Internet Browsing and Web 2.0 Competencies: Key Correlates of Effective Institutional Repository Management by Librarians in Federal Universities, South-South Nigeria

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Abstract -This study was carried out to investigate Internet browsing and Web 2.0 competencies as correlates of effective management of institutional repositories by librarians in federal universities in South-South Nigeria. Utilizing a correlational design, the study answered three questions and tested three hypotheses. The cohort of 242 librarians from seven federal universities - 115 academic and 127 non-academic - constituted the study's population. A stratified total census sampling approach was deployed to include all 242 librarians. Data gathering utilized two questionnaires: the "Librarian Internet Browsing and Web 2.0 Competencies Questionnaire (LIBWCQ)" and the "Effective Management of Institutional Repositories Questionnaire (EMIRQ)." Both tools were validated for face and content by experts and yielded Cronbach Alpha reliability coefficients of 0.75 and 0.77, respectively. Mean scores addressed the research questions, while regression analysis tested the hypotheses at a significance level of 0.05. Results indicated a 52% joint correlation between the librarians' web competencies and effective management of repositories, notably in activities like social media engagement and collaboration with faculty and students using the digital space. The study concluded and recommended that librarians should bolster their digital skills through professional development initiatives, such as workshops, webinars, and conferences, focusing on digital management and Web 2.0 tool application to keep up-to-date with technological advancements and best practices in the management of institutional repositories.

Keywords: **Internet Browsing, Web 2.0 Competencies, Institutional Repositories, Federal Universities**

I. INTRODUCTION

In this contemporary digital era, the proficient management of institutional repositories by federal universities Librarians is of paramount importance, especially in nations like Nigeria undergoing developmental transitions. The widespread impact of the internet coupled with the dynamic functionalities of Web 2.0 has revolutionized information retrieval, knowledge dissemination, and communication channels (Akwang, 2021).

Libraries, in conjunction with their repositories, serve as vanguards in leveraging these technological advancements to safeguard and disseminate scholarly works efficiently. Armed with adept internet navigation skills, Librarians in federal universities can stay abreast of emerging trends, skillfully navigate intricate searches, and discern source credibility accurately, thereby overcoming information retrieval challenges adeptly (Ohei & Brink, 2019).

Notably, Librarians across federal universities worldwide are collaborating to enhance their proficiency in Web 2.0 technologies (Hussain, 2015). Given that federal universities, being federally funded, are expected to set the pace in higher education (Ogunode *et al.,* 2024), their Librarians often benefit from greater resources and national network collaborations, thereby enhancing institutional repositories and setting them apart from other tertiary institutions.

Consequently, Librarians in federal universities recognize that refining basic internet navigation and Web 2.0 competencies amplifies their ability to utilize interactive web tools for fostering collaboration, facilitating communication, and creating engaging content (Rasheed & Ahmed, 2024). To maintain their competitive edge, Librarians in federal universities are actively seeking to elevate their expertise in diverse areas such as social media utilization, online publishing tools, and collaborative software applications (Ntloko & Masenya, 2024).

By transitioning from static web interfaces to interactive applications, Librarians may significantly enhance user engagement and boost the visibility of repository resources. Nonetheless, Librarians in federal universities are increasingly realizing that any lack of refinement in their services could compromise their competitive advantage to research gateways, aggregators, and e-learning platforms like Google Scholar, Research Gate, PubMed, Amazon, Coursera, Udemy, and Khan Academy, respectively (Sharma *et al.,* 2021).

For Librarians, the convergence of information management with proficient internet navigation and Web 2.0 technologies has ushered in a new era for enhancing library services, enabling them to meet the escalating demands of their institutions and users by promptly disseminating information and engaging with users through virtual reference services such as instant messaging, voice-over IP, videoconferencing, co-browsing, and email, facilitated by

Web 2.0 tools like RSS feeds, Ajax, and JavaScript (Lateef & Mairaj, 2024).

In Nigeria, a significant number of federal universities are diligently enhancing their research capabilities and global presence by digitizing and disseminating scholarly materials (Bakare, 2018). The success of these endeavors heavily relies on the Librarians' proficiency in leveraging internet navigation and Web 2.0 tools to curate, promote, and sustain institutional repositories. It is evident that federal universities Librarians with advanced competencies in internet browsing will have a distinct advantage in efficiently sourcing and retrieving pertinent scholarly content to enrich the repository.

Moreover, those possessing adept Web 2.0 skills will be able to effectively engage users, foster collaboration, and refine the overall user experience. By honing their competencies to align with the dynamic landscape of internet navigation and embracing the cutting-edge technologies of Web 2.0, Nigerian Librarians in federal universities will be at an advantaged position to significantly enhance the discoverability and usability of repository content amid the vast digital resource environment (Robinson, 2023). Thus, this study is focused on investigating the correlation between Internet browsing and Web 2.0 competencies and the efficient management of institutional repositories by Librarians within federal universities in South-South, Nigeria.

II. STATEMENT OF THE PROBLEM

Federal universities Librarians are adapting to a new landscape of library and information science, where they must engage with patrons, promote repository content, and foster scholarly collaboration. Recent conferences have redefined the roles of federal universities libraries, shifting from solely book repositories to centers for information dissemination, research support, and academic collaboration. To meet evolving user needs, Librarians must use social media, promote institutional repository content, and facilitate research collaborations.

Nigerian federal universities Librarians are facing similar challenges and opportunities as their global counterparts. They are tasked with engaging with patrons, promoting local research outputs, and fostering scholarly partnerships to enhance their relevance and contribution to the academic community. Internet browsing skills and Web 2.0 competencies, such as social media and collaborative platforms, are crucial in this context.

However, there is a paucity of literature measuring the extent of Nigerian federal universities Librarians' internet browsing and Web 2.0 competencies. This forms the core of the study.

III. AIM AND OBJECTIVES OF THE STUDY

This study was aimed at investigating Internet browsing and Web 2.0 competencies as correlate of effective management of institutional repository by Librarians in federal universities in south-south, Nigeria. Specifically, the study sought to

1. Evaluate the extent to which Internet browsing competencies of Librarians in federal universities in South-South, Nigeria correlate with effective management of institutional repositories;
2. Determine the extent to which Web 2.0 competencies of Librarians in federal universities in South-South, Nigeria correlate with effective management of institutional repositories; and,
3. Examine the extent to which the joint competencies variables (Internet browsing and Web 2.0 competencies) correlate with the Librarians effective management of institutional repositories.

A. Research Questions

1. To what extent do the Internet browsing competencies of Librarians in federal universities in South-South, Nigeria correlate with effective management of institutional repositories?
2. What is the extent to which Web 2.0 competencies of Librarians in federal universities in South-South, Nigeria correlate with effective management of institutional repositories?
3. What is the extent to which the joint competencies variables (Internet browsing and Web 2.0 competencies) correlate with the Librarians effective management of institutional repositories?

B. Hypotheses

The following three (3) null hypotheses were tested at 0.05 alpha level.

1. The Librarians Internet browsing competencies do not significantly correlate with effective management of the institutional repositories.
2. The Librarians Web 2.0 competencies do not significantly correlate with effective management of the institutional repositories.
3. Joint competencies variables (Internet browsing and Web 2.0 competencies) of the Librarians do not significantly correlate with effective management of the institutional repositories.

IV. CONCEPTUAL FRAMEWORK

This study's framework revolves around the Internet browsing and Web 2.0 competencies of federal university libraries in proficiently managing institutional repositories, as visually depicted below.
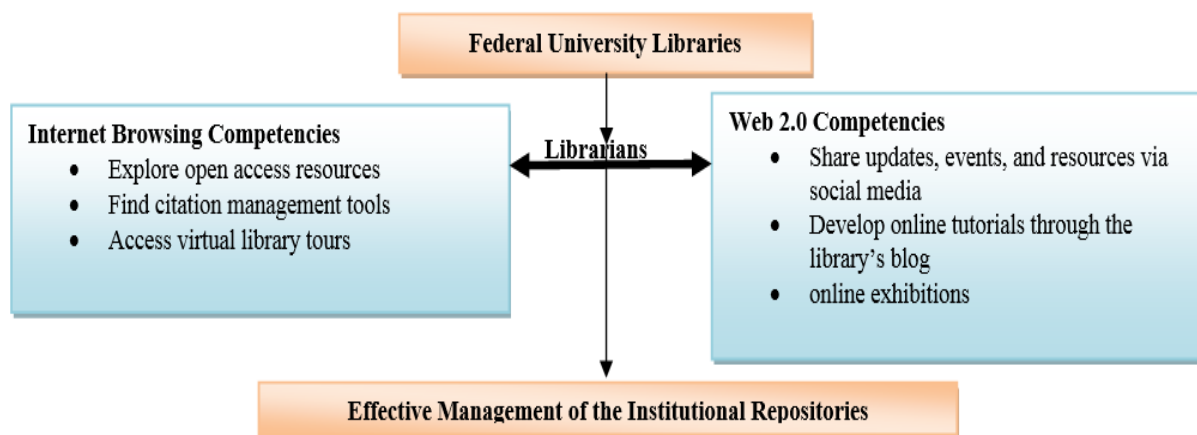
Source: Researchers' conceptualization (2024)

Fig. 1 Conceptual framework

V. LITERATURE REVIEW

Effectively managing institutional repositories is imperative for Librarians striving to optimize the usability and impact of their library's resources (Esse & Haliso, 2024; Robinson, 2023). The rapid advancements in technology and the evolving information landscape present challenges that demand seamless access to digital materials for Librarians in federal universities and their diverse range of patrons (Unda & Agcito, 2024), encompassing students (Masawe *et al.,*2024), academic faculty (Mohammed, 2023) and non-academic staff (Lawal & Kannan, 2021). According to Liman *et al.,*(2017), Librarians' proficiency in internet browsing and Web 2.0 competencies has emerged as a critical factor in bridging the gap in accessing digital resources within this dynamic landscape. This underscores the paramount importance for Librarians in federal universities to actively engage in continuous learning and professional development to skillfully navigate new tools and platforms.

Furthermore, Orth-Alfie and Wolfe (2024) suggest that Librarians' browsing competencies extend beyond mere technical expertise, ensuring that users have access to current and relevant information. In the same vein, Madhusudhan and Soni (2024) underscore the necessity for Librarians to cultivate skills that maintain a robust online presence, enabling them to discern and curate pertinent resources. Conversely, the duo of Guidi and Tammaro (2024) contend that browsing competencies for Librarians should encompass not only technical skills but also a profound understanding of subject matter and user requirements. This perspective is reinforced by Diseiye *et al.,* (2024), who equally agreed with the duo of Unda and Agcito (2024), accentuates the significance of Librarians critically evaluating digital resources for their quality, reliability, and relevance. Similarly, Sa'ari *et al.,* (2023), acknowledge that the proficiency in internet browsing is foundational for Librarians to adeptly navigate as well as empower the patrons to navigate the extensive array of resources available, including library databases, search engines, and online catalogs.

Moreover, Haque *et al.,* (2023) highlighted that the ability to efficiently and effectively explore digital resources is of utmost importance, achievable through Librarians in academic institutions honing their browsing competencies specifically towards managing their institutional repositories. Nzioki (2018) emphasizes the imperative for Librarians to continuously adapt to new technological tools and platforms to maintain a leading position amidst advancements. In addition to internet browsing skills, Shank *et al.,* (2011) expound that Librarians in the digital era can enhance their service delivery by embracing a diverse array of competencies to skillfully navigate the evolving Web 2.0 environment. These competencies encompass metadata management as an integral aspect of Web 2.0 proficiencies, the design and administration of user-friendly online repositories, the implementation of digital preservation strategies, effective marketing and communication techniques, and the utilization of analytics and assessment tools. Robinson (2023) further iterates that Librarians in federal universities can uphold metadata management as part of their Web 2.0 competencies to safeguard valuable digital resources for future utilization. Furthermore, in addition to design and preservation, Librarians aiming to attract and retain patrons over the long term can achieve this by possessing competencies in marketing and communication, as emphasized by Iwu-James *et al.,* (2020). They underscore the importance for academic library staff to design web pages, utilize various search engines, and explore diverse databases for online resources to cultivate a growing number of patrons and uphold highly esteemed institutional repositories.

VI. THEORETICAL FRAMEWORK

A. Davis Technology Acceptance Model

Davis D. Fred proposed the Technology Acceptance Model (TAM) in 1989. This theory posits that the perceived utility

and simplicity of a technology profoundly impact its acceptance and integration by individuals (Davis, 1989). The TAM holds significance in this study for comprehending the reception and utilization of Internet browsing and Web 2.0 competencies by Nigerian federal universities Librarians in overseeing institutional repositories. The TAM theory aids in evaluating the extent to which the Librarians perceive the usefulness and ease of employing their Internet browsing and Web 2.0 competencies in managing their institutional repositories.

VII. METHODOLOGY

A correlational survey design was implemented in this scholarly investigation, focusing on the South-South geo-political zone of Nigeria. This geographical region encompasses six states, namely: Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers. The study population comprised 242 Librarians, comprising 115 Academic and 127 Non-Academic Librarians, distributed across seven federal universities within the aforementioned states. A stratified total census sampling technique was employed to select the 242 Librarians, representing the entire population. Two distinct instruments were utilized for data collection: the "Librarian Internet Browsing and Web 2.0 Competencies Questionnaire (LIBWCQ)" for Academic Librarians and the "Effective Management of Institutional Repositories Questionnaire (EMIRQ)" for Non-Academic Librarians. Both instruments underwent face and content validation by three experts. The LIBWCQ comprised fifteen items across two sections, while the EMIRQ contained eight items. Responses were recorded on a four-point Likert scale: Significant Extent (SFE), Moderate Extent (MDE), Limited Extent (LTE), and Minimal Extent (MME), corresponding to weighted values of 4, 3, 2, and 1 respectively. Reliability coefficients of 0.75 and 0.77 were obtained for the two instruments through Cronbach Alpha analysis. Following the distribution of questionnaires, 179 of the copies were completed and returned by the Librarians, with 105 (91.30% return rate) from Academic Librarians and 74 (58.27%) from Non-Academic Librarians, resulting in an overall return rate of 73.97%. Research questions 1 and 2 were addressed using the mean, while research question 3 was analyzed through multiple regression. Hypotheses 1 and 2 were assessed using T-tests in conjunction with simple regression, whereas hypothesis 3 was tested using analysis of variance (ANOVA) combined with multiple regression.

VIII. RESULTS

Answer to Research Questions

A. Research Question 1: To what extent do the Internet browsing competencies of Librarians in federal universities in South-South, Nigeria correlate with effective management of institutional repositories?

TABLE I MEAN AND STANDARD DEVIATION SCORES OF THE EXTENT TO WHICH INTERNET BROWSING COMPETENCIES OF LIBRARIANS IN FEDERAL UNIVERSITIES IN SOUTH-SOUTH, NIGERIA CORRELATE WITH EFFECTIVE MANAGEMENT OF INSTITUTIONAL REPOSITORIES

Sl. No.	Through my internet browsing endeavors, I seek to evaluate the extent specific actions I have taken contribute to the effective management of the institutional repositories	$\bar{x}$	sd	Remarks
1	Discover new digital resource repositories to enhance the library's collection.	2.51	0.64	SFE
2	Discover strategies for engaging faculty and students in contributing to the institutional repository.	2.62	0.90	SFE
3	Locate e-books and online journals relevant to the university's curriculum.	2.50	0.62	SFE
4	Explore open access resources for students and faculty.	2.54	0.68	SFE
5	Find citation management tools for academic writing.	2.60	0.87	SFE
6	Access virtual library tours and orientation materials.	2.48	0.61	MME
7	Explore ways to improve metadata standards for digital resources.	2.45	0.58	MME
8	Stay informed about copyright laws and regulations related to digital resources.	3.02	1.46	SFE
	Cluster Mean/SD	2.59	0.60	SFE

Significant Extent (SFE), Moderate Extent (MDE), Limited Extent (LTE), Minimal Extent (MME)

Results in Table I present the mean and standard deviation scores of the extent to which Internet browsing competencies of Librarians in federal universities in South-South, Nigeria correlate with effective management of institutional repositories. The cluster mean score for the correlation is 2.59 with a standard deviation of 0.60, indicating a significant extent. The majority of specific actions taken by librarians in this regard fall under the significant extent category, suggesting a strong relationship between internet browsing competencies and effective management of institutional repositories.

B. Research Question 2: What is the extent to which Web 2.0 competencies of Librarians in federal universities in South-South, Nigeria correlate with effective management of institutional repositories?

TABLE II MEAN AND STANDARD DEVIATION SCORES OF THE EXTENT TO WHICH WEB 2.0 COMPETENCIES OF LIBRARIANS IN FEDERAL UNIVERSITIES IN SOUTH-SOUTH, NIGERIA CORRELATE WITH EFFECTIVE MANAGEMENT OF INSTITUTIONAL REPOSITORIES

Sl. No.	With Web 2.0 resources, I would determine the extent specific actions I have taken contribute to the effective management of the institutional repositories	$\bar{x}$	sd	Remarks
1	Share updates, events, and resources with the university community through the library's Facebook page.	2.68	0.93	SFE
2	Develop online tutorials and guides to help users navigate the library resources and improve their research skills through the library's blog.	2.37	0.46	MME
3	Share quick library updates, interesting articles, and engage with the community through the library's Twitter account.	2.50	0.63	SFE
4	Collaborate with faculty on research showcases to highlight faculty research and publications through online exhibitions.	2.55	0.67	SFE
5	Create and share instructional videos on the library's YouTube channel to provide step-by-step tutorials on using the library resources effectively.	2.40	0.49	MME
6	Use the library's Instagram to showcase library resources and events by sharing visually appealing content to engage students.	2.35	0.42	MME
7	Collaborate with student groups for themed events to partner with student organizations to host events related to literature, research, and academic skills.	2.49	0.60	MME
8	Cluster Mean/SD	2.48	0.60	MME

Significant Extent (SFE), Moderate Extent (MDE), Limited Extent (LTE), Minimal Extent (MME)

The results in Table II show that Librarians in federal universities in South-South, Nigeria have varying perceptions of the extent to which their Web 2.0 competencies correlate with effective management of institutional repositories. The mean scores range from 2.35 to 2.68, with a cluster mean of 2.48. This suggests that, on average, librarians perceive a minimal extent of correlation. The standard deviations range from 0.42 to 0.93, indicating some variability in the scores. Actions involving sharing updates, events, and resources through social media platforms and collaborating with faculty and student groups have higher mean scores, while actions involving online tutorials, instructional videos, and Instagram usage have lower mean scores.

C. Research Question 3: What is the extent to which the joint competencies variables (Internet browsing and Web 2.0 competencies) correlate with the Librarians effective management of institutional repositories?

Results in Table III revealed that joint regression (R) and regression square (R^2) coefficients are 0.63 and 0.52

respectively. The extent of correlation is obtained from coefficient of determinism. The coefficient of determinism is 52% (0.52 x 100).

TABLE III JOINT COMPETENCIES CORRELATE INTERNET BROWSING AND WEB 2.0 COMPETENCIES WITHTHE LIBRARIANS EFFECTIVE MANAGEMENT OF INSTITUTIONAL REPOSITORIES.

R	R^2	Adjusted R^2
0.629[a]	0.518	0.514

This showed that the Universities Librarians Internet browsing, and Web 2.0 competencies jointly correlate with effective management of institutional repositories by 52 per cent in federal universities in South-South, Nigeria.

IX. TEST OF HYPOTHESES

A. Hypothesis 1: The Librarians Internet browsing competencies do not significantly correlate with effective management of the institutional repositories.

TABLE IV T-TEST ASSOCIATED WITH SIMPLE REGRESSION ON INTERNET BROWSING COMPETENCIES AND EFFECTIVE MANAGEMENT OF THE INSTITUTIONAL REPOSITORIES

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Decision
		B	Std. Error	Beta			
1	Constant	.053	.038		2.142	.049	Significant
	Librarians Internet browsing competencies.	1.040	.048	.775	26.500	.000	

Results in Table IV indicated that the beta value is given as 0.775. The T-test value of 26.500 is significant at 0.000 when subjected to alpha level of 0.05.

Therefore, the null hypothesis is not retained. By implication, the Librarians Internet browsing competencies

have a significant correlate with effective management of the institutional repositories.

B. Hypothesis 2: The Librarians Web 2.0 competencies do not significantly correlate with effective management of the institutional repositories.

TABLE V T-TEST ASSOCIATED WITH SIMPLE REGRESSION ON WEB 2.0 COMPETENCIES AND EFFECTIVE MANAGEMENT OF THE INSTITUTIONAL REPOSITORIES

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Decision
		B	Std. Error	Beta			
1	Constant	.038	.015		2.080	.081	Not Significant
	Librarians Web 2.0 competencies.	1.007	.025	.429	5.633	.0703	

Results in Table V indicated that the beta value is given as 0.429. The T-test value of 5.633 is not significant at 0.703 when subjected to alpha level of 0.05. Therefore, the null hypothesis is not retained. By implication, the Librarians Web 2.0competencies do not have a significant correlation with effective management of the institutional repositories.

C. Hypothesis 3: Joint competencies variables (Internet browsing and Web 2.0 competencies) of the Librarians do not significantly correlate with effective management of the institutional repositories.

TABLE VI ANOVA ASSOCIATED WITH MULTIPLE REGRESSIONS ON INTERNET BROWSING AND WEB 2.0 COMPETENCIES AS CORRELATES OF UNIVERSITY LIBRARIANS EFFECTIVE MANAGEMENT OF INSTITUTIONAL REPOSITORIES.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	160.511	2	80.256	106.337	.000[b]
Residual	22.730	177	0.128		
Total	183.241	179			
a. Dependent Variable: Effective management of institutional repositories					
b. Predictors: (Constant), Internet browsing competencies, Web 2.0 competencies					

The results in Table VI indicated that the ANOVA analysis for the joint competencies variables hypothesis, in relation to the effective management of institutional repositories by University Librarians, yielded a significant p-value of 0.000 at an alpha level of 0.05. The regression model explained a total of 183.241 units of variance in the dependent variable, with Internet browsing competencies and Web 2.0 competencies making significant contributions to this variance. The F-statistic of 106.337 suggests that the regression model fits the data well and deviates significantly from what would be expected by chance. Therefore, Internet browsing, and Web 2.0 competencies are identified as crucial factors in predicting the effective management of institutional repositories by Librarians in federal universities in South-South, Nigeria.

X. DISCUSSION OF FINDINGS

The findings of this study are discussed under the following subheadings:

A. Extent of Correlate between Librarian Internet Browsing Competencies in Federal Universities in South-South, Nigeria and Effective Management of Institutional Repositories

It can be inferred from the analysis that librarians in federal universities in South-South, Nigeria perceive their Internet browsing competencies to have a significant impact on the effective management of institutional repositories. Actions such as staying informed about copyright laws, discovering new digital resource repositories, and engaging faculty and students are considered to contribute significantly. These findings highlight the importance of librarians' internet browsing skills in enhancing the library's collection and facilitating access to relevant resources for academic writing. It is worth noting that actions related to accessing virtual library tours, orientation materials, and improving metadata standards were reported to contribute to a minimal extent. This suggests that there may be room for improvement in these areas to further enhance the effective management of institutional repositories. Ogunbodede and Atique (2023) corroborate the finding, stressing that librarians' proficiency in internet navigation directly enhances the management of digital resources, improving academic research support. Meanwhile, Smith *et al's* study (2024) contrasts slightly, observing that while browsing skills are essential, it is the librarians' technical skills in metadata curation that deliver the most significant impact on repository efficacy. Farid *et al.,* (2023) acknowledge this viewpoint but contends that without regular updates on copyright laws; even skilled librarians would be hindered in providing comprehensive support, although she agrees that virtual tours and orientation materials currently receive insufficient attention for institutional repository development.

B. Extent of Correlate between Librarian Web 2.0 Competencies in Federal Universities in South-South, Nigeria and Effective Management of Institutional Repositories

It can be inferred from the findings that librarians in federal universities in South-South, Nigeria perceive their Web 2.0 competencies to have a significant extent of correlate with effective management of institutional repositories. Actions such as sharing updates and resources through social media platforms like Facebook and Twitter, as well as collaborating with faculty on research showcases, are considered to contribute significantly. These findings highlight the importance of utilizing Web 2.0 resources to

engage with the university community and promote the library's resources and events. However, actions such as developing online tutorials and guides, creating instructional videos, and using Instagram to showcase resources were reported to contribute to a minimal extent. This suggests that there may be opportunities for improvement in these areas to further enhance the effective management of institutional repositories. Yesmin (2019) corroborates these findings, noting that Web 2.0 tools are indeed instrumental in heightening the visibility and accessibility of institutional repositories, confirming that active online engagement drives effective management. Conversely, Boulton (2020) contrasts but agreed with Emasealu and Umeozor (2018) by pointing out a gap, arguing that while social media fosters communication, it remains underutilized for promoting institutional academic resources, suggesting other areas need bolstering. Lastly, Mojapelo and Fourie (2014) acknowledges this trend, adding that developing multimedia content is often sidelined due to limited staffing and technical skills, which offers insight into why some Web 2.0 strategies are less employed.

C. Extent of Joint Competencies Variables (Internet Browsing and Web 2.0 competencies) of the Librarians' Correlate and Effective Management of the Institutional Repositories

The findings showed that to a significant extent, Internet browsing and Web 2.0 competencies of Librarians in federal universities in South-South, Nigeria are impressive correlate of effective management of the institutional repositories. Muthumani and Chinnasamy (2019) corroborate with the findings, highlighting the pivotal role of digital literacy among librarians, asserting that advanced web skills are crucial for managing digital repositories effectively. Contrasting these results, Idiegbeyan-Ose *et al.,* (2020) contend that while Internet skills are important, the technical infrastructure and organizational support have a more profound impact on the management of institutional repositories than individual competencies. Acknowledging the significance of web competencies, Moonasar (2024) suggests that such skills must be complemented by continuous professional development. Other experts in information science and technology agreed that it will assist the library staff to adapt to the ever-evolving digital landscape and maintain effective repository management (Elayadom & Thirunavukkarasu, 2018; Anyira, 2011).

VI. CONCLUSION

The study concludes that Librarians at Nigerian federal universities in the South-South recognize their internet skills as vital to managing institutional repositories effectively. They prioritize updating copyright knowledge, sourcing digital resources, and collaborating with academics. Their online prowess boosts library collections and aids academic resource access. Yet, practices like virtual library tours and metadata standardization require enhancement. An impressive correlation exists between Librarians' web competencies and repository management, with social media engagement cited as key. However, creating online tutorials and instructional videos, and exploiting Instagram, have limited effects, indicating areas for development. Enhanced web and Web 2.0 skills are crucial for optimal repository management.

A. Recommendations

Based on these findings, the following recommendations were made:
1. Librarians should actively engage in professional development activities to enhance their internet browsing and Web 2.0 competencies. This can include attending workshops, webinars, and conferences focused on digital rights management, metadata standards, and Web 2.0 tools to ensure librarians stay abreast of evolving technologies and best practices.
2. Librarians should foster collaborations with faculty and students to better understand their needs and promote the use of institutional repositories. This can be achieved through joint research showcases, co-teaching sessions, and regular communication channels.
3. In addition to the foregoing, efforts should be made to develop comprehensive online tutorials, instructional videos, and utilize Instagram or other visual platforms to showcase resources and engage users.

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