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MOTIVATION AND COMPETENCIES OF LIBRARIANS TOWARDS METADATA MAPPING AND AGGREGATION PRACTICES IN FEDERAL UNIVERSITY LIBRARIES IN NIGERIA

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Abstract
This study investigated Motivation and Competencies of Librarians towards Metadata Mapping and Aggregation Practices in Federal University Libraries in Nigeria. Quantitative study approach was employed. A questionnaire was administered on a sample of 440 librarians and the data were analyzed using SPSS version 16.0 to generate descriptive statistics. Findings of the study then revealed that availability of necessary ICTs/Infrastructure, Technological Expertise, Knowledge about technology innovation, size of library's Information and Technology Resources, Training opportunities, Knowledge of existing laws about metadata mapping/aggregation, improvement on the existing status and Good return for financial investment were factors motivating their readiness to adopt metadata mapping and aggregation practices. With regards to the extent to which the librarians acquired metadata mapping and aggregation skills, the study established that the extent to which the respondents possessed general skills to adopt metadata mapping and aggregation practices was low. The extent to which the respondents possessed specialized skills to adopt metadata mapping and aggregation practices was also low. The study then concludes that metadata mapping and aggregation are essential practices in digital libraries, aiding in resource discovery, data interoperability, and content management. In federal university libraries in Nigeria, the role of librarians in managing these practices is crucial to ensure the accessibility and usability of digital resources. The study further recommends that university libraries should invest in regular training programs tailored to the specific needs of librarians, ensuring they are equipped with up-to-date skills in metadata mapping and aggregation. Libraries should also foster a supportive environment that encourages collaboration and the sharing of best practices among librarians. Also by providing adequate resources and recognizing the critical role of metadata practices in digital libraries, institutions can motivate librarians to engage more deeply in these tasks.
Keywords: *Librarians, Motivation, Competencies, Metadata, Nigeria*

Background to the Study

In the rapidly evolving landscape of digital information management, metadata has become a cornerstone for organizing, discovering, and accessing digital resources. Metadata mapping and aggregation are critical processes that ensure the seamless integration and interoperability of information across diverse digital platforms. In the context of academic libraries, particularly in Federal Universities in Nigeria, the role of librarians in these processes is indispensable.

Despite the growing importance of metadata practices, there remains a gap in understanding the factors that motivate librarians to engage in these activities and the competencies they possess to perform them effectively. In Nigeria, where digital libraries are becoming increasingly integral to academic research and learning, it is crucial to assess how well-prepared librarians are to handle the complexities of metadata mapping and aggregation. Moreover, understanding their motivations can provide valuable insights into how these practices can be enhanced.

This study therefore, aims at exploring the motivation and competencies of librarians in Federal University Libraries across Nigeria concerning metadata mapping and aggregation. The research seeks to recommend some strengths and potential areas for improvement in metadata management within Nigerian university libraries. The findings of this study are expected to contribute to the development of strategies that can better support librarians in their critical roles, ultimately improving the effectiveness of digital resource management in Nigerian federal universities.

Objectives of the Study

The objectives of the study were to:

1. investigate the factors motivating the librarians' acceptance of Metadata Mapping and Aggregation Practices in Federal University Libraries in Nigeria
2. investigate the level at which the Librarians acquired Metadata Mapping and Aggregation Skills
3. investigate the challenges associated with the Practices of mapping and aggregation practices among the librarians.
4. explore some possible solutions for addressing the identified challenges for better up

Review of Related Literature

As well-trained professionals, librarians have the skills of creating authentic and truthful descriptions and providing precise access to materials and information based on standards and principles. Therefore, the capability of understanding complex documentations will give them the advantage of interpreting and executing metadata application guidelines to achieve accuracy, consistency, and completeness in digital projects (Diao, & Hernández, 2014). Han and Hswe (2009) listed the required work-related skills of metadata librarians to include; Ability to learn, Detailed work, Ability to work independently, Problem solving skills, Organizational skills, Interpersonal skills, Analytical skills, Work in team environment, Oral and written communication skills.

DeZelar-Tiedman (2004) pointed out four competencies that library professionals should take pride in when participating in digital projects. These include; experience designing and populating databases; understanding of taxonomies and controlled

vocabularies; an analytical and detail-oriented nature; and philosophical understanding of the importance of balancing the need for standards with the demands of interoperability.

Yahaya (2024) quoted Hsieh-Yee in 2004 suggesting three levels of expertise in metadata for Library and Information Science students. The first level of expertise is an understanding of AACR and Dublin Core as examples of metadata schemes. Diao and Hern´andez (2014) further suggest the following; (a) Metadata creators should have a very good knowledge of metadata application guidelines, which enables them to create consistent and interoperable records with adherence to metadata standards. (b) Metadata creators should act as collaborators to establish communication channels with the concerned specialists, such as curators, local historians, archivists, and users.

Moreover, Cornell University Library in 2015 identified the qualifications of Metadata Librarian to include; knowledge of a variety of MARC and non-MARC metadata standards and schema, Experience in creating, editing and transforming metadata, Demonstrated skills with scripting languages and/or tools for data manipulation, Understanding of linked data principles, including RDF and metadata standards, Excellent organizational and project management skills, Strong service orientation and interest in library users' values and needs, Excellent communication and analytic skills, including the ability to work well in a team-based environment.

Research Questions

Factors Motivating the Librarians' Acceptance of Metadata Mapping and Aggregation Practices

Results

Table 1: Please indicate the factors which you think motivate your adoption of Metadata mapping practices. *Note that Strongly Agreed (SA) = 4, Agreed (A) = 3, Disagreed (D) = 2, and Strongly Disagreed (SD) = 1.*

Statement	SA	A	D	SD	Mean	Standard deviation
Availability of necessary ICTs/Infrastructure	140(34.8%)	108(26.9%)	111(27.6%)	43(10.7%)	2.86	1.017
Technological Expertise	124(30.8%)	126(31.3%)	114(28.4%)	38(9.5%)	2.84	.972
Knowledge and Awareness about technology innovation	132(32.8%)	139(34.6%)	95(23.6%)	36(9.0%)	2.91	.958
Size of Library's Information and Technology Resources	147(36.6%)	132(32.8%)	75(18.7%)	48(11.9%)	2.94	1.014
Training opportunities for mapping and aggregation	148(36.8%)	132(32.8%)	79(19.7%)	43(10.7%)	2.96	.997
Knowledge of existing laws about metadata mapping/ aggregation	135(33.6%)	125(31.0%)	74(18.4%)	68(16.9%)	2.81	1.080
Need for improvement on the existing status	130(32.3%)	119(29.6%)	105(26.1%)	48(11.9%)	2.82	1.017
Good return for financial investment	113(28.1%)	121(30.1%)	100(24.9%)	68(16.9%)	2.69	1.056

Based on the overall findings, table 1 reveals that the calculated mean scores of all the eight items tested under factors facilitating librarians towards adoption of metadata mapping and aggregation are greater than the criterion mean score of 2.50 under 4-point likert scale. However, the overall weighted mean score of 2.85 was greater than the cut-off mean score of 2.50. This implies that the librarians strongly agreed with the availability of necessary ICTs/Infrastructure, Technological Expertise, Knowledge and Awareness about technology innovation, Size of Library's Information and Technology Resources, Training opportunities for mapping and aggregation, Knowledge of existing laws about metadata mapping/ aggregation, improvement on the existing status and Good return for financial investment as factors facilitating their adoption of metadata mapping and aggregation practices.

Metadata Mapping and Aggregation Skills among Librarians

Table 2: Please indicate your level of possessing the following metadata skills and competencies. Please tick as appropriate, note that **Very high** (VH) = 5, HIGH (H) = 4, **Averagely** (AV) = 3, Low (L) = 2, and Very Low (VL) = 1.

S/N	General Skills Possessed	VH	H	AV	L	VL	Mean	Standard deviation
1	Typing and text formatting skills	35(8.7%)	110(27.4%)	94(23.4%)	72(17.9%)	91(22.6%)	2.77	1.231
2	Locate and retrieve files	31(7.7%)	99(24.6%)	116(28.9%)	95(23.6%)	61(15.2%)	2.81	1.190
3	Create folders to organize files (folder creation)	127(31.6%)	44(10.9%)	110(27.4%)	22(5.5%)	99(24.6%)	2.41	1.134
4	Rename and delete files	25(6.2%)	59(14.7%)	159(39.6%)	110(27.4%)	49(12.2%)	2.63	1.070
5	Printing, scanning and photocopying skills	24(6.0%)	44(10.9%)	117(29.1%)	125(31.1%)	92(22.9%)	2.46	1.134
6	Use Microsoft office packages	20(5.0%)	128(31.8%)	109(27.1%)	41(10.2%)	104(25.9%)	2.34	1.128
7	Attach documents and send via emails	45(11.2%)	59(14.7%)	92(22.9%)	102(25.4%)	104(25.9%)	2.60	1.314
8	Ability to learn new innovations	52(12.9%)	86(21.4%)	115(28.6%)	68(16.9%)	81(20.1%)	2.90	1.304
9	Ability to work independently	34(8.5%)	74(18.4%)	109(27.1%)	100(24.9%)	85(21.1%)	2.68	1.233
10	Problem solving skills	121(30.1%)	108(26.9%)	101(25.1%)	38(9.5%)	34(8.5%)	2.43	1.217
11	Good organizational skills	148(36.8%)	47(11.7%)	127(31.6%)	32(8.0%)	48(11.9%)	2.67	1.084
12	Interpersonal skills	28(7.0%)	48(11.9%)	150(37.3%)	95(23.6%)	81(20.1%)	2.62	1.140
13	Analytical skills	36(9.0%)	82(20.4%)	92(22.9%)	109(27.1%)	83(20.6%)	2.70	1.254
14	Work in team environment	51(12.7%)	87(21.6%)	78(19.4%)	108(26.9%)	78(19.4%)	2.81	1.318
15	Oral and written communication skills	54(13.4%)	117(29.1%)	57(14.2%)	122(30.3%)	52(12.9%)	3.00	1.286
16	Ability to participate in multiple concurrent projects in a given timeframe	49(12.2%)	86(21.4%)	90(22.4%)	104(25.%)	73(18.2%)	2.84	1.290
17	ability to present and share ideas clearly and effectively	26(6.5%)	53(13.2%)	84(20.9%)	157(39.1%)	82(20.4%)	2.46	1.145
18	Others (Specify…	32(8.0%)	92(22.9%)	52(12.9%)	117(29.1%)	109(27.1%	2.55	1.315

Based on the overall findings, table 2 reveals that the calculated mean scores of one (M= 3.0) of the eighteen items tested under the librarians' general skills on the adoption of Metadata mapping and aggregation practices is equals to the criterion mean score of 3.0 under 5-point likert scale. However, 17 of the items had low mean scores of (M=2.77), (M=2.81), (M=2.41), and least (M=2.34) were below the criterion mean of 3.0 respectively. On the whole, the weighted mean score of 2.64 was less than the cut-off mean score of 3.0. This implies that the extent to which the respondents possessed general skills to adopt metadata mapping and aggregation practices was low.

Table 3: Specialized Skills Possessed

S/N	Specialized Skills	VH	H	AV	L	VL	Mean
1	Web design skills	34(8.5%)	71(17.7%)	78(19.4%)	112(27.9%)	107(26.6%)	2.53
2	Database management skills	18(4.5%)	63(15.7%)	67(16.7%)	168(41.8%)	64(15.9%)	2.40
3	Programming skills	358.7%)	95(23.6%)	72(17.9%)	136(33.8%)	64(15.9%)	2.75
4	Library Management Software skills	64(15.9%)	149(37.1%)	76(18.9%)	50(12.4%)	63(15.7%)	3.25
5	Computer Networking skills (e.g LAN, MAN WAN)	60(14.9%)	69(17.2%)	62(15.4%)	121(30.1%)	90(22.4%)	2.98
6	Install computer programmes	40(10.0%)	51(12.7%)	69(17.2%)	135(33.6%)	107(26.6%)	2.46
7	Create and operate OPAC	43(10.7%)	94(23.4%)	25(6.2%)	160(39.8%)	80(19.9%)	2.65
8	Ability to do online cataloguing	49(12.2%)	98(24.4%)	24(6.0%)	131(32.6%)	100(24.9%)	2.66
9	Ability to create, save and back-up files and documents	54(13.4%)	131(32.6%)	112(27.9%)	42(10.4%)	63(15.7%)	2.49
10	Ability to troubleshoot computer programmes	40(10.0%)	89(22.1%)	96(23.9%)	109(27.1%)	68(16.9%)	2.81
11	Upload and retrieve document from databases	68(16.9%)	153(38.1%)	60(14.9%)	68(16.9%)	53(13.2%)	3.29
12	Ability to bookmark websites	45(11.2%)	113(28.1%)	69(17.2%)	78(19.4%)	97(24.1%)	2.83
13	Ability to perform basic and advanced search in a database or through internet	57(14.2%)	51(12.7%)	174(43.3%)	50(12.4%)	70(17.4%)	2.63
14	knowledge of descriptive principles and content standards, controlled vocabularies, authority control and ontologies	55(13.7%)	84(20.9%)	144(35.8%)	46(11.4%)	73(18.2%)	2.76
15	Experience working with a digital asset management system or digital repository	51(12.7%)	81(20.1%)	62(15.4%)	126(31.3%)	82(20.4%)	2.73
16	knowledge of MARC cataloguing, metadata standards and emerging technologies	34(8.5%)	30(7.5%)	128(31.8%)	71(17.7%)	139(34.6%)	2.23
17	General understanding of information organization and description	147(36.6%)	85(21.1%)	59(14.7%)	57(14.2%)	54(13.4%)	2.86
18	good knowledge of metadata application guidelines	83(20.6%)	164(40.8%)	59(14.7%)	58(14.4%)	38(9.5%)	3.49
19	Strong commitment to user-centered customer service	72(17.9%)	134(33.3%)	65(16.2%)	62(15.4%)	69(17.2%)	3.19
20	Ability to work effectively in a diverse team environment or individually, to balance priorities, and to set and meet deadline	42(10.4%)	73(18.2%)	139(34.6%)	41(10.2%)	107(26.6%)	2.51
21	Knowledge of a variety of MARC and non-MARC metadata standards and schema	38(9.5%)	64(15.9%)	28(7.0%)	203(50.5%)	69(17.2%)	2.50
22	Demonstrated skills with scripting languages and/or tools for data manipulation	40(10.0%)	81(20.1%)	51(12.7%)	131(32.6%)	99(24.6%)	2.58
23	Others (please specify….	49(12.2%)	79(19.7%)	48(11.9%)	99(24.6%)	127(31.6%)	2.54

Based on the overall findings, table 3 reveals that the calculated mean scores of four of the twenty three items tested under their librarians' specialized skills on the adoption of

Metadata mapping and aggregation practices are greater than the criterion mean score of 3.0 under 5-point likert scale. However, 19 of the items had low mean scores of (M=2.53), (M=2.40), (M=2.75), and least (M=2.23) and were below the criterion mean of 3.0 respectively. On the whole, the weighted mean score of 2.74 was less than the cut-off mean score of 3.0. This implies that the extent to which the respondents possessed specialized skills to adopt metadata mapping and aggregation practices was low.

Challenges Associated with the Practices of Mapping and Aggregation Practices

Table 4: Tick as appropriate the challenges associated with mapping and aggregation activities in your library

S/N	Challenges of Metadata Mapping and Aggregation Practices	Yes	No	Total
A	Inadequate financial support to cater for the mapping and aggregation practices	249(61.9%)	153(38.1%)	402(100%)
B	Devaluation of currency/exchange rate problem	212(52.7%)	190(47.3%)	402(100%)
C	poor budgetary allocation and implementation	204(50.7%)	198(49.3%)	402(100%)
F	Inability of the library heads to adopt strategies for mapping and aggregation practices	193(48.0%)	209(52.0%)	402(100%)
G	Poor support for library from the management	211(52.5%)	191(47.5%)	402(100%)
H	Shortage of qualified library personnel to cater for library routine activities	244(60.7%)	158(39.3%)	402(100%)
I	Lack of understanding and role to be played in mapping and aggregation practices	238(59.2%)	164(40.8%)	402(100%)
J	Negative attitude of the librarians towards mapping and aggregation practices	117(29.1%)	285(70.9%)	402(100%)
K	Poor training among the librarians on the mapping and aggregation practices	255(63.4%)	147(36.6%)	402(100%)
L	Poor ICTs knowledge, its compliance and inadequate internet services	265(65.9%)	137(34.1%)	402(100%)
M	Incompatibility of the equipment for mapping and aggregation practices	255(63.4%)	147(36.6%)	402(100%)
N	Absence of standard policy/guideline for mapping and aggregation practices	201(50.0%)	201(50.0%)	402(100%)
O	Differences in philosophy and manner of operations in libraries	203(50.5%)	199(49.5%)	402(100%)
P	Lack of space to accommodate resources and services in the libraries	191(47.5%)	211(52.5%)	402(100%)
R	Instability in some areas/lack of security	222(55.2%)	180(44.8%)	402(100%)
S	Different attitude and culture among library members	194(48.3%)	208(51.7%)	402(100%)

The table 4 above shows that respondents were asked to kindly indicate the challenges affecting their readiness on the adoption of metadata mapping and aggregation practices and majority 265(65.9%) of them indicated Poor ICTs knowledge, its compliance and inadequate internet services as a challenge. This is followed by 255(63.4%) of the respondents who regarded Incompatibility of the equipment for mapping and aggregation practices as a challenge. Other 255(63.4%) of the respondents considered Poor training among the librarians on the mapping and aggregation practices. This justifies the submission of Queensland Government, (2010) who emphasized that agencies must provide appropriate support and training to users of metadata.

Also 249(61.9%) of the respondents viewed Inadequate financial support to cater for the mapping and aggregation practices as a challenge. However, Shortage of qualified library personnel to cater for library routine activities was regarded a challenge by 244(60.7%) of the respondents. Furthermore, 238(59.2%) of the respondents indicated Lack of understanding and role to be played in mapping and aggregation practices as a challenge. This is followed by 222(55.2%) of the respondents who regarded Instability in some areas/lack of security as challenge. However, Devaluation of currency/exchange rate problem was regarded a challenge by 190(47.3%) of the respondents. More than half 211(52.5%) of the respondents also considered Poor support for library from the management as a challenge and 204(50.7%) of the respondents viewed poor budgetary allocation and implementation as a challenge. However, Differences in philosophy and manner of operations in libraries was regarded a challenge by half 203(50.5%) of the respondents.

Half 201(50.0%) of the respondents indicated Absence of standard policy/guideline for mapping and aggregation practices as a challenge. This is followed by almost half 194(48.3%) of the respondents who regarded Different attitude and culture among library members as a challenge. Almost half 193(48.0%) of the respondents considered Inability of the library heads to adopt strategies for mapping and aggregation practices as a challenge.

Also 191(47.5%) of the respondents viewed Lack of space to accommodate resources and services in the libraries as a challenge. Least 117(29.1%) of the respondents indicated Negative attitude of the librarians towards mapping and aggregation practices as a challenge associated with their readiness on the adoption of metadata mapping and aggregation practices. This finding advocates for the librarians in Nigeria to comply with the suggestion of Anyim, (2018) emphasized that, if improvement and innovation for access and retrieval of library resources and services are not put into consideration, the users of the library would be scared to patronize the library and that would culminate into low productivity output and falling standard of the university.

Solutions to the Challenges associated with the adoption of Metadata Mapping and Aggregation

What do you think are the possible solutions to the challenges associated with the adoption of metadata mapping and aggregation activities in your library?

The respondents were given an open-ended question that sought their opinions on the possible solutions to the challenges associated with the adoption of metadata mapping and aggregation activities in your library. Ninety six (23.9%) of the librarians responded to the question and their responses were analyzed and grouped under common terms. The highly cited suggestion on how to overcome the challenges was that of the Provision of adequate finance to federal university libraries (mentioned 18 times). This is followed by Proper budget implementation in all academic libraries (mentioned 16 times). Training support to acquire modern information retrieval skills (mentioned 14 times). This justifies the submission of Carroll, Van der Merwe, & Kotze, (2011) who emphasized that organizations should ensure the necessary technologies and expertise to operate those technologies are in place.

The remaining suggestion mentioned by 12 respondents was spelling out roles and functions of academic librarians so as have formidable and stable way of practicing mapping and aggregation. Recruiting adequate and qualified personnel to handle the mapping and aggregation job was also suggested by 10 respondents. Also the need to offer them training so as to have knowledge and understanding of mapping and aggregation practices was mentioned (10 times). Six of the respondents suggested for Provision of enough metadata infrastructures and personnel to handle them for better utilization. The need for Provision of equipped and required library resources that will handle users need was (mentioned 5 times). Having standard policy/guideline for mapping and aggregation practices that will spelt out the roles and functions of the library members (mentioned 5 times) and provision of improved descriptive metadata to describe information that is in formats other than text (4 times). Provision of adequate IT security and change of librarians' attitude (mentioned 3 times each). Furthermore, there should be compatibility of equipment for mapping and aggregation of library resources (mentioned 2 times). Other suggestions opined by one respondent each include the Provision of staff motivation for effective library innovative services, and policy compliance should be given priority when implementing new library services. These findings corroborate the submission of Taylor and Francis (2013) pointed out areas in which improvement and innovation are needed to facilitate access to and retrieval of e-resources to include; creation and adoption of metadata standards to signal how opened-content is, permanence of access and reliable archiving for free content, comprehensive indexing of quality free resources, improved integration of content with link resolvers and improved user interfaces for accessing library-surfaced content; more training and support in information literacy skills among others. It also coincides with the finding of Anyim (2018) in Kogi State, Nigeria, where he discovered the areas in which

improvement and innovation are needed to enhance information retrieval in university libraries, which include: training and support of users in information retrieval skills, building an index from a document collection to searchable data structure to enhance electronic information retrieval, developing an improved descriptive metadata to describe information that is in formats other than text. It further supported the submission of Zeng, Lee and Hayes (2012) who remarked that training is critical to not only non-library professionals and non-cataloguers, but also the cataloguers who have been trained only in more traditional conventions

Discussion of Findings

This research set out to analyse motivation and competencies of librarians towards metadata mapping and aggregation practices in Federal University Libraries in Nigeria, with the primary objectives being to investigate the factors facilitating librarians towards adoption of metadata mapping and aggregation, librarians' skills on the adoption of Metadata mapping and aggregation practices, challenges affecting their readiness on the adoption of metadata mapping and aggregation practices, and Solutions to the Challenges associated with the adoption of Metadata Mapping and Aggregation. The findings presented above are discussed hereunder according to the objectives of the research study.

Factors facilitating librarians towards adoption of metadata mapping and aggregation

The finding implies that the librarians strongly agreed with the availability of necessary ICTs/Infrastructure, Technological Expertise, Knowledge and Awareness about technology innovation, Size of Library's Information and Technology Resources, Training opportunities for mapping and aggregation, Knowledge of existing laws about metadata mapping/ aggregation, improvement on the existing status and Good return for financial investment as factors facilitating their adoption of metadata mapping and aggregation practices. This finding justifies the submission of Lopatin (2010) remarked that several factors should be considered while selecting metadata schemes, which include the type of institution, staff expertise, the purpose and structure of the metadata standard, the materials to be digitized, interoperability, and the objectives of the project.

Librarians' general skills on the adoption of Metadata mapping and aggregation practices

The finding implies that the extent to which the respondents possessed general skills to adopt metadata mapping and aggregation practices was low. This advocates for compliance with the submission of Wani (2019) who stated that, in the modern technological world library professionals must be responsible for providing not only traditional information but also responsible for proving online information as per users' needs. It further justified the submission of Akande and Belle (2014) who opined that Organizations should consider Technology, Organization, and Environment thoroughly

before implementing new technology innovation as this will help them to determine what type of services to adopt.

Librarians' Specialized skills on the adoption of Metadata mapping and aggregation practices

Finding implies that the extent to which the respondents possessed specialized skills to adopt metadata mapping and aggregation practices was low, this corroborated with the finding of Adeleke (2016) who found that the use of metadata skills among academic librarians was scored below average. Nevertheless, mapping and aggregating metadata requires some special skills to be implemented successfully. University libraries should ensure their staff librarians necessary skills to implement Mapping and aggregating successfully. This will assist librarians in Nigeria to comply with submission of McKendrick (2013) that People with enterprise architecture and business analysis skills are also needed to be able to determine which services are needed by the organization. To buttress this point Olumide (2014) pointed out that Organizations need to have people with project management skills who will be able to manage things like time, budget and other resources to achieve the desired goals.

Challenges affecting the librarians' readiness on the adoption of metadata mapping and aggregation practices

Findings on the challenges justifies the submission of Queensland Government,(2010) who emphasized that agencies must provide appropriate support and training to users of metadata. It also advocates for the librarians in Nigeria to comply with the suggestion of Anyim, (2018) emphasized that, if improvement and innovation for access and retrieval of library resources and services are not put into consideration, the users of the library would be scared to patronize the library and that would culminate into low productivity output and falling standard of the university.

Conclusion

Metadata mapping and aggregation are essential practices in digital libraries, aiding in resource discovery, data interoperability, and content management. In federal university libraries in Nigeria, the role of librarians in managing these practices is crucial to ensure the accessibility and usability of digital resources. Despite the significance of metadata practices, there is limited research on the motivation and competencies of librarians in Nigerian federal universities regarding these tasks. Understanding these factors is critical for improving library services and resource management. This study then investigated the motivation and competencies of librarians in Nigerian federal universities towards metadata mapping and aggregation practices.

The findings justified that while many librarians recognize the importance of these practices for effective digital resource management, their engagement is influenced by a combination of intrinsic motivation, such as personal interest in digital librarianship,

and extrinsic factors, including institutional support and professional development opportunities. Competency levels among librarians vary, with some demonstrating strong technical skills and a deep understanding of metadata standards, while others face challenges due to inadequate training and limited access to necessary tools and resources. The study therefore, underscores the need for ongoing efforts to improve the motivation and competencies of librarians in metadata management. As digital libraries continue to grow in importance, the ability of librarians to effectively manage and integrate metadata will be crucial to ensuring that these resources are accessible and useful to the academic community.

Recommendations

1. University Libraries should invest in regular training programs tailored to the specific needs of librarians, ensuring they are equipped with up-to-date skills in metadata mapping and aggregation.
2. Libraries should foster a supportive environment that encourages collaboration and the sharing of best practices among librarians.
3. By providing adequate resources and recognizing the critical role of metadata practices in digital libraries, institutions can motivate librarians to engage more deeply in these tasks.

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