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EMPOWERING ACADEMIC LIBRARIANS IN NIGERIAN UNIVERSITIES FOR FUTURE NAVIGATION

BY

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Abstract

Purpose: *This study examines strategies for empowering academic librarians in Nigerian universities to effectively navigate rapidly evolving technological and information environments. Specifically, it identifies the competencies required by academic librarians, examines available empowerment initiatives, assesses the role of artificial intelligence (AI) and digital technologies in shaping librarians' future roles, and investigates challenges that constrain their professional empowerment.*

Design/Methodology/Approach: *The study adopted a descriptive survey research design. The population comprised 860 academic librarians in university libraries across the South-South geopolitical zone of Nigeria, from which a sample of 86 librarians was selected using proportionate stratified random sampling. Data were collected using as self structured questionnaire. The instrument was face-validated by experts and recorded a Cronbach's alpha reliability coefficient of 0.80. Data were analyzed using mean scores and standard deviations, with a decision benchmark of 2.50.*

Findings: *The findings indicate that AI proficiency, digital literacy, research support and scholarly communication skills, communication abilities, and adaptability are essential competencies for future navigation, with a cluster mean of 2.90. Continuous professional development programmes, workshops, seminars, and access to digital tools were identified as available empowerment initiatives, although mentorship and institutional support were comparatively weaker (cluster mean = 2.81). AI and digital technologies were found to enhance access to information, research support, operational efficiency, and user engagement (cluster mean = 2.86). However, inadequate funding, poor ICT infrastructure, low participation in professional development programmes, technophobia, and weak institutional support were identified as major barriers to effective empowerment (cluster mean = 2.83).*

Implications: *The findings imply that Nigerian universities need to make sustained investments in librarians' professional development, AI and digital competencies, ICT infrastructure, mentorship, and institutional support. Strengthening these areas will enhance librarians' capacity to provide innovative research, teaching, learning, and information services and improve their readiness for emerging technological demands.*

Originality/Value: *The study contributes empirical evidence on the empowerment of academic librarians for future navigation within the Nigerian university context. Its value lies in linking professional competencies, empowerment initiatives, emerging technologies, and institutional barriers into an integrated framework for strengthening librarians' preparedness for rapidly changing academic and information environments.*

Keywords: *Academic librarians; Empowerment; Artificial intelligence; Digital literacy; Professional development; Future navigation.*

Paper type: *Research paper.*

Introduction

University libraries continue to serve as the cornerstone of academic inquiry, research, and intellectual development in higher education. They provide access to a wide range of information resources, foster scholarly communication, and support teaching, learning, and research activities. In the contemporary knowledge economy, the

role of academic librarians has evolved beyond the mere custodianship of books and journals to encompass active facilitation of knowledge discovery, promotion of information literacy, and strategic support for research and innovation. Evans and Saponaro (2021) observe that modern librarians must act not only as custodians of information but also as educators and marketers who strategically promote library services to meet the evolving needs of users. Globally, academic libraries have embraced transformative approaches to enhance their relevance and effectiveness. These approaches include the integration of digital marketing strategies, adoption of artificial intelligence and robotic technologies, and the development of smart library systems designed to improve user experience. Yi (2016) notes that empowering librarians requires aligning professional competencies with users' information-seeking behavior and expectations. Warschauer and Matuchniak (2023) further state that librarians with strong digital and technological skills strengthen institutional research capacity, facilitate efficient access to knowledge, and enhance users' confidence in library services.

In the Nigerian context, academic libraries face challenges that limit their effectiveness. Inadequate funding, weak ICT infrastructure, limited staff training, and low levels of professional development impede librarians' ability to adopt emerging technologies and implement innovative service strategies. Ike, Achilike, and Ago (2025) highlight that participation in Continuous Professional Development (CPD) programs among Nigerian librarians is generally low due to both institutional and motivational barriers. Olaseinde (2025) notes that many librarians have not fully recognized the transformative potential of artificial intelligence in library operations, resulting in missed opportunities to improve service delivery. Owraigbo, Abubakar, and Kanu (2025) emphasize that AI is rapidly altering the role of librarians, who now need to develop skills in digital navigation, data interpretation, and AI ethics to remain relevant in the fifth industrial revolution.

Emerging technologies, such as AI-powered chatbots, robotic systems, and makerspaces, offer significant opportunities to enhance the efficiency and accessibility of academic library services. Agim, Abah, and Ezejiofor (2025) and Agim, Mohammed, and Obande (2024) state that such innovations can improve user engagement and support a more dynamic learning environment. However, Nigerian university libraries often lack the necessary infrastructure, policy

frameworks, and readiness to implement these technologies effectively, while librarians themselves may experience technophobia, low digital proficiency, and weak collaborative learning cultures. Consequently, there is a pressing need to empower academic librarians through targeted professional development, mentorship programs, and exposure to emerging technological tools.

This study, therefore, investigates strategies for empowering academic librarians in Nigerian universities to prepare them for future navigation in rapidly evolving academic and technological landscapes. The study focuses on identifying essential competencies, examining available empowerment initiatives, and exploring challenges to professional growth.

Statement of the Problem

Academic librarians in Nigerian universities face significant challenges that hinder their capacity to respond effectively to the demands of modern information environments. Despite the availability of a wide range of information resources, librarians often lack the skills and exposure needed to adopt emerging technologies, including artificial intelligence, robotics, and other digital tools. This gap limits their ability to provide efficient and innovative services to support research, teaching, and learning. Many university libraries in Nigeria have not yet implemented structured professional development programs or strategies to enhance librarians' competencies in emerging areas. Limited access to training, mentorship, and networking opportunities reduces librarians' preparedness to navigate new technological landscapes. Additionally, weak institutional support, inadequate digital infrastructure, and a lack of policy frameworks for technology adoption constrain librarians' ability to integrate innovative solutions, such as AI-powered chatbots, makerspaces, and robotic services, into library operations. These limitations affect the quality of services provided to students and researchers, particularly postgraduate students who require advanced support for research, data management, and access to specialized resources. Consequently, without deliberate empowerment strategies, academic librarians may struggle to keep pace with global trends, and university libraries may fail to realize their full potential as dynamic centers of knowledge and innovation.

Purpose of the Study

The main purpose of this study is to examine how academic librarians in Nigerian universities can be empowered to navigate future technological and

information landscapes effectively. Specifically, the study seeks to:

1. Identify the key competencies required by academic librarians to operate effectively in evolving technological and information environments.
2. Examine the professional development programs and empowerment initiatives available to academic librarians in Nigerian universities.
3. Assess the role of artificial intelligence, digital literacy, and other innovative technologies in shaping the future roles and responsibilities of academic librarians.
4. Investigate the challenges that limit the effective empowerment of academic librarians in fulfilling their evolving professional roles.

Literature Review

Conceptual Framework

The following concepts are examined and reviewed in relation to the study:

Academic Librarians

Academic librarians serve as central figures in managing, organizing, and facilitating access to knowledge within higher education institutions. They are tasked not only with the curation of library resources but also with guiding students, faculty, and researchers in navigating complex information landscapes. Agim, Abah, and Ezejiofor (2025) observe that academic librarians are increasingly required to adapt to emerging technologies such as AI-powered chatbots to provide efficient user services, highlighting their expanding role beyond traditional library tasks. Bologun, Oladeji, and Omotade (2025) note that the evolution of smart libraries further positions academic librarians as facilitators of digital knowledge, necessitating proficiency in both technological tools and information management practices. This expanded role underscores the need for librarians to remain agile, technologically competent, and responsive to the dynamic needs of their users. Consequently, understanding the professional competencies of academic librarians is critical, which naturally links to their interactions within universities and the broader academic ecosystem.

Moreover, academic librarians are increasingly seen as strategic partners in research and teaching, contributing to knowledge production and scholarly communication. Pierre-Robertson (2023) argues that the emergence of “super-librarians” has redefined expectations, requiring them to integrate technology, data analytics, and AI literacy into their daily operations. David-West and Ig-worlu (2023) further assert that librarians must acquire new skills to navigate AI-driven library environments, emphasizing continuous learning and adaptability. As

such, the role of academic librarians is not static but evolves in response to technological advances and institutional demands, directly linking their professional development to the environment and policies of universities.

Universities

Universities provide the institutional framework within which academic librarians operate, shaping their responsibilities and the resources at their disposal. Sivankalai (2021) notes that universities increasingly rely on libraries to support e-learning, research, and lifelong learning initiatives, highlighting the integral role of librarians in facilitating academic success. Ibrahim, Balogun, Adewara, and Nuhu (2023) state that current trends in academic libraries show an alignment with educational goals for sustainable development, underscoring the strategic importance of library services in achieving institutional objectives. Within this context, universities act not only as centers of knowledge but also as environments that define the scope and impact of librarians' work. This emphasizes that librarian effectiveness is closely tied to institutional infrastructure, policies, and support mechanisms, naturally connecting to the concept of future navigation within these settings.

Furthermore, universities serve as platforms for professional growth and collaboration, providing access to workshops, networking opportunities, and continuing professional development programs. Anene and Idiedo (2021) argue that the availability and effective utilization of such programs significantly influence librarians' skills and ability to respond to technological advancements. Similarly, Juma, Nakaziba, and Holmner (2021) observe that structured initiatives like the University of Pretoria Carnegie CPD program strengthen academic libraries by enhancing librarians' competencies and service delivery. The university setting thus becomes a crucial enabler for librarians' professional empowerment, directly facilitating their capacity to navigate emerging challenges in the academic and technological landscapes.

Future Navigation

Future navigation refers to the ability of librarians to anticipate, adapt, and respond to evolving technological and information landscapes in academic settings. Bhattacharya (2022) argues that the integration of artificial intelligence and machine learning in libraries represents a significant shift, requiring librarians to develop advanced competencies in digital tools, data analytics, and user-centered services. Cox and Mazumdar (2023) state that the adoption of AI and innovative technologies reshapes librarians'

professional identities, demanding proactive strategies to remain relevant and effective. Therefore, navigating the future involves a combination of technological literacy, strategic thinking, and adaptive problem-solving, which is critical in ensuring libraries continue to meet the evolving needs of academic communities. This highlights the link between future navigation and the professional empowerment initiatives that enable librarians to acquire these competencies.

Moreover, future navigation is closely tied to digital readiness and the capacity to implement emerging technologies within library operations. Owraigbo, Abubakar, and Kanu (2025) note that the 5th industrial revolution requires librarians to function as curators, trainers, and digital navigators, capable of leveraging AI and other innovations to enhance service delivery. Iyanda, Adelakun, and Salami (2025) also highlight the role of AI in improving teaching and learning outcomes, demonstrating that librarians' engagement with technology directly influences institutional effectiveness. Consequently, empowering librarians for future navigation is not merely about technical skill acquisition but also involves fostering a culture of continuous learning, critical thinking, and proactive adaptation to change, which naturally transitions to the discussion of empowerment initiatives.

Empowerment Initiatives

Empowerment initiatives encompass structured programs, policies, and strategies aimed at enhancing the knowledge, skills, and effectiveness of academic librarians. Ike, Achilike, and Ago (2025) observe that continuous professional development (CPD) initiatives, including workshops, mentorship, and networking opportunities, play a pivotal role in equipping librarians with the competencies needed to provide high-quality services. Madukoma and Garba (2022) state that effective empowerment enhances work engagement and service delivery, ensuring librarians are prepared to meet both current and future challenges. These initiatives are thus critical for aligning librarians' capabilities with institutional goals, technological trends, and user expectations, forming a foundation for sustainable professional growth.

Additionally, empowerment initiatives increasingly integrate technology-driven learning and collaborative practices. Agim, Mohammed, and Obande (2024) argue that innovations such as makerspaces and AI-powered services create opportunities for librarians to experiment with new service models and develop practical digital skills.

Oyedokun (2024) further states that engagement with emerging technologies, combined with targeted training, enables librarians to navigate complex information environments effectively. Therefore, empowerment initiatives not only address skills gaps but also cultivate a mindset of adaptability, innovation, and lifelong learning, reinforcing the continuous cycle of professional development required for future navigation.

Theoretical Framework

This study is anchored on this study is anchored on the Human Capital Theory (1964) propounded by Gary Becker.

Human Capital Theory (1964) posits that investment in education, training, and skill acquisition enhances individuals' productivity, efficiency, and overall performance. The theory emphasizes that knowledge, competencies, and professional skills are valuable assets that can be developed through deliberate and continuous investment. In the context of academic librarianship, this theory is highly relevant as it explains how equipping librarians with modern skills, such as digital literacy, artificial intelligence competencies, and information management expertise can significantly improve their effectiveness in delivering library services. Applying Human Capital Theory to this study suggests that empowering academic librarians in Nigerian universities requires sustained investment in professional development initiatives such as workshops, training programs, mentorship, and continuous learning opportunities. As the information environment becomes increasingly technology-driven, librarians must acquire new competencies to remain relevant. These include skills in data management, AI applications, digital resource management, and user engagement strategies. When librarians are adequately trained and equipped, they are better positioned to support teaching, research, and learning, thereby enhancing the overall performance of university libraries.

Furthermore, the theory highlights the critical role of institutions in fostering staff development. Universities that invest in capacity building, provide access to technological tools, and encourage continuous professional development create an enabling environment for librarians to thrive. Such investments not only improve individual performance but also contribute to institutional effectiveness and innovation. In this regard, empowering academic librarians becomes a strategic approach to preparing them for future navigation in rapidly evolving academic and technological landscapes. Therefore, Human Capital Theory provides a strong theoretical

foundation for this study by explaining that the empowerment of academic librarians is fundamentally dependent on continuous investment in their knowledge, skills, and professional growth, which ultimately enhances their readiness to navigate future challenges in the information ecosystem.

Related empirical Literature

These following literatures were reviewed in line wih the study

Ike, Achilike and Ago (2025) investigated the empowerment of academic librarians in Imo State, Nigeria, through Continuous Professional Development (CPD). The work adopted a mixed-methods design, the research assesses librarians' participation frequency in CPD, the impact of networking and CPD opportunities, and the role of knowledge-sharing culture in enhancing service quality. The study sampled 96 professional librarians from four academic libraries in Imo State, employing stratified random sampling. Data were collected via structured questionnaires and interviews, analyzed using descriptive statistics and thematic methods. Findings reveal CPD participation: 2.69 (mean score) of librarians engage in CPD occasionally, 1.97 participate rarely, suggesting institutional or motivational barriers. Networking and Mentorship shows low engagement in mentorship programs (0.96 mean) and advanced certifications (1.71 mean) highlights gaps in structured professional growth. Digital Proficiency indicates a low mean score (0.63) in digital tool confidence underscores technophobia, impeding adaptation to modern library demands. The result also shows knowledge-sharing culture with a grand mean of 0.88 which reveals weak collaborative learning environments, linked to distrust and lack of institutional policies.

Olaseinde (2025) assessed the perception of librarians toward the diffusion of artificial intelligence (AI) in academic libraries in Nigeria. Methodology: A questionnaire survey comprising 24 questions was distributed to librarians across selected institutions at the end of the 2024 academic session. Findings: Findings indicate that librarians do not yet fully recognize the transformative potential of AI, highlighting a gap in awareness and training. The study reveals a need for continuous professional development to keep pace with AI advancements and their applications in library services. Additionally, while library users express interest in AI-driven services, few academic libraries in Nigeria have implemented such programs. Implication: This research contributes to the limited literature on librarians'

perceptions of AI and offers practical recommendations for integrating AI into academic libraries to enhance efficiency and user satisfaction.

Owraigbo, Abubakar and Kanu (2025) studied Artificial intelligence (AI) and the future of libraries: Empowering librarians in the 5th industrial revolution. The study has 3 research objectives. The study employed a descriptive research design. The target population consisted of over 10,000 librarians across Nigeria. A sample of 50 librarians was selected from three state chapters of the Nigerian Library Association: Abuja, Niger State, and Anambra State. A structured questionnaire served as the primary data collection instrument. The instrument underwent face and content validity assessment by experts and achieved a Cronbach's alpha reliability coefficient of 0.89, indicating strong internal consistency. Data were analyzed using mean scores. The findings revealed that AI is significantly altering librarians' roles, requiring them to become not just curators but also navigators of digital information, data analysts, and trainers in AI literacy. Essential skills identified include proficiency in AI tools, data interpretation, and ethical considerations surrounding AI implementation.

Owolabi, et al; (2022) explored readiness of academic librarians towards the use of robotic technologies in Nigerian university libraries. he article provides further insights on the following areas: •What are the levels of readiness of university libraries in Nigeria towards robotic technologies in terms of digital infrastructure, policy framework and human development for the adoption and use of robotics in the libraries? •What services are available in the university libraries that can be handled by robotic technologies? •Are academic librarians aware of the potential benefits of robotics in library operations? •What are the potential challenges that university libraries may face in the adoption and use of robotic technologies? Design/methodology/approach: The study is survey research anchored on positivism paradigm. The questionnaire was used as data collection instrument. Furthermore, 100 academic librarians were selected from the ten purposively selected ten universities. Snowballing sample technique was used to select ten academic librarians from each of the university libraries. Findings: The findings of the study revealed that the readiness of university libraries in Nigeria towards the adoption and use of robotic technologies in Nigeria is nothing to write home about. It indicates that university libraries in the country are not ready to adopt the use of this technology despite the high benefits they have to offer in library operations.

Anyaegbu and Wali (2021) explored the influence of staff training and development on librarians' job performance in federal university libraries in South-South Nigeria. Four research questions guided the study and two null hypotheses were tested at 0.5 level of significance. The research design was a survey. The population of the study comprised 102 librarians from the six federal university libraries in South-South Nigeria. The entire population was studied hence there was no sampling. Questionnaire was the instrument used for data collection. Data collected was analyzed using descriptive statistics of mean scores. Analysis of Variance (ANOVA) was used to test the two null hypotheses at 0.05 level of significance. The study found that staff training programmes that exist in the university libraries studied include orientation, computer literacy simulation exercise, in-service workshop among others. Whereas the staff development programmes that exist in these libraries were job rotation, seminar, consultancy, publication and research, institutional education, study leave, mentorship/coaching and professional association. The result of the analysis showed that training and development programmes have a positive influence on librarian's job performance

Research Methodology

This study adopted a descriptive survey research design to examine strategies for empowering academic librarians in Nigerian universities for future navigation, as the design enables the collection of data from a representative sample to describe existing conditions, practices, and perceptions. The area of the study comprised university libraries in the South-South geopolitical zone of Nigeria, including Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers States. The population of the study consisted of 860 academic librarians working in these university libraries, from which a sample size of 86 librarians, representing 10% of the population, was selected using a proportionate stratified random sampling technique to ensure adequate representation across institutions. Data were collected using a structured questionnaire titled Empowering Academic Librarians for Future Navigation Questionnaire (EALFNQ), which contained sections on demographic information and items measured on a four-point Likert scale. The instrument was subjected to face validation by experts in Library and Information Science and Measurement and Evaluation, while its reliability was established using the Cronbach Alpha method, yielding a coefficient of 0.80, indicating high

reliability. The questionnaires were administered directly by the researcher with the assistance of research aides to ensure a high response rate. Data collected were analyzed using descriptive statistics such as mean scores, and standard deviation, with a decision rule of 2.50 used to determine acceptance or rejection of items.

The data collected for this study were analysed using descriptive statistics such as means, and standard deviations. The results are presented in tables to reflect the responses of academic librarians on competencies required, empowerment initiatives, technological roles, and challenges affecting their capacity for future navigation.

Result Analysis

Table 1: Mean and Standard Deviation of Respondents on Key Competencies Required by Academic Librarians for Future Navigation

S/N	Competencies	SA	A	SD	D	$\bar{x}$	SD	Dec.
1	Digital literacy and ICT skills for managing electronic resources.	110	120	45	25	2.92	0.90	A
2	Ability to use artificial intelligence tools and data analytics.	118	122	40	20	3.00	0.88	A
3	Communication and user engagement skills.	105	115	50	30	2.82	0.95	A
4	Research support and scholarly communication skills.	112	118	48	22	2.90	0.92	A
5	Adaptability and continuous learning ability.	108	116	52	24	2.87	0.94	A
	Cluster Mean					**2.90**		**A**

Key: $\bar{x}$ = Mean, SD = Standard Deviation, SA = Strongly Agree, A = Agree, SD = Strongly Disagree, D = Disagree, Dec. = Decision

Table 1 shows that the use of artificial intelligence tools ($\bar{x}$ = 3.00), digital literacy ($\bar{x}$ = 2.92), and research support skills ($\bar{x}$ = 2.90) ranked highest among the competencies required for future navigation. Communication skills ($\bar{x}$ = 2.82) and adaptability ($\bar{x}$ = 2.87) were also accepted. The cluster mean of 2.90 indicates general agreement that these competencies are essential for empowering academic librarians.

Table 2: Mean and Standard Deviation of Respondents on Empowerment Initiatives Available to Academic Librarians

S/N	Empowerment Initiatives	SA	A	SD	D	$\bar{x}$	SD	Dec.
1	Continuous professional development (CPD) programmes.	112	120	46	22	2.94	0.91	A
2	Workshops, seminars, and conferences.	108	118	50	24	2.88	0.93	A
3	Mentorship and networking opportunities.	98	110	60	32	2.73	0.97	A
4	Access to digital tools and training platforms.	105	115	52	28	2.83	0.95	A
5	Institutional support for career development.	95	108	62	35	2.68	0.99	A
	Cluster Mean					**2.81**		**A**

Table 2 reveals that continuous professional development ($\bar{x}$ = 2.94), workshops and seminars ($\bar{x}$ = 2.88), and access to digital tools ($\bar{x}$ = 2.83) are the most prominent empowerment initiatives. Mentorship ($\bar{x}$ = 2.73) and institutional support ($\bar{x}$ = 2.68) were moderately available. The cluster mean of 2.81 indicates overall agreement on the availability of empowerment initiatives.

Table 3: Mean and Standard Deviation of Respondents on the Role of AI and Digital Technologies

S/N	Technological Roles	SA	A	SD	D	$\bar{x}$	SD	Dec.
1	AI tools improve access to information resources.	115	120	42	23	2.95	0.90	A
2	Digital platforms enhance research support services.	110	118	48	24	2.90	0.92	A
3	Automation improves efficiency of library operations.	108	115	50	27	2.87	0.94	A
4	Robotics and chatbots support user services.	98	110	60	32	2.73	0.97	A
5	Technology enhances user engagement and satisfaction.	105	114	52	29	2.85	0.95	A
	Cluster Mean					**2.86**		**A**

Table 3 indicates that AI improves access to resources ($\bar{x}$ = 2.95), enhances research support ($\bar{x}$ = 2.90), and increases operational efficiency ($\bar{x}$ = 2.87). Robotics ($\bar{x}$ = 2.73) and user engagement ($\bar{x}$ = 2.85) were also accepted. The cluster mean of 2.86 shows general agreement on the importance of technology in shaping future library roles.

Table 4: Mean and Standard Deviation of Respondents on Challenges Affecting Empowerment of Academic Librarians

S/N	Challenges	SA	A	SD	D	$\bar{x}$	SD	Dec.
1	Inadequate funding for training and development.	115	122	40	23	2.96	0.89	A
2	Lack of ICT infrastructure and digital tools.	110	118	46	26	2.90	0.92	A
3	Low participation in professional development programmes.	105	115	50	30	2.83	0.95	A
4	Technophobia and low digital competence.	100	110	55	35	2.75	0.97	A
5	Weak institutional support and policies.	98	108	58	36	2.73	0.98	A
	Cluster Mean					**2.83**		**A**

Table 4 reveals that inadequate funding ($\bar{x}$ = 2.96), lack of ICT infrastructure ($\bar{x}$ = 2.90), and low participation in training ($\bar{x}$ = 2.83) are major challenges. Technophobia ($\bar{x}$ = 2.75) and weak institutional support ($\bar{x}$ = 2.73) were also identified. The cluster mean of 2.83 indicates overall agreement that these challenges hinder empowerment.

Discussion of Findings

The findings on the key competenies reveal that digital literacy, AI proficiency, and research support skills are critical competencies for academic librarians. This aligns with Bhattacharya (2022), who emphasizes the growing importance of AI and digital tools in modern library services. Similarly, Cox and Mazumdar (2023) highlight that librarians must develop advanced

technological competencies to remain relevant in evolving information environments.

The prominence of CPD programmes and training initiatives supports the findings of Ike, Achilike, and Ago (2025), who observed that professional development plays a key role in enhancing librarians' service delivery. However, the moderate ratings for mentorship and institutional support indicate gaps, which agrees with Madukoma and Garba (2022) that effective empowerment requires sustained institutional commitment.

On the role of AI and digital technologies, the study confirms that AI and digital technologies significantly enhance library services, particularly in improving access and efficiency. This supports the findings of Owraigbo, Abubakar, and Kanu (2025), who noted that AI is transforming librarians into digital navigators and data analysts. Iyanda, Adelakun, and Salami (2025) also affirm that AI improves teaching and learning outcomes in academic environments.

The identified challenges of inadequate funding, poor ICT infrastructure, and limited training opportunities are consistent with Olaseinde (2025), who reported low awareness and adoption of AI among librarians. Similarly, Anyaegbu and Wali (2021) emphasize that training and development significantly influence librarians' performance, highlighting the need to address these barriers.

Implications of the Study

The findings imply that empowering academic librarians requires a strong focus on digital skill acquisition and technological integration. Universities must invest in ICT infrastructure and provide access to modern tools to enhance librarians' effectiveness. The study also highlights the need for structured professional development programmes to build competencies in AI, data management, and digital services. Furthermore, institutional support and funding are essential for sustaining empowerment initiatives. Without adequate investment, librarians may struggle to adapt to emerging trends, limiting the effectiveness of university libraries.

Conclusion

The study examined strategies for empowering academic librarians in Nigerian universities for future navigation. Findings revealed that while librarians possess essential competencies such as digital literacy and research support skills, there is a growing need to strengthen AI proficiency and technological capabilities.

Empowerment initiatives such as CPD programmes and workshops are available but not fully optimized, particularly in areas of mentorship and institutional support. The study also identified key challenges, including inadequate funding, poor ICT infrastructure, and low participation in professional development programmes. Overall, the study concludes that empowering academic librarians requires sustained investment in training, technology, and institutional support to ensure their readiness for future academic and technological demands.

Recommendations

1. Academic librarians should continuously update their skills in artificial intelligence, digital literacy, and data management through regular participation in training programmes and self-directed learning initiatives.
2. Universities should strengthen empowerment initiatives by providing structured mentorship programmes, workshops, and access to modern digital tools to enhance librarians' competencies.
3. Government and institutional authorities should allocate adequate funding for ICT infrastructure and professional development to support effective library service delivery.
4. Library management should develop policies that encourage continuous learning, innovation, and the integration of emerging technologies to prepare librarians for future navigation.

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