JOURNAL OF LIFESTYLE & SDG'S REVIEW
e-ISSN: 2965-730X
THE GLOBAL GOALS

EXPANDING THE YOUTH EMPLOYABILITY IN NIGERIA THROUGH DIGITAL SKILLS ACQUISITIONS AS PATHWAYS IN ADVANCING SUSTAINABLE DEVELOPMENT GOALS

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ABSTRACT

Objective: This study explores how digital skill acquisition can enhance youth employability in Nigeria and accelerate progress toward the Sustainable Development Goals (SDGs). It emphasizes that equipping young people with relevant digital competencies is vital for inclusive growth and sustainable economic advancement.

Theoretical Framework: Anchored in Human Capital Theory and the Signaling Theory, the study explains how investment in digital capabilities enhances productivity, employability, and competitiveness in a technology-driven world.

Method: Using a qualitative analytical approach, the study draws on secondary data from policy documents, development reports, and empirical literature to evaluate Nigeria's institutional readiness, policy framework, and digital infrastructure.

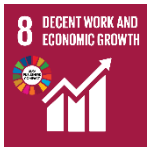
Result and Discussion: Findings indicate that weak digital infrastructure, affordability constraints, poor literacy, and ineffective policy execution hinder youth employability and economic transformation. Comparative insights from successful economies reveal that systematic digital training enhances productivity and job creation.

Research Implications: The study offers embedding digital literacy across all education levels, investing in ICT infrastructure, and training educators through "Train-the-Trainer" initiatives.

Originality/Value: This study contributes to understanding how digital empowerment can advance SDGs, particularly SDGs 4, 8, and 9, by fostering innovation, employment, and inclusive development.

Keywords: digital skills, SDG 4, SDG 8, SDG 9, youth employment, economic progress, Sustainable Development Goals (SDG).

Received: Sep/26/2025
Accepted: Nov/26/2025
DOI: https://doi.org/10.47172/2965-730X.SDGsReview.v5.n10.pe08136



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1 INTRODUCTION

Youth employment is among the pillars of the economic vibrancy and social integration of a nation (Anowor, Uwakwe & Chikwendu, 2019; Anowor et al, 2023), especially in a developing country like Nigeria. A productive and sizable youth population is considered a demographic dividend and could potentially drive innovation, increase productivity, and spur economic growth (World Bank, 2023). When young people are gainfully employed, they contribute to the economy through increased consumption, savings, and revenues (OECD, 2024), a virtuous cycle of development reinforcing itself. The participation of the youth in the formal labour market not only bolsters the tax base but also eases pressure on social services, in addition, their entrepreneurial spirit will contribute to the development of a vibrant private sector (The Nigerian Economic Summit Group, 2024). Conversely, high rates of youth unemployment are major disincentives to development resulting in economic stagnation and loss of human capital. Several studies (Afrobarometer, 2024; Onodugo et al, 2017; Okorie & Anowor, 2017) have proven that there is direct correlation between youth unemployment and social instability in the form of increasing criminality, social restiveness and political apathy. This may lead to loss of generations of educated but unemployed young people and inflict long-term negative consequences on personal well-being and national development (Onodugo et al, 2019 a; Nwonye et al, 2020). Thus, a strategy to ensure gainful employment for the Nigerian youth is not merely an economic goal but an ultimate approach for national security and stability.

Nigeria's demographic composition incidentally features a rapidly growing youth population, abundant opportunities, enormous potential, and same time pressing socio-economic challenges. Although the youth population in Nigeria (15 years to 35 years) comprises a considerable portion of her labour force (about 60% of Nigerian and West African population), young people are still unreasonably subjected to high rate of unemployment. While studies have shown that unemployment remains a major challenge on the entire African working-age population, it has been proven that the youth population is suffering disproportionately (Anowor et al., 2023; World Bank, 2023; Onodugo

et al, 2019 b). Recent statistics speak about the complexity of this reality. For instance, International Labour Organisation (ILO, 2023) indicated that youth unemployment rate in Nigeria has reached 53%. Such classification could be compared with the pre-2022 estimates where youth unemployment in Nigeria was estimated at 42.5% in 2020, which reveals the sufficiency of the structural problems in Nigeria's labour market (Nwonye et al, 2023; Chege & Wang, 2020). A more nuanced understanding emerges when underemployment and the dominance of the informal sector are considered. Many young Nigerians are engaged in unstable, low-income activities that neither harness their full capabilities nor provide a sustainable path to upward mobility (Onodugo et al., 2017). This persisting jobs shortage calls for innovative and inclusive strategies to bridge the disparity between the country's human capital (Anowor, Ichoku, & Onodugo, 2020) and its economic prospects.

The ongoing digital transformation is essentially transforming labour markets around the world (Anowor, Anigbo, Chibuzo, & Ogwuru, 2022), certainly, Nigeria is not an exception. This paradigm shift is based on technological advancements such as Artificial Intelligence, Machine Learning, Data Visualization, Web-development, Nanotechnology, Cloud Computing, Cybersecurity, Digital-marketing, Digital Communication and E-Commerce, inter alia, is leading to the genesis of a new level of logo-tech, which is leading to the rising demand for a workforce in the digital world with a skill set. The significance of digital skills is well localized through how much it affects economic growth of a country. According to National Bureau of Statistics (NBS), the Information and Communications Technology (ICT) sub-sector contributed 20% of the nation's real Gross Domestic Product (GDP) in the second quarter of 2024; this very well shows the huge potential of digital skills in the economic diversification agenda of the nation beyond oil dependency. Apparently, the need to develop digital skills is not limited to the tech industries (Anowor, Anigbo, Chibuzo, & Ogwuru, 2022), rather, it is percolating in the traditional sectors such as agriculture and similar others where automation and data-driven processes have become standard. According to the World Bank (2021), digital skills will be a prerequisite for 9 out of 10 jobs globally, over the next decade. In Nigeria, there is a wide gap between the demand and supply of

labour force as employers often need the scarce digitally skilled talents (The Palladium Group, 2025). This is emphasised by the exploding number of online learners with enrollments in artificial intelligence and other high in-demand courses having grown by 98% annually among Nigerians, with 73% access of material through mobile devices (Coursera, 2025). This illustrates that digital literacy is no longer a luxury but a critical tool for economic participation and pathway to seizing the opportunities presented by a rapidly evolving digital Nigerian economy.

While the fact that Nigeria has the potential of a digital economy is recognized in many literatures, there is still an important gap regarding the direct link between digital skills acquisition and youth employability. Many of these surveys are structural and orientation talks, with too little depth in terms of empirical insight into how specific digital training can lead to real employment. Despite the disconcerting numbers of reports that show that more than 85% of Nigerian graduates do not have relevant digital skills (GreenCape Survey, 2023), holistic design policies that would close this gap are either non-existent or are poorly executed in Nigeria. Combined with a largely anecdotal discourse, the debate is devoid of a sound data-driven contribution to the skills mismatch, sectoral needs, and policy interventions to build youth with digital skills who are employable. This study contributes critically to filling the missing links and provides rigorous and scholarly analysis of the nexus offering insights and actionable policy recommendations.

The purpose of this paper is to critically examine digital skills as a practicable pathway to youth employment in Nigeria's emerging economy, assess the current digital-skills gap and access constraints, identify the principal structural and socio-economic barriers, and outline evidence-based policy implications supported by statistical projections to 2030. Drawing on recent estimates that youth unemployment remains markedly above national averages and global norms, and that large segments of Nigerian youth lack foundational digital competencies, the study assesses how increased digital inclusion, given rising internet adoption (over 100 million users by early-2024), could translate into scalable employment opportunities in ICT and adjacent sectors. Using World Bank and sector analyses, the paper also evaluates Nigeria's 2030 digital-

jobs aspirations and offers targeted policy measures (education reform, public-private training partnerships, infrastructure investment, and inclusive financing) to maximize digital job creation and measurable youth employment gains beyond 2030.

2 LITERATURE REVIEW

2.1 CONCEPTUAL REVIEW

Digital skills are those skills that will allow individuals to access, process, incorporate, and generate information through digital tools and networked media environments. However, a blanket definition cannot account for the complex realities of Nigeria's labor market and the different proficiency levels necessary for different roles. This paper uses a three-level framework in which digital skills can be defined at the levels of basic, intermediate levels, and experts. This model provides a precise lens for analyzing the existing skills gap and for formulating targeted policy interventions.

Digital skills in Nigeria can be divided into 3 tiers. Foundational (basic) skills are foundational literacies for digital participation, such as using a browser or email. Even though over 103 million people in Nigeria are said to be internet users, about 78% of youth do not have these basic skills according to 2025 UNICEF report, a lack of which prevents access to online opportunities. Intermediate skills allow participation in the gig economy, including fields such as digital marketing, content creation, and analyzing data using spreadsheet information. A 2024 IIARD report reports that many graduates don't have these, and thus, a disconnect exists between technology access and employer demand. Finally, advanced skills, the vanguard of the economic transformation, are the ability to develop software, operate in cybersecurity, and apply data science. A study by the World Bank in 2024 shows a weak educational capacity to generate talent at this level, but studies by TechCabal Insights indicate that the number of digitally skilled workers required in Nigeria will exceed 28 million by 2030. The lack of availability of these high-value skills could be a major bottleneck to the country's economic growth.

Thus, employment prospects in Nigeria seem to be distributed across sectors of the labor market, reflecting both structural conditions and changing economic forces. In the formal sector, opportunities are found in wage-based jobs in registered firms and public institutions, where workers enjoy contracts, social protection, and regulated working conditions. However, the scope of this sector is still quite confined as less than 15% of the total labour force is involved in the formal wage sector, highlighting the limited absorptive capacity due to the exponential youth workforce growth (World Bank, 2024). On the other hand, the informal sector is the major employer of labour in the Nigerian economy, employing more than 90% of the total workforce even as of 2023-2024 (World Bank, 2024). Informality offers subsistence opportunities for many young people but is usually characterized by precarious labour, low productivity, and limited access to social protection. In addition to formal employment opportunities, entrepreneurship as undertaken by a micro, small, and medium enterprise (MSME) is an important source of youth activity. It is reported that around 51.6 percent of informal businesses in Nigeria were founded by people who couldn't get a formal job, which shows the dual nature of entrepreneurship as both necessity-driven and opportunity-driven (World Bank 2024). However, the emergence of the gig economy has created new horizons, as digital platforms can allow young people the opportunity to take up different forms of jobs on demand, task-based, remote work, and freelancing. While there is no exact national estimate, it is possible that some evidence points to the growth of gig worker involvement in Nigeria, representing both the potential opportunities and precarious labour of digital-mediated work and individuals (World Bank, 2024). Moreover, these trajectories reflect the unevenly distributed and multiple terrains upon which youth employment will be gained in the coming years, with digital skills likely one of the critical factors in the quality and inclusiveness of opportunities that are available on offer beyond 2030.

In the Nigerian context, the youth category refers to people between the ages of 15 and 35 years (National Youth Policy, Federal Republic of Nigeria, 2019). This kind of demographic makes up a critical segment of the nation's labour force and is an imperative factor in expanding the growth of the economy. However, getting young people in Nigeria to secure sustainable

employment has remained a challenge. The incidence of unemployment among this category, defined as the condition of being unemployed but able to work, which means actively seeking employment, is particularly high. Recent findings from the National Bureau of Statistics (NBS) (2023) revealed that there has been a steady upward ascent in the unemployment rate of the youth population to 42.5% in 2022, and a large percentage of the youth population was underemployed, meaning doing less than full hours or are not employed in occupations, which is ideally in line with their skill and experts capacities (Adebayo & Oluwatobi, 2020). Underemployment, or the degree to which a skilled worker is employed at a lower than desired level, not only reduces productivity, but it also creates skill-wage and skills-premia degradation and reduces long-term economic growth (Agbarakwe et al, 2018; OECD, 2020). These facts emphasize the need for exploring other remedies that can combat labour market mismatches, and one of the promising remedies could be digital skills development, which can be useful for improving youth employment prospects in Nigeria.

2.2 THEORETICAL REVIEW

The Human Capital Theory (Becker, 1964) and the Signaling Theory (Spence, 1973) provide a frame of reference for the significance of digital skills in contributing to the employability and productivity of young people. According to Becker's Human Capital Theory, investments in education and training boost an individual's productivity and employability. The Signaling Theory maintains that education and skills act as signals to employers of an individual's potential productivity and abilities (Onodugo, Kalu, & Anowor, 2013; Onodugo, Anowor, & Ofoegbu, 2018,). In this digital era, digital skills have become an important part of human capital development. Studies have shown that digital skills training programs can take youth to new levels in terms of employability and productivity (World Bank, 2020). For instance, a study by GIZ (2019), found that digital skills training provided by GIZ for Nigerian youths improved their chances of being employed by 25%. Similarly, a report by the International Labour Organization in 2022 stated that the impact of 'digital skills

development' could result in a 10-20% productivity boost. These findings suggest that by investing in digital skills, young people can boost their human capital to make them more attractive to prospective employers, which increases their chances of finding meaningful employment.

The nexus between skills acquisition and labour market integration is not new in the employability literature. Human Capital Theory, formulated by Schultz (1961) and Becker (1964), thereby argues that investments in education and training, including the digital competencies of the current era, lead to enhanced productivity, thus bettering the earnings and jobs. This is especially salient in the Nigerian emerging economy, as there remains a constant disparity between educational output and industry demand (National Bureau of Statistics, 2023). Verified digital skills such as coding and data analytics not only distinguish the job seekers but also reduce the recruitment risks of the employers. Evidence from a survey conducted in 2022 by the National Information Technology Development Agency (NITDA) has shown that over 65% of youths in Nigeria with certified digital skills obtained employment in the first six months of graduation, compared with 35% of youths who are not certified in digital skills. These results support the importance of skills development to enable labour market integration, supporting the theoretical relationship between human capital development and labour market performance.

Technology adoption frameworks, such as the Technology Acceptance Model (TAM) and Diffusion of Innovations Theory highlight the significance of perceived usefulness, ease of use and socio-economic relevance in the adoption process (Davis, 1989; Rogers, 2003). In Nigeria, for example, mobile internet access has become a prerequisite for participating in the labour market, especially for the youth who use digital platforms to access jobs, skills and work from home. A 2024 World Bank report has linked mobile internet access to a 7% reduction in extreme poverty and the parallel 8% increase in labour force participation, case in point showing mobile internet's role in economic inclusion. However, there is a still-persistent digital divide, particularly between urban and rural areas, that limits these benefits. National Bureau of Statistics (2022) data indicates that there is a problem of lack of adequate access and digital literate youth in many rural settings that calls for specific

attention and interventions that would address these gaps to ensure equitable integration into the labour market.

2.3 EMPIRICAL REVIEW

The link between digital skills and labour market outcomes is increasingly evident. Digital competencies bridge the gap between youth capabilities and employer demands, as traditional qualifications alone no longer suffice in a digitizing labour market. The International Labour Organization (ILO, 2023) reports that most new jobs globally now require digital proficiency. In Nigeria, World Bank (2024) data show that a 10% increase in digital literacy is associated with higher employment and greater formal sector participation among youth. Likewise, the National Bureau of Statistics (2023) finds that graduates with certified digital skills are 45% more likely to secure employment within a year than those without certification. These findings position digital skills as essential prerequisites for meaningful and sustainable employment in Nigeria's modern economy.

Empirical evidence indicates pronounced regional variation in how digital skills translate into employment for youth: in high-income OECD countries, according to (Başol, & Yalçin, 2021), widespread device access and basic digital literacy support smoother transitions into formal work, with estimates showing that roughly seven in ten young people possess foundational digital skills that bolster employability (Battisti, Alfiero, & Leonidou, 2022). In contrast, levels of basic digital task performance and levels of advanced ICT skills are relatively low in many countries in Sub-Saharan Africa, holding back the ability of young cohorts to avail themselves of the employment opportunities presented by digital job growth and contributing to enduring underemployment. Evidence from Latin America and the Caribbean suggests a complex, mixed picture of increasing digital employment opportunities and uneven infrastructure and skills gaps that leave segments of youth at risk of being vulnerable to automation and the informal labour market. At the global level, according to the ILO (2023), youth employment outcomes are improving in some regions but are fragile, which highlights that investments in both basic and higher-order

digital competencies are needed to translate digital access into sustainable employment gains for young people globally.

Advanced economies offer useful models for addressing youth unemployment through the strategic development of digital skills, providing insights that are highly relevant to Nigeria. Countries in the European Union and the United States have adopted comprehensive digital skills policies, recognizing that technological proficiency is now central to the future of work. A report by the National Skills Coalition (2023) in the United States indicates that 92% of jobs require some form of digital competence, highlighting the widespread demand for these skills. Similarly, policy reviews across OECD countries reveal a consistent emphasis on embedding digital literacy and advanced technological training into national education systems from early stages, while also promoting lifelong learning opportunities for adults. Such forward-looking strategies have helped reduce youth unemployment rates in many advanced economies relative to global averages. For instance, evidence from a U.S. digital skills initiative showed that participants experienced an 18% rise in employment rates (World Bank, 2024). These outcomes demonstrate a key lesson for Nigeria: building an effective digital skills framework requires a multi-dimensional strategy that not only equips young people with relevant competencies but also creates a demand-driven ecosystem linking training to real employment opportunities. This underscores the importance of sustained public–private partnerships and continuous policy innovation.

The integration of digital skills into youth employment strategies is a critical priority across Africa. With one of the world's youngest populations, the continent holds a demographic advantage that can only be realized if young people are equipped to thrive in the digital economy. Yet, persistent barriers including weak infrastructure (Dalvit & Strelitz, 2013), limited technological access (Dame Adjin-Tettey, 2022), and insufficient training opportunities (Ekanem, 2024) continue to constrain progress. Projections by the International Finance Corporation (IFC, 2020) estimate that Africa's internet economy will reach $180 billion by 2025, representing 5.2% of the continent's GDP. This growth, driven by mobile penetration and e-commerce expansion, is unevenly distributed (Iqani, 2019), leaving many youths excluded from digital

opportunities. The African Development Bank (AfDB, 2022) reports that a substantial share of young people still lack basic digital competencies, a challenge most severe in rural communities where connectivity and educational resources remain limited. In response, governments and development partners have launched targeted initiatives. The Smart Africa Alliance promotes digital transformation through skills development in areas such as coding, data science, and cybersecurity. Similarly, Google's Digital Skills for Africa program has trained millions of young people, enhancing their employability and entrepreneurial capacity. Kenya's Ajira Digital Program (ADP) (TIFA, 2022;) and Rwanda's Digital Ambassadors Program (DAP) (RISA, 2024) illustrate effective government-led efforts to bridge the digital divide and reduce youth unemployment. Ajira equips young people for online work through training hubs and university clubs, while Rwanda's DAP recruits ICT-skilled youth to train citizens, boosting digital literacy. Both initiatives demonstrate how community-based approaches can simultaneously enhance employability, promote digital inclusion, and stimulate broader socio-economic transformation. While these efforts are significant, the scale of the challenge requires more coordinated policy measures, particularly the integration of digital literacy into national curricula and the expansion of equitable access to technology across socio-economic and geographic divides.

3 COMMON CHALLENGES

The Nigerian landscape for youth employment through digital skills is shaped by interrelated challenges, including the digital divide, affordability barriers, educational shortcomings, and weak ICT infrastructure. Access disparities remain stark, with urban youth significantly more likely than their rural counterparts to have stable internet, functional digital devices, and reliable electricity (National Bureau of Statistics, 2022). Affordability further exacerbates the divide, as the high costs of broadband services, mobile data, and digital devices such as smartphones, laptops, and tablets continue to limit participation in the digital economy, particularly for low-income households.

The education system reinforces these inequalities. Many schools have not integrated digital literacy into their curricula and lack adequately trained teachers to deliver technology-driven learning. A large proportion of public-school teachers possess only minimal digital competency (Adeleke & Nwosu, 2020). In addition, critical infrastructure such as computer laboratories, digital learning materials, reliable internet connectivity, and a stable power supply is either absent or severely underdeveloped, creating further obstacles to equipping students with market-relevant digital skills. These deficiencies are directly reflected in national labour market outcomes. Nigeria's unemployment data reveal a structural skills mismatch that undermines youth employability. In 2023, the country's headline unemployment rate stood at 33.3%, but the figure was notably higher among youth aged 15–24, at about 43% (Anowor et al, 2023; WDI, 2023).

Comparative insights from other emerging economies highlight possible pathways forward. In India, large-scale initiatives such as the Digital India program have sought to reduce affordability and access barriers by expanding broadband infrastructure, subsidizing digital devices, and promoting digital literacy across rural areas (Government of India, 2021). Similarly, Kenya's Ajira Digital Program has created youth empowerment centers and training clubs within universities, providing both digital skills and access to infrastructure, while connecting participants to gig economy opportunities (TIFA, 2022). These interventions illustrate how policy-driven investments in affordability, infrastructure, and skills development can enhance youth employability while narrowing digital divides.

4 DISCUSSION

The strategic development of digital skills offers a transformative approach to addressing Nigeria's youth unemployment, with significant implications for individual empowerment and national economic growth. By equipping young people with in-demand competencies, digital literacy bridges critical skills gaps and opens pathways to emerging sectors such as e-commerce, digital marketing, data analytics, and cybersecurity (World Bank, 2024; NBS,

2023). Beyond employment, digital skills catalyze entrepreneurship, enabling youths to create businesses with minimal capital through platforms like Shopify, Upwork, and social media, thereby generating income and jobs (Harjono, 2023). Moreover, proficiency in digital tools ensures meaningful participation in Nigeria's expanding digital economy, enhancing economic mobility and promoting financial inclusion (NCC, 2024). Strategically, these outcomes align with multiple Sustainable Development Goals, advancing SDG 8 (Decent Work and Economic Growth), SDG 4 (Quality Education), and SDG 9 (Industry, Innovation, and Infrastructure). Concertedly, this evidence underscores the pivotal role of digital skills in driving both personal empowerment and broader socio-economic transformation in Nigeria.

The promise of digital skills as a pathway to youth employment in Nigeria is undermined by persistent structural and systemic challenges. A critical barrier is the ICT infrastructure deficit, reflected in unreliable electricity, inadequate broadband penetration, and stark rural–urban disparities that exclude large segments of the youth population from meaningful access (NCC, 2024; NBS, 2022). Affordability further compounds the challenge, as the costs of devices and data remain prohibitive for low-income earners, with entry-level broadband plans consuming a significant share of gross national income (ITU, 2024). Even when access is available, low levels of digital literacy, rooted in the slow integration of digital skills into formal education and a shortage of qualified teachers, limit effective utilization (UNICEF, 2024). Moreover, weak policy implementation has curtailed the impact of national ICT strategies, with gaps in coordination, funding, and governance undermining progress (Hashim & Turiman, 2024). Jointly, these constraints highlight the need for deliberate and sustained interventions to ensure that digital skills can serve as a viable pathway to reducing youth unemployment and advancing Nigeria's economic development.

Comparative insights from other emerging economies provide critical lessons for Nigeria in leveraging digital skills to tackle youth unemployment. India's Skill India initiatives, particularly the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), have trained millions of youths, yet low placement rates reveal a persistent disconnect between the skills provided and industry needs,

showing that large-scale training without strong employer linkages has limited impact. Kenya's Ajira Digital Program offers a more targeted and demand-driven model by equipping youths with practical competencies for the gig economy and directly linking them to online platforms, with over 1.9 million young Kenyans engaged in online work by 2022. South Africa demonstrates the value of public–private partnerships, where initiatives such as the Vodacom Digital Skills Hub align training with market demand, leading to stronger outcomes, as evidenced by a UNDP-supported project that placed more than 700 trained youths into jobs. Side by side, these cases highlight that effective digital skills policies must be demand-oriented, inclusive, and supported by strong institutional collaboration, offering Nigeria valuable guidance in moving beyond training volume to ensuring employment-driven outcomes.

Despite numerous government initiatives, significant policy gaps continue to hinder the effective use of digital skills as a pathway to youth employment in Nigeria. Agencies such as the National Information Technology Development Agency (NITDA) have launched digital literacy and training programs, but their impact has been limited by fragmented implementation, weak sustainability mechanisms, and poor integration into a coherent national strategy that connects skills acquisition to employment opportunities (Ogunode & Ndayebom, 2024). A major weakness lies in the formal education system, where outdated curricula, a shortage of qualified ICT instructors, and infrastructural deficits such as inadequate laboratories and unreliable electricity contribute to widespread digital illiteracy. Indeed, a 2023 survey by GreenCape (2023) found that 85 percent of graduates lack essential digital competencies, underscoring a deep mismatch between education outputs and labor market demands. At the same time, national digital literacy policies often fail to address structural inequalities: over half of Nigerians lack basic digital skills, while high data and device costs exclude the most vulnerable youth from participation (World Bank, 2022; GreenCape, 2023). Ultimately, the persistence of weak policy implementation, educational shortcomings, and affordability barriers highlights the urgent need for coordinated, demand-driven strategies that integrate digital skills development with employment creation and inclusive access.

5 POLICY IMPLICATIONS

Tackling youth unemployment in Nigeria demands a comprehensive and multi-faceted policy approach focused on developing digital skills. A key strategy involves drawing inspiration from other nations; for instance, Nigeria could follow India's lead by expanding broadband infrastructure and providing subsidies to make devices and data more affordable for low-income households. Additionally, adopting a model like Kenya's Ajira Digital would involve establishing community-based digital hubs and university clubs to offer training and access to technology. At its core, the education system needs a major overhaul to embed digital literacy in curricula from a young age, supported by investments in teacher training in the form of "Train-the-Trainer Programme" and ICT infrastructure. These coordinated efforts spanning curriculum reform, public-private partnerships, and equitable access are essential to bridge Nigeria's digital divide and cultivate a workforce capable of driving sustainable economic growth.

Curriculum Reforms for Schools and Universities: Nigeria's education system requires urgent curriculum reforms to embed digital literacy, coding, data analytics, and entrepreneurship across all levels of learning. Current curricula remain largely theoretical, leaving graduates ill-prepared for the demands of the digital economy (Kalu et al, 2014). Countries such as Singapore and Estonia, which have integrated digital skills into formal education, maintain youth unemployment below 10%, compared to Nigeria's 53% in 2023-2024. Embedding digital competencies alongside critical thinking and problem-solving would help bridge this gap and position young Nigerians for sustainable employment.

Public-Private Partnerships for Digital Training: Given resource limitations, public–private partnerships (PPPs) are essential for scaling digital training. Programs like Microsoft's Global Skills Initiative and Google's Digital Skills for Africa demonstrate how collaboration can expand market-relevant training (World Bank, 2023). By institutionalizing PPPs, Nigeria can ensure that training curricula reflect industry trends while widening access to affordable, practical skill acquisition.

Targeted Programs for Women and Rural Youth: Digital exclusion in Nigeria is both gendered and spatial, disproportionately affecting women and rural populations (GSMA, 2023). Policy must prioritize targeted interventions, including subsidized training, mentorship for women in tech, and rural digital infrastructure. Closing the gender digital divide alone could add up to US$140 billion to Africa's GDP by 2030 (IFC, 2020), underscoring the economic and social importance of inclusion.

Incentives for Tech Startups Employing Young People: Nigeria's startup ecosystem, despite contributing 18.4% to GDP in 2022 (NBS, 2023), faces barriers such as weak financing and regulatory constraints. Policies that provide tax incentives, innovation grants, and simplified regulations could strengthen startups' ability to absorb digitally skilled youth while diversifying the economy and fostering innovation.

Links to Broader Development Goals: Digital skills policies directly advance the Sustainable Development Goals (SDGs): curriculum reforms align with SDG 4 (Quality Education), youth employability initiatives support SDG 8 (Decent Work and Economic Growth), and incentives for innovation promote SDG 9 (Industry, Innovation, and Infrastructure). Empirical evidence shows that a 10% rise in broadband penetration boosts GDP growth by 1.3% in developing economies (World Bank, 2023), demonstrating how digital inclusion can accelerate progress toward national and global development agendas.

6 CONCLUSION

This paper concludes that digital skill is a vital pathway for addressing Nigeria's youth unemployment, leveraging the country's demographic dividend to drive economic diversification. The analysis reveals a significant skills gap, with some reports indicating that 85% of Nigerian graduates lack foundational digital skills, highlighting an immense opportunity for targeted policy intervention. However, this potential is challenged by systemic issues, including a lack of access to affordable internet and digital devices, and a formal education system that is misaligned with modern industry demands. To overcome these barriers, future research must shift toward empirical, data-

driven studies to quantify the return on investment of training programmes and conduct sector-specific analyses of skill demands. A longitudinal study on the career paths of digitally skilled youth would further illuminate the long-term economic benefits. Ultimately, Nigeria's success depends on integrated reforms that strengthen education, foster public-private partnerships, advance inclusivity, and incentivize innovation, thereby transforming its emerging economy into a digitally competitive one.

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