



DEVELOPING ALTERNATIVES TO WHITE COLLAR JOBS THROUGH EFFECTIVE TECHNICAL AND VOCATIONAL EDUCATION IN NIGERIA: CHALLENGES AND OPPORTUNITIES BY

¹KEHINDE FELIX LAMIDI, ²MICHAEL SUNDAY OLAYEMI AND
³ABDULMALIK MAIMUNAT OIZA

¹Department of Public Administration,
Kogi State University Kabba

²Department of Statistics,
Kogi State Polytechnic Lokoja

³Department of Science Education,
Confluence University of Science and Technology Osara

Corresponding Author: kflamidi@ksukabba.edu.ng, apostlemike2@yahoo.com
abdulmalikom@custech.edu.ng

Abstract

This study explores the transformative potential of Technical and Vocational Education (TVE) as a strategic tool for addressing youth unemployment and driving sustainable economic development in Nigeria. Utilizing a descriptive survey design, data were collected from 54 academic staff across the Schools of Engineering, Environmental Technology, and Arts and Industrial Design at Kogi State Polytechnic, Lokoja. Both primary and secondary data sources informed the study, with descriptive and inferential statistics including Chi-square analysis were used for interpretation. Findings affirm that TVE contributes significantly to job creation, poverty reduction, and human capital development. However, its effectiveness is constrained by systemic barriers such as inadequate funding, poor infrastructure, weak policy enforcement, outdated curricula, and persistent societal stigma. The study emphasizes that addressing these challenges requires a coordinated, multi-stakeholder reform agenda. Recommendations include increased public investment, curriculum-industry alignment, enhanced teacher development, strengthened public-private partnerships, and nationwide awareness campaigns to reposition vocational education as a respected and viable career pathway. If comprehensively implemented, these strategies can elevate TVE as a cornerstone for inclusive growth, youth empowerment, and long-term national development in Nigeria.



Keywords: Technical and vocational education, job creation, youth empowerment, sustainable development, education reform

Introduction

Nigeria is currently contending with profound economic challenges, among which youth unemployment stands as one of the most critical. According to the National Bureau of Statistics (2023), over 42% of Nigerians between the ages of 15 and 35 are either unemployed or underemployed; a statistic that underscores the severity of the country's human capital underutilization. This crisis is compounded by a persistent mismatch between the skills acquired through formal education and those demanded by the contemporary labor market. Despite the existence of over 100 universities and 120 polytechnics nationwide, many graduates remain unemployable due to inadequate exposure to practical, technical, and entrepreneurial skills (Adebayo, 2020). The country's overdependence on white-collar employment particularly within the shrinking public and corporate sectors has become increasingly unsustainable in the face of a dynamic, digitized global economy. A significant proportion of graduates continue to aspire toward traditional employment pathways, despite diminishing opportunities in these domains. This widening gap between labor market expectations and workforce readiness calls for a paradigm shift toward alternative, skills-based employment models that promote innovation, self-reliance, and economic resilience.

In this context, Technical and Vocational Education (TVE) offers a strategic and practical response to Nigeria's employment crisis. TVE encompasses structured educational and training programs that equip individuals with both theoretical knowledge and hands-on competencies required for specific trades, occupations, or entrepreneurial ventures. Unlike conventional academic pathways, TVE is uniquely positioned to respond to the skill needs of diverse sectors including manufacturing, agriculture, ICT, construction, and the informal economy, thus bridge the gap between education and employment. Globally, countries that have integrated TVE into their national development strategies have reported measurable gains in employment rates, productivity, and inclusive growth. For Nigeria, unlocking the potential of TVE requires more than just institutional reform; it demands targeted policy interventions, robust public-private partnerships, infrastructure investments, and societal reorientation to elevate the status of vocational training and dismantle prevailing biases against technical careers (Olawale & Ibrahim, 2019).

This paper examines the transformative potential of technical and vocational education as a sustainable solution to Nigeria's persistent youth unemployment. Drawing on empirical evidence from a study conducted at Kogi State Polytechnic, Lokoja supported by both primary and secondary data the study investigates the benefits, challenges, and policy implications of TVE in fostering alternative



employment pathways. In doing so, the paper contributes to the broader discourse on education reform, youth empowerment, and inclusive economic development in Nigeria.

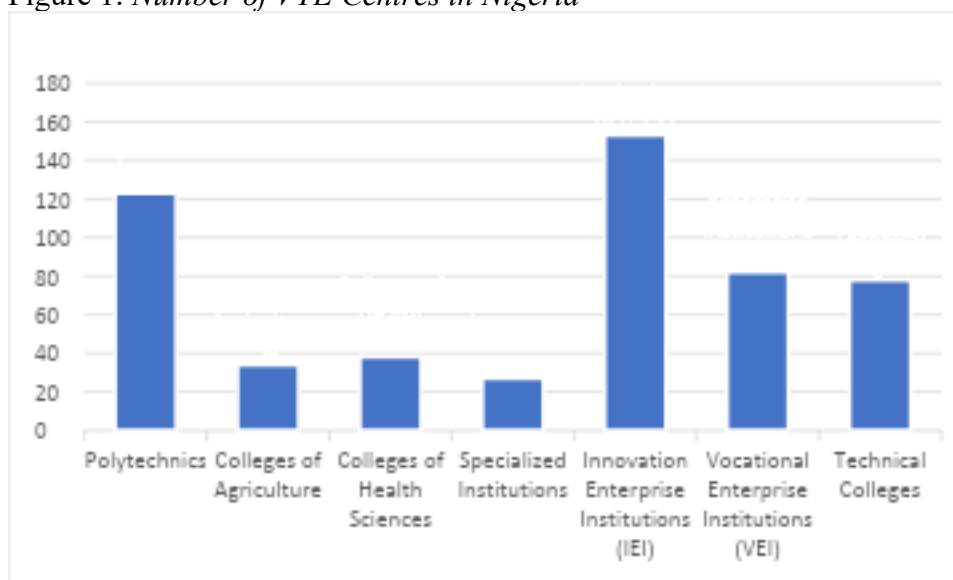
Literature Review

Technical and Vocational Education (TVE), as defined initially by UNESCO (2010) and Ogwo and Oranu (2006), aims to equip learners with both theoretical and practical competencies for workforce entry and self-employment. Emerging research continues to reaffirm this mission. A 2023 UNESCO report underscores the pivotal role of TVE in achieving Sustainable Development Goals by fostering economic inclusion and promoting resilient livelihood strategies across Africa. However, this concept has failed to caution that TVE may unintentionally perpetuate social stratification by tracking disadvantaged students into vocational paths with limited upward mobility, reinforcing rather than dissolving inequality. Early studies (Olaitan, Nwachukwu, Igbo, Onyemachi & Ekong, 1999; Maclean, 2011; Osita, 2013) saw TVE as a key route to employability, particularly in sectors like ICT, agriculture, and manufacturing. More recent evidence, such as a 2022 field survey of Nigerian technical graduates, confirms these benefits as TVE-trained alumni report stronger self-employment outcomes compared to university graduates. A 2023 systematic review further links TVE with enhanced curriculum and industry tie-ins to rising youth employment indicators. However, an ILO and World Bank study (2021) flags that skills mismatch remains rampant: even proficient TVE graduates struggle to meet evolving industrial standards without continuing training and certification. This calls into question the adequacy of initial TVE interventions alone. While longstanding issues persist such as chronic underfunding (NBTE, 2011), poor infrastructure (Okolocha, 2012), and negative societal perceptions (Ndomi, 2005); new problems have surfaced. A 2024 UNDP-AfDB assessment found that even aspirational TVE pilots from entrepreneurship labs make spaces failed or underperformed due to weak industry-government alignment. Yet there is counter evidence from Lagos State, where partnerships between private tech firms and the government through initiatives like the LSETF have led to marked increases in job placements and skills certification rates, suggesting such failures aren't inherent (Lagos State Employment Trust Fund (LSETF), 2025).

The disconnect between curriculum and employer needs as Yusuff & Soyemi (2012) detailed, remains a central concern. Contemporary research, including a 2022 Lagos employer survey, echoes these findings: curricula too theoretical, and trainers unfamiliar with emerging platforms (AI, sustainable agriculture, digital fabrication). One can argue this critique overlooks local contexts where appropriate, community-specific adaptations matter more than standardized, high-tech modules. Scholars advocate for strategies including increased funding, modern infrastructure, upgraded trainer capabilities, and entrepreneurship integration

(Okoye & Arimonu, 2016; Olawale & Ibrahim, 2019). The case for public-private partnerships (PPPs) has grown stronger: a 2023 analysis by the Centre for the Study of the Economies of Africa (CSEA) revealed PPP-TVE models in Nigeria generated training capacity nearly three times that of purely public systems. Nonetheless, we should be cautioned that PPPs may prioritize profit over pedagogy, leaving rural and informal sectors underserved where commercial incentives are weaker. While the National Policy on Education (NPE) puts the ratio between secondary and technical vocational education/schools at 3:1, Nigeria has 5,100 secondary schools with enrolment of 4,448,991 as against technical colleges of only 169 with enrolment of 43,354 representing ratios of 37:1 and 102:1 respectively (Odukoya, 2013). This is an indication that the number of vocational and Technical Education centres in the country is grossly inadequate. This scenario is further explained by the figure below:

Figure 1: *Number of VTE Centres in Nigeria*



Source: National Board for Technical Education, January 2019

From the foregoing discussion, the following reflections are discernible about TVE:

- TVE remains essential for addressing youth unemployment and diversifying economies, but its success depends on bridging theory with real-world application and local relevance.
- Persistent systemic issues like funding deficits, societal bias, and outdated curricula continue to limit TVE's transformative power.



- Encouraging examples show that context-aware PPPs, curriculum-industry synergy, and international collaborations can yield positive outcomes though these initiatives must be scaled equitably.
- Strategic caution is warranted: policy rollout must be mindful of social equity and context-specific adaptability, not just technical modernization.

This paper therefore contends that, the literature in the field converges on a balanced view that, Technical and Vocational Education offers substantial promise for addressing youth unemployment and supporting national development in Nigeria if reform efforts are comprehensive, locally informed, and inclusive. As policymakers and educators navigate these challenges, continuous evaluation and a willingness to adapt will be vital to genuinely realizing TVE's transformative potential.

Methodology

This study adopted a descriptive survey design to investigate the role of Technical and Vocational Education (TVE) as an alternative to white-collar employment in Nigeria. The descriptive survey method is appropriate for collecting detailed information about perceptions, attitudes, and opinions of a target population, which aligns with the study's aim to explore academic staff views on TVE (Creswell & Creswell, 2017). The study population comprised 215 academic staff members drawn from the Schools of Engineering, Environmental Technology, and Arts & Industrial Design at Kogi State Polytechnic, Lokoja. These schools were purposively selected due to their vocational and technical orientation, making them critical stakeholders in TVE development and implementation. A sample size of 54 respondents, representing approximately 25% of the population, was determined using simple random sampling. This sampling technique was chosen to ensure that every member of the population had an equal chance of selection, minimizing sampling bias and enhancing the representativeness of the findings (Kumar, 2019). Primary data were collected using a structured questionnaire developed specifically for the study. The questionnaire comprised both closed-ended and Likert-scale items designed to capture respondents' perceptions of the benefits, challenges, and prospects of TVE in Nigeria. To ensure content validity, the instrument was reviewed by experts in vocational education and pilot-tested among a small group of academic staff outside the sample. Data analysis involved both descriptive and inferential statistical techniques. Frequency counts and percentages were used to summarize respondents' demographic characteristics and response distributions. Bar charts visually illustrate key response trends for ease of interpretation. Furthermore, a Chi-square (χ^2) test of independence was conducted to determine whether observed patterns of responses regarding TVE challenges and benefits were statistically significant. This test is appropriate for categorical data and helps



ascertain whether respondents' agreement or disagreement is non-random (Field, 2018). The significance level was set at $p < .05$.

Results and Discussion

The study provides compelling evidence on the transformative potential of Technical and Vocational Education (TVE) in addressing Nigeria's youth unemployment and economic development challenges. A significant portion of respondents (37%) recognized TVE's multifaceted benefits including job creation, poverty reduction, and human capital development reinforcing extant literature that highlights vocational education as a strategic tool for socio-economic empowerment (Maclean, 2011; Osita, 2013).

However, the findings also expose enduring structural and institutional constraints impeding the effectiveness of TVE. The most cited challenges such as poor practical content, weak policy enforcement, and insufficient funding correspond with earlier scholarly observations (NBTE, 2011; Okolocha, 2012). The statistical significance of these patterns ($\chi^2 (3, N = 54) = 33.96, p = .00019$) affirms a strong consensus among stakeholders regarding the depth and persistence of these barriers. The lack of practical orientation in TVE curricula emerged as a critical gap. This corroborates the concerns of Yusuff and Soyemi (2012), who argued that many vocational programs remain overly theoretical and disconnected from real-world labor market requirements. As a result, graduates are inadequately equipped for employment, thereby reducing the attractiveness and perceived value of vocational training.

Weak institutional support, especially in terms of funding and policy implementation, was also highlighted as a recurring issue. The inability to upgrade infrastructure, modernize equipment, and incentivize quality teaching staff hampers the quality of vocational instruction, which in turn undermines learning outcomes and employability. These deficiencies reflect broader systemic failures in prioritizing TVE within Nigeria's educational and economic development agenda. Moreover, the study identifies societal perception as a major non-material barrier. Deep-seated cultural preferences for university degrees and white-collar professions continue to devalue vocational careers. This stigma contributes to low enrolment in TVE programs and poor morale among both students and instructors. The findings support Ndomi's (2005) argument that public awareness and social rebranding are essential to reposition TVE as a credible and respected educational pathway.

In terms of proposed solutions, most respondents (48.1%) favored an integrated reform strategy encompassing curriculum enhancement, scholarship provision, and improved graduate placement mechanisms. Additionally, half of the respondents advocated for a multi-stakeholder framework involving government, private sector, and civil society actors to collectively address the sector's challenges. This aligns



with Bappah's (2014) call for robust public-private partnerships as a means of revitalizing technical education systems through shared investment, innovation, and accountability. The paper therefore submits that, while TVE remains a vital instrument for economic transformation and youth empowerment, its potential is currently curtailed by systemic inefficiencies, social bias, and policy inertia. Realizing the full value of vocational education in Nigeria requires a coordinated, well-funded, and socially endorsed reform agenda that aligns training outcomes with labor market demands and national development priorities.

Conclusion

This study concludes that Technical and Vocational Education (TVE) remains a critical instrument for addressing youth unemployment, enhancing human capital, and fostering inclusive economic growth in Nigeria. Empirical evidence from Kogi State Polytechnic affirms TVE's multifaceted contributions particularly in job creation, poverty alleviation, and skills development validating earlier theoretical claims and aligning with national development objectives. However, the sector's transformative potential is significantly hindered by entrenched challenges. These include inadequate funding, insufficient practical training, outdated infrastructure, weak policy implementation, and persistent societal stigma against vocational pathways. The statistically significant consensus among stakeholders underscores the urgency of addressing these systemic barriers.

Unlocking the full value of TVE demands a holistic, multi-stakeholder approach. This includes sustained public investment, curriculum modernization aligned with labor market needs, robust teacher development programs, and strategic public-private partnerships. Equally important is a national campaign to reshape public perception and elevate the status of vocational careers as viable and respectable options. Only through comprehensive, coordinated, and context-responsive reforms can TVE evolve from a marginal educational track into a central pillar of Nigeria's strategy for sustainable employment, economic diversification, and youth empowerment.

Recommendations

Based on the findings, the study proposes the following recommendations for policymakers, educators, and stakeholders:

- i. **Increase Public Investment in TVE Infrastructure and Equipment:** Government at all levels should allocate dedicated funding for the rehabilitation and modernization of vocational training facilities. Similarly, it must ensure that capital budgets prioritize tools, equipment, digital technologies, and industry-grade machinery to ensure practical, hands-on training.
- ii. **Strengthening Curriculum and Industry Alignment:** TVE curricula should be regularly reviewed and co-designed with industry stakeholders to reflect



current labor market demands, technological trends, and entrepreneurial competencies. Consequently, the government must create TVE Advisory Boards that include industry, academia, and government representatives for each institution.

- iii. Enhance Instructor Capacity and Motivation: introduce mandatory, funded continuous professional development (CPD) for TVE instructors to update their skills. This must be in addition to improving remuneration and career progression pathways to attract and retain qualified technical educators.
- iv. Launch National TVE Awareness Campaigns: conduct sustained public sensitization through mass media, community outreach, and career expo to dispel stigma and promote vocational careers. This to also showcase success stories of TVE graduates to rebrand vocational education as aspirational and prestigious.
- v. Strengthen Policy Implementation and Regulatory Oversight: enforce existing TVE-related policies and establish independent monitoring bodies to assess institutional compliance and performance. This is to help mainstream TVE goals into national economic planning documents, such as Nigeria's Medium-Term National Development Plan and Vision 2050.
- vi. Support Students through Scholarships and Placement Programs: introduce scholarship schemes, especially for underrepresented and disadvantaged groups, to improve access to vocational training. The recent decision by the federal government to grant incentives to students who are willing to pursue a career in vocational education is welcome development, this demonstrates the commitment and the realization of the government that vocational education is central to technological breakthroughs and a floodgate for job creation. Also, institutionalize structured graduate placement and entrepreneurship incubation programs to support TVE alumni into employment or self-employment.
- vii. Promote Community-Based and Informal Sector Integration: support informal apprenticeship systems with formal certification and technical support to bridge traditional knowledge with modern standards. This can be accelerated by establishing community-based TVE centers to reach rural youth and local economies directly.

References

- Adebayo, A. (2020). Youth unemployment in Nigeria: Implications for national development. *Journal of Economics and Sustainable Development*, 11(5): 113–122.
- Bappah, A. S. (2014). Public-private partnership in technical and vocational education: The Nigerian experience. *Journal of Education and Practice*, 5(4): 61–66.



- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approach* (5th ed.). SAGE Publications.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.
- Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners* (5th ed.). SAGE Publications.
- Lagos State Employment Trust Fund (LSETF, 2025). Creating an enabling environment for job and wealth creation in Lagos State. Available at: <https://lsetf.ng/>
- Maclean, R. (2011). International trends in TVET: Issues and challenges for developing countries. *Prospects*, 41(3): 229–239. Available at: <https://doi.org/10.1007/s11125-011-9195-8>
- NBTE. (2011). Report on the state of technical education in Nigeria. National Board for Technical Education.
- Ndomi, B. M. (2005). Strategies for effective technical and vocational education in the 21st century in Nigeria. *Journal of Technical Education*, 1(1): 23–30.
- Ogwo, B. A., & Oranu, R. N. (2006). *Methodology in formal and non-formal technical/vocational education*. Nsukka: University of Nigeria Press.
- Okolocha, C. C. (2012). Vocational technical education in Nigeria: Challenges and the way forward. *Business Management Dynamics*, 2(6): 1–8.
- Okoye, R., & Arimonu, M. O. (2016). Technical and vocational education in Nigeria: Issues, challenges and a way forward. *Journal of Education and Practice*, 7(3): 113–118.
- Olaitan, S. O., Nwachukwu, C. E., Igbo, C. A., Onyemachi, G. A., & Ekong, A. O. (1999). *Curriculum development and management in vocational and technical education*. Cape Publishers.
- Olawale, T., & Ibrahim, K. (2019). TVET as a tool for curbing unemployment in Nigeria. *African Journal of Vocational Education*, 6(2): 72–85.
- Odukoya, D. (2013). Formulation and implementation of educational policies in Nigeria. Available at: <http://www.slideshare.com> Accessed 8/3/2014
- Osita, F. O. (2013). Vocational and technical education: A viable tool for transformation of the Nigerian economy. *Journal of Educational and Social Research*, 3(10): 123–127.
- UNESCO. (2010). Strategy for technical and vocational education and training (TVET) (2010- 2015). UNESCO.
- Yusuff, M. A., & Soyemi, J. (2012). Achieving sustainable economic development in Nigeria through technical and vocational education and training: The missing link. *International Journal of Academic Research in Business and Social Sciences*, 2(2): 71–77.