improve processes and develop new products, and continuously adapt to emerging digital developments. Ezema & Eze (2024) argued that the interaction of these two factors guarantees that an institutional repository is not only backed by adequate technological facilities but is also properly operated and maximally used by competent personnel, thereby promoting greater use and long-term sustainability. In research libraries in Southwest Nigeria, librarians tend to have a more positive perception of institutional repositories when both digital competence and technological infrastructure are strong.

These factors collectively enable the effective deployment, management, and utilization of repositories, thus supporting the broader goals of knowledge sharing and preservation in the research community.

Research Questions

i. What is the level of the perception of institutional repositories by librarians in research libraries, Southwest, Nigeria?

ii. assess the level of digital competence of librarians in research libraries, Southwest, Nigeria?

Hypotheses

The following null hypotheses tested at 0.05 level of significance

i. $H_0$1- Digital competence has no significant influence on the perception of institutional repositories by librarians of research libraries in Southwest, Nigeria.

Literature Review

An institutional repository (IR) is an online digital resource that provides a structured platform for storing, preserving, and providing access to scholarly and academic publications, such as research articles, dissertations, and theses, produced within an institution. Kaladhar, A. Doraswamy, B. R. N. & Somasekhara, R, K. (2018) investigated that institutional repository is an extension of an academic institutional activity in support of research and developmental activities of the institution, protecting intellectual efforts and scholarly communication among the users within the institution. It was observed by Sabharwal, A, (2021) that institutional repository present an engagement framework, viewing IRs as integral to institutional knowledge management and strategic planning in higher education. Research libraries require institutional repositories for librarians to enhance open access, visibility; long-term preservation and adequate service delivery to users (Dhanavandan, S. &. Tamizhchelvan, M. A. 2013).

There are reasons to indicate that the library can take up the responsibility for setting up and implementing the institutional repository. Firstly, traditionally everyone knows the library as preserver of scholarly literatures. Secondly, librarians are professionals, trained to create metadata and content organization (Ejomafuvwe, E., & Ogbomo, M. O. (2024). They are conscious of the preservation of digital materials and self-archiving techniques. The characteristic of the library as a technology hub in research institute or universities is the third reason to confirm why the library should be in charge of institutional repositories (Quadri, G. J. & Paul, R. 2021).

Similarly, Adeyemi, O. O. & Jamogba, E. (2021) determined that institutional repository is a platform that allows information access to publication/documents from any location globally which enhance visibility of the university. The development of IR helps increase the scholarly and scientific communication and motivate librarians to change their ideas of keeping guarding their responsibilities and make the repositories available online and freely accessible via internet. Librarians need to understand the meaning of open access movement which is to provide resources in order to boost the growth of scientific knowledge. Moreover, the growth of institutional repositories in Nigeria and other African countries has been very

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slow compared to the efforts that have been put in awareness creation, through conferences and workshops (Oguche, D 2018).

However, Díaz-Burgos, A., Martínez-Abad, F., & Rodríguez-Conde, M. J. (2025) suggest when talking about digital competence, we use a variety of similar concepts: digital skills, digital literacy, media literacy, information literacy, transversal skills, new media literacy, e-skills, e-competences, and in some cases digital intelligence. Digital competence involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT. Sambo, A. S., Imran, A. A., and Akanbi, M. L. (2022) found that digital literacy skills among professionally certified librarians in Nigeria include the capacity to participate in online professional communities, critically evaluate information, effectively operate digital technologies, locate and assess web-based resources, and engage in virtual training programmes such as webinars.

Okuonghae, N. & Tunmibi, S. (2024) studied that these technologies enable academic libraries to surpass conventional service restrictions and impose new librarian skills and competencies requirements. Moreover, the provision of digital skills learning opportunities has become a significant part of the services provided by many libraries IFLA (International Federation of Library Associations and Institutions and there is now an expectation that library staff should offer high-quality digital literacy sessions and teach patrons how to use new technologies (Sinha, P. & Jeremiah E. U.2024).

Previous studies attested by Kennedy, C. & Zach, J. (2024) identified the deficiency in digital literacy competence, low level of computer literacy skills, and little exposure to the use of ICT among professional staff generally in academic libraries in Nigeria The European Commission (EC) states that digital skills are the basis of digital competence, which involves the confidence and critical use of information technology for work, leisure, learning and communication. It needs to be emphasized that digital literacy encompasses knowledge and skills to use a broad range of devices such as smartphones, tablets, laptops and desktops, as well as social networking. Consequently, according to Oqlu, K., Parviz. F. E. Y. O. Ahmadov & N. C. Ağayeva (2023) digitally literate or technical skilled library officer should have the capability to confidently and proficiently manipulate, operate ICT tools (computers, internet, printer, scanner, photocopy machine, binding machine, laminating machine, television, projectors and telephony among others) as well as digital gadgets to carry out effective library services. Digital technologies have brought changes in, and, thus, challenges to, our everyday life, in which the use of technology is inevitable However, it was investigated in a

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study by Enakrire, R. T. & Omwoyo, B. O. (2020) that the use of computers to retrieve, assess, store, produce, present and exchange information and to communicate, participate in collaborative networks via the internet is very important to improve librarian's digital competence.

In the 21st century libraries, librarians and information professionals are expected to thrive in the digital environment where they will be actively involved in the acquisition, application, use and implementation of new technologies in their organization with their new skills and competencies to fit with their changing roles. According to the Federal Library and Information Centre Committee FLICC (2008) the staff working in the new modern library is required to acquire new competencies and appropriate skills to function effectively. An investigation in a study emphasized the need for information professionals to acquire appropriate digital competencies to use emerging technological facilities and promote effective services for better job performance (Haque, M. A., Hossain, M. I., Islam, M. M., Saha, A., Pervez, A. K., Rahman, Z., & Aziz, D. A. B. 2023). There is a growing concern that many information providers lack digital skills and many have no adequate knowledge and skills to use and operate technology facilities and digital gadgets (Khan, S. A. & Khurram, S. 2024). The librarian can work efficiently in a digital library setting, for instance, librarians' abilities to assist library patrons in finding, organizing, understanding, and creating information utilizing digital technologies. It was stated by Yadav, A. K. S. (2022). that communication skills, information retrieval abilities, design skills, database administration skills, and multitasking skills are among the competencies required by librarians to facilitate students' online education According to the observation of Chukwuemeka, C. & Israel, H. I. (2023) it was examine that knowledge of how to create and manage digital resources, as well as how to use digital library software and scan documents are some of the digital competencies for librarians.

Some other additional skills include resource sharing and helping users find the information they need. Academic librarians must also have these skills to handle library technology facilities and online resources and to make wise judgments about the library's perception of new technologies (Izuagbe, R. Ibrahim, N. A. Ogiamien, L. O. et al. 2019). It was observed that additional technological trends that impact libraries are online privacy, cyberbullying, fake news, fake information, graphic design, social media, media labs, and makerspaces (Pegrum, M., Hockly, N., & Dudeney, G. 2022)

Methodology

A descriptive survey research design was adopted for the study; the population of the study consist of one hundred and ten (110) librarians from the 28 research libraries in Southwest, Nigeria. From the study population, total enumeration sampling was used. Adapted questionnaire administered from related studies was use to the number of librarians in each of the research libraries of the study to gather the data. The data was analysed using SPSS and the hypotheses was tested using linear regression analysis.

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Analysis and discussion of the findings

Research Question One: What is the level of the perception of institutional repositories by librarians in the research libraries, Southwest, Nigeria?

Table 1.1: Institutional Repository Perception

S/N	Items	Frequency (%)				Mean	SD
		SA	A	D	SD		
	Relative Advantage	**4**	**3**	**2**	**1**		
1	Institutional repository would allow me to perform library tasks more efficiently than traditional methods.	57(64.0)	23(25.8)	7(7.9)	(2.2)	3.52	0.74
2	The use of institutional repository will improves the quality of service delivery to users.	41(46.1)	41(46.1)	6(6.7)	1(1.1)	3.37	0.66
3	I will believe institutional repository offer more benefits than manual library processes.	53(59.6)	31(34.8)	5(5.6)	0(0)	3.54	0.60
	Compatibility						
4	The use of institutional repository aligns with the goals of my library.	51(57.3)	32(36.0)	6(6.7)	0(0)	3.51	0.62
5	I may find it easy to integrate institutional repository with existing library systems.	53(59.6)	31(34.8)	4(4.5)	(1.1)	3.53	0.64
6	The use of institutional repositories will fits well with the way I prefer to work.	66(75.0)	19(21.6)	3(3.4)	0(0)	3.72	0.52
	Complexity						
7	I may find the operation of institutional repositories to be complicated.	51(58.0)	32(36.4)	5(5.7)	0(0)	3.52	0.61
8	Learning to use institutional repository may take a lot of time and effort.	55(62.5)	27(30.7)	6(6.8)	0(0)	3.56	0.62

9	Some institutional repositories require more technical expertise than I possess.	49(55.7)	30(34.1)	5(5.7)	4(4.5)	3.41	0.80
	Triability						
10	I may be allowed to test new institutional repository before they are fully implemented in the library.	47(53.4)	33(37.5)	7(8.0)	1(1.1)	3.43	0.69
11	Our library may provide training sessions to try out the perception of institutional repository.	57(64.0)	28(31.5)	4(4.5)	0(0)	3.60	0.58
12	I may feel confident using institutional repository after trying it in a trial or demo setting.	50(56.2)	29(32.6)	8(9.0)	2(2.2)	3.43	0.75
	Observability						
13	I can see positive changes in library service delivery as a result of using institutional repositories	53(59.6)	27(30.3)	8(9.0)	1(1.1)	3.48	0.71
14	The impact of institutional repository on library operations would be noticeable.	45(50.6)	31(34.8)	11(12.4)	2(2.2)	3.34	0.78
15	Successful examples of institutional repository use by colleagues encourage me to adopt it.	53(59.6)	30(33.7)	6(6.7)	0(0)	3.53	0.62
	Overall Mean					**3.50**	

Decision rule: 1.44-1.74= very low, 1.75-2.49= low, 2.50-3.24= high and 3.25-4.00= very high

Source: Researcher's Fieldwork, 2025

Overall, these findings indicate that librarians in the research libraries, Southwest Nigeria have embraced institutional repository perception at a relatively high level**.**

As observed above the overall findings indicate that librarians in the research libraries, Southwest Nigeria have embraced institutional repository perception at a relatively very high level with an average mean of 3.50**.**

Analysis of Research Question Two: What is the level of Digital Competence on institutional Repositories perception by Librarians in Research Libraries, Southwest, Nigeria?

Table 1.2: what is the level of Digital Competence on Institutional Repositories Perception by Librarians in Research Libraries, Southwest, Nigeria?

S/N	Items	Frequency (%)				Mean	SD
		SA	A	D	SD		
	Information and Data Literacy	**4**	**3**	**2**	**1**		
1	I can effectively search academic resources from digital databases and repositories.	40(44.9)	38(42.7)	11(12.4)	0(0)	3.33	0.69
2	I evaluate the credibility of online information before using or recommending it.	43(48.3)	35(39.3)	11(12.4)	0(0)	3.36	0.70
3	I am skilled in organizing digital resources using appropriate metadata standards.	45(50.6)	34(38.2)	9(10.1)	(1.1)	3.38	0.72
	Communication and Collaboration						
4	I regularly use digital communication tools (e.g., email, Zoom, Teams) to interact with colleagues and	46(51.7)	35(39.3)	8(9.0)	0(0)	3.43	0.66

	users.						
5	I participate in online forums, webinars, or professional platforms to share and acquire knowledge.	50(56.2)	33(37.1)	6(6.7)	0(0)	3.49	0.62
6	I collaborate with others using cloud-based tools like Google Docs or shared drives.	34(38.2)	28(31.5)	21(23.6)	(6.7)	3.01	0.95
	Digital Content Creation						
7	I can create digital content such as LibGuides, digital exhibits, or blog posts.	31(34.8)	28(31.5)	17(19.1)	(14.6)	2.87	1.06
8	I have experience in uploading, digital items in institutional repositories.	45(51.7)	38(43.7)	2(2.3)	2(2.3)	3.45	0.66
9	I apply copyright rules when creating digital content.	42(48.3)	40(46.0)	4(4.6)	1(1.1)	3.41	0.64
	Safety Skill						
10	I follow digital security protocols like using strong passwords and secure networks.	43(49.4)	38(43.7)	6(6.9)	0(0)	3.43	0.62
11	I am aware of data privacy practices in handling users' digital records.	39(44.8)	41(47.1)	7(8.0)	0(0)	3.37	0.63
12	I educate users about safe online behavior and digital responsibility.	48(55.2)	34(39.1)	4(4.6)	1(1.1)	3.48	0.65
	Problem Solving						
13	I can troubleshoot basic ICT issues in library software or hardware.	38(43.7)	39(44.8)	9(10.3)	1(1.1)	3.31	0.70
14	I learn new digital tools and technologies on my own or	39(43.7)	45(51.7)	3(3.4)	1(1.1)	3.38	0.62

	through online courses.						
15	I seek innovative digital solutions to improve library services.	40(46.0)	43(49.4)	4(4.6)	0(0)	3.41	0.58
	Overall Mean					**3.35**	

Decision rule: 1.44-1.74= very low, 1.75-2.49= low, 2.50-3.24= high and 3.25-4.00= very high

Source: Researcher's Fieldwork, 2025

From the above table the overall findings shows that librarians demonstrate strong competencies in most digital skills areas, particularly in information literacy, safety skills, and problem-solving, although skills in creating original digital content with a relatively very high mean of 3.35 and collaborating with cloud-based tools are lower with an average mean are relatively weaker .

Hypotheses Testing

H_o1: There will be no significant influence of digital competence on institutional repositories perception by librarians in the research libraries of Southwestern, Nigeria.

Table 1.3: Influence of digital competence on institutional repositories perception by librarians of the research libraries in the Southwestern, Nigeria.

a. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.54	0.29	0.28	0.39546

b. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	**Regression**	5.50	1	5.50	35.16	0.00
	Residual	13.61	87	0.16		
	Total	19.11	88			

c. coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1(Constant)	1.55	0.33		4.70	0.00
Digital Competence	0.58	0.10	0.54	5.93	0.00

a. Predictors:(Constant, Digital Competence)
b. Dependent variable: institutional repositories perception

Source: Researcher's SPSS Analysis Output, 2025

The regression analysis presented in Table 1.2 Shows the influence of digital competence on the institutional repositories perception by librarians of the research libraries in Southwestern Nigeria. The model summary explains 29% variance in the institutional repositories perception ($R^2 = 0.29$), and the remaining 71% variation is explained by other factors not represented in this study. Digital competence also shows a positive significant relationship ($R = 0.54$) with the institutional repositories perception by librarians of the research libraries in Southwestern Nigeria.

Table1.2. presents the analysis of variance in the influence of digital competence on institutional repositories perception. From the values presented in the table, it shows that digital competence has a significant influence on institutional repositories perception by librarians of the research libraries in Southwestern Nigeria ($F(1, 87) = 35.16$, p-value = $0.00 \leq 0.05$).

Table 1.3 also shows that if other factors remain constant, a change in digital competence will lead to 0.58 positive change in the institutional repositories perception at 95% level of confidence ($\beta = 0.58$, $p \leq 0.05$). Therefore, based on the result shown by the regression analysis, the null hypothesis was rejected and we conclude that digital competence has a significant influence on the institutional repositories perception by librarians of the research libraries in Southwest, Nigeria.

Discussion of Findings

Finding from the first research question examined the level of institutional repositories perception by librarians in the research libraries, Southwest Nigeria. With an overall mean response of 3.50, the study found a very high level of perception of institutional repositories

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among the respondents. The findings show that librarians perceive institutional repositories as offering relative advantages over traditional methods, such as performing library tasks more efficiently, improving the quality of service delivery, and offering greater benefits than manual processes. This is in agreement with early writers on the perception of institutional repository (Spencer J. & Crampton, T. 2011, Ward, P. 2013, Cullen, R. & Chawner, B. 2015). The compatibility dimension revealed that institutional repository perception aligns with library goals, integrates easily with existing systems, and fits well with the preferred work styles of librarians (Spencer J. & Crampton, T. 2011, Cullen, R. & Chawner, B. 2015). However, the complexity dimension indicated that while librarians acknowledge some operational challenges and the need for technical expertise, they also recognize the benefits after acquiring the necessary skills. Training opportunities and trial use have further boosted their confidence in using repositories, and observable positive changes in service delivery and operational efficiency have encouraged perception. Nevertheless, continued technical support and regular training are needed to address the learning curve and sustain high perception levels.

Finding from the second research question examined the level of digital competence of librarians in the research libraries, Southwest Nigeria. The results revealed a very high level of digital competence with an overall mean response of 3.35. The study shows that librarians demonstrate strong competencies in information and data literacy, such as effectively searching for academic resources, evaluating online information credibility, and organizing digital resources with metadata standards. Skills in communication and collaboration were also notable, with librarians actively using digital communication tools and participating in online professional forums. Safety skills, including adherence to security protocols and educating users on safe online behavior, were highly rated. Problem-solving abilities, such as troubleshooting ICT issues and self-learning of digital tools, were also strong. These were all in agreement with literatures that librarians have high digital competence quality (D. MacMillan, 2015, J. Carlson and L. R. Johnston, 2015), T. Koltay, 2015). However, skills in creating original digital content and collaborating through cloud-based tools were relatively weaker. This suggests that while librarians are well-equipped in most digital skills areas, targeted capacity-building in digital content creation and cloud collaboration could further enhance their competence. The test of the hypothesis one conducted for this study, revealed that digital competence has a significant influence on institutional repositories perception. This indicates that digital competence is an effective predictor of perception, and there is a positive significant relationship between the two variables. A positive change in librarians'

digital competence will result in a positive change in institutional repository perception. However, factors such as low content creation skills, limited cloud collaboration, and inadequate training may limit the full impact of digital competence. This study affirms digital competence as a key enabler of repository perception. Nevertheless, digital competence remains important as a foundational skill set that supports effective institutional repositories perception. The result highlights the need for integrated strategies that involves provision with targeted digital skills development to optimize repository perception in research libraries.

Conclusion

Research librarians in Southwest Nigeria have very high level of the perception of institutional repositories, leveraging them to enhance the efficiency and quality of library services. High levels of digital competence, evident in metadata management, digital collaboration, repository uploads, user education, and ICT troubleshooting, have significantly driven repository perception. Individually, digital competence positively influences perception. These findings underscore the importance of investing in ongoing digital skills development to sustain and expand repository uptake, ultimately boosting the visibility and impact of institutional scholarship.

Recommendations

1. To help librarians become more proficient in using and managing institutional repositories, research libraries should regularly host training on digital literacy and competency.

2. Regular assessment and feedback systems should be instituted to evaluate librarians' digital competence, repository usability, and user satisfaction

3. Due to the high level of digital competence by the librarians in the research libraries the government should encourage the implementation of IR in the research institutes of Nigeria to promote equity of access.

4. Efforts should be made to enhance the perception of infrastructure reliability through consistent maintenance, timely upgrades, and clear communication about improvements. This will reduce scepticism and build trust in the institutional infrastructure.

Reference

Adeyemi, O. O., & Jamogba, E. (2021) Institutional repositories as a catalyst for enhanced university visibility: A case study of Obafemi Awolowo University. *Covenant Journal of Library and Information Science*, 4(1), pp.1–10.

Bankier, J. G., & Perciali, I. (2008) The institutional repository rediscovered: What can a university do for open access publishing? *Serials Review*, 34(1), pp.21–26.

Bashir, S., Gul, S., Bashir, S., Nisa, N. T., & Ganaie, S. A. (2022) Evolution of institutional repositories: Managing institutional research output to remove the gap of academic elitism. *Journal of Librarianship and Information Science*, 54(3), pp. 518–531.

Bibliometric analysis and systematic review of digital competence in education. *Humanities and Social Sciences Communications*, *12*(44).

Carlson, J., & Johnston, L. R. (2015) Data information literacy: Librarians, data, and the education of a new generation of researchers. *Purdue University Press.*

Carretero, S., Vuorikari, R., & Punie, Y. (2017*)* The Digital Competence Framework for Citizens (DigComp 2.1): Update Phase 1. *Joint Research Centre*, EUR 28558 EN.

Carretero, S., Vuorikari, R., & Punie, Y. (2019) The Digital Competence Framework for Citizens (DigComp 2.1). *Publications Office of the European Union.*

Chukwuemeka, C., & Israel, H. I. (2023) Librarians' digital literacy skills and services delivery in academic libraries in Taraba State, Nigeria: A correlation. *Library Philosophy and Practice*, pp.1–14.

Cullen, R., & Chawner, B. (2015) Automated curation and usage analytics: Librarians' assessment of institutional repositories, *Library Hi Tech*, 33(1), pp.5–23.

Dhanavandan, S., & Tamizhchelvan, M. A. (2013) Critical study on attitude and awareness of institutional repositories and open access publishing, *Journal of Information Science Theory and Practice*, 1, 67–75.

Dulle, F. W., & Minishi-Majanja, M. K. (2011) The suitability of the diffusion of innovations theory for predicting the adoption of open access in Tanzanian academic and research institutions. *Information Development, 27*(4), 263–277. https://doi.org/10.1177/0266666911420441

Ejomafuvwe, E., & Ogbomo, M. O. (2024) Librarians'technological readiness as predictor of the creation of institutional repository in universities in South-South, Nigeria, *FUGUS International Journal of Library and Information Science*, 1(1), 185-195.

Enakrire, R. T., & Omwoyo, B. O. (2020) Strategies and tools for knowledge management practices in selected academic libraries in Nigeria and South Africa, *South African Journal of Information Management*, 22(1), pp.1–9.

European Commission. (2019) The Digital Competence Framework for Citizens (DigComp 2.1). *Publications Office of the European Union.*

European Union DigComp (2018) The European Digital Competence Framework. https://joint-research-centre.ec.europa.eu/digcomp/digcomp-framework_en

Ezema, I. J., & Eze, J. U. (2024) Status and challenges of institutional repositories in university libraries in South-East Nigeria: Implications for visibility and ranking of Nigerian universities. *The Journal of Academic Librarianship*, 50(2), pp.102834.

Faniel, I. M., & Connaway, L. S. (2018) Librarians' perspectives on the factors influencing research data management programs, *College & Research Libraries*, 79(1), pp.100–119. https://doi.org/10.5860/crl.79.1.100

Federal Library and Information Centre Committee. (2008) Federal librarian competencies, *U.S. Government Printing Office*.

Haque, M. A., Hossain, M. I., Islam, M. M., Saha, A., Pervez, A. K., Rahman, Z., & Aziz, D. A. B. (2023). Information resources management in the twenty-first century: challenges, prospects, and the librarian's role. *American Journal of Information Science and Technology*, *7*(3), 122-134.

Izuagbe, R., Ibrahim, N. A., Ogiamien, L. O., et al. (2019) Effect of perceived ease of use on librarians' e-skills: Basis for library technology acceptance intention. *Library & Information Science Research*, 41(3), pp.100969.

Kaladhar, A., Doraswamy, B. R., & Somasekhara, R. K. (2018) Study on the utilization of digital resources by faculty members of Shri Vishnu Educational Society, Bhimavaram, Andhra Pradesh, *Journal of Advancements in Library Sciences*, 5(3), pp.32–39. https://doi.org/10.37591/joals.v5i3.920

Kennedy, C., & Zach, J. (2024) Digital literacy in VU libraries, *New Directions for Teaching and Learning*, 2024(180), 25–37.

Khan, S. A., & Khurram, S. (2024) Key features of digital library management system (DLMS) for developing digital libraries: An investigation from LIS practitioners in Pakistan, *Journal of Librarianship and Information Science*, 56(1), pp.29–42.

Koltay, T. (2015) Data literacy: In search of a name and identity, *Journal of Documentation*, 71(2), pp.401–415.

MacMillan, D. (2015) Developing data literacy competencies to enhance faculty collaborations, *Liber Quarterly*, 24(3), pp.140–160.

Oguche, D. (2018). The state of institutional repositories and scholarly communication in Nigeria. *Global Knowledge, Memory and Communication*, 67(1–2), pp.19–33.

Okiki, O. C., Osedo, O. A., & Okpah, B. (2020) Stakeholders' awareness and willingness to submit scholarly works to institutional repository towards research visibility: A case of University of Lagos. *Journal of Applied Information Science and Technology, 13*(2), pp. 101-110

Okuonghae, N., & Tunmibi, S. (2024) Digital competence as predictor for the motivation to use artificial intelligence technologies among librarians in Edo and Delta States, Nigeria, *Journal of Technology Innovations and Energy*, 3(1), pp.1–11. https://doi.org/10.56556/jtie.v3i1.728

Oqlu, K., Parviz, F. E. Y. O., Ahmadov, & Ağayeva, N. C. (2023) The role of new technologies in forming libraries in the global information society, *ГРАН*, pp.42.

Pegrum, M., Hockly, N., & Dudeney, G. (2022) Digital literacies. *Routledge*.

Pinfield, S. (2020) Open access, repositories, and scholarly communication: The future landscape. *Learned Publishing*, 33(3), pp.181–193.

Quadri, G. J., & Paul, R. (2021) A survey of perception-based visualization studies by task, *IEEE Transactions on Visualization and Computer Graphics*, 28(12), pp.5026–5048.

Robinson, J. N., & Ukaegbu, B. C. N. (2024) Internet browsing and Web 2.0 competencies as correlate of effective management of institutional repositories in federal universities in South-South Nigeria, *International Journal of Open Digital Access & Scholarship*, 5(2). https://doi.org/10.56705/ijodas.v5i2.161

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.

Rogers, E. M., Singhal, A., & Quinlan, M. M. (2020) Diffusion of innovations. In D. W. Stacks, M. B. Salwen, & K. C. Eichhorn (Eds.), *An integrated approach to communication theory and research*, 3rd ed., pp. 415–434.

Sabharwal, A. (2021) Institutional repository engagement framework: Harnessing resources, structure, and process for strategic plan support in higher education. *Journal of Electronic Resources Librarianship*, 33(3), pp.137–155.

Saka, K. A., Song, I. S., & Aliyu, Y. (2022) Funding challenges of academic libraries in Nigeria and its implications for information service delivery, *DeRafelo Publishers*.

Sambo, A. S., Imran, A. A., & Akanbi, M. L. (2022) Digital literacy skills among certified librarians in Nigerian libraries, *Journal of Digital Learning and Education*, 2(2), 70–79.

Sinha, P., & Jeremiah, E. U. (2024) Digital literacy skills among African library and information science professionals: An exploratory study, *Global Knowledge, Memory and Communication*, 73(4–5), pp.521–537.

Spencer, J., & Crampton, T. (2011) Librarians' perceptions of institutional repositories as workflow streamliners, *Journal of Academic Librarianship*, 37(5), 387–394.

Swan, A., Gargouri, Y., Hunt, M., & Harnad, S. (2015) Open access policy: Current status and future directions, *F1000Research*, 4, pp.1–20.

Vuorikari, R., Punie, Y., Carretero, S., & Van den Brande, G. (2016) DigComp 2.0: The Digital Competence Framework for Citizens, *Publications Office of the European* Union.

Ward, P. (2013) Enhancing research dissemination: Academic librarians' views on service quality in institutional repositories. *College & Research Libraries*, 74(2), pp.185–199.

Yadav, A. K. S. (2022) The essential skills and competencies of LIS professionals in the digital age: Alumni perspectives survey, *Global Knowledge, Memory and Communication*, 71(8–9), pp.837–856.