

Assessment of the Impact of Technical Education on Youth Skill Acquisition and Employment Generation in Nigeria

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Abstract

Youth unemployment remains one of the most pressing socio-economic challenges confronting Nigeria, with the National Bureau of Statistics reporting a youth (15-24 years) unemployment rate that fluctuated between 6.5 and 8.6 per cent through 2023 and 2024, alongside a Not-in-Education-Employment-or-Training (NEET) rate exceeding 14 per cent (NBS, 2024). This paper undertakes a theoretical and analytical assessment of the extent to which technical education contributes to skill acquisition and, by extension, employment generation among Nigerian youths. Anchored on Human Capital Theory (Becker, 1964; Schultz, 1961) and Dewey's (1916) philosophy of vocationalism, the paper reviews conceptual and empirical literature, examines national labour-force trends, and interrogates the structural constraints that limit the translation of technical training into gainful employment. The paper argues that while technical and vocational education and training (TVET) holds significant potential for reducing youth joblessness, its impact in Nigeria is weakened by underfunding, obsolete equipment, weak industry linkages and poor public perception. The paper concludes with policy-oriented recommendations for repositioning technical education as a functional engine of youth employment.

Keywords: Technical Education, Skill Acquisition, Employment Generation, TVET, Youth Unemployment, Nigeria

1.0 Introduction

Nigeria's youth population, estimated at over 60 per cent of its more than 200 million citizens, represents both an enormous demographic dividend and a source of considerable policy anxiety (African Liberty, 2024). Whether this population becomes an asset or a liability depends substantially on the extent to which young people are equipped with skills that the labour market actually demands. Technical education, understood broadly as instruction that combines theoretical knowledge with hands-on practice in trades such as electrical installation, welding, automobile technology, building construction and information technology, has long been promoted as the most direct route from classroom to workplace (Uwaifo, 2010).

Successive Nigerian governments have articulated this expectation in policy. The National Policy on Education stipulates that technical and vocational education should prepare individuals to acquire practical skills, applied scientific knowledge and attitudes required in agricultural, industrial, commercial and economic development (Federal Republic of Nigeria [FRN], 2013). Institutions such as Technical Colleges, Vocational Enterprise Institutions, Innovation Enterprise

Institutions and the polytechnic sub-sector, regulated by the National Board for Technical Education (NBTE), constitute the formal architecture through which this mandate is pursued. Yet, despite decades of policy pronouncements, graduate unemployment and underemployment persist, and employers routinely report that many young job-seekers, including some technical-college leavers, lack industry-ready competences (Okoye & Okwelle, 2014).

This paper therefore sets out to interrogate, from a largely theoretical and desk-based analytical standpoint, the relationship between technical education, skill acquisition and employment generation in Nigeria. It situates the discussion within established human-capital and vocational-education theory, reviews relevant literature, examines available labour-force data, and identifies the structural bottlenecks that continue to blunt the employment-generating potential of technical training.

1.1 Statement of the Problem

Nigeria's technical education sub-sector was designed to be a direct pipeline into productive employment and self-reliance. In practice, a persistent gap exists between the skills imparted in many technical institutions and the competences demanded by industry, a mismatch that scholars attribute to obsolete workshop equipment, poorly funded programmes and curricula that lag behind technological change (Okolocha & Baba, 2016; Atsumbe, Raymond, Enoch & Ele, 2012). The result is a paradox: an economy short of skilled artisans and technicians on one hand, and a growing pool of unemployed and underemployed young people, some of them holders of technical qualifications, on the other. This paper examines the depth and drivers of this paradox.

1.2 Objectives of the Study

The paper is guided by the following objectives:

1. To examine the conceptual and theoretical linkages between technical education, skill acquisition and employment generation.
2. To review empirical evidence on the contribution of technical education to youth skill development in Nigeria.
3. To analyze recent labour-force trends relevant to technically trained youths.
4. To identify the structural challenges limiting the employment impact of technical education.
5. To recommend measures for strengthening technical education as an instrument of youth employment generation.

1.3 Significance of the Study

The paper is significant to policymakers, curriculum planners, technical-education administrators and researchers interested in the education-employment nexus. By synthesizing theory, national statistics and prior empirical findings, it offers an evidence-informed basis for redesigning technical-education interventions aimed at reducing youth unemployment.

2.0 Conceptual Clarifications

2.1 Technical Education

Technical education refers to a form of education below the university degree level that is designed principally to prepare individuals for gainful employment in recognised trades or occupations (Uwaifo, 2010). It encompasses instruction in workshops, laboratories and industrial-attachment settings, and is distinguished from purely academic education by its emphasis on the acquisition of manipulative, practical and problem-solving competences (Oviawe, 2010).

2.2 Skill Acquisition

Skill acquisition denotes the process through which an individual develops the practical, cognitive and behavioral competences required to perform a task or occupation to an acceptable standard (Osuala, 2004). Within the technical-education context, skill acquisition is typically demonstrated through certification, apprenticeship completion, or measurable competency in a trade test.

2.3 Employment Generation

Employment generation refers to the creation of opportunities, whether in wage employment or self-employment, through which individuals earn income from productive activity (Ogbuanya & Izuagba, 2019). For technically trained youths, employment generation may take the form of formal engagement by industry, or, increasingly, self-employment through micro and small enterprises built around the acquired trade.

Table 1: Conceptual Distinctions Among the Study's Core Constructs

Concept	Core Focus	Key Indicator(s)
Technical Education	Structured instruction in trades, applied science and vocational competences	Enrolment, curriculum relevance, facility adequacy
Skill Acquisition	Development of practical, employable competences	Certification, competency test scores, apprenticeship completion
Employment Generation	Creation of paid work or self-employment opportunities	Job placement rate, business start-up rate, income level

3.0 Theoretical Framework

3.1 Human Capital Theory

The paper's central theoretical anchor is Human Capital Theory, associated principally with Schultz (1961) and Becker (1964), which conceives of education and training as investments that raise an individual's productive capacity, in the same way physical capital raises the productivity of a firm. Applied to technical education, the theory predicts that resources committed to workshops, instructors and practical training should yield returns in the form of higher employability and earnings for graduates (Psacharopoulos & Patrinos, 2004). The theory provides the logical basis for expecting technical education to generate employment: better-skilled youths should be more attractive to employers and more capable of self-employment.

3.2 Dewey's Theory of Vocationalism

Dewey (1916) argued that education divorced from occupation and productive activity fails to prepare learners for meaningful participation in society, and that vocational and academic learning should be integrated rather than treated as separate, unequal tracks. This perspective underlies the argument, common in Nigerian TVET literature, that technical education should not be viewed as a residual option for academically weaker students but as a legitimate and rigorous pathway to productive citizenship (Okoye & Okwelle, 2014).

3.3 Structural-Functionalist Perspective

A structural-functionalist reading, drawing on the broader sociological tradition, situates technical education as one institution among several, including the labour market, industry and government regulation, that must function in coordination for skill acquisition to translate into employment. Where any one component, for instance industry absorption capacity, is weak, the chain from training to employment breaks down regardless of how well the education component performs (Okolocha & Baba, 2016). This framework is useful for explaining why improvements in technical-college curricula alone have not resolved youth unemployment in Nigeria.

4.0 Review of Related Literature

A considerable body of Nigerian scholarship has examined the technical education-employment relationship. Uwaifo (2010) found that technical-college graduates who received adequate hands-on training were significantly more likely to be self-employed than those trained largely through theory, underscoring the practical orientation the theory demands. Atsumbe, Raymond, Enoch and Ele (2012) similarly reported that the equipment available in many Nigerian technical colleges is outdated relative to current industry standards, a mismatch that limits graduates' readiness for modern workplaces. Okoye and Okwelle (2014) argued that technical and vocational education can serve as a strategic tool for reducing youth restiveness and unemployment in Nigeria, provided that funding, quality assurance and industry collaboration are strengthened. Oviawe (2010) similarly emphasised entrepreneurship education embedded within technical training as a means of enabling graduates to create employment rather than merely seek it. Okolocha and Baba (2016) examined the relevance of vocational and technical education curricula to labour-market needs and found persistent gaps between what is taught and what employers require, a finding echoed in UNESCO-UNEVOC's (2020) regional analyses of TVET systems in West Africa, which note that weak labour-market linkages remain a common constraint across the sub-region.

Collectively, this literature converges on three recurring themes: first, that technical education has demonstrable potential to build employable skills; second, that this potential is frequently undermined by resource and infrastructural constraints; and third, that stronger linkages between training institutions and industry are needed to convert acquired skills into actual employment or self-employment outcomes

5.0 Labour-Market Trends Relevant to Technical Education

Understanding the scale of the employment challenge that technical education is expected to help address requires reference to recent national labour-force data. Table 2 presents youth unemployment and related indicators drawn from National Bureau of Statistics Labour Force Reports covering 2023 and 2024.

Table 2: Nigeria Youth Labour-Market Indicators, Q1 2023 - Q2 2024

Reporting Period	National Unemployment Rate	Youth (15-24) Unemployment Rate	NEET Rate (15-24)
Q1 2023	4.1%	6.9%	n/a
Q2 2023	4.2%	7.2%	n/a
Q3 2023	5.0%	8.6%	13.7%

Reporting Period	National Unemployment Rate	Youth (15-24) Unemployment Rate	NEET Rate (15-24)
Q1 2024	5.3%	8.4%	14.4%
Q2 2024	n/a	6.5%	n/a

(Source: Compiled from National Bureau of Statistics Labour Force Survey reports, NBS, 2023, 2024)

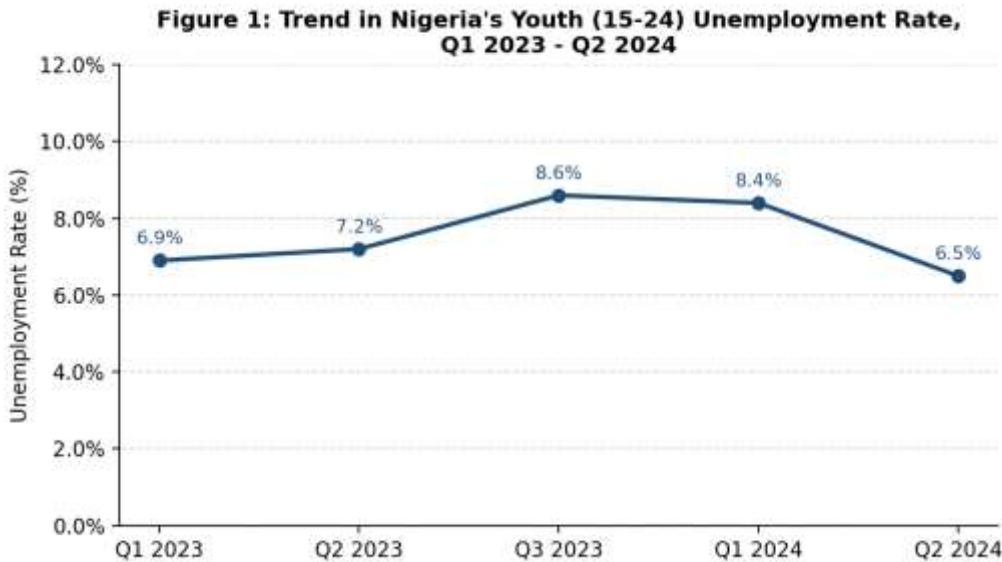


Figure 1: Trend in youth unemployment rate, Q1 2023 - Q2 2024 (NBS, 2023, 2024)

The data show a volatile but persistently elevated youth unemployment rate, peaking at 8.6 per cent in the third quarter of 2023, alongside a NEET rate that climbed to 14.4 per cent by the first quarter of 2024 (NBS, 2024). Equally instructive is the relationship between educational attainment and unemployment presented in Figure 2, drawn from the 2023 Annual Nigeria Labour Force Survey, which found unemployment highest among persons with post-secondary education (9.4 per cent), a pattern the report attributes partly to a mismatch between the skills such graduates hold and the practical competences employers require (NBS, 2023).

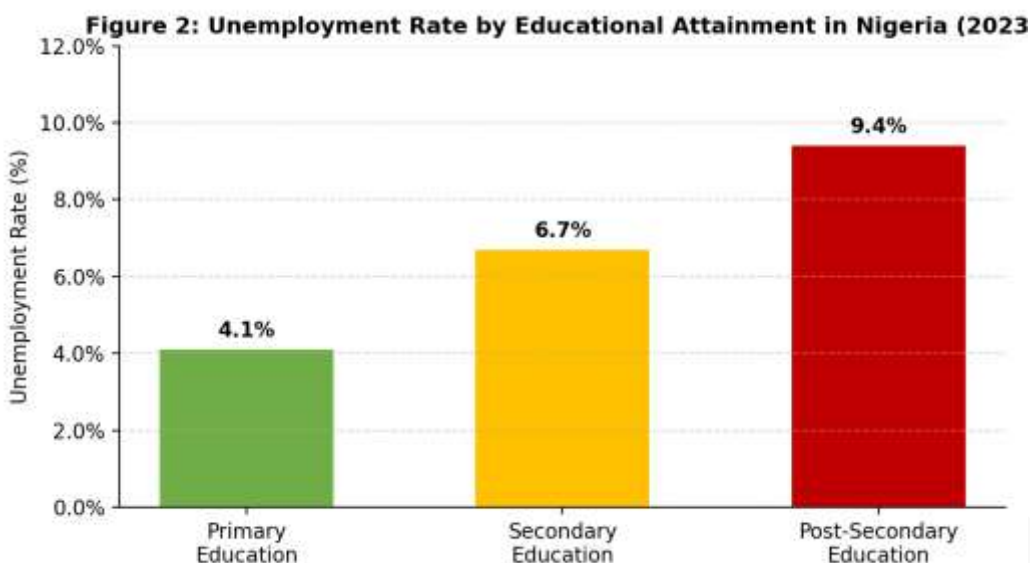


Figure 2: Unemployment rate by educational attainment in Nigeria, 2023 (NBS, 2023)

This pattern is instructive for the present analysis: it suggests that formal educational attainment alone, without accompanying practical, market-relevant skill, does not guarantee employability. The African Liberty report similarly notes that only about 27 per cent of Nigerian graduates were assessed as having acquired practical skills during their education, a gap that technical and vocational training is, in principle, positioned to close (African Liberty, 2024).

6.0 Challenges Facing Technical Education in Nigeria

Despite its theoretical promise, several structural challenges constrain the extent to which technical education in Nigeria translates into skill acquisition and employment. Table 3 summarises the principal challenges identified in the literature and their implications.

Table 3: Challenges Confronting Technical Education and Their Implications

Challenge	Implication for Skill Acquisition / Employment
Obsolete equipment and workshops	Graduates practise on tools that no longer match industrial standards, widening the skills gap
Inadequate funding	Limits recruitment of qualified instructors, maintenance of workshops and student practicals
Weak industry-institution linkage	Curricula drift from labour-market needs; internship and placement pipelines remain thin
Poor societal perception of TVET	Discourages enrolment, pushing more youths toward saturated academic tracks
Inconsistent policy implementation	Reforms such as the National Skills Qualification framework are slow to translate into practice

7.0 Discussion: Bridging Technical Education and Employment Outcomes

Read together, the theoretical framework, the literature and the labour-market data point to a consistent conclusion: technical education possesses genuine capacity to raise youth employability, but this capacity is only partially realised in the Nigerian context. Human Capital Theory predicts that investment in practical training should raise productivity and, consequently, employability (Becker, 1964); the finding that unemployment is comparatively lower among persons with only primary or secondary education than among some post-secondary graduates (NBS, 2023) is consistent with the argument that the practical relevance of training, not merely its duration or level, drives employment outcomes.

At the same time, the structural-functionalist perspective helps explain why gains in classroom or workshop instruction alone have not resolved youth unemployment. Where industry absorption capacity is weak, where informal-sector dominance limits formal job creation, and where entrepreneurship support for graduates is thin, even well-trained technical-college leavers may struggle to convert skill into income (Ogbuanya & Izuagba, 2019). This reinforces the case, advanced by Oviawe (2010) and echoed in more recent policy discourse, for embedding entrepreneurship and micro-enterprise development within technical curricula, so that graduates are equipped not only to seek employment but to create it.

8.0 Findings

- Technical education, when delivered with adequate practical exposure, is theoretically and empirically associated with improved employability and self-employment prospects for Nigerian youths.
- Youth unemployment in Nigeria remained elevated and volatile between 2023 and 2024, ranging between roughly 6.5 and 8.6 per cent, with NEET rates exceeding 14 per cent at points during the period (NBS, 2023, 2024).
- Unemployment was, notably, highest among persons with post-secondary education relative to those with only primary education, underscoring that formal attainment without practical skill does not guarantee employment (NBS, 2023).
- Obsolete equipment, inadequate funding, weak industry-institution collaboration and poor societal perception remains the dominant constraints limiting the impact of technical education on employment generation.
- Entrepreneurship-oriented technical training shows particular promise for enabling graduates to generate, rather than merely seek, employment.

9.0 Conclusion

Technical education retains strong theoretical justification as an instrument for youth skill acquisition and employment generation in Nigeria, a position well supported by Human Capital Theory and by decades of vocational-education scholarship. However, the persistence of elevated youth unemployment, alongside evidence that even post-secondary graduates face substantial joblessness, indicates that the sector's potential remains only partially realized. Bridging this gap will require sustained investment, closer industry collaboration, curriculum modernization and a deliberate shift toward entrepreneurship-oriented training, so that technical education can function not merely as a credentialing exercise but as a genuine engine of productive youth employment.

10.0 Recommendations

Arising from the foregoing analysis, the paper recommends the following:

1. Government at federal and state levels should increase and consistently disburse funding for the equipping and modernization of technical-college and polytechnic workshops.
2. Curricula should be reviewed periodically in active collaboration with industry associations to ensure alignment between taught competences and labour-market demand.
3. Structured industrial-attachment and apprenticeship schemes should be strengthened and made a mandatory component of technical-education programmes.
4. Entrepreneurship education and access to start-up financing should be embedded within technical curricula to enable graduate self-employment.
5. Public enlightenment campaigns should be intensified to reposition technical education as a prestigious and viable career pathway rather than a fallback option.
6. Regulatory bodies such as the NBTE should strengthen monitoring and quality-assurance mechanisms to ensure consistent standards across technical institutions nationwide.

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