OPEN AND DISTANCE LEARNING (ODL) IN NIGERIA: CHALLENGES, PROSPECTS, AND PATHWAYS TOWARD EQUITABLE EDUCATION

AKINTOLA Ismaila Akinbode
akintolaakinbode5@gmail.com
08033624238
Solace Human Resources Development, Oyo

Abstract

This paper examines the challenges and prospects of expanding equitable access to education through Open and Distance Learning (ODL) in Nigeria. Guided by Human Capital Theory and informed by social justice and connectivist perspectives, it adopts a qualitative descriptive design to synthesise scholarly literature, policy documents and institutional reports published between 2015 and 2024. The evidence was analysed thematically using a SWOT framework to assess the internal strengths and weaknesses, and external opportunities and threats, shaping Nigeria's ODL system. The analysis identifies flexibility, policy recognition and alignment with Sustainable Development Goal 4 (SDG 4) as key strengths that position ODL to support lifelong learning and educational inclusion. However, inadequate infrastructure, digital inequality, weak quality assurance, unstable funding and limited accessibility for learners with disabilities continue to constrain its potential. The paper recommends coordinated reforms focused on policy harmonisation, infrastructure development, inclusive pedagogy, sustainable financing and digital capacity building. It concludes that ODL's future in Nigeria depends on aligning innovation, governance and equity. With coherent implementation and sustained investment, ODL could develop from a supplementary option into a significant driver of national development and inclusive education.

Keywords: Open and Distance Learning (ODL), Equitable education, Human capital theory, Inclusion, SDG 4.

Introduction

Education is widely regarded as a foundation for human capital development and national progress. It can increase productivity, support social mobility and innovation, and contribute to inclusive economic growth. The United Nations Sustainable Development Goals reflect its importance, particularly SDG 4, which calls for inclusive and equitable quality education and lifelong learning opportunities for all. UNESCO (2021) identifies education as a fundamental human right and encourages governments to allocate 15–20 per cent of their annual budgets to the sector to support access, equity and quality.

Despite this global commitment, Nigeria continues to face substantial educational challenges. Population growth, insecurity, poverty and inadequate infrastructure create barriers to formal education. UNESCO (2023) estimates that more than 20 million Nigerian children and young

people are out of school. In addition, limited capacity in conventional tertiary institutions prevents many qualified applicants from gaining admission. Regional inequalities, gender disparities and socioeconomic differences further restrict equitable access to learning.

Open and Distance Learning (ODL) extends education beyond the traditional classroom. Its flexible delivery and potential to support learner autonomy can benefit diverse groups, including working adults, women, rural communities and persons with disabilities. In Nigeria, institutions such as the National Open University of Nigeria (NOUN), the National Teachers' Institute (NTI) and dual-mode universities provide alternative routes for learners who face geographic, economic or personal barriers to attending conventional institutions.

However, ODL's potential to promote equitable education in Nigeria is constrained by unreliable electricity and internet access, inadequate funding, limited digital literacy among learners and tutors, and misconceptions about the credibility of ODL qualifications. Accessibility also remains a concern for persons with disabilities and other marginalised groups, particularly where inclusive policies and practices are insufficient.

A critical examination of ODL is therefore important to understand how it can expand equitable access to education in Nigeria. Although ODL can support wider participation and lifelong learning, its contribution depends on how effectively it addresses local barriers to access, inclusion and quality. Advancing the goals of Education 2030 and SDG 4 requires flexible and scalable approaches that serve learners equitably.

This paper examines the challenges and prospects of using ODL to promote equitable education in Nigeria. It assesses the ODL system through a strengths, weaknesses, opportunities, and threats (SWOT) framework, identifies policy and operational gaps, and proposes recommendations to strengthen ODL in line with national and global education goals.

Objectives of the Study

The primary objective of this paper is to examine the potential of Open and Distance Learning (ODL) to promote equitable access to quality education in Nigeria. Specifically, it aims to identify the main challenges to ODL's expansion, analyse the strengths, weaknesses, opportunities and threats within Nigeria's ODL system, and propose strategies to improve its effectiveness, inclusivity and alignment with education policy. The paper provides practical insights for

policymakers, education administrators, and other stakeholders working to advance equitable access and lifelong learning through ODL.

Literature Review

Concept and Evolution of Open and Distance Learning (ODL)

Open and Distance Learning (ODL) is a flexible approach that reduces barriers related to time, location and pace, creating learning opportunities for people who may be excluded from conventional education. The Commonwealth of Learning (2017) describes ODL as a learner-centred model that emphasises accessibility, flexibility and cost-effectiveness. Its underlying principle is that education should be available to all learners, regardless of their location or circumstances.

The development of ODL internationally demonstrates its potential to broaden participation. The United Kingdom's Open University, established in 1969, pioneered large-scale distance education and became a model for flexible and inclusive provision (Tait, 2018). The Indira Gandhi National Open University (IGNOU) in India and the University of South Africa (UNISA) have also extended educational opportunities across social and geographic boundaries (Bozkurt, 2019). These examples suggest that distance education can operate at scale while maintaining quality when supported by adequate resources and effective institutional frameworks.

Applying these approaches in Nigeria presents distinct challenges. Institutions such as the National Open University of Nigeria (NOUN) have widened access, but ODL continues to operate amid inadequate infrastructure, limited digital access and scepticism about the credibility of online qualifications (Wali & Ololube, 2015). This contrast highlights the importance of institutional capacity, public confidence and coherent governance in developing an effective ODL system.

Educational Equity and ODL

Educational equity involves more than access to learning. It also concerns fairness in educational processes and outcomes, including providing learners with the support they need to achieve, regardless of gender, socioeconomic background or disability (Akinbode & Muhammed-Lawal,

2023). In Nigeria, regional and socioeconomic disparities remain significant, while gender and poverty continue to affect educational opportunities and outcomes.

ODL can help reduce some of these disparities. Flexible, asynchronous learning and open-entry policies can serve working adults, women, rural learners and persons with disabilities. However, ODL may reproduce or deepen inequality if learners lack electricity, internet access or assistive technologies (Akinbode, 2021). The key issue, therefore, is not simply whether ODL expands access, but who benefits, under what conditions and with what outcomes. Advancing equity requires investment in digital inclusion, locally relevant teaching and adaptable learner support.

Open Educational Resources and Inclusive Learning

Open Educational Resources (OER) are freely accessible, openly licensed teaching and learning materials that educators and learners can adapt to local contexts (UNESCO, 2019). NOUN adopted an institutional OER policy in 2017, committing to make new courses openly available (Agbu, 2017). This initiative reflects wider efforts to make learning more inclusive and reduce its cost.

However, resource availability does not necessarily ensure accessibility or relevance for all learners. OER may be insufficiently adapted to local contexts, and materials produced mainly in English may present difficulties for learners with lower English proficiency or those in indigenous-language communities. Platforms that do not meet accessibility standards may also exclude learners with visual or hearing impairments. OER initiatives therefore need to extend beyond adoption to include cultural relevance, linguistic diversity and accessibility.

Global Lessons and the Nigerian Experience

International experience suggests that sustained government support, reliable infrastructure and strong quality-assurance systems are important to successful ODL. IGNOU and UNISA, for example, use multiple delivery modes, including print, broadcast and digital platforms, and have developed learner-support networks to assist students (Letseka & Pitsoe, 2014). By comparison, Nigeria continues to face fragmented policy frameworks, inadequate funding, and uneven learner support.

Another lesson is that inclusion must be built into ODL policies and programmes. Targeted support for marginalised groups can improve participation and completion. Although Nigeria's policies

may recognise inclusion, their effectiveness depends on implementation, accountability and adequate funding.

Literature Synthesis and Identified Gap

The reviewed literature suggests that ODL could contribute substantially to equitable education, but structural and operational challenges constrain its potential in Nigeria. Much of the existing research describes enrolment growth or technology adoption, with less attention to the broader questions of equity, inclusion and sustainability. The paper addresses this analytical gap by applying a SWOT framework to examine how internal strengths and weaknesses interact with external opportunities and threats in Nigeria's ODL system. The framework provides the basis for the subsequent discussion of challenges, prospects and policy recommendations.

Theoretical Framework

This paper is primarily guided by Human Capital Theory, developed by Becker (1964) and Schultz (1971). The theory views education, skills development and health as investments that can increase individual productivity and contribute to economic growth. From this perspective, ODL can help learners-particularly those facing geographic, economic or disability-related barriers-gain knowledge and skills for employment, entrepreneurship and civic participation.

Human Capital Theory provides an economic rationale for expanding educational access, but it has also been criticised for focusing too narrowly on labour-market outcomes and underemphasising education's social, cultural and ethical dimensions (Tilak, 2021). It may also imply a direct relationship between education and income that does not always hold, particularly where underemployment, weak governance or mismatches between training and available jobs limit the returns to education. Psacharopoulos and Patrinos (2018) note that the economic returns to education depend partly on whether the labour market can absorb qualified workers productively. In Nigeria, therefore, expanding ODL qualifications needs to be accompanied by attention to curriculum relevance and employment opportunities.

To address these limitations, the paper also draws on social justice and connectivist perspectives. Social justice theory emphasises fairness, equality of opportunity and the redistribution of

resources to address systemic disadvantage (Rawls, 1971). Connectivism highlights the role of digital networks and collaborative knowledge creation in contemporary learning (Siemens, 2005). Together, these perspectives complement Human Capital Theory: the latter explains the economic value of ODL, while social justice and connectivism highlight equity, inclusion, and the conditions needed for technology-supported learning. This combined framework supports an understanding of ODL as a means of developing skills while also promoting accessible, inclusive and lifelong learning.

Methodology

This study adopted a qualitative descriptive design to examine existing evidence on the challenges and prospects of using Open and Distance Learning (ODL) to promote equitable education in Nigeria. It relied on secondary sources rather than primary data. These included peer-reviewed journal articles published between 2015 and 2024, policy documents and reports from organisations such as UNESCO, the Commonwealth of Learning, the African Union and the United Nations Economic Commission for Africa, institutional publications from the National Open University of Nigeria and the National Universities Commission, and empirical studies and doctoral theses on ODL implementation, accessibility and learner support. Sources were selected for their relevance to ODL and educational equity, their academic or institutional standing, and their contribution to policy discussions.

The materials were examined using thematic content analysis. The researcher read and coded the sources, then synthesised recurring themes, including infrastructure, inclusion, policy alignment and quality assurance. These themes were organised using a SWOT framework, which classified factors affecting equitable ODL provision as internal strengths and weaknesses or external opportunities and threats. The framework also informed the recommendations for policy and institutional development.

To support the credibility of the analysis, findings were cross-checked across academic, policy and institutional sources. Comparing evidence from multiple documents helped identify areas of

agreement and difference and reduced reliance on any single source. The conclusions reflect the scope and quality of the materials reviewed and the thematic and SWOT analyses applied.

Challenges of Expanding Equitable Education through ODL in Nigeria

Although Open and Distance Learning (ODL) can widen access to education, its implementation in Nigeria faces structural, technological, financial and sociocultural constraints. These challenges are interconnected and limit ODL's capacity to promote equity, inclusion and lifelong learning.

The digital divide is a major barrier. Reliable electricity, internet connectivity and affordable devices remain inaccessible to many learners, particularly those in rural and riverine communities (Owete et al., 2017). Unstable power and network access can prevent participation in online sessions and timely assignment submission. As a result, ODL may benefit urban learners with better connectivity and digital skills more than those who face socioeconomic disadvantage-a pattern Akinbode (2021) describes as inequality in digital opportunity. Providers also contend with outdated learning management systems, limited bandwidth and shortages of instructional-design staff, which can restrict the quality and interactivity of online learning.

ODL can be less costly for learners and institutions in some respects, but it still involves significant expenses. Learners may need to pay for internet data, devices, printing and transport to study centres, costs that can be burdensome for those on low incomes (Agbu et al., 2016). At the institutional level, funding constraints can limit course updates, assistive technologies and staff development. When ODL providers rely heavily on internally generated revenue, donor support, or irregular grants, maintaining infrastructure and quality can be difficult. Dedicated and sustained funding, including appropriate public investment and partnerships, could support the long-term development of ODL.

Policy coordination and quality assurance also affect public confidence. ODL oversight is distributed across agencies such as the National Universities Commission (NUC), the National Commission for Colleges of Education (NCCE) and the National Board for Technical Education (NBTE). Fragmented responsibilities, inconsistent standards and weak monitoring may complicate accreditation and recognition of qualifications (Okebukola, 2015). Some employers and education stakeholders continue to view ODL qualifications as inferior. Addressing this perception requires

consistent quality assurance and clear communication about programme standards and graduate competencies.

Learner support is essential to ODL but may be uneven across Nigerian study centres. Delayed feedback, limited access to tutors and inadequate academic advising or mentoring can leave learners feeling isolated and less motivated (Darling-Hammond, 2017). These difficulties may be compounded by limited digital literacy and insufficient orientation on online platforms and independent study. The COVID-19 pandemic further highlighted that providing technology alone does not ensure meaningful learner engagement; effective academic and technical support is also needed.

ODL's inclusive potential is also limited when platforms and materials are inaccessible. Course resources may lack features such as captions, transcripts, or alternative assessment formats for learners with disabilities. This falls short of Universal Design for Learning Principles, which call for learning environments that accommodate diverse needs from the outset (Roberts, 2018). Language can create another barrier: reliance on English may limit participation among learners with lower English proficiency, while a lack of locally adapted or indigenous-language materials can reduce cultural relevance (UNESCO, 2019). Open enrolment and delivery must therefore be matched with accessible design and linguistic inclusion.

Assessment, privacy and employment relevance present further challenges. Weak identity verification, limited secure online proctoring and inconsistent grading can affect confidence in assessment results (Bozkurt, 2019). At the same time, learning analytics raise questions about consent, data security and the use of learners' personal information. Providers need transparent data practices and accountability measures. Some programmes may also be insufficiently aligned with labour-market needs. When curricula prioritise qualifications over relevant skills, learners may find that credentials do not improve employment prospects (Psacharopoulos & Patrinos, 2018). Engagement with employers, competency-based learning and relevant micro-credentials could help strengthen this alignment.

Finally, effective ODL depends on staff with expertise in instructional design, media development and online teaching. Some Nigerian providers have limited capacity in these areas, and professional development may be irregular (Commonwealth of Learning, 2019). Text-heavy courses with little interaction can result when staff lack the training, resources or incentives to

develop engaging materials. Institutions need to build staff capacity and recognise digital teaching expertise as part of their academic work.

Overall, the challenges facing ODL in Nigeria are systemic and interdependent. Inadequate infrastructure can deepen inequality; unstable funding can weaken quality; fragmented oversight can affect public confidence; and limited accessibility can exclude learners whom ODL is intended to serve. Expanding enrolment alone will not ensure equitable education. Progress requires coordinated policy, sustained investment, inclusive design, effective learner support and programmes that develop relevant skills.

SWOT Appraisal of Nigeria's ODL Ecosystem and Recommendations

A SWOT analysis provides a framework for examining the internal and external factors that shape Open and Distance Learning (ODL) in Nigeria. The appraisal below considers the system's strengths and weaknesses, as well as the opportunities and threats affecting its sustainability and contribution to educational equity.

Strengths. Nigeria's ODL system has expanded through the National Open University of Nigeria (NOUN) and dual-mode universities. NOUN's network of study centres provides a physical presence across the country and can improve access for working adults, caregivers and learners in geographically isolated areas. Flexible learning modes allow learners to study at their own pace and can serve people who may not be able to attend conventional institutions. ODL also supports lifelong learning and inclusion. NOUN's adoption of an institutional Open Educational Resources (OER) policy, along with the National Policy on Education (2014) 's recognition of distance learning, provides a foundation for wider access to learning materials and ODL development. Its emphasis on inclusion and lifelong learning also aligns with Sustainable Development Goal 4.

Weaknesses. Unreliable electricity, limited broadband and inadequate ICT facilities restrict participation in interactive learning, particularly at study centres with limited internet access. Differences in course design, assessment practices and accreditation processes may weaken quality assurance and public confidence. Limited academic advising, delayed feedback and insufficient tutor–learner interaction can contribute to learner isolation and attrition. Other weaknesses include limited recognition of prior learning, English-dominant materials, inadequate accessibility for learners with disabilities, and shortages of instructional designers, media developers and staff

skilled in digital pedagogy. These capacity gaps can result in courses that rely heavily on text and offer little interaction.

Opportunities. The widespread use of mobile phones creates opportunities for mobile-first and low-bandwidth learning, including downloadable course materials, Progressive Web Apps and radio or television broadcasts. ODL institutions could also offer modular programmes and stackable micro-credentials aligned with employment needs in areas such as information and communication technology, agriculture and entrepreneurship. Translating resources into Nigerian languages and incorporating local examples could improve relevance and engagement. Partnerships with telecommunications companies, donors and development organisations may support infrastructure, content development and digital inclusion. Artificial intelligence, learning analytics and virtual reality could also support personalised learning and learner engagement, provided these technologies are introduced responsibly and accessibly.

Threats. Inflation and the rising cost of living can make devices, internet data and travel to study centres unaffordable, particularly for low-income learners. Misconceptions about the quality of ODL qualifications may discourage prospective students and affect employer recognition. Insecurity, conflict and displacement disrupt access to education, while limited offline learning options can restrict ODL's ability to reach affected learners. Rapid technological change may leave institutional platforms outdated when providers lack the resources or staff expertise to adapt. Expanded use of digital platforms also increases cybersecurity and privacy risks, particularly where data-governance policies are inadequate.

Taken together, the analysis shows that ODL's scale, flexibility and policy recognition are constrained by weaknesses in infrastructure, quality assurance and inclusion. Technological innovation and partnerships offer opportunities, but economic instability, insecurity and negative perceptions remain significant threats. Expanding enrolment alone will not ensure equitable learning. ODL's contribution depends on whether institutions can use available opportunities to address structural weaknesses through coordinated policy, sustained investment, learner support and inclusive design.

Based on this appraisal, the following recommendations are proposed:

1. **Improve policy coordination and quality assurance.** The Federal Ministry of Education, the National Universities Commission (NUC), the National Board for Technical Education

(NBTE) and the National Commission for Colleges of Education (NCCE) should work towards a coherent national ODL policy. It should align guidelines across tertiary education, support consistent quality assurance and accreditation, encourage transparent benchmarking, and promote public understanding of ODL qualifications.

2. **Expand infrastructure and digital access.** Government and institutions should invest in reliable electricity and internet access, including solar-powered community learning hubs in underserved areas. Partnerships with telecommunications providers could reduce connectivity costs, while low-bandwidth and offline learning options could help learners with limited or unreliable internet access. Device grants or loan schemes could also support learners who cannot afford the required technology.

3. **Develop relevant and locally responsive programmes.** Institutions should consider modular and competency-based curricula, micro-credentials and stackable qualifications that respond to employment and community needs. Employers should be involved in curriculum development. Course materials should be adapted to Nigerian contexts, including through the use of indigenous languages and local examples, and delivered through multiple formats such as print, broadcast and online media.

4. **Strengthen learner support and accessibility.** ODL providers should offer academic advising, counselling, mentoring, digital orientation and timely feedback. Course design should follow Universal Design for Learning principles and accessibility standards, with alternative formats and assessments available to learners with disabilities. Community-based support and trained facilitators could help reach rural learners, internally displaced persons and people in the informal sector. Use artificial intelligence and learning analytics only with appropriate safeguards and human oversight.

5. **Provide sustainable funding and build staff capacity.** Government should consider ODL in public education funding mechanisms, including TETFund, and support partnerships with telecommunications companies, technology providers and non-governmental organisations. Innovation grants and targeted learner assistance could support course development and participation by disadvantaged groups. Institutions should also provide ongoing professional development for administrators, instructional designers, academic staff and facilitators.

6. **Protect assessment integrity and learner data.** Institutions should use reliable identity verification, secure assessment procedures, clear grading criteria and consistent evaluation practices. They should also establish data-protection policies that explain how learner information is collected and used, protect privacy, and provide accountability for the use of learning analytics.

An integrated approach is needed to make ODL a stronger means of promoting educational equity in Nigeria. Coordinated policy, dependable infrastructure, relevant teaching, accessible materials, effective learner support and sustainable funding can help ODL move beyond expanded enrolment to provide meaningful learning opportunities that support individual and national development.

Conclusion and Future Research Directions

Open and Distance Learning (ODL) has the potential to widen educational access and address inequalities in Nigeria's education system. This paper examined its prospects and challenges through a thematic review and SWOT analysis. The analysis identified flexibility, accessibility and policy recognition as strengths that could support lifelong learning and human capital development.

However, ODL's contribution is constrained by inadequate infrastructure, fragmented policies, insufficient funding, limited inclusion and misconceptions about the quality of ODL qualifications. Without deliberate action to address these barriers, ODL may reproduce some of the inequalities it is intended to reduce.

Progress towards Sustainable Development Goal 4 and the Education 2030 Agenda requires a coordinated national approach that prioritises equity, quality and sustainability. This includes strengthening governance, improving infrastructure, expanding digital inclusion and incorporating accessibility into the design and delivery of learning. With sustained investment, cross-sector collaboration, and effective implementation, ODL could become more integral to Nigeria's education system.

Future Research Directions

This paper provides a conceptual and policy analysis based on secondary sources. Further empirical research could examine the following areas:

1. **Comparative outcomes:** Longitudinal studies could compare learning outcomes and employment experiences among ODL and conventional-education graduates.

2. **Digital inclusion and accessibility:** Research could assess how connectivity, device ownership, gender and disability affect participation and completion in ODL programmes.

3. **Learner experience:** Qualitative studies could explore learner engagement, motivation and satisfaction across mobile, blended and other ODL formats.

4. **Policy implementation:** Studies could examine how national ODL policies are interpreted and implemented by institutions and identify gaps between policy goals and practice.

5. **Artificial intelligence and learning analytics:** Research could investigate the ethical, educational and governance implications of using artificial intelligence, predictive analytics and automation in distance education.

Research in these areas could strengthen understanding of how technology, teaching and social equity interact, and help inform policies and practices that make ODL more inclusive and effective in Nigeria.

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