



ASSISTIVE TECHNOLOGY ADOPTION IN NIGERIAN PUBLIC UNIVERSITIES: A QUALITATIVE THEMATIC REVIEW OF INFRASTRUCTURAL, SOCIO- PEDAGOGICAL, ECONOMIC AND INSTITUTIONAL BARRIERS

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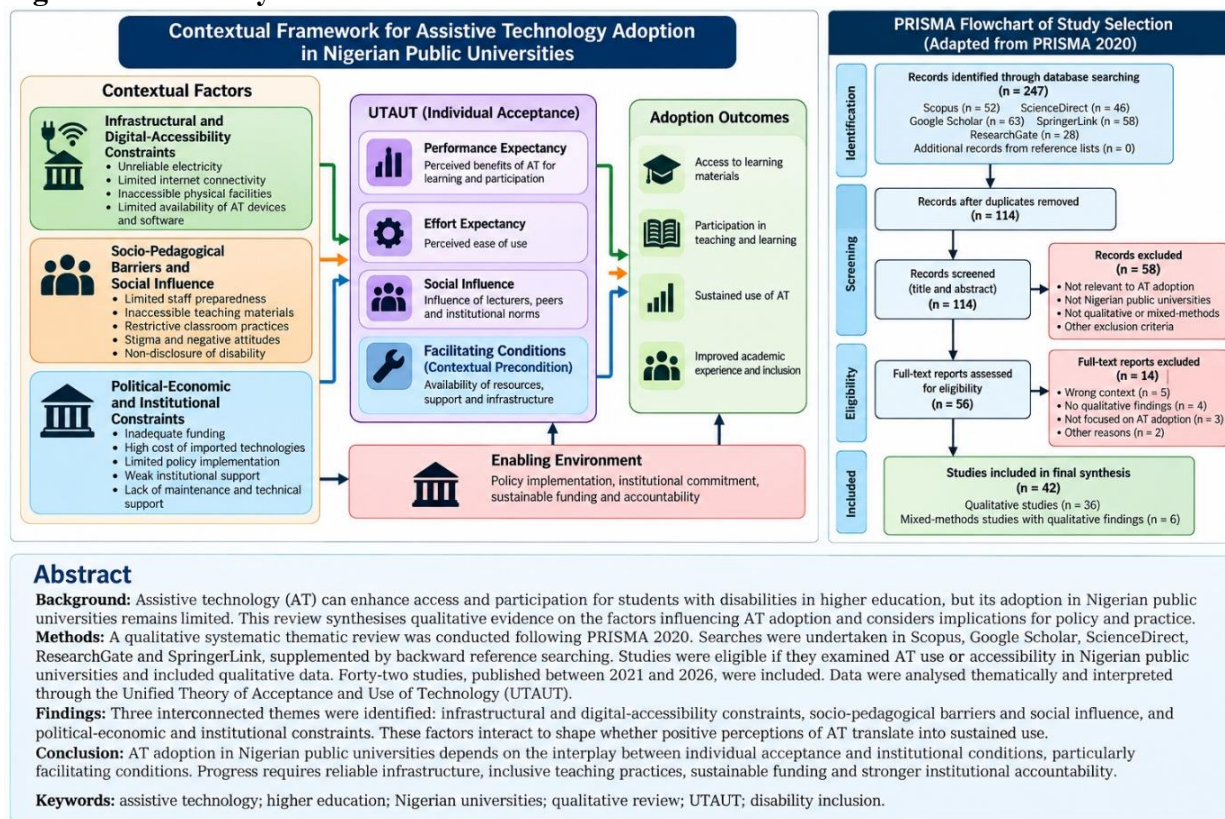
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ABSTRACT

Assistive technology (AT) is programmed to improve access, participation, and academic engagement for students with disabilities, yet its adoption in Nigerian public universities remains constrained by interconnected structural, institutional, and socio-cultural barriers. This study synthesises qualitative evidence on factors influencing AT adoption and identifies priorities for more inclusive implementation. A qualitative systematic thematic review was conducted using literature published between January 2021 and September 2026. Searches covered Scopus, Google Scholar, ScienceDirect, ResearchGate, and SpringerLink, supplemented by backward reference searching. Following screening and eligibility assessment, 42 studies were included. Data were synthesised thematically and interpreted through the Unified Theory of Acceptance and Use of Technology (UTAUT). Three themes emerged: infrastructural and digital-accessibility constraints; socio-pedagogical barriers and social influence; and political-economic and institutional constraints. The findings indicate that favourable perceptions of AT alone are insufficient to ensure sustained adoption when electricity, connectivity, affordability, staff preparedness, accessible teaching practices, and institutional support are inadequate. The review offers a contextual interpretation of UTAUT that highlights facilitating conditions as critical to translating acceptance into use. Sustainable adoption requires coordinated investment in accessible infrastructure, staff capacity, funding, institutional accountability, and disability-inclusive decision-making.

Keywords: Assistive technology; students with disabilities; Nigerian public universities; technology adoption; UTAUT; inclusive higher education.

Figure 1: The study at a Glance



Source: Authors' Construct based on the reviewed studies and processes (2026).

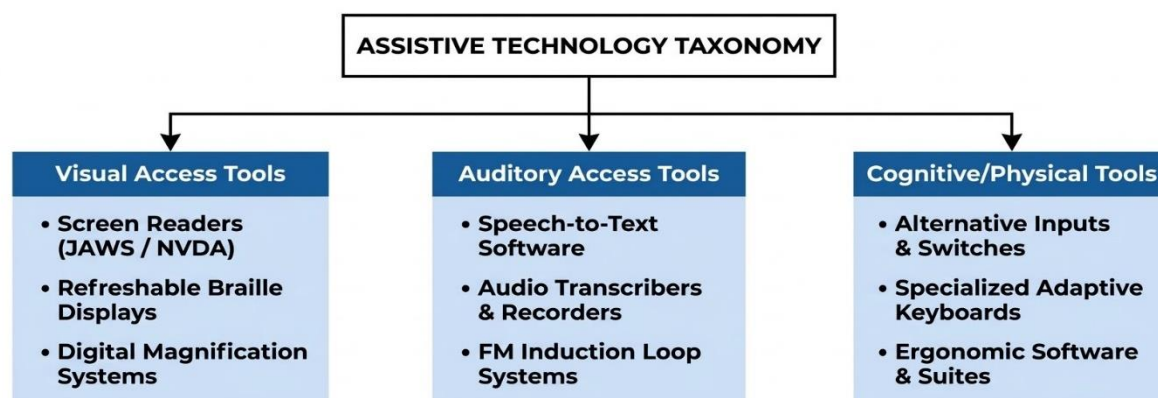
Introduction

Inclusive higher education has increasingly become a global policy and human-rights priority, reflected in Sustainable Development Goal 4, which calls for equitable and inclusive quality education for all (United Nations, 2015). However, expanding access to higher education has not necessarily produced equivalent participation for students with disabilities (SwDs). Across Sub-Saharan Africa, universities continue to experience limitations in accessible infrastructure, institutional support, and digital learning environments, which can restrict students' participation and educational experiences (Chiwandire & Vincent, 2021; Adelakun & Adesua, 2026^b; Brown et al., 2026; Munjanja & Hendricks, 2025). The growth of hybrid and digitally mediated learning has further shifted inclusion from a predominantly physical-accessibility concern to one that also involves digital accessibility and technology-enabled participation (Kuerban et al., 2022; Adelakun et al., 2026^a; Kpum & Gasa, 2026; Menyechi & Wike, 2025; Ofem et al., 2026; Lawal, 2026). In Nigeria, these challenges persist despite a stronger legislative commitment to disability inclusion. The Discrimination Against Persons with Disabilities (Prohibition) Act provides a national basis for protecting the rights and participation of persons with disabilities, yet implementation within public universities remains uneven (Federal Republic of Nigeria, 2018; Longe, 2025; Azenabor, 2022).



Limited institutional capacity, funding constraints, and weaknesses in accessibility provision can therefore widen the gap between policy commitments and students' experiences (Adesua & Adelakun, 2024; Awoniyi et al., 2025; Epelle & Asiegbu, 2025; Chukwudi et al., 2025). The operational autonomy of state and federal universities, coupled with chronic underfunding from the Tertiary Education Trust Fund (TETFund), has resulted in a fragmented, ad hoc approach to accessibility (Nwodo & Amucheazi, 2024; Epelle & Asiegbu, 2025; Chukwudi et al., 2025). While national laws champion complete integration, institutional frameworks within universities lack operational guidelines, internal enforcement mechanisms, or dedicated accountability offices (Ogunode et al., 2023; Ilegar & Wilson-Uade, 2026). This divergence between progressive legislative rhetoric and stagnated institutional execution creates a paralysing environment for SwDs. They are trapped in a system that acknowledges their rights on paper but denies them the operational tools necessary to claim those rights in the classroom (Olaogun et al., 2025; Onireti, 2026). Also, to bridge the implementation gap, Assistive Technology (AT) emerges not merely as a supplementary educational aid, but as a critical cognitive and physical equaliser. Within contemporary educational discourse, AT is defined as an umbrella term encompassing any item, piece of equipment, software program, or product system used to increase, maintain, or improve the functional capabilities of persons with disabilities (WIPO, 2021; Phillips et al., 2024). In a university environment, this technological spectrum spans a complex taxonomy categorised by functional application as displayed in Figure 2 below:

Figure 2



Source: Authors' Conceptualisation based on reviewed studies (2026).

Assistive technology (AT), such as screen readers, Braille technologies, speech-to-text applications, captioning systems, and alternative input devices, can improve access to information, communication, and learning. However, availability alone does not guarantee adoption or sustained use. Evidence points to interacting barriers involving infrastructure, affordability, digital competence, institutional support, and the accessibility of learning environments (Ekanemesang et al., 2025; Ijadunola et al., 2021; Yakubu & Muhammed, 2025). For students with visual impairments, screen-reading software like Job Access with Speech (JAWS) or NonVisual Desktop Access (NVDA), alongside hardware like refreshable Braille displays, transforms digital text into acoustic or tactile data (Zaid et al., 2024; Foundation for Investigative Journalism, 2026; Yakubu & Muhammed, 2025; Talunga, 2025). For deaf and



hard-of-hearing students, real-time speech-to-text software, automated captioning tools, and FM induction loop systems convert oral lectures into accessible text (Hammad, 2025). For students with orthopaedic or motor-function impairments, specialised alternative input devices, voice-recognition systems, and ergonomic software clear the physical hurdles of traditional computing. When systematically integrated, these technologies decouple academic capability from physical or sensory limitations, shifting the educational paradigm from an oppressive model of disability to an empowering model of human functional diversity.

The Unified Theory of Acceptance and Use of Technology (UTAUT) explains technology adoption through performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). While useful for understanding individual acceptance, its conventional emphasis may provide an incomplete account of AT adoption where electricity, connectivity, institutional provision, affordability, and accessibility infrastructure constrain actual use. The Nigerian context therefore requires closer examination of how individual acceptance interacts with structural and institutional conditions. This study addresses this gap through a qualitative thematic review of literature on AT adoption in Nigerian public universities. It asks: (1) What structural, socio-cultural, and political-economic factors influence or constrain AT adoption in Nigerian public universities? (2) How can UTAUT be contextualised to inform a sustainable, multi-stakeholder approach to AT adoption in Nigerian higher education?

Assistive Technology in Higher Education

Assistive technology (AT) refers to technologies and related systems that support participation and functioning among people with disabilities. In higher education, these technologies can reduce barriers to accessing learning materials, communication, assessment, and classroom interaction. Examples include screen readers and Braille displays for students with visual impairments, speech-to-text and captioning systems for students who are deaf or hard of hearing, and alternative input and voice-recognition technologies for students with motor impairments (Zaid et al., 2024; Hammad, 2025; Yakubu & Muhammed, 2025). The educational value of AT, however, depends on more than the availability of devices or software. Its effective use requires appropriate digital skills, accessible learning environments, institutional support, reliable electricity and connectivity, and resources for procurement and maintenance (Ekanemesang et al., 2025; Ijadunola et al., 2021). AT adoption should therefore be understood as both an individual technology-acceptance process and an institutional process shaped by the conditions in which technologies are introduced and used. This distinction is particularly relevant to Nigerian public universities, where infrastructural and institutional constraints may affect the transition from technology availability to sustained use.

Unified Theory of Acceptance and Use of Technology

This study uses the Unified Theory of Acceptance and Use of Technology (UTAUT) as its principal theoretical lens. Developed by Venkatesh et al. (2003), UTAUT integrates major technology-acceptance perspectives through four core constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy (PE) concerns the extent to which users believe that a technology will improve their performance.



In the present context, it relates to perceptions of whether AT can improve students' access to learning, participation, and academic activities. Effort expectancy (EE) concerns the perceived ease of using the technology and is relevant to users' digital competence and the usability of AT interfaces. Social influence (SI) refers to the extent to which important others influence technology use; for AT, this may include peers, lecturers, university administrators, and broader attitudes towards disability and technology. Facilitating conditions (FC) concern the perceived availability of organisational and technical resources that support technology use (Venkatesh et al., 2003). In Nigerian universities, these conditions include electricity, connectivity, accessible infrastructure, institutional support, funding, and access to appropriate devices and software.

UTAUT provides a useful basis for analysing AT adoption because it connects individual perceptions with organisational conditions. Nevertheless, its application to resource-constrained higher education requires contextual interpretation. A user may recognise the benefits of AT and perceive it as easy to use, but sustained use may remain difficult when electricity, connectivity, institutional provision, or technical support are inadequate. Evidence concerning digital accessibility and AT provision in African and Nigerian higher education similarly points to the importance of institutional and infrastructural conditions alongside individual capabilities (Chiwandire & Vincent, 2021; Ijadunola et al., 2021; Munjanja & Hendricks, 2025). Hence, this review does not claim to empirically replace or validate the original UTAUT model. Rather, it uses the model to organise evidence and develops a contextualised interpretation of facilitating conditions. The synthesis suggests that, in resource-constrained university environments, facilitating conditions may operate as a critical contextual precondition that determines whether favourable perceptions of AT can translate into actual and sustained use. This interpretation also draws attention to the interaction between social influence and structural conditions: where AT requires visible workarounds or depends on poorly accessible environments, concerns about stigma and disclosure may further affect willingness to use it. The resulting theoretical position is therefore socio-technical rather than exclusively individualistic. AT adoption in Nigerian public universities is viewed as emerging from the interaction of individual acceptance (PE, EE and SI) with institutional and infrastructural conditions (FC). This provides the analytical basis for examining the structural, socio-cultural, economic, and institutional factors identified in the thematic synthesis without overstating the findings as a formal empirical extension or validation of UTAUT.

Methods

Research Design

This study employed a qualitative systematic thematic review to synthesise literature on factors influencing assistive technology (AT) adoption in Nigerian public universities. The review followed the general reporting principles of PRISMA 2020 to document study identification, screening, eligibility assessment, and inclusion (Page et al., 2021). The synthesis focused on qualitative evidence and accessible qualitative findings from mixed-methods studies concerning students with disabilities, lecturers, and university administrators.

Search Strategy and Information Sources



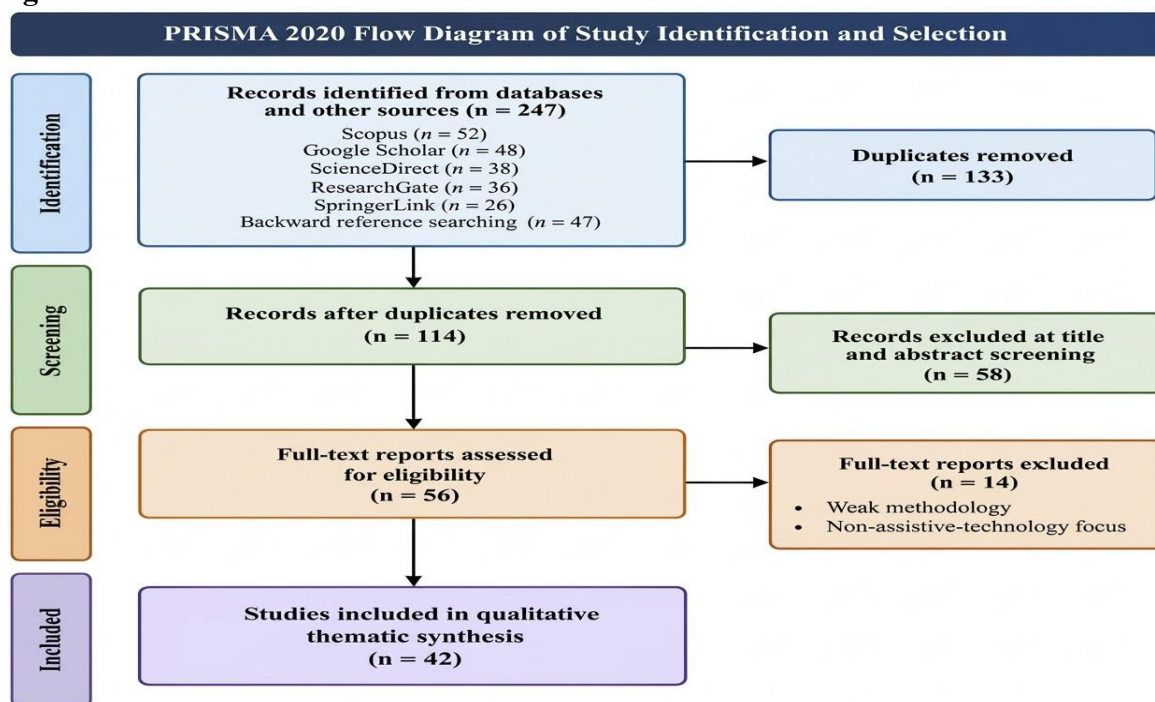
The review reports searches across Scopus, Google Scholar, ScienceDirect, ResearchGate, and SpringerLink, supplemented by backward reference searching. The search strategy combined terms relating to assistive technology, higher education, Nigeria, and adoption barriers. The search was intended to identify relevant literature published between January 2021 and September 2026. The reported search string was:

("assistive technology" OR "adaptive software" OR "inclusive tech") AND ("higher education" OR "universities" OR "tertiary institutions") AND ("Nigeria" OR "Nigerian public universities") AND ("barriers" OR "challenges" OR "factors" OR "inclusion").

Eligibility Criteria and Study Selection

Studies were eligible if they: (i) employed qualitative or mixed-methods designs with accessible qualitative findings; (ii) focused on federal or state public universities in Nigeria; (iii) examined AT use, accessibility, or related experiences among students with disabilities, lecturers, or administrators; and (iv) were published in English within the specified review period. Studies based exclusively in primary, secondary, or private tertiary institutions, as well as studies addressing general educational technology without a clear disability, accessibility, or AT focus, were excluded. The review reports that 247 records were initially identified. Following duplicate removal of 133, 114 records remained for title and abstract screening. Of these, 58 were excluded, leaving 56 reports for full-text assessment; 14 full-text reports were excluded for weak methodology or non-AT focus, and the final synthesis included 42 studies. The study selection process is presented in Figure 3 below:

Figure 3



Data Extraction and Quality Appraisal

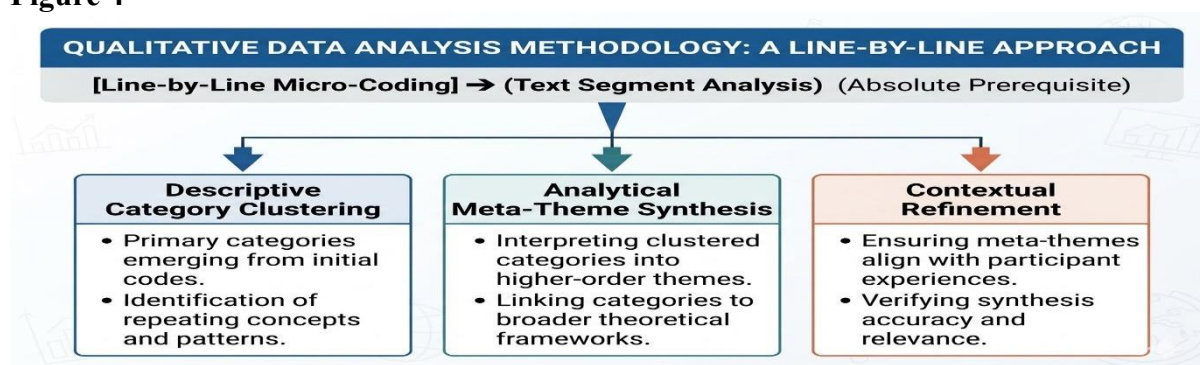


A structured extraction matrix was used to record authorship, publication year, institutional and geographical context, participant characteristics, disability categories, research design, qualitative methods, and principal findings. The methodological quality of the included qualitative studies was assessed using the Critical Appraisal Skills Programme (CASP) Qualitative Studies Checklist (CASP, 2018).

Thematic Synthesis

The extracted findings were examined through an iterative thematic process informed by Braun and Clarke (2022). The reported procedure involved coding relevant findings, grouping related codes into descriptive categories, and interpreting the resulting categories through the four UTAUT constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). The synthesis also considered relationships among infrastructure, institutional capacity, affordability, digital competence, and socio-cultural influences. The resulting themes were organised to explain how individual perceptions interact with the conditions governing AT availability and use in Nigerian public universities. The coding pipeline was structured into three systematic iterative loops as displayed in Figure 4 below:

Figure 4



From Figure 4 above, first, line-by-line coding was applied to the findings section of the selected literature to generate initial codes. Second, these codes were clustered into descriptive categories based on conceptual similarities. Third, these categories were mapped against the modified constructs of the UTAUT framework (*Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions*) to generate the final analytical meta-themes that form the body of this review.

Findings

The thematic synthesis of the 42 studies reported in this review identified three interconnected themes affecting assistive technology (AT) adoption in Nigerian public universities: infrastructural and digital-accessibility constraints; socio-pedagogical barriers and social influence; and political-economic and institutional constraints. Together, these themes indicate that AT adoption depends not only on individual users' perceptions of technology but also on the conditions under which accessible tools are provided, maintained and integrated into university teaching and learning.



Theme 1: Infrastructural and Digital-Accessibility Constraints

The reviewed literature identifies unreliable electricity and inadequate digital infrastructure as significant barriers to using AT effectively in Nigerian public universities (Banjo et al., 2026; Adelakun et al., 2026^a). Electricity interruptions can disrupt screen readers, refreshable Braille displays, and other power-dependent technologies, limiting students' access to digital learning resources and computer-based academic activities. Where accessible software is available, but electricity supply is unreliable, procurement alone does not guarantee meaningful access. The additional cost of operating generators may also restrict the regular use of specialised facilities (Kuerban et al., 2025; Nwodo & Amucheazi, 2024).

Internet access presents a related constraint. Cloud-based captioning, online accessibility applications and remote sign-language interpretation require reliable connectivity, yet inadequate campus Wi-Fi and the cost of mobile data can limit students' ability to use these services consistently (Olatunji & Olatunji-Olawepo, 2025; Muraina et al., 2025; Kuerban et al., 2022). Jacinta (2024) highlights difficulties associated with students' reliance on mobile devices and network access for classroom communication. These constraints can place the financial burden of accessibility on students who must purchase data to compensate for gaps in institutional provision. Physical accessibility further influences whether students can benefit from available AT. Inaccessible libraries, computing centres and resource rooms may prevent students with mobility impairments from reaching equipment and support services (Suleiman & Muhammad, 2025; Kuerban et al., 2025). The findings therefore suggest that infrastructure should be understood broadly: it encompasses electricity, internet connectivity, accessible buildings and the reliable availability of assistive devices and software. Deficiencies in any of these areas can reduce the practical value of investments in AT.

Theme 2: Socio-Pedagogical Barriers and Social Influence

The second theme concerns the relationship between AT adoption, teaching practices and the social environment of universities. The reviewed literature identifies limited staff preparedness and resistance to adapting established instructional practices as barriers to inclusive technology use (Olatunji & Olatunji-Olawepo, 2025; Adelakun et al., 2026^b). Restrictions on recording devices, laptops or smartphones may prevent students from using tools required for note-taking, reading or accessing course content. Such restrictions can arise when lecturers are unfamiliar with the accessibility purposes of these technologies or associate their use primarily with distraction or academic misconduct. The availability of AT is also insufficient when teaching materials and classroom practices remain inaccessible. Adelakun et al. (2026^b) identify the importance of staff capacity, while Ijadunola et al. (2021) draw attention to barriers associated with conventional teaching materials. Printed resources that are poorly reproduced or unavailable in accessible digital formats can be difficult for screen readers and optical character recognition software to process. Limited awareness of inclusive pedagogical approaches, including Universal Design for Learning, may therefore weaken the educational benefits of AT. Social attitudes constitute a further barrier. Stigma, misconceptions about disability and negative peer or staff responses may discourage students from disclosing their needs or using visible assistive devices (Onah & Ugwu, 2021). Jacinta (2024) also discusses social difficulties experienced by students using assistive technologies in learning environments. Where students



anticipate embarrassment, discrimination or misunderstanding, they may avoid using available tools, even when those tools could support their participation. Non-disclosure may also make institutional demand for accessible services less visible. If university planning relies heavily on formally identified needs, students who conceal their disabilities may be inadequately represented in resource allocation decisions. Nwodo & Amucheazi (2024) link institutional responses to perceptions of demand, underscoring the risk that limited visibility can reinforce under-provision. This theme therefore shows that AT adoption is shaped not only by ease of use but also by staff competence, instructional flexibility, peer attitudes and the institutional climate surrounding disability.

Theme 3: Political-Economic and Institutional Constraints

The third theme concerns the financial and governance conditions that affect the acquisition, maintenance and sustained use of AT. The reviewed literature identifies funding limitations, exchange-rate instability and reliance on imported technologies as constraints on university accessibility provision (Zaid et al., 2024). Where specialised software requires paid licences, foreign-currency payments and periodic renewal, economic volatility can increase operating costs and threaten continuity. Adelakun and Adesua (2026^a) discuss difficulties associated with maintaining specialised software, and pressures on public funding. These concerns suggest that the costs of AT extend beyond initial procurement to include updates, technical support, staff training and replacement.

The broader funding environment also affects implementation. Adesua and Adelakun (2024) identify inadequate financial resources and inflation as barriers to implementing AT-related policies. Adesua, Balogun, and Adelakun (2021) further discuss economic pressures affecting sustainable university education. Together, these sources point to the vulnerability of accessibility initiatives when institutions cannot reliably fund equipment, maintenance and continuing support. However, the relative contribution of exchange rates, funding decisions and other economic factors should be interpreted in line with the evidence available in each included study. Institutional priorities and policy implementation form the other dimension of this theme. Although Nigeria has a legal framework for protecting the rights of persons with disabilities, the translation of broad commitments into sustained university-level provision remains a central concern. Chiwandire and Vincent (2021) highlight issues relevant to institutional support and disability inclusion. Where responsibilities, implementation arrangements and dedicated resources are unclear, AT provision may remain fragmented or dependent on short-term initiatives rather than being embedded in university planning.

The findings thus indicate that sustainable adoption requires more than purchasing devices or introducing accessibility policies. Universities need predictable funding, clear institutional responsibilities, maintenance arrangements and accountability for accessible teaching and learning. Open-source tools and local technical capacity may offer options for reducing some costs, but their suitability depends on user needs, language compatibility, technical support and accessibility requirements.



Themes Synthesis

Across the three themes, the evidence portrays AT adoption as a connected institutional and socio-technical process. Infrastructure determines whether technologies can be accessed reliably; pedagogical practices and social attitudes influence whether students can use them in learning; and funding and governance shape whether provision can be sustained. These dimensions interact rather than operate independently. For example, accessible software may have limited educational value when connectivity is unreliable, while adequate equipment may remain underused when lecturers restrict its use or students anticipate stigma. Viewed through the Unified Theory of Acceptance and Use of Technology (UTAUT), performance expectancy and effort expectancy help explain users' perceptions of the usefulness and usability of AT, while social influence captures the effects of lecturers, peers and institutional norms. Facilitating conditions are particularly important in this context because they encompass the practical resources and support needed to use technology. The review does not establish that these conditions operate identically across all Nigerian universities; rather, the synthesis suggests that infrastructure, affordability, institutional capacity and inclusive teaching practices must be considered alongside individual acceptance when interpreting AT adoption in resource-constrained higher education settings.

Discussion

Interpreting Assistive Technology Adoption Through UTAUT

Findings from the review suggest that assistive technology (AT) adoption in Nigerian public universities cannot be adequately explained by individual acceptance alone. Although the Unified Theory of Acceptance and Use of Technology (UTAUT) identifies performance expectancy, effort expectancy, social influence and facilitating conditions as important determinants of technology use, the reviewed literature revealed that these factors operate within institutional environments that may enable or constrain adoption (Venkatesh et al., 2003). The central theoretical implication concerns the role of facilitating conditions. In settings where electricity, connectivity, accessible facilities, technical support and funding are unreliable, students' recognition of a technology's usefulness does not necessarily translate into sustained use. This interpretation is consistent with concerns about the relationship between digital accessibility and institutional capacity discussed by Ijadunola et al. (2021). Facilitating conditions should therefore be understood not simply as one factor among several, but as a contextual condition that shapes whether the other UTAUT constructs can translate into actual use. This is a contextual interpretation of the framework, not an empirical validation or replacement of the original model.

The relationship between facilitating conditions and social influence also merits attention. Institutional practices and social attitudes can affect whether students feel able to use AT openly and consistently. Where accessible technology is poorly supported, or its use is misunderstood, students may experience additional social and practical costs. Jacinta (2024) highlights the relevance of these challenges to students' experiences of auditory access technologies. The implication is that technology adoption should be assessed not only in terms of availability or



intention to use, but also in terms of whether students can use the technology without avoidable barriers to participation.

Collectively, these interpretations support a socio-technical understanding of AT adoption. Individual perceptions remain relevant, but their effects depend on the interaction between users, teaching practices, infrastructure and institutional support. The review thus extends the application of UTAUT by emphasising the contextual importance of facilitating conditions in Nigerian public higher education, while recognising that further empirical research is needed to test the relationships proposed.

Institutional and Policy Implications: A Feasible Way Forward

The practical implications should follow from the interconnected nature of the identified barriers. Rather than treating AT as a one-off procurement exercise, universities and policymakers should approach it as a continuing institutional responsibility involving access, maintenance, teaching practice and user support.

First, accessibility should be incorporated into institutional planning and monitoring. University management, governing councils and relevant regulatory bodies should consider AT provision, accessible digital learning materials, physical access and support services in their planning and quality-assurance processes. This recommendation responds to concerns about implementation gaps and institutional support identified in the reviewed literature (Chiwandire & Vincent, 2021; Nwodo & Amucheazi, 2024). Specific accreditation indicators, funding requirements or compliance mechanisms should be developed through consultation and feasibility assessment rather than imposed without an established evidence base.

Second, investment should prioritise reliability and ongoing support as well as equipment acquisition. Universities should assess the technologies students need, the availability of electricity and connectivity, and the recurrent costs of software, maintenance and technical assistance before committing to new systems. Where appropriate and technically feasible, backup power arrangements, improved network coverage and accessible resource centres could be introduced in stages. The literature on infrastructure and financial constraints indicates why the effectiveness of such measures should be evaluated locally rather than assumed in advance (Kuerban et al., 2025; Nwodo & Amucheazi, 2024).

Third, inclusive teaching and staff development should be treated as part of AT implementation. Universities should provide practical training on digital accessibility, accessible course materials and inclusive pedagogical approaches, including Universal Design for Learning. Departments should also establish clear procedures for reasonable accommodation, including the use of recording devices and assistive software where appropriate. These measures address the pedagogical and staff-capacity concerns discussed by Adedokun et al. (2026^a). Their implementation should include student feedback and periodic review, rather than relying on training attendance alone as evidence of improved practice.



Fourth, technology choices should reflect affordability, accessibility and sustainability. Open-source tools, including NVDA and Orca, may provide alternatives to some proprietary screen-reading software, but institutions should assess compatibility, usability, language needs, user preferences and available technical support before adopting them at scale (Zaid et al., 2024). Partnerships with telecommunications providers and technology organisations could also be explored to improve connectivity or support accessible services. Such partnerships should be governed by clear agreements on cost, continuity, data protection and accountability; their benefits should be monitored rather than presumed (Kuerban et al., 2022).

Finally, students with disabilities should participate in decisions about procurement, implementation and evaluation. Their experiences can help institutions identify barriers that administrative inventories may overlook and determine whether selected tools meet actual learning needs. Consultation should include students with different disabilities and should protect privacy, dignity and informed choice. This approach also helps ensure that policy decisions are informed by users' experiences rather than by assumptions about disability or technology.

These recommendations are mutually connected; procuring assistive technology equipment without reliable electricity, internet connectivity, software, maintenance, and technical assistance may lead to underuse; infrastructure without accessible teaching may not improve classroom participation; and policy commitments without recurrent funding and accountability may fail to deliver sustained access. A phased approach beginning with needs assessment, identifying priority barriers, assigning responsibilities and reviewing outcomes offers a more defensible route than imposing uniform technological solutions across institutions with different capacities.

Conclusion

This review synthesised 42 studies on assistive technology (AT) adoption in Nigerian public universities and identified three interrelated barriers: infrastructural and digital-accessibility constraints, socio-pedagogical barriers, and political-economic and institutional limitations. It contributes a contextual interpretation of the Unified Theory of Acceptance and Use of Technology (UTAUT), highlighting facilitating conditions as critical to translating positive perceptions into sustained use (Venkatesh et al., 2003). Effective adoption requires accessible infrastructure, staff capacity, sustainable funding and institutional accountability. However, the findings are constrained by the literature's geographical coverage, its limitation to universities alone and uneven representation of disability groups; the proposed interpretation of UTAUT also remains empirically unvalidated. Future research should examine diverse university contexts and disability experiences, using multi-site and longitudinal designs to investigate how institutional policies, infrastructure and user needs shape adoption. Quantitative studies could test the effectiveness of the proposed interpretation of UTAUT in universities across all regions of Nigeria and can also be extended to other types of tertiary education, such as colleges of education and polytechnics. Intervention research could assess whether accessibility initiatives and open-source tools improve sustained use, educational participation and learning outcomes.



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