

HUMAN CAPITAL DEVELOPMENT AND EDUCATIONAL ADVANCEMENT IN NIGERIA: REALITIES AND WAY FORWARD.

DR MIRIAN N. OBIZUE.

**1. INSTITUTE OF ARTS MANAGEMENT AND PROFESSIONAL STUDIES.
(IAMPS).**

**NO. 43 OKIGWE ROAD OPPOSITE NIGERIAN CORRECTIONAL CENTER.
OWERRI IMO STATE.**

mnobizue@gmail.com, 07031976469.

ENOMAH SYLVESTER PhD

**2. DEPARTMENT OF PUBLIC ADMINISTRATION, FACULTY OF
ADMINISTRATION AND MANAGEMENT,
DELTA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY, OZORO,
NIGERIA**

sylvesterenomah@gmail.com, 08028929773

Abstract

Human capital development encompasses the enhancement of intellectual, physical, and emotional capacities within a population, fostering individual empowerment, national progress, and economic sustainability. It is a widely accepted notion in development economics that human capital, particularly when strengthened through quality education, serves as the foundation for sustainable economic growth, technological advancement, social stability, and poverty reduction. Education is the primary vehicle for this transformation, equipping individuals with the necessary skills, knowledge, and competencies to effectively engage in an increasingly complex and technologically driven global economy. In Nigeria, however, significant barriers continue to impede the realization of a robust human capital development framework. Despite various educational reforms and increased investments in the education sector, the country grapples with deep-seated challenges, including chronic underfunding, infrastructural decay, curriculum deficiencies, and stark socio-economic inequalities that hinder equal access to quality education. These structural deficiencies weaken Nigeria's capacity to cultivate a competitive workforce and exacerbate long-term developmental setbacks such as high unemployment, low productivity, and economic stagnation. This paper critically examines the intricate relationship between human capital development and educational advancement in Nigeria the realities and way forward, providing an in-depth analysis of how investments in education, policy interventions, and systemic inefficiencies impact national productivity and economic growth. By drawing on theoretical perspectives, it argues that Nigeria's current educational strategies fall short of fostering a

globally competitive labour force. Furthermore, it explores the roles of key stakeholder including the government, private sector, and individuals in addressing the existing gaps and implementing strategic interventions for long-term educational and economic reform. Ultimately, this paper emphasizes the urgent need for a holistic approach to education reform, integrating policy consistency, infrastructural development, curriculum modernization, and equitable access to learning opportunities as a way forward.

KEYWORDS: Human capital development, and educational advancement.

Introduction

Education has long been recognized as the cornerstone of national development, shaping the economic, social, and political trajectory of a nation. Historically, countries that have prioritized human capital development through strategic investments in education such as Finland, South Korea, and Singapore have achieved remarkable progress in technological innovation, economic diversification, and improved living standards. In contrast, Nigeria continues to struggle with structural deficiencies in its education sector, which undermine efforts to build a highly skilled and competitive workforce. The significance of human capital development is well documented in economic literature. Schultz (2021) and Bethel (2016) argue that investment in education, vocational training, and skill acquisition enhances individual productivity, fosters economic expansion, and promotes long-term national prosperity. This theory underscores the idea that nations with a well-educated populace are better positioned to leverage opportunities in a knowledge-driven economy. However, Nigeria's education sector remains plagued by systemic inefficiencies, including inadequate government funding, a lack of

modern learning facilities, an outdated curriculum, and a mismatch between academic training and labour market requirements. These constraints have contributed to rising unemployment rates, declining labour productivity, and widening socio-economic inequalities. The disconnect between Nigeria's education system and its labour market is particularly alarming. Employers across various industries have repeatedly expressed concerns over the growing skills gap, as many graduates lack the practical competencies and critical thinking abilities necessary for employment in the modern workforce (Barro, 2021). Unlike leading economies that have successfully integrated technical and vocational education into mainstream education, Nigeria continues to rely on a largely theoretical learning model that does not equip students with industry-relevant skills. This misalignment between education and employability has left millions of young Nigerians either unemployed or underemployed, with little hope of securing meaningful economic opportunities.

Additionally, disparities in access to quality education remain a pressing challenge. While urban centers such as Lagos and Abuja benefit from relatively better educational

infrastructure, rural areas, particularly in northern Nigeria, suffer from inadequate school facilities, a shortage of qualified teachers, and socio-cultural barriers that prevent children especially girls from obtaining formal education (UNESCO, 2020). With over 10.5 million out-of-school children, Nigeria ranks among the worst globally in terms of access to basic education, a reality that significantly weakens the country's long-term development prospects. This paper critically assesses Nigeria's approach to human capital development, exploring the weaknesses of the existing education system, the role of government and private sector intervention, and the pressing need for a paradigm shift toward skills-based education, lifelong learning, and technological integration. Furthermore, it evaluates the impact of current policies and highlights strategic measures that can bridge the gap between education and employability in Nigeria. As the global economy continues to evolve rapidly, driven by digitalization, artificial intelligence, and automation, nations that fail to develop an adaptive and skilled workforce risk falling behind. To secure a sustainable future, Nigeria must move beyond rhetoric and implement a pragmatic, data-driven, and inclusive education framework that fosters innovation, economic competitiveness, and long-term human capital development.

Human Capital and Economic Growth

A wealth of research has examined the relationship between education, human capital, and economic growth, with scholars

seeking to quantify the extent to which human capital accumulation contributes to overall economic performance. Barro (2021) and Mankiw, Romer, and Weil (2024), provided foundational insights, demonstrating that human capital significantly influences economic growth by improving labour productivity. Their studies showed that educated workers contribute to higher productivity, innovation, and overall economic output. This is particularly relevant in the context of developing economies, where education plays a critical role in fostering industrialization, entrepreneurship, and technological advancement. However, the relationship between education and economic growth is not straightforward, and the impact of educational attainment on economic performance is influenced by a variety of factors, including governance quality, institutional frameworks, infrastructure, and policy implementation. In Nigeria, for instance, while education is recognized as a key driver of human capital development, the effectiveness of educational investments has been complicated by issues such as weak governance, political instability, and inconsistent policy implementation. Despite significant strides in increasing access to education, the direct link between educational advancements and economic growth remains complex, as other contextual factors such as the availability of jobs, quality of education, and the alignment of educational outcomes with market demands also play crucial roles in determining economic outcomes.

The State of Education in Nigeria: A System in Crisis

Education is the bedrock of national development, serving as a critical driver of economic growth, social stability, and technological progress. However, in Nigeria, the education sector is in a state of crisis (Barro, 2021). For decades, the system has been plagued by numerous challenges, including inadequate infrastructure, poor teaching quality, chronic underfunding, and an outdated curriculum that fails to equip students with the skills needed in today's competitive global economy. Despite the widely accepted notion that human capital development is essential for national progress, Nigeria continues to fall short in providing quality education that meets both domestic and international labour market demands. While some policy interventions have been introduced over the years, their impact has been limited due to corruption, bureaucratic inefficiencies, and a lack of sustained commitment from the government (Bethel, 2016).

Underfunding and Resource Misallocation:

One of the most significant challenges facing Nigeria's education system is chronic underfunding. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) recommends that countries allocate at least 15–20% of their national budgets to education to ensure the provision of quality learning opportunities for all citizens. However, Nigeria has

consistently failed to meet this benchmark. In 2023, only 7.2% of the national budget was allocated to education (Federal Ministry of Education, 2023), a figure grossly inadequate to address the sector's pressing needs. This lack of sufficient funding has resulted in poor infrastructure, overcrowded classrooms, outdated learning materials, and poorly paid educators. Many public schools operate without adequate facilities such as libraries, science laboratories, and internet access, making it difficult for students to acquire relevant knowledge and skills. In rural areas, students often have to study in dilapidated buildings, sometimes under trees due to the lack of proper classrooms. Compounding the issue of underfunding is the widespread misallocation and mismanagement of resources. According to UNESCO (2020), corruption in Nigeria's education sector has significantly hindered progress, with funds meant for school development often embezzled or redirected for personal gain. Numerous government-funded educational projects remain abandoned, while those that are executed are often done at substandard levels. These inefficiencies not only waste public resources but also deprive millions of Nigerian students of the opportunity to receive quality education.

Inefficient Teacher Training and Poor Quality of Education:

Teachers are the backbone of any education system, yet Nigeria continues to face significant challenges in teacher training and development. Many educators lack proper training, and in some cases, individuals who

are not qualified to teach are employed due to shortages in the sector. This results in poor learning outcomes, as students do not receive the quality education necessary to build strong foundational skills. Moreover, low teacher salaries and poor working conditions have led to widespread dissatisfaction within the profession. Frequent strikes by teachers and university lecturers further disrupt learning, causing delays in academic progress. To improve educational outcomes, Nigeria must invest in continuous professional development for teachers, ensuring they are equipped with modern teaching methodologies and subject expertise

Poor Learning Outcomes and an Outdated Curriculum:

Another major issue confronting the Nigerian education system is its failure to produce graduates equipped with the necessary skills to thrive in the modern economy. The system continues to rely heavily on rote memorization rather than encouraging critical thinking, creativity, and problem-solving skills. As a result, many Nigerian graduates find themselves ill-prepared for the labour market, leading to high unemployment rates and economic stagnation. Employers across various sectors frequently express concerns over the growing skills gap in Nigeria. Many graduates struggle to secure employment because they lack essential digital literacy, communication skills, and entrepreneurial knowledge (Obizue and Obizue, 2018). In contrast, countries such as Germany and Finland have successfully integrated technical and

vocational education into their mainstream education systems, ensuring that students acquire practical skills and hands-on experience before entering the workforce. Nigeria's reluctance to modernize its curriculum has left it lagging behind in this regard. The Nigerian Educational Research and Development Council (NERDC) has made attempts at curriculum reform in the past, but these efforts have been largely ineffective in addressing the fast-changing demands of the digital economy. To improve learning outcomes, Nigeria must adopt a skills-based education model that prioritizes STEM (Science, Technology, Engineering, and Mathematics), digital literacy, entrepreneurship, and vocational training. This will better prepare students for the realities of the 21st-century job market and reduce the high rate of graduate unemployment.

Disparities in Access to Education and Socioeconomic Inequalities:

Education in Nigeria is also characterized by significant disparities in access, particularly between urban and rural areas, as well as between different socio-economic and ethnic groups. While children in major cities such as Lagos and Abuja may have access to relatively better educational facilities, millions of children in rural and conflict-affected areas struggle to receive even basic education. The northern region of Nigeria is particularly affected by this crisis, with some of the highest rates of out-of-school children in the world. According to the United Nations Children's Fund (UNESCO, 2020), over 10.5

million Nigerian children are currently out of school, with poverty, insecurity, and cultural factors being major contributing causes. The ongoing insurgency and banditry in the North have further exacerbated the situation, with many schools shutting down due to safety concerns. Girls are disproportionately affected by this crisis. Cultural and religious beliefs in some parts of the country discourage female education, resulting in significantly lower literacy rates among women compared to men. Studies by the World Bank (2021) have shown that countries that invest in female education tend to experience higher economic growth, reduced poverty levels, and greater social stability. If Nigeria fails to bridge this gender gap in education, it will continue to suffer from a weakened labour force and slower economic development.

The Role of Government in Human Capital Development

The Nigerian government has introduced several policies aimed at improving human capital development through education. However, these initiatives have largely failed to deliver the expected outcomes due to poor execution, corruption, and lack of political will.

Policy Failures and Inefficiencies:

Programs such as the Universal Basic Education (UBE) scheme and the Tertiary Education Trust Fund (TETFund) were designed to improve access to quality education. However, their impact has been minimal due to poor implementation and weak oversight (Olaniyan & Okemakinde, 2018). For instance, while the UBE program aims to provide free and compulsory

education for children up to junior secondary school, many states have failed to effectively enforce this policy, leaving millions of children out of school. Additionally, frequent industrial actions by teachers and university lecturers have further weakened Nigeria's education sector. Between 1999 and 2022, Nigerian universities were shut down for a cumulative period of over four years due to strikes by the Academic Staff Union of Universities (ASUU). These disruptions significantly affect students' academic performance, delay workforce entry, and contribute to brain drain, as many Nigerian students seek better education opportunities abroad.

The Role of the Private Sector and Individual Responsibility in Human Capital Development

While government intervention is crucial in shaping a nation's education system and workforce development, it is not solely responsible for ensuring sustainable human capital growth. The private sector and individuals also have critical roles to play in building a knowledgeable, skilled, and adaptable workforce that can drive economic progress. The involvement of businesses in education and workforce training has become a global best practice, with successful models demonstrating the power of public-private partnerships in bridging funding gaps, introducing innovative learning methods, and aligning education with industry needs. Additionally, individuals must take personal responsibility for lifelong learning, acquiring new skills, and exploring entrepreneurship as

an alternative to traditional employment. For Nigeria to achieve sustainable human capital development, collaboration between the government, private enterprises, and individuals must be strengthened. This essay explores how the private sector can contribute to educational advancement and workforce training, while also emphasizing the importance of continuous learning and entrepreneurial efforts by individuals. The Role of the Private Sector in Human Capital Development include:

Private Sector Partnerships in Education and Workforce Training:

Across the world, businesses have recognized the importance of investing in human capital as a means of ensuring long-term economic sustainability. Companies such as Google, Microsoft, and IBM have actively collaborated with governments and educational institutions to improve learning outcomes through technology, research funding, and digital skill development programs. These partnerships have been instrumental in equipping students and professionals with the skills needed for a rapidly evolving job market. Nigeria's private sector must follow this model by actively investing in education through initiatives such as:

1. **Corporate-Sponsored Scholarships and Grants:** Large corporations and high-net-worth individuals can provide scholarships and funding for students, particularly in fields that are critical for national development, such as science, technology,

engineering, and mathematics (STEM). By offering financial aid, companies can help bridge the gap between talented individuals and higher education opportunities.

2. **Vocational Training and Apprenticeship Programs:** Many Nigerian graduates struggle to find employment due to a lack of practical skills. Private businesses can play a role in addressing this challenge by establishing apprenticeship programs that provide hands-on experience in industries such as manufacturing, technology, healthcare, and finance. Through structured internship programs, companies can nurture young talents and prepare them for the demands of the workforce.

3. **Investment in Digital Learning and E-Learning Platforms:** The world is shifting towards digital education, and Nigerian businesses should invest in online learning platforms that make education more accessible to a wider audience. Companies in the telecommunications and technology sectors, for example, can support free or subsidized access to online courses, ensuring that more Nigerians can acquire relevant skills without financial constraints.

4. **Public-Private Partnerships for Infrastructure Development:** One of the major challenges facing Nigeria's education system is poor infrastructure. The private sector can support infrastructure development by building modern classrooms, equipping schools with computers, and providing internet access for educational institutions in underserved areas.

This will enhance the quality of education and create a more conducive learning environment for students. By actively participating in education and workforce training, Nigerian businesses will not only contribute to national development but also build a talent pipeline that meets the needs of their industries.

The Need for Reform and Strategic Investment

To address these challenges and improve human capital development, Nigeria must adopt a comprehensive and strategic approach to education reform. Key recommendations include:

1. **Increased Education Funding** – The government must meet the UNESCO-recommended benchmark for education spending by allocating at least 15–20% of the national budget to education. This will ensure that schools are adequately funded, equipped, and staffed with well-trained educators.
2. **Accountability and Transparency** – Stronger anti-corruption mechanisms should be implemented in the education sector to ensure that allocated funds are used effectively for their intended purposes. Independent monitoring agencies should be tasked with overseeing education projects and expenditures.
3. **Curriculum Reform** – Nigeria's education system must be restructured to emphasize STEM education, vocational training, and digital skills. Schools should integrate

entrepreneurship programs that prepare students for self-employment and job creation.

4. **Improved Teacher Training** – Continuous professional development programs should be established to train teachers in modern teaching methods, technology integration, and student-centered learning approaches. Well-trained educators are essential for improving learning outcomes.

Lifelong Learning and Individual Responsibility

The Importance of Continuous Learning in a Changing World

In today's fast-paced, technology-driven world, learning does not end after formal education. The demand for new skills continues to grow, and individuals must take personal responsibility for their professional growth. Unlike in previous generations, where a university degree guaranteed stable employment, modern workers must continuously adapt to evolving job market demands. Many online platforms now provide access to free or affordable courses that allow individuals to gain new skills. Nigerians should take advantage of resources such as:

1. **Coursera, Udemy, and LinkedIn Learning:** These platforms offer courses on various subjects, including coding, business management, data analytics, and artificial intelligence. By enrolling in such courses,

individuals can enhance their employability and remain competitive in the job market.

2. Coding Boot Camps and Technical Skill Development: With the increasing reliance on digital technologies, acquiring skills in programming, cybersecurity, and digital marketing can open new career opportunities. Platforms like Andela and AltSchool Africa provide intensive training programs that prepare individuals for high-demand tech jobs.

3. Professional Certifications: Many industries require additional certifications to demonstrate expertise in specialized fields. Individuals seeking to advance in their careers should pursue certifications in areas such as project management, financial analysis, and healthcare administration. The responsibility for learning no longer rests solely with educational institutions. Every individual must take proactive steps to acquire new knowledge, stay informed about industry trends, and seek continuous self-improvement.

Entrepreneurship as an Alternative to Traditional Employment

According to Olaniyan & Okemakinde (2018), Nigeria's high unemployment rate presents a significant challenge to economic development. However, one of the most effective ways to combat joblessness is through entrepreneurship. By starting small and medium-sized enterprises (SMEs), individuals can create job opportunities for themselves and others, contributing to

economic growth. Several factors make entrepreneurship a viable path for Nigerians:

1. Availability of Digital Tools and Online Marketplaces: Today, starting a business does not always require large capital investments. Digital platforms such as Jumia, Konga, and Instagram provide opportunities for entrepreneurs to sell products and services with minimal overhead costs. Nigerians can leverage social media and e-commerce platforms to establish and grow their businesses.

2. Government and Private Sector Support for Startups: Many organizations now offer funding, mentorship, and training for entrepreneurs. Programs such as the Tony Elumelu Foundation Entrepreneurship Program and the Bank of Industry's Youth Entrepreneurship Support Scheme provide financial and strategic support to budding business owners.

3. Expanding the Gig Economy: The gig economy allows individuals to work as freelancers, providing services such as graphic design, content writing, and virtual assistance. Platforms like Upwork and Fiverr enable Nigerians to offer their skills to clients worldwide, earning income without relying on traditional employment.

4. Innovation and Problem-Solving: Many successful businesses emerge from identifying and addressing specific problems in society. Nigerians who focus on creating innovative solutions whether in agriculture, renewable energy, fintech, or logistics can

build thriving businesses while making meaningful contributions to the country's development. By embracing entrepreneurship, individuals can break free from the limitations of traditional employment and take control of their financial futures. It is an essential strategy for both personal success and national economic growth.

Recommendations

The following policy recommendations are proposed to enhance human capital development and educational advancement in Nigeria. These recommendations aim to address the systemic issues within the education sector while leveraging the potential of education to drive economic growth and national development.

1. Increased Investment in Education

2. Focus on Technical and Vocational Education
3. Strengthening Public-Private Partnerships (PPPs)
4. Reform of Teacher Education and Professional Development
5. Expansion of Education Access and Equity
6. Integration of Technology in Education

Conclusion

The development of human capital in Nigeria is a shared responsibility that requires active participation from the government, private sector, and individuals. While government policies and investments in education are crucial, businesses must also contribute by

providing scholarships, training programs, and modern learning tools that bridge skill gaps in the workforce. Public-private partnerships can play a transformative role in improving education infrastructure, expanding digital learning, and ensuring that students and professionals receive relevant training for today's job market. At the same time, individuals must embrace lifelong learning and take responsibility for their personal and professional growth. The accessibility of online education, vocational training, and entrepreneurship opportunities presents a unique chance for Nigerians to build rewarding careers and contribute to the nation's economic progress. By fostering a culture of continuous education, innovation, and self-reliance, Nigeria can create a skilled workforce capable of driving long-term economic development. The private sector, individuals, and government must work together to unlock the full potential of human capital, ensuring that education and skills development lead to greater prosperity for all. The future of Nigeria depends not only on policies and funding but also on the active participation of businesses and citizens in shaping a more competitive and dynamic economy.

This study has provided compelling evidence of the critical role of education in driving human capital development and fostering economic growth in Nigeria. Human capital, as conceptualized in this research, encompasses the skills, knowledge, and competencies that individuals acquire through education and training, which, in

turn, contribute to their productivity, economic prosperity, and overall well-being. The opinions of this study support the notion that investments in education, particularly in enhancing access to quality education and developing the skills of the labour force, are instrumental in shaping a nation's socio-economic trajectory. However, the study also reveals that, despite significant investments in education, Nigeria faces substantial barriers to fully realizing the potential of its human capital. These challenges include inadequate infrastructure, low-quality teaching, and inefficient policy implementation, which have hampered the effective utilization of educational investments in fostering human capital development. While Nigeria has made some strides in terms of increasing government spending on education, the observed improvements in educational outcomes, such as literacy rates, student enrolment, and graduation rates, have been far from proportional. This discrepancy highlights a critical issue in the education sector: the effectiveness of educational investments is often undermined by structural inefficiencies and systemic challenges. The lack of sufficient educational infrastructure, outdated curricula, and insufficient teacher training programs are just some of the impediments that continue to limit the impact of education on human capital development. Furthermore, the regional disparities in access to education, particularly between rural and urban areas, exacerbate the inequality of opportunities, hindering the country's overall potential for inclusive economic growth.

One of the key insights from this study is the recognition that human capital development is not only a function of traditional academic education but also requires a broader focus on technical and vocational education. The demand for specialized skills in sectors such as information technology, manufacturing, and healthcare underscores the need for a diversified education system that prepares individuals for the changing demands of the labour market. Therefore, technical and vocational training programs must be expanded and integrated into the broader education framework to ensure that the workforce is equipped with the practical skills needed to drive industrialization and technological advancement. Moreover, the suggestions also suggest that the education sector in Nigeria would benefit from increased collaboration between the public and private sectors. Public-private partnerships (PPPs) have the potential to address some of the critical challenges in education, including the inadequacy of infrastructure, the need for curriculum innovation, and the demand for quality teaching materials. By fostering collaborations with private enterprises, the government can tap into additional resources, expertise, and innovation to enhance the quality of education and increase access to educational opportunities across the country, particularly in underserved regions.

The bidirectional causality between education and economic growth further reinforces the necessity of policy interventions that create a virtuous cycle of development. Policy reforms should aim not

only to increase investment in education but also to ensure that these investments are channelled into initiatives that directly address the systemic challenges within the education system. This includes improving teacher quality, modernizing the curriculum to meet the demands of a knowledge-based economy, and ensuring that educational resources are equitably distributed across all regions. By addressing these structural issues, Nigeria can harness its education sector as a powerful tool for human capital development, which, in turn, will propel sustainable economic growth. As the country moves forward, a comprehensive and multifaceted approach to educational reform is needed. Policy actions should prioritize the following areas: improving infrastructure, expanding access to quality education, enhancing teacher training programs, increasing the focus on technical and vocational education, and fostering greater collaboration between the public and private sectors. Additionally, there should be an increased focus on the use of technology in education, both as a tool to enhance learning and as a means of overcoming logistical barriers, particularly in rural areas.

Finally, this study emphasizes that education is the cornerstone of human capital development and, by extension, economic progress. While Nigeria has made progress in terms of increasing educational investments, it is clear that these investments will only yield their full potential when complemented by targeted reforms that address the inherent challenges within the education system. Through strategic policy interventions, Nigeria can transform its education sector into a robust engine for human capital development, which will be critical to achieving sustainable economic growth, reducing poverty, and enhancing the overall well-being of its population. In doing so, Nigeria will be better positioned to capitalize on its demographic advantages and achieve its long-term socio-economic goals. The importance of human capital in shaping the future of the nation cannot be overstated, and it is through robust investment in education and systemic reforms that the country can unlock its full potential and chart a path toward inclusive and sustainable development.

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