10 Telecommunication Tariff Increases and Access to Online Distance Learning (ODL) Platforms in Nigeria: Urgent Need for Strategic Interventions

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INTRODUCTION

With Online Distance Learning (ODL) platforms at the forefront of the global shift in pedagogical methods, the digitization of education has emerged as a crucial element of 21st-century learning. ODL has developed as a primary means of imparting education in Nigeria, particularly in higher education institutions, after first serving as an auxiliary form of instruction. This evolution has been driven by the need to expand access, accommodate non-traditional students, and overcome infrastructural and logistical constraints that beset conventional classroom systems (Ajadi et al., 2008). However, rising telecommunication tariffs—a crucial economic and infrastructural barrier—are increasingly undermining the promise of ODL in closing educational gaps. As data costs rise, a large number of Nigerian students are being priced out of online learning opportunities. This is a systemic and growing issue that necessitates immediate strategic interventions that align telecommunication policy with the national education agenda.

It is noteworthy to state from the outset that the ODL system is on the rise and its promise to democratize education has been praised. It gives working adults and caregivers flexibility, allows students to learn at their own speed, and offers inclusive possibilities for those living in underserved or rural places. ODL offers a game-changing possibility in Nigeria, where there are notable differences in educational infrastructure between rural and urban areas. This change has been led by institutions like the National Open University of Nigeria (NOUN), which offers degree programmes to thousands of students nationwide through digital platforms (Jegede, 2009). The adoption of ODL was further expedited in 2020 by the COVID-19 pandemic. In order to maintain educational continuity in the face of extended school closures, both public and private institutions swiftly switched to online learning systems (Adeoye et al., 2020).

However, the shift revealed long-standing socio-economic and infrastructural issues. In order for students to use ODL platforms efficiently, they need not only access to devices such as laptops, smartphones, or tablets, but also dependable internet connectivity, ideally broadband. In Nigeria, mobile data services are the main source of internet access because fixed broadband infrastructure is scarce, so

students rely on mobile data bundles to access their online classes, download course materials, and turn in assignments. An increase in the cost of these data services directly jeopardizes the affordability and sustainability of digital education.

In recent years, major telecom service providers have reviewed data tariffs upward in Nigeria and they have frequently justified these increases as necessary responses to inflation, rising fuel prices, foreign exchange difficulties, regulatory fees, and the high cost of infrastructure development and maintenance (TechCabal, 2023). While these justifications may hold merit from a commercial standpoint, the implications for education are grave. As the price of internet access rises, the economic barrier to entry for ODL becomes more pronounced. This is particularly troubling in a country where over 40% of the population lives below the national poverty line (NBS, 2022), and where public investment in education remains grossly inadequate. Although these arguments can make sense from a business perspective, there are serious implications for education given that the ODL has an increasingly significant economic barrier to entry as internet access costs increase. In a nation where public investment in education is still woefully low and more than 40% of the population lives below the national poverty line (NBS, 2022), it becomes particularly worrisome. Increase in tariffs would most often compel students to limit their use of online platforms because real-time lectures, video content, and virtual discussions demand a lot of bandwidth, which results in high data usage. Many students would likely choose asynchronous learning options, if available, or participate minimally, which has a negative impact on their motivation and academic performance. In some cases, students are forced to discontinue their participation in online programs entirely, thereby excluding them from the educational system (Okoye & Nzewi, 2022).

Furthermore, the Socioeconomic and Geographic Disparities further exacerbate the Challenges of the ODL. As you may know, there is an unequal distribution of the cost of telecommunications. Students in rural and semi-urban areas are disproportionately affected, not only because of inadequate income but also due to poor internet infrastructure and inconsistent electricity supply. Due to this, students may not have the signal strength or power necessary to interact with digital content in a meaningful way, even if they can afford data. According to a 2021 UNESCO report, one of the biggest obstacles to attaining equitable education is digital inequality, which is reflected in differences in device ownership, internet access, and digital literacy (UNESCO, 2022). These disparities are exacerbated in Nigeria by systemic poverty, a lack of ICT investment, and uneven regulatory enforcement.

While the burden of increased tariffs is most acutely felt by students, educational institutions are also considerably affected. Many institutions are not financially or technically able to offer their staff and students subsidized data, digital devices, or training. Research-based policy interventions and pilot projects that address the

connection between educational access and communications costs are also lacking. In order to close these gaps, civil society organizations, academic researchers, and development partners must engage in capacity-building, funding, and advocacy activities.

Therefore, multifaceted strategic interventions are required. A nationwide digital education framework that specifically includes methods for reducing data cost barriers should be created at the policy level by the Federal Ministry of Education in coordination with the Ministry of Communications and Digital Economy. These might consist of the creation of low-bandwidth ODL platforms, subsidized or free data packages for educators and students, and better cooperation between telecom authorities and education policymakers. In order to provide affordable digital education, colleges and universities should look into creative collaborations with service providers at the institutional level. This might entail investing in campus-wide Wi-Fi infrastructure, purchasing data in bulk, and granting zero-rated access to academic websites and learning management systems. International organizations and funding agencies might concurrently fund experimental projects that assess how these initiatives affect student outcomes.

Digital access must therefore be viewed as a basic right rather than a luxury as Nigeria gets ready for the future of education. Similar to how having access to textbooks, libraries, and classrooms has long been thought to be necessary for learning, having reasonably priced internet connection is also a crucial component of education in the digital age. If the growing cost of data is not addressed, a generation of young people may become technologically illiterate and unable to compete in a global economy that is becoming more and more knowledge-based. Digital equity and pedagogical innovation are both essential to Nigerian education's future. This involves making certain that no student, irrespective of socioeconomic background or geography, is prevented from fully engaging in ODL due to financial or infrastructure constraints. Beyond temporary fixes, strategic interventions must concentrate on long-term models that combine ICT policy and education in a comprehensive and inclusive way.

Conceptualizing Online Distance Learning in Nigeria

The term "Online Distance Learning" describes a method of delivering education that enables students to communicate with teachers and access course materials remotely via digital tools. The tenets of ODL—flexibility, accessibility, and learner autonomy—make it especially advantageous in situations where traditional education lacks the necessary human resources and physical infrastructure (Moore & Kearsley, 2011). ODL's introduction in Nigeria has been influenced by past issues with the traditional educational system, such as crammed classrooms, a lack of trained teachers, and an unequal distribution of educational institutions across the country's geography (Ajadi et al., 2008).

The National Open University of Nigeria (NOUN), established in 2002, has played a pivotal role in institutionalizing and popularizing ODL in Nigeria. NOUN was created to offer Nigerians flexible, affordable, and accessible higher education regardless of their location, age, or work obligations. It was the first open and distance learning university in West Africa (Jegede, 2009). Students can obtain academic resources and assistance without having to relocate permanently thanks to the university's decentralized system, which includes more than 100 study centers located throughout the nation. Its concept is mostly technology-driven, using online resources including e-Courseware systems and the iLearn portal to provide tutorial assistance, assignments, lectures/facilitations and e-exams.

In recent years, NOUN's ODL model has influenced Nigerian universities and colleges, especially since the COVID-19 pandemic created interruptions. Universities like Ahmadu Bello University, Obafemi Awolowo University, University of Port Harcourt and the University of Lagos have implemented blended learning methodologies, which combine digital resources with traditional in-person instruction. Moodle, Blackboard, Canvas, and other learning management systems (LMS) have been incorporated into academic delivery to support virtual student-teacher interaction, digital content distribution, and distance teaching. This shift has been driven not only by necessity but also by a growing recognition of the need to expand learning beyond the physical classroom to accommodate a rising student population.

However, students' access to reliable, fast, and reasonably priced internet connectivity continues to be a critical component of these blended and wholly online models' efficacy and sustainability. The digital learning environment runs the risk of becoming exclusionary rather than inclusive if digital infrastructure and data are not equally accessible. Many Nigerian students are unable to effectively utilize online learning platforms due to structural obstacles such expensive data plans, erratic electricity supplies, and restricted access to smart gadgets, as noted by Adeoye et al. (2020). Therefore, even while the ODL framework has a lot of potential to democratize education in Nigeria, its success is closely tied to more extensive socioeconomic and infrastructure changes, chief among them being the provision of inexpensive internet access made possible by fair telecommunications rates.

Telecommunications and the Infrastructure of Digital Education

The capacity of the telecommunications sector determines the quality, speed, and affordability of internet connectivity, which is a crucial enabler of ODL. In Nigeria, the telecommunications sector is largely privatized and dominated by major players like Glo, 9mobile, MTN, and Airtel. As of December 2023, mobile broadband penetration was 45.6%, a significant increase from previous years, but this figure conceals significant disparities in internet access between urban and rural areas (NCC, 2023).

According to studies like those by Ndukwe and Aniebonam (2021), the infrastructure bottlenecks that hinder the provision of high-speed internet in rural Nigeria include inadequate fiber-optic cabling, a lack of reliable electricity, and security risks to telecom infrastructure. Additionally, digital education infrastructure frequently lacks the resilience and redundancy needed to support real-time, multimedia-rich content that is essential for contemporary ODL experiences (Okoye & Nzewi, 2022).

Telecommunication Tariff Dynamics in Nigeria

The interplay of macroeconomic factors that represent wider structural vulnerabilities in Nigeria's economy has a significant impact on the cost of voice and data services in the country. High rates of inflation, ongoing currency depreciation, and the growing price of diesel fuel—which powers the thousands of base transceiver stations (BTS) that support broadband and mobile networks nationwide—are the main causes of these issues. The cost of doing business is also raised by the numerous levels of taxes and regulatory fees that telecom operators must deal with from federal, state, and municipal governments (TechCabal, 2023). Periodic tariff revisions frequently result in increasing pricing for voice calls, SMS, and particularly mobile data services, which are a direct outcome of these economic constraints.

Telecom firms usually rationalize these pricing hikes as required steps to maintain service quality and invest in network infrastructure. However, the ramifications for digital access—particularly in the educational sector—are enormous. Nigeria lacks a unified regulatory framework that requires inexpensive or zero-rated data plans for students and academic institutions, in contrast to many industrialized countries where broadband connection is subsidized as part of national education or digital inclusion efforts. This policy gap effectively widens the digital divide by placing a disproportionate financial burden on students, particularly those from low-income households.

Empirical research by Adeniran and Aruleba (2021) shows that upward tariff increases directly impede efforts to promote digital inclusion. This was most noticeable during the COVID-19 epidemic, when colleges and universities had to switch to entirely online curricula. Many students, especially those in impoverished or rural areas, found it difficult to pay for the expensive data needed for synchronous learning activities like Zoom classrooms, Microsoft Teams meetings, or live lecture streaming. Large portions of the student body experienced significant disruptions to their academic continuity as a result.

To mitigate these challenges, some educational institutions made an effort to rethink how they delivered their knowledge by providing asynchronous learning modules, downloadable PDFs, and compressed video lectures. The pedagogical integrity and

depth of the educational experience were frequently jeopardized, even though these methods offered short-term respite. Access to dynamic multimedia information, collaborative learning, and real-time student-teacher contact were all severely diminished, which compromised the ODL model's overall efficacy.

Moreover, because of the limitations of these low-data alternatives, students reportedly expressed a sense of academic isolation, diminished motivation, and limited peer participation (Adeoye et al., 2020). This circumstance emphasizes the pressing need for institutional and policy-level strategic actions to guarantee that telecommunication price structures do not remain a hindrance to high-quality, fair education in the digital era.

History of Telecom Tariff Increases in Nigeria

1. Liberalization Era and Initial Pricing (2001–2006)

Following the auction of GSM licenses in 2001, the Nigerian telecom sector was liberalized, allowing carriers such as MTN, Econet (now Airtel), and later Glo to enter the market (Ndukwe, 2003). Voice call rates were as high as ₦50 to ₦70 per minute at launch because of the expensive infrastructure and sparse coverage. Customers were frequently penalized for partial consumption because billing was done on a minutely basis (Adewale, 2005).

2. Competitive Pricing and Tariff Decline (2006–2011)

As more GSM and CDMA operators entered the market, competition grew more fierce. Per-second charging was introduced at this time, particularly around 2009, which assisted customers in lowering expenditures. Because of pricing wars and regulatory action, tariffs dropped to as low as ₦12 per minute (NCC, 2010). The NCC was instrumental in enforcing price caps to ensure affordability and fair play (NCC, 2010).

3. Data Boom and Shift in Tariff Focus (2012–2015)

As a result of the widespread use of smartphones, data usage increased, telecom operators began to focus on data services instead of voice, introducing competitively priced data bundles, and data tariffs started to fall as a result of increased infrastructure investment and growing demand (GSMA, 2014).

4. First Major Data Tariff Hike Attempt (2016)

The NCC set a new floor price for data at ₦0.90/MB in 2016 in an effort to safeguard smaller operators and stop underpricing. Nevertheless, the news caused a great deal of public outrage, which quickly resulted in the directive being suspended (Punch, 2016).

5. Gradual and Informal Increases (2017–2020)
Telecom companies started to gradually raise the cost of voice and data bundles starting in 2017 by decreasing bundle sizes and shortening validity periods, all the while maintaining the nominal costs. Rising operating costs, difficulties with foreign exchange, and numerous taxation were cited as the reasons for these steps (ALTON, 2019; BusinessDay, 2020).

6. COVID-19 Period and Access Challenges (2020–2021)
Demand for telecom services increased during the COVID-19 lockdowns, and while there were no official rate hikes, effective costs increased as a result of shorter expiries and lower package volumes (ITU, 2021). The sector was also under increased pressure from inflation and diesel shortages.

7. Escalation of Cost and Inflation Pressure (2022–2023)
Telecom companies, through ALTON, began pressing for legal rate rises owing to economic strain. Inflation, forex scarcity, and rising diesel costs made service delivery increasingly expensive (ALTON, 2023). In certain regions, average data prices per gigabyte rose from ₦500 to ₦900, and phone tariffs were incorporated into bundled pricing (NBS, 2023).

8. Formal Request for Tariff Hike (2024–2025)
Telecom companies asked for a 40% tariff increase in 2024, citing unsustainable operating costs, inflation, and the forex crisis (ThisDay, 2024). The request was accepted by the NCC, which then started impact assessment consultations (NCC, 2024).

From the backdrop of the foregoing, it is clear that tariff increases has been one of the reoccurring features of the Nigerian telecom industry since the inception of GSM operations. Cited key drivers of the Tariff Changes include but are not limited to the following:

- Forex Instability: Naira devaluation raised the cost of imported telecom equipment (CBN, 2023).
- Energy Costs: Diesel reliance for powering base stations significantly impacted operational costs (ALTON, 2023).
- Multiple Taxation: The industry faces as many as 39 different taxes across the country (PwC, 2020).
- Infrastructure Duplication: Limited infrastructure sharing continues to raise cost burdens (GSMA, 2019).

Socioeconomic Impact of Data Tariffs on Education Access
Among economically disadvantaged groups, the relationship between exorbitant data rates and educational exclusion is especially pronounced: according to the National Bureau of Statistics (NBS, 2022), more than 40% of Nigerians are

impoverished, and for many families, the cost of mobile data clashes with essentials like food and housing. According to a study by Omenugha et al. (2021), the cost of data prevented over 65% of Southeast Nigerian undergraduates from being able to regularly access their universities' online platforms.

Selwyn (2010) has defined digital poverty as a multifaceted condition that includes restricted access to devices, internet services, and digital skills. This situation is made worse in Nigeria by regular changes in data prices, which feed a vicious cycle in which students are constantly being pushed in and out of the digital learning environment according to their ability to pay. Reduced academic performance, higher dropout rates, and growing disparities in educational attainment are the results of such instability (Bawa, 2022).

Comparative Insights: Global Approaches to Reducing Data Costs for Education

Some developing nations have taken specific steps to lessen the impact of telecommunication costs on education. For example, during the COVID-19 pandemic, South Africa instituted a zero-rating policy that allowed students to access academic websites and portals without paying for data (Isaacs, 2020). Kenya and Ghana also negotiated public-private partnerships with telecom providers to provide students with subsidized educational data bundles.

While some Nigerian universities have independently tried to work with service providers, the absence of a national policy standard limits scalability and sustainability. These initiatives highlight the significance of integrated policy frameworks that align education and telecommunications strategies. In contrast, Nigeria's fragmented approach, where telecom and education policies operate in silos, has hampered the development of sustainable solutions (Uzochukwu, 2022).

Regulatory and Institutional Constraints

Although the NCC is responsible for overseeing the telecom sector, it has prioritized competition and market liberalization over affordability for educational purposes. Despite being established to increase ICT connectivity in underprivileged areas, the Universal Service Provision Fund (USPF) has had a negligible and poorly proven impact on ODL support (NCC, 2023).

On the educational side, the National Universities Commission (NUC) and other regulatory organizations have not enforced basic criteria for digital access or infrastructure. The policy vacuum is made worse by this lack of interagency cooperation, which leaves students vulnerable to shifting market dynamics and no institutional support (Onyema et al., 2020).

Premised on the reviewed literature, it is abundantly evident that there is a complex interplay between communications pricing, infrastructure, and educational access in Nigeria. While ODL has immense promise for democratizing education, its usefulness is significantly impeded by rising data costs, insufficient digital infrastructure, and weak policy coordination. The issue is complex, encompassing institutional, regional, and economic aspects. Other nations' lessons indicate that cross-sectoral collaborations, data subsidies, zero-rating, and other focused, strategic actions are useful tools for reducing the negative effects of data tariffs on education. To guarantee fair access to ODL, Nigeria urgently needs a unified policy framework that synchronizes national education objectives with telecommunications rules.

. Theoretical Underpinnings: Digital Divide and Capability Approach

A helpful theoretical framework for comprehending how disparities in internet access, usage, and abilities impact educational outcomes is offered by the literature on the digital divide (van Dijk, 2005). In Nigeria, where many students can only afford to interact with text-based information because of data limitations, the "second-level digital divide" refers to variances in the quality of internet use, such as variations in speed, bandwidth, and content interaction.

Furthermore, a normative framework for assessing educational access in terms of substantive freedoms—the actual chances students have to meet learning objectives—rather than just formal enrollment is provided by Amartya Sen's Capability Approach (1999). Exorbitant telecommunications costs might be viewed as a deprivation of capacity, eroding students' autonomy and reducing their capacity to transform accessible resources (devices, the internet) into worthwhile academic accomplishments.

Policy Implications

The findings from this review underscore the intricate and multidimensional effects of rising telecommunication tariffs on access to Online Distance Learning (ODL) in Nigeria. As the country seeks to leverage technology to expand educational opportunities, several key policy implications arise:

1. **Education-Telecommunication Disconnect**

   There is a substantial policy gap between the telecom and education industries. The Nigerian Communications Commission (NCC) does not yet implement laws that give priority to reasonably priced educational data plans, despite the Federal Ministry of Education's promotion of digital learning. Students are exposed to shifting market forces in the telecom sector as a result of the inconsistent actions brought about by this lack of synergy (Afolabi & Okubanjo, 2021). Efforts to increase access to digital learning will remain dispersed and ineffectual in the absence of a cohesive, cross-sectoral policy framework.

2. **Widening the Digital Divide**
   Economically disadvantaged students, especially those from rural or semi-urban areas, who already face socioeconomic and infrastructure impediments to education, are disproportionately impacted by the unchecked rise in data prices. Due to data prices, students from low-income households are more likely to be excluded from online learning, which exacerbates already-existing educational disparities (Adeniran and Aruleba, 2021). This runs counter to Nigeria's pledge to fulfill Sustainable Development Goal 4 (SDG 4), which is to guarantee inclusive, egalitarian, and high-quality education for all.

3. **Institutional Limitations in Coping with Tariff Shocks**
   The majority of Nigerian universities lack the technology infrastructure and negotiating leverage necessary to create efficient, low-data learning platforms or to collaborate with telecom companies for discounted services. Many institutions rely significantly on third-party Learning Management Systems (LMS) without adapting them to the Nigerian data economy, as noted by Adeoye et al. (2020). Students suffer financially as a result of this ineffective material delivery that necessitates high data quantities.

4. **Ineffective Implementation of National Broadband Policy**
   Although lowering internet access costs and increasing broadband penetration are the goals of Nigeria's National Broadband Plan (2020–2025), progress has been inconsistent and sluggish. According to reports, most Nigerians, particularly students, still have to pay for and rely on unreliable internet access (NCC, 2023). Without aggressive implementation and monitoring, the policy's promise to assist digital education remains largely unmet.

Recommendations

To bridge these policy and implementation gaps, the following recommendations are proposed:

1. **Implement Education-Specific Data Subsidies**
   The Federal Government should implement and enforce subsidized or zero-rated data packages for education in coordination with the NCC and major telecom providers. These packages ought to include access to digital libraries, university websites, and well-known LMS platforms. In nations like South Africa and Kenya, where focused educational bundles have enhanced digital access, such programs have been successful (Mutua & Wambua, 2022).

2. **Foster Intersectoral Policy Integration**
   To coordinate policies between the Ministry of Education and the Ministry of Communications and Digital Economy, a special Education-Telecom Taskforce ought to be formed. This agency would be in charge of standardizing data subsidy schemes, supporting cooperative infrastructure investments, and creating legislative frameworks that acknowledge internet access for education as a public utility.

3. **Develop Community-Based Digital Hubs**
   State and local governments ought to fund community learning centers that include free power, Wi-Fi, and educational materials. Students who cannot afford personal data might use these hubs as alternate access points. Digital exclusion among vulnerable learners has decreased in Brazil and India thanks to comparable community-centered initiatives (UNESCO, 2021).

4. **Institutionalize E-Learning Innovation Funds**
   Colleges and universities ought to set aside money specifically for projects promoting digital equity and e-learning growth. These monies can help create low-bandwidth, lightweight course materials and give students who need them subsidized tablets or cellphones. Additionally, this would promote creativity in instructional design that is appropriate for settings with limited resources (Inegbedion et al., 2021).

5. **Accelerate Broadband Infrastructure Rollout**
   The National Broadband Plan's recommendations for the development of reasonably priced, fast internet must be given top priority by the Nigerian government. To encourage telecom businesses to increase broadband connection in underserved educational zones, incentives such tax holidays, lower spectrum fees, and regulatory relaxing should be provided (NCC, 2023).

6. **Promote Public-Private Partnerships (PPPs)**
   When telecom providers provide reduced data rates in return for policy benefits, the government ought to support Public/Private Partnerships. To host institutional material on zero-rated platforms or combine tuition costs with data plans, telecom firms and educational institutions can work together.

7. **Revise the National Education Policy to Include Digital Access**
   It is necessary to update Nigeria's educational regulations to include digital access as a fundamental right for all students. All institutions must adopt digital equity initiatives, backed by federal oversight and compliance monitoring, as required by the amended National Policy on ICT in Education.

Concluding Remarks

Access to the internet that is both affordable and equitable is now a necessity rather than a luxury for participating meaningfully in modern education. In the modern digital world, a person's capacity to access dependable and reasonably priced internet connections has a big impact on their ability to engage in academic programs, use digital learning environments, and take advantage of breakthroughs in education like Online Distance Learning. This is especially important in Nigeria, where ODL presents a workable alternative for increasing educational access across various geographic and socioeconomic divisions, while traditional educational infrastructure is frequently overburdened.

However, as ODL becomes a more important part of Nigeria's educational plan, fairness and inclusivity are seriously threatened by the cost of growing telecommunications rates. These cost hikes run the risk of solidifying a new kind of digital exclusion in which students from lower-income homes are left behind while only those from wealthy backgrounds can afford regular internet connectivity, unless intentional and coordinated solutions are implemented. This digital divide threatens to exacerbate already-existing social and economic disparities and undercuts the core tenets of equal opportunity in education.

In order to overcome this obstacle, the Nigerian government must enact strategic policy changes in coordination with commercial telecom companies, regulatory bodies, civil society, and foreign partners. Regulatory restrictions on data pricing, public-private partnerships to increase rural connection, student broadband subsidies, and investments in community digital infrastructure like free Wi-Fi learning hubs are a few examples. These steps would guarantee wider access to ODL and be in line with both national development objectives and the international pledge to provide all people with inclusive, equitable, and high-quality education.

A digitally inclusive education system that empowers all students, regardless of background, fosters social mobility, and makes a significant contribution to social justice and national advancement can be built in Nigeria by aggressively tackling the obstacles presented by growing telecom costs.

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