



International Journal of Social Sciences Insights

A Globally Recognized Quality Refereed (Peer Reviewed) &
Online Journal of Multidisciplinary Social Science Research

Web: socialinsights.in



EVALUATING THE EFFECTIVENESS OF DIVERSITY, EQUITY AND INCLUSION (DEI) INITIATIVES IN NIGERIAN UNIVERSITY LIBRARIES: A SYSTEMATIC REVIEW

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Article info

Received – 25 April 2026

Received revised -20 May 2026

Accepted -28 June 2026

Available online -30 June 2026

Pages: 27-38

Keywords: Accessibility; Assistive
technology; Diversity; Equity;
Inclusion; Nigerian university
libraries

Abstract

This condensed systematic review synthesises evidence on diversity, equity and inclusion (DEI) initiatives in Nigerian university libraries. Searches of open scholarly databases, journal platforms, institutional repositories and citation chains identified 20 eligible reports published between January 2016 and June 2025, comprising 17 empirical studies and 3 conceptual, policy or practice reports. The evidence was appraised using criteria adapted from the Mixed Methods Appraisal Tool and JBI guidance and synthesised narratively because designs, populations and outcomes were heterogeneous. Disability inclusion, assistive technology, physical access, alternative-format resources and digital inclusion dominated the evidence. Reported benefits included improved access to information, greater independence, higher use of selected services and perceived gains in learning participation where resources were functional and supported. However, causal evidence remains weak because most studies were descriptive, cross-sectional, single-site or self-reported. Major barriers were unstable funding, inaccessible infrastructure, unreliable electricity and connectivity, weak maintenance, limited staff competence, low awareness, poor user consultation and fragmented policy implementation. Gender, ethnic, religious, linguistic and workforce-diversity initiatives were markedly under-evaluated. The review proposes an ACCESS-DEI framework linking accountability, co-design, capacity, equitable collections, accessible systems and sustained assessment. Nigerian university libraries should move from isolated accommodation to institution-wide, measurable and co-designed inclusion systems.

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1. INTRODUCTION

Diversity, equity and inclusion are related but distinct principles. Diversity recognises differences among users and staff; equity addresses unequal starting points through fair allocation of support; and inclusion asks whether users can participate, influence decisions, use services with dignity and experience belonging. In an academic library, a diverse user population does not automatically imply equitable access, and open-door services do not prove inclusion. Effective DEI must be assessed through access, usability, representation, participation and outcomes (Cruz, 2019; Kang et al., 2025).

University libraries mediate access to textbooks, databases, repositories, research support, information-literacy instruction, assistive technologies and study spaces. They also influence whose knowledge becomes visible through selection, classification, digitisation and preservation. Nigerian universities enrol users differentiated by disability, gender, ethnicity, language, religion, socioeconomic position, geographical origin and digital competence. At the same time, libraries operate amid fluctuating funding, high electronic-resource costs, uneven electricity and internet connectivity, and institutional differences across federal, state and private universities.

The Nigerian evidence base is important but fragmented. Much of the literature does not use the acronym DEI; it appears under disability services, special-needs users, assistive technology, digital inclusion, accessible information resources, workforce diversity and inclusive services. Therefore, this review treats an initiative as DEI-related when it seeks to reduce a documented access or participation barrier, distribute resources more fairly, increase representation or enable meaningful involvement by marginalised users. The review corrects one major weakness in the field: it separates the presence of resources from actual accessibility, and accessibility from measurable educational or institutional impact.

2. NIGERIAN UNIVERSITY LIBRARY CONTEXT AND PROBLEM

Nigerian university librarianship includes central and branch libraries, faculty collections, institutional repositories, virtual-library services and specialist support units. Capacity varies substantially. Earlier multi-institution evidence found that only one of six federal universities studied had a dedicated section for users with special needs, while missing assistive technologies and lifts restricted access to ICT facilities and collections (Ezeani et al., 2017). Later studies report similar unevenness across regions and institutions.

Access challenges occur across the entire service chain. A building may be reachable but contain staircases without ramps or lifts; a computer laboratory may exist but lack screen readers, Braille keyboards or trained support; and an electronic resource may be licensed but incompatible with assistive software. Digital services may widen access while reproducing inequality when data costs, inaccessible interfaces, weak digital skills or unreliable electricity prevent meaningful use (Igbinovia & Aiyebelin, 2023; Wang & Si, 2024).

The central problem is therefore not only limited provision. It is the lack of consolidated evidence that distinguishes availability from accessibility, utilisation from benefit, and perceived value from demonstrable outcomes. Most Nigerian studies are descriptive surveys or qualitative assessments. These designs are useful for needs assessment, but without comparison groups or longitudinal measurement they cannot establish whether DEI initiatives caused improvements in independence, participation, satisfaction, retention, attainment or institutional trust. A second problem is scope: disability inclusion dominates the evidence, while gender, ethnicity, language, religion, socioeconomic disadvantage, inclusive collections and workforce diversity are less visible and less evaluated.

3. OBJECTIVES OF THE REVIEW

The objectives of the review are:

1. examined the nature and scope of DEI initiatives implemented in Nigerian university libraries;
2. assessed reported effectiveness and the strength of supporting evidence of DEI implementation in Nigerian university libraries;
3. identified achievements, outcomes, barriers and enabling conditions for DEI implementation in Nigerian university libraries; and
4. proposed evidence-informed strategies for strengthening practice of DEI in Nigerian university libraries.

4. RESEARCH QUESTIONS

The guiding questions for this review include:

1. What DEI initiatives have been implemented in Nigerian university libraries?
2. How effective are DEI in promoting inclusion and equitable access in Nigerian university libraries?
3. What user, educational, social and institutional outcomes of DEI have been reported in Nigerian university libraries?
4. What barriers hinder implementation of DEI in Nigerian university libraries, and
5. What best practices and assessment approaches should be adopted for DEI in Nigerian university libraries?

5. CONCEPTUAL AND THEORETICAL FOUNDATIONS

The review was guided by an integrated DEI logic in which diversity identifies relevant user and staff differences; equity directs resources towards barriers; inclusion evaluates whether people can participate and belong; and effectiveness requires evidence that the integrated response changes outcomes. This intersectionality is central because barriers do not affect users in isolated categories. For example, a visually impaired student may also

experience poverty, weak connectivity, limited digital competence and language barriers. Single-category interventions can therefore miss cumulative exclusion (Sépulchre, 2023).

Four theoretical lenses shaped the analysis. A social justice perspective treats information access as a matter of rights, participation and fair distribution; Critical race theory, used cautiously, asks how apparently neutral classification, collection and recruitment systems may reproduce ethnic, linguistic or cultural hierarchies (Gibson et al., 2018; Mehra & Gray, 2020); and inclusive excellence links equity to institutional quality rather than remedial support at the margins (Davis et al., 2024). Also, Universal Design for Learning supports anticipatory design through multiple formats, accessible documents, captions, keyboard navigation, flexible participation modes and structured digital content (Al-Azawei et al., 2016; CAST, 2018).

6. METHODOLOGY

A systematic review with narrative and thematic synthesis was adopted. Meta-analysis was not appropriate because the studies varied in setting, population, intervention, design and outcome measures. Reporting followed PRISMA 2020 principles (Page et al., 2021). A protocol was prepared before full-text synthesis, although it was not prospectively registered because the review falls outside the usual PROSPERO health and social-care scope. Conceptual and practice reports were included only where they clarified implementation and were not used to make causal claims.

TABLE 1
ELIGIBILITY CRITERIA

Criterion	Included	Excluded
Population/setting	Nigerian university or academic libraries; their users, staff, systems and services.	Public libraries, school libraries, non-Nigerian settings without separable Nigerian library evidence.
Phenomenon	Policy, service, collection, technology, facility or workforce practice linked to DEI, accessibility or reduction of exclusion.	General library performance without a substantive inclusion or equity component.
Outcomes	Access, availability, utilisation, participation, satisfaction, independence, engagement, representation, staff capacity or institutional change.	Purely technical descriptions without an inclusion-related outcome or implementation implication.
Design/date/access	Empirical, mixed-methods, conference, thesis or relevant conceptual/practice reports, January 2016-June 2025, English, traceable full text.	Opinion pieces, duplicate reports, unverifiable citations, non-English reports that could not be assessed, and records outside the date/search frame.

TABLE 2
SEARCH CONCEPTS AND EXAMPLE STRINGS

Concept block	Example search string
Core DEI	diversity OR equity OR inclusion OR accessibility AND university/academic librar* AND Nigeria
Disability and AT	assistive technolog* OR disability OR visual impairment OR special needs AND academic librar* AND Nigeria
Digital inclusion	digital inclusion OR accessible website OR digital collection OR electronic resources AND university librar* AND Nigeria
Collections/culture/workforce	inclusive collection OR multicultural OR language OR gender OR ethnicity OR religion OR workforce diversity AND librar* AND Nigeria

Searches were conducted up to March 2025 using Google Scholar-indexed records, African Journals Online, African journal platforms, IFLA Repository, institutional repositories, Library Philosophy and Practice, direct journal platforms and reference lists. Searches were also designed for Scopus, Web of Science, ERIC and LISTA. The search log contained 64 records; 12 duplicates were removed, 52 titles and abstracts were screened, 22 full texts were assessed and 20 reports were included.

Empirical studies were appraised using criteria adapted from the Mixed Methods Appraisal Tool (Hong et al., 2018) and current JBI guidance (Barker et al., 2024). The domains assessed were clarity of research question, design and sampling, measurement/data collection, analysis, and reporting of limitations. Quality informed weighting of evidence rather than exclusion.

7. RESULTS

7.1 OVERVIEW OF EVIDENCE

The 20 included reports were published between 2016 and 2025. Publication activity increased sharply in 2025, reflecting rising attention to assistive technologies, inclusive digital services and explicit DEI terminology. Federal universities dominated the samples, although some studies included state and private institutions. The South-West was most frequently represented, followed by multi-regional/national evidence and the South-East; fewer reports

focused exclusively on the North-East or North-West. Seventeen reports were empirical, mainly descriptive surveys and mixed-method studies; three were conceptual or narrative reports. No randomised, controlled before-and-after or interrupted time-series evaluation was identified.

TABLE 3
INCLUDED EVIDENCE BASE AND PRINCIPAL FINDINGS

Study	Setting/design	Focus	Principal finding/confidence
Ezeani et al. (2017)	Six federal universities; qualitative interviews/focus groups	Special sections, services, AT and accessible facilities	Only one library had a dedicated special-needs section; AT and lifts were major gaps. Moderate.
Ambali et al. (2018)	University of Ilorin and FCE (Special), Oyo; survey/observation/interview	Resources, services and accessibility for users with disabilities	Specialist college was more accessible than the university. Lower.
Ijadunola et al. (2019)	Obafemi Awolowo University; cross-sectional assessment	Assistive facilities and conducive environment	Availability/awareness were incomplete and the environment constrained participation. Moderate.
Adekoya (2020)	17 public universities, South-West; survey of 236 librarians	Funding for disability-inclusive resources/facilities	Funding strongly shaped availability of relevant resources and facilities. Moderate.
Williams-Ilemobola & Unegbu (2021)	Federal universities, South-West; survey	Services and satisfaction among physically challenged students	Awareness existed, but stairs, outdated materials and weak compatible tools reduced satisfaction. Moderate.
Williams-Ilemobola et al. (2021)	Federal universities, South-West; survey of 302 students with disabilities	Self-concept and use of library services	Positive self-concept was associated with use of user education and consultancy services. Moderate.
Inazu et al. (2021)	Nigeria; conceptual review	Workforce diversity management	Advocated inclusive policies, teamwork and anti-discrimination practice; no outcome test. Contextual.
Horsfall & Opara (2023)	20 university libraries; survey of 40 librarians	Resources for visually impaired students	Accessible-format resources were largely unavailable; funding, power and outdated resources were barriers. Moderate.
Alabi & Okiki (2023)	Four public universities; survey of 151 visually disabled students	AT preferences and procurement	Students had clear software/hardware preferences and prioritised consultation before procurement. Higher.
Igbinovia & Aiyebilehin (2023)	Nigeria; conceptual analysis	Libraries as facilitators of digital inclusion	Highlighted acceptance, digital literacy and accessibility; no direct outcome evaluation. Contextual.
Nwobi & Echedom (2024)	Federal university libraries, South-East; descriptive survey	Information resources/services for persons with disabilities	Provision was limited and inconsistent across disability categories. Moderate.
Nse & Iwuchukwu (2024)	Nigerian university libraries; conference/narrative analysis	Inclusive service provision for diverse users	Identified policy, collection, technology and staff-development needs. Contextual.
Okafor & Omorinkoba (2025)	Four South-West academic libraries; mixed methods	Digital inclusiveness and accessibility	General AT was stronger than support for deaf, hearing-impaired and mobility-impaired users. Moderate.
Oméluzor & Ojukwu (2025)	Selected university libraries; survey	Availability/deployment of AT for visually impaired students	Availability and deployment were low; infrastructure and capacity constrained use. Moderate.
Sunday et al. (2025)	North-East university libraries; survey	Inclusive technologies and learning outcomes	Positive perceived learning effects occurred where

			technologies were available, but causal inference was limited. Moderate.
Elewode & Alarape (2025)	Osun State university libraries; survey of 93 librarians/officers	Digital collections for equity and inclusion	Digital collections were viewed as inclusion mechanisms; infrastructure and skills affected reach. Moderate.
Suleiman & Hayatu (2025)	North-West university libraries; checklist-based survey	Resources for users with special needs	Provision did not adequately align with IFLA checklist expectations. Moderate.
Yakubu & Muhammed (2025)	Bayero University Kano Library; mixed methods/observation	AT accessibility and utilisation	Existing tools were constrained by malfunction, obsolescence and dependence on assistance. Lower.
Udonte (2025)	Four federal universities, South-South; mixed methods	AT utilisation and information access	Functional AT supported independence, but power, funding and staff attitude were barriers. Moderate.
Abdullahi et al. (2025)	Academic libraries, Jigawa State; survey of 43 participants	AT condition, accessibility and information access	Functionality of AT, more than mere accessibility, was associated with information access. Moderate.

7.2QUALITY AND STRENGTH OF EVIDENCE

The evidence base is useful for identifying needs and implementation barriers but weak for causal evaluation. One empirical study was judged higher confidence, thirteen moderate and three lower confidence; and the three conceptual reports were classified as contextual. Common strengths of the studies included in the review were clear objectives, direct engagement with target users and multi-institutional coverage in several studies. Common weaknesses were non-probability sampling, self-report data, limited instrument validation, small specialist populations, incomplete reporting of missing data and absence of robust comparison groups.

TABLE 4
SUMMARY OF METHODOLOGICAL QUALITY

Domain	Overall judgement	Interpretation
Clear questions/relevance	Usually met	Most studies had practical objectives tied to disability, accessibility or information access.
Sampling/representativeness	Partly met	Multi-university coverage occurred, but purposive samples and small specialist populations were common.
Measurement/data collection	Partly met	Questionnaires, interviews and observation were used; validated outcome measures were uncommon.
Analysis/causal inference	Weak	The evidence was mainly descriptive, cross-sectional and self-reported; no robust comparator or longitudinal evaluation was found.
Reporting/reflexivity	Variable	Methods and findings were usually reported, but missing data, limitations and fidelity were not always detailed.
Overall confidence	Low to moderate	Evidence supports needs and implementation conclusions more strongly than causal effectiveness claims.

7.3 DEI INITIATIVE TYPES AND OUTCOMES

Disability inclusion and assistive technology dominated the evidence. Sixteen of the 20 reports addressed disability-related access; 11 addressed accessible collections; 10 considered physical access; 9 addressed digital inclusion; and only two substantially considered workforce diversity or gender/ethnicity/language dimensions. The imbalance shows that DEI in Nigerian university-library research is often treated as disability accommodation rather than as a comprehensive agenda covering representation, culture, language, religion and socioeconomic equity.

TABLE 5
MAIN INITIATIVE CATEGORIES AND EVIDENCE STATUS

Initiative category	Examples	Evidence status
Assistive technology	Screen readers, magnifiers, Braille keyboards/embossers, scanners, text-to-speech and audio resources.	Most studied domain; effectiveness depends on functionality, fit, maintenance and staff/user competence.
Accessible resources	Braille, large-print, audio, accessible e-books	Repeated severe gaps, especially for

	and alternative-format journals.	current Braille and specialised materials.
Physical accessibility	Ramps, lifts, accessible workstations, layout, signage and toilets.	Staircases and lack of lifts restricted independent use in several institutions.
Digital inclusion	Internet access, databases, digital collections, web interfaces, remote services and ICT training.	Potentially valuable, but constrained by power, device access, data cost, interoperability, skills and inaccessible design.
User education/support	Orientation, consultation, peer support and on-the-ground librarian assistance.	Associated with higher utilisation when tailored; otherwise often reactive and dependent on individual staff.
Inclusive collections/workforce	Representative content, local language resources, inclusive recruitment, teamwork and anti-discrimination practice.	Emerging and under-evaluated; evidence is mainly conceptual rather than outcome-based.
Policy/governance	Disability units, checklists, standards, procurement rules, budgets and reporting.	Often absent or fragmented; needs indicators, responsible officers and enforcement.

Improved access to information was the most consistent positive finding, but “improvement” meant different things across studies: some measured equipment availability, some measured preferences or use, and fewer addressed independence or learning support. Udonde (2025) reported that functional assistive technologies supported visually impaired students’ independence, while Sunday et al. (2025) linked inclusive technologies with perceived learning support. Alabi and Okiki (2023) provided stronger actionable evidence by showing that visually disabled students had specific technology preferences and prioritised consultation before procurement. Abdullahi et al. (2025) and Yakubu and Muhammed (2025) further demonstrate that equipment counts are poor indicators of access when devices are outdated, broken, incompatible or unsupported.

TABLE 6.
OUTCOME-LEVEL ASSESSMENT OF EFFECTIVENESS

Outcome area	Review judgement	Evidence basis
Resource availability	Mixed; equipment and accessible formats exist in selected institutions but remain uneven.	Descriptive inventories/surveys
Independent information access	Promising where AT is functional and supported.	Qualitative and mixed-method evidence
Service utilisation and satisfaction	Moderate but inconsistent; higher where services are relevant, discoverable and accessible.	Cross-sectional self-report
Academic engagement/learning	Promising but uncertain; mainly perceived learning support, not measured attainment.	No controlled or longitudinal evidence
Representation/belonging	Insufficient direct measurement.	Mostly conceptual discussion
Staff diversity/climate	No evaluated Nigerian university-library intervention identified.	Evidence gap
Long-term outcomes	Retention, completion, research productivity and institutional trust rarely measured.	Evidence gap

8.0 DISCUSSION

The review indicates that diversity, equity and inclusion practice in Nigerian university libraries is gradually moving from the invisibility of marginalised users towards a more explicit recognition of their information needs, service barriers and assistive-technology requirements, although the evidence also shows that many institutions are still operating at an early stage of DEI maturity, where attention is often directed towards compliance, symbolic provision and individual accommodation rather than towards sustained, measurable and system-wide improvement in user outcomes. Ezeani et al. (2017), Ijadunola et. al. (2019) and Horsfall and Opara (2023). This pattern is particularly visible in disability-related library services, where studies have reported some progress in awareness, specialist support and assistive-resource provision, but have also shown that students with disabilities continue to face serious restrictions arising from inadequate assistive technologies, inaccessible buildings, weak digital-resource accessibility, insufficient alternative-format materials and limited staff support.

A central implication of the reviewed evidence is that the presence of a resource should not be mistaken for effective access, because an assistive device, database, digital collection or specialised facility can be formally available while remaining practically unusable when it is obsolete, malfunctioning, locked away, incompatible with current software, unsupported by trained staff, poorly publicised to intended users or dependent on unreliable electricity and internet connectivity. In this sense, inclusive library service should be assessed not by inventory counts alone, but by whether users can independently discover, reach, operate and benefit from the resources in their actual study context, since accessibility requires usability, affordability, functionality, technical support and fit with the user’s goals and capabilities (Alabi & Okiki, 2023; de Witte et al., 2018; ISO, 2019).

Co-design therefore emerges as one of the strongest practical mechanisms for improving DEI implementation in Nigerian university libraries, because consultation with intended users enables library managers to identify the

technologies, formats, service channels and environmental adjustments that correspond to real academic practices rather than administrative assumptions. Evidence from Nigerian academic libraries shows that visually disabled students have clear preferences for particular screen readers, magnification tools, scanners and Braille-related devices, and that involving them before procurement can reduce wastage, improve technology-user fit and shift inclusion away from a charitable model of provision towards a rights-based model of participation, dignity and institutional accountability (Alabi & Okiki, 2023; de Witte et al., 2018).

Also, funding remains a major constraint, but the deeper problem is not simply the absence of money for acquisition; rather, it is the tendency to treat inclusion as a one-time purchase instead of a continuing service system that requires maintenance, replacement cycles, software updates, user orientation, staff training, backup power, interoperability checks, accessible documentation and periodic evaluation. For this reason, de Witte et al. (2018), Horsfall and Opara (2023) and Udonde (2025) emphasise that lifecycle costing is a stronger equity measure than procurement expenditure alone, because a library that buys assistive technologies without budgeting for repair, user support and renewal may create the appearance of inclusion while leaving marginalised users with equipment that cannot reliably support learning, research or independent information access.

The Nigerian pattern aligns with international literature in one major respect that DEI programmes often develop faster than their evaluation. International reviews similarly find that academic-library diversity initiatives frequently rely on participation counts, statements of commitment and perception data rather than robust outcomes (Ely, 2021; Kung et al., 2020). The Nigerian context differs because the literature focuses more heavily on disability access and material infrastructure, whereas international work gives more attention to staff diversity, organisational climate, race, collection representation and inclusive leadership (Kang et al., 2025; Liu et al., 2024). The absence of strong Nigerian evidence on ethnic, linguistic, gender and religious inclusion should not be treated as proof that barriers are absent. It more likely indicates under-measurement.

Therefore, Universal design offers a practical bridge between global frameworks and Nigerian realities. Low-bandwidth access, offline options, keyboard navigation, structured documents, captions, plain-language service guides, accessible authentication and multiple communication channels may produce greater inclusion than expensive technologies that cannot be maintained. However, universal design should complement, not replace, targeted accommodation. Some users will still require specialist assistive technologies, individual support and formal adjustments.

9. BARRIERS, MATURITY AND STRATEGIC FRAMEWORK

TABLE 7
RECURRENT BARRIERS AND CORRECTIVE STRATEGIES

Barrier	How it undermines implementation	Corrective direction
Funding constraints	Insufficient recurrent budgets for accessible resources, licences, maintenance and replacement.	Adopt multi-year accessibility budget lines and lifecycle costing.
Policy/accountability gaps	No explicit standards, responsible officers, indicators or enforcement.	Create university-wide accessibility policy with annual reporting.
Inaccessible infrastructure	Stairs, missing lifts/ramps, unsuitable workstations and poor signage.	Conduct access audits and apply universal-design requirements to renovations.
Technological barriers	Weak power/connectivity, obsolete or malfunctioning AT and incompatible platforms.	Specify interoperability, maintenance contracts, backup power and refresh cycles.
Staff capacity deficits	Limited competence in AT, accessible documents, disability etiquette and inclusive instruction.	Mandate role-specific training, practice sessions and competency assessment.
Limited awareness/skills	Users may not know services exist or may depend on others to operate them.	Provide accessible orientation, peer mentoring and continuous digital-skills support.
Collection gaps	Few current Braille, audio, large-print and accessible electronic resources.	Set acquisition targets, conversion workflows and interlibrary partnerships.
Cultural resistance	Disability framed as charity; DEI treated as peripheral.	Use rights-based leadership communication and embed inclusion in performance expectations.
Weak assessment	No disaggregated data, baselines or outcome tracking.	Use privacy-conscious dashboards, user-experience surveys and external audits.

9.1 PROPOSED DEI MATURITY MODEL

On the basis of the evidence, DEI maturity can be described across four levels. Reactive libraries respond case by case; emerging libraries acquire selected assistive resources but lack integration; established libraries embed accessibility in procurement, staff development and service standards; transformative libraries institutionalise shared governance, public reporting and continuous redesign.

TABLE 8.
PROPOSED DEI MATURITY MODEL

Level	Characteristics	Priority action
1. Reactive	Case-by-case response, dependence on individual staff and little documentation.	Count requests/unresolved barriers and establish focal responsibility.
2. Emerging	Selected AT or specialist projects, but fragmented policy and weak assessment.	Conduct baseline audit, create dedicated budget, advisory group and training plan.
3. Established	DEI embedded in procurement, services, HR and digital standards.	Use outcome dashboard, annual audit and accessible-by-default workflows.
4. Transformative	Shared governance, disaggregated outcomes, continuous redesign and sector leadership.	Adopt equity impact assessment, research partnerships and public accountability.

9.2 IMPLICATIONS FOR LIBRARY PRACTICE, POLICY DEVELOPMENT, LIS EDUCATION AND TRAINING, AND RESEARCH

Library practice needs to shift away from fragmented provision of assistive equipment toward a fully integrated accessible service chain in which every stage of service delivery is deliberately aligned with inclusion goals. This requires that needs assessment, specification, procurement, installation, user training, discovery mechanisms, maintenance routines, technical support and post-implementation evaluation are designed as interconnected components rather than isolated activities, since breakdown in any single stage can compromise the usability of the entire system. In addition, major digital or infrastructural projects should routinely undergo accessibility impact assessments before approval, while service metrics should move beyond simple counts of resources to include differentiated indicators such as availability, functional reliability, unique users served, successful task completion rates, user satisfaction levels and unresolved accessibility barriers. A further practical implication is the need for multi-channel service delivery, ensuring that users can access the same service through in-person assistance, telephone support, low-bandwidth digital platforms and asynchronous communication channels, thereby reducing exclusion arising from infrastructure or digital literacy constraints.

These operational shifts require corresponding changes in institutional policy frameworks, which should translate national disability rights legislation and quality assurance expectations into enforceable local standards that guide everyday library governance. Such policies need to clearly define their scope, minimum service requirements, responsible officers, complaint and redress mechanisms, procurement standards, data protection obligations, staff training requirements and annual reporting structures, while extending coverage beyond students to include staff and visitors in recognition of the library as a public academic space. At the same time, broader DEI provisions should be embedded within policy instruments, including non-discrimination clauses, requirements for representative and inclusive collections, equitable recruitment practices and multilingual communication strategies where contextually appropriate, with compliance monitored through formal governance structures rather than being left solely to library discretion.

These institutional expectations also have direct implications for library and information science education and professional development, where curricula and training programmes must strengthen coverage of accessible document design, assistive technologies, universal design principles, disability etiquette, culturally responsive service delivery, equity assessment frameworks and participatory research approaches. Critical perspectives on inclusion should be integrated into core modules rather than treated as optional content, ensuring that future professionals develop a baseline competence in inclusive practice (Gibson et al., 2018). This requires a stronger emphasis on applied learning, where staff are trained to demonstrate competence in practical tasks such as testing documents with screen readers, structuring digital content with proper headings, captioning multimedia resources, identifying accessibility failures in databases and making appropriate referrals when specialist support is required.

From a research perspective, the evidence base should move beyond descriptive studies of resource availability toward theory-informed and methodologically rigorous evaluations that are capable of explaining not only whether interventions work but also how and under what conditions they are effective. Stronger designs such as repeated measures before and after implementation, matched comparisons between libraries, phased roll-out evaluations, interrupted time series analysis, realist evaluation and mixed-method process evaluations are particularly appropriate for capturing both outcomes and implementation dynamics. Future studies should also prioritise a broader set of outcome indicators, including task completion, independent use, user satisfaction, sense of belonging, academic engagement and retention, while also incorporating cost analysis and sustainability assessment to support long-term planning. Equally important is the need for transparent reporting of institutional context, implementation fidelity, equipment functionality and subgroup differences, since these factors determine whether findings can be meaningfully interpreted, replicated and transferred across different library environments.

9.3 BEST PRACTICES AND STRATEGIC FRAMEWORK FOR DEI ADVANCEMENT

Best practice for DEI advancement in university libraries should begin with co-design, where users from affected groups are involved from the earliest needs-assessment stage through specification, testing, implementation and evaluation, because services that are designed without user participation often reflect administrative assumptions rather than lived barriers. This participatory approach should guide the development of buildings, websites, databases, documents, equipment and service workflows, ensuring that accessibility is not treated as an afterthought but as a default requirement embedded in procurement and planning processes. In practical terms, Harwell et al., (2024) emphasise that procurement specifications should require accessibility conformance for

digital platforms, compatibility with assistive technologies, readable and navigable documents, inclusive physical access and evidence of vendor accountability before contracts are approved or renewed.

Beyond acquisition, DEI implementation requires lifecycle budgeting that covers maintenance, software updates, replacement, staff training, technical support and backup power, since assistive technologies and accessible systems quickly lose value when they are unavailable, outdated, unsupported or non-functional. Libraries should also provide multiple formats and service channels so that users are not forced to depend on one technology, one physical route or one communication mode, especially in contexts where electricity, internet access, device ownership and digital competence are uneven. This means that accessible online services should be complemented by in-person support, telephone assistance, low-bandwidth platforms, alternative-format materials and asynchronous service options that allow users to access information in ways that match their abilities and circumstances (Centre for Excellence in Universal Design, 2020; Longmeier & Foster, 2022).

Staff development should also be role-specific, practical and continuously assessed, because DEI competence cannot be built through awareness training alone. Library staff need demonstrable skills in accessible document creation, assistive-technology support, inclusive reference services, accessible cataloguing, database accessibility checking, disability etiquette and referral procedures, while technical staff, procurement officers and administrators require deeper competence in accessibility standards, vendor evaluation and compliance monitoring. At the same time, collections should be both representative and accessible, combining alternative formats with locally relevant knowledge, inclusive subject coverage and materials that reflect diverse identities, languages, disciplines and community experiences (Longmeier & Foster, 2022; W3C, 2024).

A sustainable strategic framework should therefore combine participatory planning, accessible-by-default procurement, lifecycle financing, multi-channel service delivery, staff competency development, inclusive collections, disaggregated monitoring and formal interdepartmental collaboration. Monitoring should move beyond counting resources to measuring reach, successful use, satisfaction, unresolved barriers and educational outcomes, with data disaggregated by relevant user characteristics so that average improvement does not conceal persistent inequity. Finally, Harwell et al. (2024) and Longmeier and Foster (2022) report that formal collaboration among libraries, disability-support units, ICT departments, students, vendors and regulators should be institutionalised because DEI is not only a library service issue but a governance issue requiring shared responsibility, technical expertise and continuous accountability.

9.4 ACCESS-DEI FRAMEWORK

The ACCESS-DEI framework translates the review findings into six mutually reinforcing dimensions of Accountability and policy; Co-design with users; Capacity and culture; Equitable collections and services; Systems, spaces and technology; and Sustained assessment and improvement. The model is cyclical because assessment should lead to redesign rather than serve only as retrospective reporting.

TABLE 9.
ACCESS-DEI IMPLEMENTATION FRAMEWORK

Dimension	Core actions	Illustrative indicators
Accountability and policy	Institution-wide DEI/accessibility policy, named officers, complaint and remedy process.	Approved policy; annual budget; actions completed; complaint resolution time.
Co-design with users	Recognised user advisory group; user involvement in procurement, testing and evaluation.	Diversity of participants; procurements user-tested; feedback-to-action rate.
Capacity and culture	Staff training in inclusive service and technical skills; DEI in induction and appraisal.	Training completion; competency pass rate; user-rated staff support.
Equitable collections/services	Targets for alternative formats and representative content; multiple service channels.	Priority texts accessible; conversion turnaround; usage and satisfaction by group.
Systems, spaces and technology	Accessible buildings, websites, authentication, repositories, workstations and backup power.	Audit score; uptime; functional AT rate; WCAG conformance evidence.
Sustained assessment/improvement	Baseline and annual audits, disaggregated dashboards, public reporting and redesign cycles.	Published report; unresolved barriers; outcome trends; completed improvement cycles.

TABLE 10.
SUGGESTED IMPLEMENTATION SEQUENCE

Time horizon	Priority activities
0-6 months	Appoint governance lead; map users and barriers; complete baseline audit; repair critical equipment; publish service map.
6-18 months	Approve policy and budget; establish user advisory group; revise procurement; train staff; convert high-demand resources.

18-36 months	Integrate indicators into quality assurance; expand inclusive collections; benchmark across universities; evaluate outcomes.
Beyond 36 months	Move toward transformative maturity through shared governance, public reporting, research partnerships and sector-wide standards.

10.0 CONCLUSION

This review synthesised 20 reports on DEI-related practice in Nigerian university libraries. The evidence shows growing activity in disability services, assistive technology, accessible resources, digital inclusion and user support. Some initiatives improve independence, access, utilisation and perceived learning, particularly when resources are functional, relevant and supported. Nevertheless, provision is inconsistent, and strong effectiveness evidence is absent. Funding, inaccessible infrastructure, unreliable technology, limited collections, staff-capacity gaps, weak policy and poor assessment repeatedly restrict implementation. Research on gender, ethnicity, language, religion, socioeconomic equity and workforce diversity remains notably sparse.

11.0 CONTRIBUTION TO KNOWLEDGE

The review contributes by integrating evidence that is dispersed across disability, technology, funding, service-use and workforce literatures; separating implementation indicators from effectiveness outcomes; proposing a four-level DEI maturity model; and introducing the ACCESS-DEI framework. It also clarifies that acquisition is not equivalent to accessibility and that accessibility is not equivalent to educational impact. This distinction should improve both institutional reporting and future research. The future of DEI in Nigerian university libraries will depend less on isolated declarations and more on routine institutional systems. Inclusion must be designed into buildings, contracts, digital platforms, documents, staff roles and evaluation. The most credible pathway is rights-based, user-centred and evidence-driven. Libraries cannot remove every inequality within higher education, but they can ensure that information systems do not create avoidable barriers and that their resources actively support equitable participation.

12.0 RECOMMENDATIONS

The evidence derived from the review led to the following recommendations:

1. Library administrators should conduct annual accessibility and DEI audits covering spaces, systems, collections, services and organisational culture on a regular basis.
2. There is also the need for the creation of a user advisory mechanism by the library management with representation from multiple disability and demographic groups.
3. Functional availability and successful use of equipment or resources should be monitored.
4. Library management should develop inclusive collection plans that address alternative formats, local languages and under-represented perspectives.
5. University management must ensure the provision of protected multi-year budgets for accessibility, including maintenance and replacement.
6. The university management should coordinate the library, ICT, works, procurement, disability support, student affairs and quality assurance units.
7. Inclusion of DEI performance in strategic plans and senior managers' accountability should be done regularly by the university authorities.
8. Government and regulatory bodies should be able to define measurable minimum accessibility standards for university libraries and include them in accreditation and quality review.
9. Government should support pooled procurement, shared accessible-format repositories and national training programmes.
10. Development of competency standards and continuing professional development in accessible and inclusive librarianship should be given adequate attention by professional associations.

13.0 LIMITATIONS OF THE REVIEW

The review is limited by the underlying evidence in that most studies were cross-sectional, relied on self-report and examined a small number of institutions. Publication bias is possible because successful initiatives may be more likely to be reported, although the large number of studies documenting deficits reduces the likelihood that the synthesis is uniformly optimistic. The search prioritised traceable and downloadable online sources, hence studies that are not in the online space would have been excluded. Also, some Nigerian journals have unstable websites, incomplete metadata or inconsistent publication dates, relevant institutional reports and may not be indexed. Subscription databases were represented through reproducible search strings but were not independently exported, so the review should not be treated as a definitive census of every publication. English-language restriction may have excluded local-language materials, although English dominates Nigerian university-library scholarship.

The broad DEI scope created conceptual heterogeneity because disability accessibility generated most of the empirical evidence, while other dimensions were represented by few reports. The review therefore avoids a single pooled estimate and does not claim equivalence between all initiatives. Quality appraisal was completed by one reviewer and rechecked against a structured form, rather than independently duplicated, which introduces the possibility of judgement error.

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