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Digitisation of Grey Literature for Effective Information Dissemination in the Federal University Libraries, North-Central, Nigeria.

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Abstract

The study examined the digitisation of grey literature for effective information dissemination in the Federal University Libraries (FULs), North-Central Nigeria. It explored the types of grey literature available, existing facilities, library staff ICT competencies, purposes, and strategies to address challenges affecting digitisation. Anchored on Samzugi's (2012) conceptual framework and the positivist paradigm, the study adopted a descriptive survey design. From a population of 312, a sample of 169 respondents with 147 valid responses (86.9%) was selected using the Research Advisor's (2006) table. Data were collected through questionnaire that was validated by three experts, which yielded a Cronbach's Alpha reliability coefficient of 0.79 and was analysed with SPSS version 25. Out of the distributed questionnaires, 147 (86.9%) were completed and returned. Findings showed that projects, theses, and dissertations were the most available (100%) forms of grey literature, followed by seminar papers (70–86%). High-resolution scanners (79%) and computers (70.5%) were among the key facilities supporting digitisation. However, inadequate funding (63%) was identified as the major constraint. The study recommended increasing library budget allocations, providing ICT training, upgrading infrastructure, establishing copyright guidelines, and developing standardized digitisation procedures. With a grand mean of 3.09 "Strongly Agree", respondents affirmed the importance of these strategies for enhancing digitisation and improving access to grey literature in Nigerian university libraries.

Keywords: Digitisation, Grey Literature, Information Dissemination, Federal University Libraries.

Introduction

University libraries of the 21st century are increasingly shifting from the traditional print-based collections to digital formats. The basis for their shift is to enhance access, preservation, and dissemination of information. Part of the diverse information resources that they provide to their ever-growing clientele are grey literature, such as theses, dissertations, project reports, technical papers, and other unpublished works that are vital to scholarship, but often underutilized for scholarly engagements. Despite its significance in supporting research, innovation, and knowledge transfer, grey literature in many Nigerian university libraries remains largely inaccessible due to inadequate digitisation efforts.

No doubt, the FULs in North-Central Nigeria play great roles in supporting academic and research activities especially because a functional library is a mandatory requirement toward the attainment of the mission and \vision of every university. University libraries are, therefore, meant to assist individuals in the acquisition of adequate information and

knowledge that would enable them to enhance their knowledge, for the advancement of their well-being and the betterment of the larger society. For the university libraries of the 21st century to satisfactorily perform their functions, documented human knowledge in them is not merely to be preserved. With the advent of Information and Communication Technologies (ICTs) into library operations, digitisation appeared as a critical avenue through which the unpublished contents of human-documented knowledge can be rapidly and effectively disseminated for use. It is a process that involves the selection of information items that are of intellectual value, scanning them and saving them on a computer system for access and use. Digitisation is a process of converting the contents of valuable information resources from printed/hard-copy and analogue formats such as magnetic tapes, to electronic or machine-readable formats.

Despite the importance of digitisation in facilitating access to reliable information, the status of the digitisation of grey literature in Africa and some Nigerian University libraries is not encouraging (El-Kalash, 2023). For instance, Akinwale (2012) reported that, though the indigenous knowledge (IK) of Africans remains a goldmine, Africans are still lagging behind the rest of the world in terms of IK digitisation. For Asunka (2013), academic libraries in Sub-Saharan Africa have been very slow at joining this digital movement, and hence stand the risk of losing their relevance, particularly concerning locally generated intellectual materials. Hence, the need to investigates the digitisation of grey literature for effective information dissemination in the Federal University Libraries in North-Central Nigeria.

Conceptual Framework

To ensure a well-structured outcome from this work, this study adopted Samzugi's (2012) conceptual framework with little modifications. Samzugi (2012) researched the "accessibility of grey literature originating from public universities in Tanzania". The framework served as a suitable guide for examining the digitising of grey literature within the university libraries in North- Central Nigeria. Key constructs from Samzugi's framework such as the types of grey literature available for digitisation, the issue of accessibility and use of grey literature, and the barriers to accessibility and use also relates directly to the challenges confronting digitisation efforts. These parallels underscore the suitability and relevance of adopting Samzugi's framework to guide this research.

Statement of the Research Problem

Fascinating benefits abound that digitisation offer libraries and information centres of the 21st-century society, thereby compelling many university libraries across the globe to key into the digitisation of their information materials (El-Kalash, 2023). Yet, the author argued further that many university libraries in Nigeria have a large collection of valuable grey literature that is not readily available or accessible to the wider public due to its scattered and unorganized nature,

limited distribution channels, and inadequate preservation measures; leading to a loss on their potential benefits. Though, impressive efforts are made at digitizing information resources for effective and efficient service delivery (Oni, Momoh and Odaro-Ekhaguebo, 2019; Dewah and Feni-Fete, 2014), daily experiences on the digitisation of grey literature in Nigeria show that progress has been significantly slow as a result of inadequate funding, lack of adequate technical expertise and power issues among others (Oni, Abu and Ekeniyere 2018). These challenges highlight a significant gap that necessitates a thorough investigation into the digitisation of grey literature for effective information dissemination in the FULs in North-Central Nigeria, considering their institutional characteristics and strategic importance to regional and national development.

Review of Related Literature

The digitisation of grey literature has become an important aspect of modern library and information science practice, given its potential to enhance accessibility, preservation, and dissemination of scholarly research. However, literature suggests that the digitisation of grey literature in university libraries, especially in North-Central Nigeria remain limited as most existing studies focus broadly on grey literature management or the impact of digital technologies on information services.

In a study on "The Impact of Digital Technologies on Academic Libraries: A Study in Greece," Adamou and Ntoka (2017) examined how digital materials contribute to improved access to information resources, including grey literature. Using a quantitative survey, they found that digitisation ensures better management of library resources and enhances accessibility for diverse users. Similarly, Bandi, Angadi, and Shivarama (2015), through a qualitative investigation of emerging technologies in libraries, revealed that converting resources into digital formats promotes wider information access and facilitates knowledge sharing beyond restricted academic groups.

In Nigeria, Enagi (2014) surveyed the management of grey literature in academic libraries in Niger State. The study revealed that the inadequacy of grey literature management was largely due to poor procedural and technical practices. Fatokun and Amusa (2014), focusing on the Federal University of Agriculture, Abeokuta, discovered that most grey literature was acquired through donations rather than subscriptions, indicating weak acquisition and preservation strategies.

Odaro and Ukpebor (2012) conducted their study broadly on the African context, identifying poor bibliographic control, non-standard formats, and low print runs as major obstacles to effective grey literature management in academic libraries. Earlier, Farace and Schöpfel (2010) had highlighted the growing importance of grey literature globally, noting that such resources are produced across government, academic, business, and industrial sectors in both print and electronic forms.

In India, Kannappanara, Rajamkanta, and Tandur (2010) studied the digitisation of grey literature in Tamil Nadu and their findings revealed that digitisation improves resource management and increases information accessibility. Their

results align with those of Adamou and Ntoka (2017), emphasizing the transformative role of digital technologies in resource preservation and dissemination.

Narrowing it down to the Nigerian university system, Mohammed (2010) examined the collection, accessibility, and dissemination of grey literature in first-generation university libraries and his study found that conference publications and materials from learned societies constituted the main sources of grey literature, with limited digitisation or formal management structures in place. Similarly, Omeje (2007) investigated the availability and management of grey literature for agricultural research in Nigerian universities, finding poor acquisition and preservation practices, lack of funding, and absence of institutional policies as major barriers to effective grey literature management.

El-Kalash, Barau, and Mohammed (2025) assessed the technological infrastructure for digitisation of library information resources in the Federal Colleges of Education in North-Central Nigeria and also noted challenges such as a shortage of skilled personnel, lack of archival legislation, and poor record management practices as factors that constrain grey literature digitisation and long-term preservation.

From the foregoing, it is evident that while several studies have addressed aspects of grey literature management, few have focused specifically on its digitisation, especially within the FULs in North-Central Nigeria. The existing literature emphasizes the importance of digitisation for access, preservation, and dissemination, yet underscores persistent challenges such as inadequate funding, lack of skilled personnel, weak infrastructure, and absence of clear institutional policies. This gap provides the foundation and justification for the present study.

Objectives of the Research

The study assessed the digitisation of grey literature for information dissemination in the FULs in North-Central Nigeria. The specific objectives of the study are to:

1. ascertain the current status of grey literature collections available for digitisation in the FULs in North-Central Nigeria.
2. examine the ICT infrastructure available for the digitisation of grey literature;
3. investigate the challenges faced by FULs in digitising their grey literature collections;
4. propose effective strategies for improving the digitisation and dissemination of grey literature for enhanced information access and utilisation in the FULs in North-Central Nigeria.

Research Questions

1. What are the available grey literature collections for digitisation in the FULs in North-Central Nigeria?
2. What are the ICT infrastructure available for the digitisation of grey literature in the FULs in North-Central Nigeria?
3. What challenges do FULs face in the digitisation of their grey literature collections?

4. What strategies can be adopted to enhance the digitisation and dissemination of grey literature for effective information dissemination by the FULS in North-Central Nigeria?

Methodology

The study adopted a descriptive survey research design. According to Creswell (2014), descriptive surveys are suitable for collecting data on opinions, behaviours, and characteristics of a population, particularly when generalizations are intended. This design was considered appropriate because the study is fact-finding in nature, and similar studies on grey literature digitisation in academic libraries (El-Kalash, 2023; Mohammed, El-Kalash, and Barau, 2025) have successfully employed survey designs with reliable outcomes.

The population of the study comprised library staff working in the FULs in North-Central Nigeria. A total of 312 library personnel constituted the target population, including University Librarians, teaching and non-teaching library staff, and ICT personnel involved in digitisation activities. Data were collected using a structured questionnaire titled Digitisation of Grey Literature for Information Dissemination Questionnaire (DGRIDQ). The instrument consisted of two sections: Section A contained items on demographic and background information, while Section B addressed the research questions.

To ensure content validity, the instrument was reviewed by three experts for clarity, relevance, and alignment with the study objectives. Based on their feedback, necessary modifications were made to enhance clarity, eliminate ambiguities, and ensure comprehensive coverage of the key constructs. A pilot study was conducted at Ahmadu Bello University, Zaria, an institution with similar characteristics to those in the study area, to test the reliability of the instrument. Using the Cronbach's alpha method, a reliability coefficient of .81 was obtained, indicating a high level of internal consistency and confirming the instrument's suitability for the study.

The researcher, with the assistance of trained research assistants, administered the questionnaires to ensure a high response rate. Completed questionnaires were retrieved, sorted, coded, and analysed using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics, specifically mean and standard deviation, were used to answer the research questions. A mean score of 2.50 or above was considered a positive response or agreement with the item, while a mean score below 2.50 indicated a negative response.

Results and Discussion of Findings

Research Question 1: What are the available grey literature collections for digitisation in the FULs in North-Central Nigeria?

Table 1: Mean responses on the Types of Grey Literature Available for Digitisation in the Federal University Libraries in North-Central Nigeria.

Items	UALMBS	FULLKS	UILKS	FUTMLNS	UJLPS	UALA	FULLNS
Conference papers conference proceedings	17(100%)	12(100%)	25(100%)	26(100%)	29(100%)	27(100%)	11(100%)
Seminar Papers	12(71%)	9(75%)	21(84%)	19(73%)	25(86%)	19(70%)	8(73%)
Inaugural Lectures	7(41%)	3(25%)	19(76%)	18(69%)	26(90%)	21(78%)	3(27%)
Items of Special (Artworks)	7(41%)	4(33%)	4(16%)	3(12%)	8(28%)	13(48%)	1(9%)
Newsletters and bulletins	15(88%)	9(75%)	24(96%)	24(92%)	28(97%)	24(89%)	8(73%)
Pamphlets/ Handouts	11(65%)	8(67%)	17(68%)	19(73%)	22(76%)	20(74%)	8(73%)
Photographs	3(18%)	2(17%)	6(24%)	8(31%)	7(24%)	9(33%)	1(9%)
Progress Reports	9(53%)	7(58%)	16(64%)	18(69%)	19(66%)	13(48%)	4(36%)
Projects, Theses, Dissertations	17(100%)	12(100%)	25(100%)	26(100%)	29(100%)	27(100%)	11(100%)
Research Reports	13(76%)	9(75%)	18(72%)	19(73%)	22(76%)	19(70%)	7(64%)
Guide books	9(53%)	5(42%)	15(60%)	17(65%)	19(66%)	14(52%)	8(%73)
Speeches and Letters	11(65%)	7(58%)	19(76%)	18(69%)	17(59%)	16(59%)	7(64%)
Surveys	10(59%)	4(33%)	14(56%)	19(73%)	21(72%)	17(44%)	5(45%)
Technical Notes/ Reports	7(41%)	6(50%)	16(64%)	18(69%)	18(62%)	12(44%)	6(55%)

Keys: JTULM= Joseph Sarwuan Tarka University Library, Makurdi, Benue State; FULLKS=Federal University Lokoja Library, Kogi State; UILKS=University of Ilorin Library, Kwara State; FUTMLNS= Federal University of Technology Minna Library, Niger State; UJLPS=University of Jos Library, Plateau State; UALA=University of Abuja Library, Abuja and FULLNS= Federal University Lafia Library, Nasarawa State.

Table 1 above presents the availability of various types of grey literature for digitisation across the FULs in North-Central Nigeria. The findings reveal that these libraries possess diverse collections of grey literature materials, though the level of availability and readiness for digitisation varies among institutions and material types.

A notable finding is that all the libraries in the study area (JTULM, FULLKS, UILKS, FUTMLNS, UJLPS, UALA, and FULLNS) reported 100% availability of conference papers and conference proceedings for digitisation. This indicates that these institutions maintain comprehensive collections of scholarly works presented at conferences, reflecting their commitment to preserving academic output. Similarly, all libraries also recorded 100% availability of projects, theses,

and dissertations, confirming the strong emphasis on safeguarding students' and researchers' academic contributions through digitisation.

The availability of seminar papers ranges between 70% and 86%, showing that while most libraries maintain significant collections, the extent of digitisation efforts differs. Inaugural lectures display wider variation, from 25% to 90%, suggesting disparities in how extensively different institutions have archived or prepared such materials for digitisation.

Newsletters and bulletins show high availability across the libraries (75%–97%), indicating that they are well-preserved and prioritized for digitisation. This may be due to their institutional value for documenting university activities, while pamphlets and handouts show moderate availability (65%–76%), implying a substantial presence but with room for greater digitisation coverage.

On the other hand, photographs and artworks have relatively low availability. Photographs range from 9% to 33%, while artworks vary between 9% and 48%, suggesting limited collections or insufficient digitisation attention to visually oriented materials. Also, the availability of progress reports varies between 36% and 69%, while research reports range from 70% to 76%, showing that institutional documentation and research findings are moderately represented but not fully digitised. Guidebooks (42%–73%) and surveys (33%–73%) also reflect uneven digitisation levels, suggesting a need for systematic strategies to ensure comprehensive coverage.

Finaly, speeches and letters (58%–76%) and technical notes and reports (41%–69%) are fairly represented, though digitisation remains incomplete. By and large, the findings indicate that while FULs in North-Central Nigeria possess a wide variety of grey literature suitable for digitisation, significant variations exist in their availability. Materials such as conference papers, theses, and newsletters are well-documented and digitisation-ready, whereas photographs, artworks, and some administrative documents remain underrepresented. Hence, the need for a more balanced and structured digitisation policy to ensure that all categories of grey literature are adequately captured, preserved, and made accessible for scholarly use.

Research Question 2: What are the available ICT Infrastructure for Digitisation in the FULs in North- Central Nigeria?

Table 2: Available ICT Infrastructure for Digitisation in the FULs in North- Central Nigeria
(N = 280)

Available ICT Infrastructure for Digitisation	Yes		No	
	F	%	F	%
Computers and associated components	83	79.0	22	21.0
High-resolution scanners **(**flatbed, sheet-fed, overhead scanners)	74	70.5	31	29.5
Digital cameras for capturing images of documents and artefacts	33	31.4	72	68.6
Storage systems such as external hard drives and Network Attached Storage (NAS) for backup and archival	6	5.7	99	94.3
Servers to host digital collections and support data management	33	31.4	72	68.6

Software Components				
Optical Character Recognition (OCR) software**,** which converts scanned images of text into machine-readable and searchable documents	11	10.5	94	89.5
Document management software **and** digital repository systems (e.g., DSpace, Greenstone) that organize and provide access to digital collections	54	51.4	51	48.6
Image editing software to improve the quality and readability of scanned materials	52	49.5	53	50.5
Document conversion software to facilitate format transformation and interoperability	33	31.4	72	68.6
Digital preservation tools (such as Bit Curator and DigPress) that ensure the long-term maintenance and accessibility of digital assets	11	10.5	94	89.5
Network Infrastructure				
Network infrastructure devices**,** including routers and switches that support Local Area Networks (LAN)	74	70.5	31	29.5
High-speed internet access and cloud storage services for remote data access and off-site backup	52	49.5	53	50.5
Cloud computing platforms to enable off-site storage, collaboration, and disaster recovery	33	31.4	72	68.6

Table 2 presents the availability of ICT infrastructure for digitisation in the FULs in North-Central Nigeria. The findings reveal a mixed pattern across hardware, software, and network components, indicating partial readiness for comprehensive digitisation initiatives.

In terms of hardware, some important tools such as high-resolution scanners (79.0%) and computers with sufficient processing capacity (70.5%) are found in many libraries, providing the basis for initiating digitisation activities. Similarly, 70.5% of the institutions possess Local Area Network (LAN) infrastructure that supports internet connectivity and data sharing. Although, other crucial hardware components are not available. Only 31.4% of the libraries reported access to digital cameras and dedicated servers, while a mere 5.7% indicated possession of adequate storage solutions such as external hard drives and network-attached storage (NAS). These deficiencies significantly weaken the capacity to capture, process, and securely store digital materials on a sustainable scale.

On the issue of software, there is a similar imbalance. For instance, document management systems and repository platforms are available in 51.4% in the institutions, while image editing software is present in 49.5%. However, specialised applications such as Optical Character Recognition (OCR) tools and digital preservation systems are available in only 10.5% of the libraries. The absence of these tools limits the ability to ensure full-text searchability and long-term preservation of digitised resources.

Network infrastructure also shows partial implementation. Although 49.5% of the libraries have access to high-speed internet and cloud storage services, only 31.4% actively utilise cloud computing platforms. This indicates a limited engagement with scalable and modern digital infrastructure solutions that could enhance accessibility and data security.

These findings indicate an uneven distribution and availability of digitisation infrastructure across the FULs in the study area. While some institutions possess the basic ICT infrastructure, there is an absence of advanced hardware and specialised software that constrains the scalability, efficiency, and sustainability of digitisation projects. These findings align with Ukpanah, Ebong, and Enang (2018), and El-Kalash (2019) who observed persistent infrastructural challenges in Nigerian universities, and who similarly reported disparities in digitisation infrastructure across educational institutions. Overall, the results reflect a broader national challenge where digitisation progress is gradual but hindered by inadequate resources and inconsistent implementation.

Research Question 3: What challenges do FULs face in the digitisation of their grey literature collections?

Table 3: Challenges that FULs face in the Digitisation of Grey Literature Collections (N = 280)

Challenges	SA 4	A 3	D 2	SD 1	Weighted Mean	Decision
Inadequate funding for digitisation projects	107 (63%)	26 (15%)	5 (3%)	9 (5%)	4	Strongly Agree
Lack of technical know-how by staff	31 (19%)	38 (24%)	49 (31%)	29 (18%)	2	Disagree
Lack of/ Inadequate Infrastructure	37 (19%)	46 (24%)	32 (17%)	32 (17%)	3	Agree
User preference for printed grey literature	96 (52%)	33 (18%)	8 (4%)	10 (5%)	3	Agree
Issues of Intellectual property rights	6 (2%)	17 (6%)	81 (29%)	43 (15%)	2	Disagree
Hardware and software obsolescence	84 (45%)	43 (23%)	13 (7%)	7 (4%)	3	Agree
Inadequate security of databases	12 (4%)	26 (8%)	89 (35%)	20 (8%)	2	Disagree
Power Cuts/ Inadequate power supply	101 (52%)	21 (11%)	16 (9%)	9 (5%)	3	Agree
Lack of library Policy on Digitisation	16 (8%)	23 (12%)	61 (32%)	47 (25%)	2	Disagree

Table 3 presents the major challenges hindering the digitisation of grey literature in the FULs in North-Central Nigeria. The findings reveal that inadequate funding remains the most significant obstacle, as 63% of respondents strongly agreed that insufficient financial resources impede digitisation initiatives. Since digitisation requires substantial investment in

equipment, software, and technical expertise, the lack of adequate funding restricts progress and sustainability. Addressing this issue calls for increased financial support or strategic reallocation of resources to prioritise digitisation projects.

Another notable challenge is the issue of technical know-how among staff. Although 31% disagreed and 49% strongly disagreed that staff lacked technical skills, a portion of respondents still recognised skill gaps. This suggests that while some expertise exists, continuous training and technical support are needed to strengthen staff competencies in digital technologies. Similarly, inadequate infrastructure poses a concern, with 37% of respondents acknowledging deficiencies in ICT facilities such as computers, internet access, and storage systems. Although 24% disagreed, indicating some infrastructural presence, the findings suggest the need for modernisation and expansion of existing facilities.

User preference for printed grey literature also hinders digitisation, with 52% of respondents agreeing that users favour print materials. Encouraging digital adoption will require sensitisation on the benefits of electronic formats for improved accessibility, searchability, and distribution. Intellectual property rights issues remain a mixed concern, as 43% agreed it was a challenge, while others expressed uncertainty. Developing clear copyright and intellectual property policies will be necessary to ensure compliance and reduce legal risks.

Hardware and software obsolescence is another major issue, with 45% of respondents agreeing that outdated technologies impede progress. Regular upgrades and investment in sustainable ICT solutions would help maintain operational efficiency. Additionally, concerns over database security persist, with 20% agreeing it is a challenge. Implementing robust data protection measures like encryption, access control, and regular backups will no doubt, safeguard digital assets.

Power instability further exacerbates digitisation difficulties, as 52% agreed that frequent outages disrupt workflows and threaten data integrity. Reliable power alternatives such as generators or UPS systems are essential. Finally, the lack of library policies on digitisation, acknowledged by 57% of respondents (32% agree, 25% strongly agree), underscores the need for a structured policy framework to guide standardisation, preservation, and access.

Research Question 4: What strategies can be adopted to enhance the digitisation and dissemination of grey literature for effective information dissemination by the FULS in North-Central Nigeria?

Table 4: Strategies that can be Adopted to Enhance the Digitisation and Dissemination of Grey Literature for Effective Information Dissemination (N = 280)

S/N	Items	Mean	SD	Decision
1	Secure adequate funding for gey literature digitisation projects through grants and institutional support.	3.40	0.80	Strongly Agree
2	Provide comprehensive training programs for library staff on digitisation techniques and metadata creation.	2.95	0.75	Agree
3	Upgrade and standardize infrastructure and equipment for grey literature digitisation across the FULs.	3.30	0.85	Strongly Agree

4	Develop and implement standardized digitisation procedures and metadata schemas for grey literature.	3.00	0.90	Strongly Agree
5	Collaborate and regularly attend conferences and workshops by the FUL staff.	2.85	0.82	Agree
6	Establish clear guidelines for copyright and intellectual property management on grey literature digitisation.	3.20	0.78	Strongly Agree
7	Appoint a dedicated coordinator to oversee and manage grey literature digitisation initiatives across FULs.	2.90	0.88	Agree
	Grand Mean	**3.09**		**Strongly Agree**

Table 4 presents recommendations on the strategies that can be adopted to enhance digitisation and dissemination of grey literature in the FULs in North-Central Nigeria. Items 2, 5, and 7 were rated as "Agree," indicating that stakeholders generally agree that providing comprehensive training programs (Mean = 2.95, SD = 0.75), collaboration and regularly attending conferences and workshops by the FUL staff (Mean = 2.85, SD = 0.82), and appointing a dedicated coordinator (Mean = 2.90, SD = 0.88) are important recommendations. Items 1, 3, 4, and 6 were rated as "Strongly Agree," showing strong agreement that securing adequate funding (Mean = 3.40, SD = 0.80), upgrading infrastructure (Mean = 3.30, SD = 0.85), developing standardized procedures (Mean = 3.00, SD = 0.90), and establishing copyright guidelines (Mean = 3.20, SD = 0.78) are crucial. The grand mean of 3.09 indicates an overall "Strongly Agree" perception regarding the recommended strategies.

The results indicate that stakeholders in FULS in North-Central Nigeria strongly believe that securing funding, upgrading infrastructure, standardizing procedures, and establishing copyright guidelines are essential for optimizing collaborative digitisation. They also agree that collaborating, attending workshop trainings and conferences, and appointing a coordinator are important recommendations. The results from this table aligns with previous empirical studies such as that of Jagboro, Omotayo and Aboyade (2012); and, Mohammed, El-Kalash, and Barau (2025) whose studies emphasized the need for adequate funding and training programs for successful digitisation initiatives. Also, the study highlighted the importance of standardized procedures and infrastructure development. The strong agreement on securing funding and providing training is key in FULs. Another study by Ugwanyi and Edeh (2019) revealed that upgrading infrastructure and developing standardized metadata schemas are crucial for effective digitisation. The study also upholds the need for dedicated coordination and institutional support.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. The FULs in the study area and the country at large should develop and implement a comprehensive digitisation policy that offer a balanced coverage of all categories of grey literature. Underrepresented resources like photographs, artworks, technical notes, and administrative documents should be given adequate attention to ensure inclusivity and preservation of diverse intellectual outputs. This could be achieved by adopting standardised digitisation frameworks and institutional guidelines that promote uniformity in selection criteria,

metadata standards, and preservation procedures across libraries, as-well-as help ensure consistency and interoperability among institutional repositories.

2. Management of FULs in the study area should procure and utilise state-of-the-art infrastructure for digitisation activities, as-well-as ensure that those responsible for digitisation activities conduct regular maintenance, and upgrade of existing digitisation infrastructure are regularly conducted.

3. Management of the FULs in the study area should ensure that workshops, in-house trainings, and other up-skilling programs on ICT are organized regularly for those involved in digitisation activities. It will go a long way at enhancing the ICT competency level of librarians, thereby making them better informed on the current trends and strategies for effective digitisation activities in their respective universities.

4. The Federal Government should intensify efforts at ensuring that adequate funds are available to support digitisation activities and enhance the information dissemination drive of the university libraries of the country.

Conclusion

Digitisation of library resources and that of grey literature in particular is a critical component of 21st-century library practice, especially in academic library environments. The process has continued to impact positively on how library services are offered. As such, to maintain relevance in an atmosphere that is flooded with digital activities, academic libraries in Nigeria have to key into the trend by way of digitising their information resources to enhance their access.

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