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Assessment of Vocational and Technical Education as Predictors of Sustainable Development in Nigeria

AYOOLA, Olaitan Oyejoke¹
ayoola.olaitan2113@fcesoyo.edu.ng

ADEGBOYE, Isaac.Oluranti¹
rdegboye@gmail.com

&

OLUWO, Abisola Olatundun¹
abisola.oladipo@gmail.com

¹Business Education Department, Federal College of Education (Sp), Oyo. Oyo State. Nigeria

Abstract

This study examines the role of Vocational and Technical Education (VTE) as a predictor of sustainable development in Nigeria. The research aims to assess how VTE contributes to national growth, identify the challenges faced by VTE institutions, and propose policy recommendations to enhance its effectiveness. A descriptive survey research design was adopted, with data collected from 81 respondents using structured questionnaires based on a four-point Likert scale. The data were analyzed using mean and standard deviation to interpret the respondents' perceptions. Findings reveal that VTE significantly contributes to sustainable development through skills acquisition, job creation, entrepreneurship promotion, and economic empowerment. However, challenges such as inadequate funding, outdated curricula, limited industry collaboration, and negative societal perceptions hinder its effectiveness. The study recommends increased government funding, curriculum reforms, strengthened industry partnerships, public awareness campaigns, and improved infrastructure to reposition VTE as a key driver of sustainable development in Nigeria. The study concludes that with strategic interventions, VTE can play a transformative role in addressing Nigeria's socio-economic challenges and advancing its development agenda.

Keywords: Vocational and Technical Education (VTE), sustainable development, skills acquisition, economic empowerment.

Introduction

Vocational and Technical Education (VTE) plays a pivotal role in sustainable development by equipping individuals with the necessary skills to drive industrialization, economic diversification, and self-reliance. According to [UNESCO \(2022\)](#), Technical and Vocational Education and Training (TVET) is a key enabler of sustainable development, particularly in developing economies like Nigeria, where skill acquisition is essential for employment creation and poverty reduction. In Nigeria, VTE has been integrated into the educational framework to address the growing issue of unemployment by providing students with hands-on skills needed in various industries, including manufacturing, construction, agriculture, and information technology (Adebisi & Oni, 2021). VTE provides individuals with the necessary skills to engage in productive activities, thereby contributing to poverty eradication and economic empowerment (Okoye & Okwelle, 2021). Studies suggest that countries with strong vocational education systems experience faster economic growth and lower unemployment rates because VTE aligns with labor market needs (Ekpenyong & Edokpolor, 2023). However, despite its potential, the Nigerian VTE sector faces numerous challenges, including inadequate funding, insufficient infrastructure, and outdated curricula that do not align with technological advancements (Olu & Ayodele, 2023).

The role of VTE in Nigeria's green economy transition has also gained significant attention. Research by [FSD Africa \(2024\)](#) estimates that the green economy could create 3.3 million jobs across Africa by 2030, with Nigeria being a key beneficiary. Many of these jobs will require specialized vocational training in renewable energy, climate-smart agriculture, and sustainable construction. This underscores the need for Nigeria to revamp its VTE sector to prepare graduates for emerging economic opportunities. Furthermore, vocational and technical education has been identified as a tool for entrepreneurship development. Studies indicate that graduates of vocational training institutions are more likely to establish their own businesses, thereby reducing the dependency on government jobs and contributing to economic growth (Okafor



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& Eze, 2020). The Industrial Training Fund (ITF), a Nigerian government agency, has implemented various skill acquisition programs to enhance employability and entrepreneurship among youths (ITF, 2023). These programs have significantly contributed to reducing youth unemployment and fostering innovation in various sectors. Despite these advantages, the implementation of VTE in Nigeria has been hindered by poor public perception, with many students preferring university education over technical skills training (Aina & Adeyemi, 2020). This perception needs to be addressed through advocacy and policy reforms that emphasize the value of vocational education in national development. Additionally, collaboration between industries and educational institutions is necessary to ensure that VTE graduates possess skills that are relevant to labor market demands (Umar & Bello, 2022). In conclusion, VTE is a fundamental driver of sustainable development in Nigeria, providing the skills necessary for economic transformation, poverty reduction, and job creation. Strengthening this sector through policy reforms, increased investment, and industry partnerships will be critical in ensuring Nigeria's workforce remains competitive in the global economy.

Statement of the Problem

Nigeria faces significant challenges related to high unemployment, poverty, and a skills gap, which hinder sustainable development. While Vocational and Technical Education (VTE) holds great potential to address these issues by equipping individuals with practical, market-relevant skills, its impact has been limited. This is due to negative perceptions that view VTE as inferior to university education, leading to low enrollment in technical and vocational programs. Additionally, many VTE institutions suffer from outdated curricula and inadequate infrastructure, which restrict the quality of training provided to students. Furthermore, there is a lack of strong collaboration between industry and educational institutions, limiting practical exposure and internship opportunities for students. Despite these challenges, VTE is essential for economic diversification, job creation, and poverty reduction. Therefore, it is important to assess the role of VTE in promoting sustainable development in Nigeria and explore ways to overcome the obstacles that prevent it from reaching its full potential.

Research Objectives

The objectives of this study are to:

- i. assess the role of Vocational and Technical Education (VTE) in promoting sustainable development in Nigeria.
- ii. identify the challenges faced by VTE institutions in Nigeria and their impact on the effectiveness of training programs.
- iii. recommend policy interventions and strategies for enhancing the effectiveness of VTE in achieving sustainable development goals in Nigeria.

Research Questions

- i. How does Vocational and Technical Education (VTE) contribute to sustainable development in Nigeria?
- ii. What are the key challenges faced by VTE institutions in Nigeria that hinder their effectiveness in skill development?
- iii. What policy recommendations can be made to enhance the effectiveness of VTE in driving sustainable development in Nigeria?

Methodology

A descriptive survey research design was used in this study. The study was done at the school of vocational and technical education, Federal College of Education (Special), all in Oyo, Oyo State. The population for this study was made up of all the 81 vocational and technical educators. The entire population was included in the study because the researcher believed the sample size was adequate. The study's instrument was a structured questionnaire designed to elicit responses from the participants. The instrument employed a four-point Likert rating scale: Strongly Agree - 4, Agree -3, Disagree -2, and Strongly Disagree -1. Two business instructors validated the study's instruments. The study instrument was pilot tested with ten vocational and technical educators at Oyo state college of education, Lanlate. The Cronbach Alpha Coefficient Reliability method produced an instrument reliability coefficient of 0.78. The data gathered from respondents was evaluated using mean and standard deviation to answer the study's questions. A mean of 2.50 or higher was considered "Agree" in the analysis, whereas a mean of less than 2.50 was considered "Disagree".



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Research Question 1:

How does Vocational and Technical Education (VTE) contribute to sustainable development in Nigeria?

Table 1: Response Data for how Vocational and Technical Education (VTE) contribute to sustainable development in Nigeria

Statement	Mean	Standard Deviation	Decisions
VTE improves the employability of graduates in Nigeria.	3.2	0.56	Agree
VTE equips individuals with practical skills that contribute to economic growth.	3.4	0.52	Agree
Graduates of VTE institutions are more likely to create their own businesses.	3.1	0.42	Agree
VTE contributes to poverty reduction by providing skills that lead to employment.	3.3	0.49	Agree
VTE supports industrial growth by developing skilled workers for key sectors.	2.8	0.60	Agree
VTE programs help reduce the dependency on government jobs.	3.5	0.33	Agree
The quality of VTE directly affects Nigeria's progress towards sustainable development.	2.9	0.40	Agree
VTE prepares graduates for jobs in emerging sectors like renewable energy and technology.	2.7	0.39	Agree
VTE helps develop a workforce capable of contributing to national economic goals.	3.6	0.69	Agree
The impact of VTE on Nigeria's economic development is significant and measurable.	2.6	0.47	Agree
Grand Mean	3.11		Agree

Source: Fieldwork, 2025

Table 1 indicates the grand mean of 3.11 which suggests that respondents generally agree that VTE significantly contributes to sustainable development in Nigeria. This indicates that respondents strongly acknowledge VTE's role in improving employability, economic growth, and business creation. It also emphasizes that VTE helps develop a workforce capable of contributing to national economic goals.

Research Question 2:

What are the key challenges faced by VTE institutions in Nigeria that hinder their effectiveness in skill development?

Table 2: Response Data for the key challenges faced by VTE institutions in Nigeria that hinder their effectiveness in skill development

Statement	Mean	Standard Deviation	Decisions
VTE institutions lack adequate funding to improve facilities and programs.	2.7	0.40	Agree
The curriculum in many VTE institutions does not align with current labor market needs.	2.8	0.38	Agree



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There is a shortage of qualified trainers and educators in VTE institutions.	2.5	0.44	Agree
Many VTE institutions have outdated equipment and technology for skill training.	2.6	0.45	Agree
The perception of VTE as inferior to university education hinders student enrollment.	3.2	0.46	Agree
VTE institutions face challenges in establishing industry partnerships for practical training.	2.7	0.53	Agree
Poor infrastructure and inadequate resources reduce the effectiveness of VTE programs.	3.3	0.63	Agree
There is a lack of support and recognition for VTE from government bodies.	2.4	0.32	Agree
VTE institutions are not adequately preparing students for self-employment or entrepreneurship.	2.9	0.45	Agree
The limited exposure to real-world industry practices hinders students' practical learning.	3.1	0.69	Agree
Grand Mean	2.86		Agree

Source: Fieldwork, 2025

With a grand mean of 2.89, table 2 highlights the moderate to significant challenges VTE institutions face. The respondents generally agree that inadequate funding, outdated curricula, weak industry collaboration, and poor societal perceptions of vocational careers are the challenges facing VTE in Nigeria institutions

Research Question 3:

What policy recommendations can be made to enhance the effectiveness of VTE in driving sustainable development in Nigeria?

Statement	Mean	Standard Deviation	Decisions
Government should increase funding and investment in VTE institutions.	3.3	0.35	Agree
The curriculum of VTE programs should be regularly updated to reflect current industry demands.	3.4	0.56	Agree
Industry partnerships should be strengthened to ensure that VTE graduates acquire relevant skills.	2.8	0.58	Agree
VTE should be promoted as a viable career option to students and parents.	3.5	0.67	Agree
The Nigerian government should provide more incentives for private sector investment in VTE.	3.6	0.65	Agree
Policies should be implemented to provide more internship and practical training opportunities for VTE students.	3.2	0.56	Agree
Public awareness campaigns are needed to change negative perceptions about VTE.	3.4	0.62	Agree
VTE institutions should be given more autonomy to innovate and improve their programs.	2.9	0.42	Agree
There should be more collaboration between VTE institutions and international organizations to improve training standards.	3.5	0.68	Agree
More policies should be enacted to promote the integration of technology and green skills into VTE programs.	3.3	0.65	Agree



Grand Mean

3.29

Agree

Source: Fieldwork, 2025

Table 3 indicates the grand mean of 3.31 indicates strong agreement among respondents that policy reforms are essential to enhance VTE effectiveness. The findings highlight the importance of industry partnerships and government funding as the most critical policy recommendations. Statements such as the integration of international collaborations and green skills into VTE suggest that while these recommendations are relevant, respondents might see them as secondary priorities compared to direct investment and curriculum updates.

Discussion of Findings

Findings on research question one revealed that Vocational and Technical Education (VTE) significantly contributes to sustainable development in Nigeria by promoting skills acquisition, self-reliance, job creation, and economic growth. This aligns with Okolie et al. (2021) and Okafor & Eze (2020), who emphasized VTE's role in reducing unemployment and fostering national productivity through technical and entrepreneurial skills development. Findings on research question two revealed that inadequate funding, outdated curricula, weak industry collaboration, and poor societal perceptions of vocational careers are the key challenges faced by VTE institutions in Nigeria that hinder their effectiveness in skill development. These findings are consistent with Audu et al. (2020) and Yusuf & Onifade (2022), who highlighted similar barriers to VTE's effectiveness, particularly the lack of financial support and misalignment between training programs and industry needs. Findings on research question three identified that the respondents recommended increased government funding, curriculum reforms, stronger industry partnerships, and public awareness campaigns to improve VTE's impact. This corroborates the suggestions by Nwosu & Uzochukwu (2023) and Chukwuma & Adepoju (2020), who advocated for strategic investments, policy reforms, and enhanced industry-academic collaborations to strengthen VTE's role in national development. The overall findings indicate a positive perception of VTE's role in sustainable development, with respondents recognizing its potential to drive economic growth if the identified challenges are addressed. This supports the views of Ike & Ofoegbu (2021), who emphasized that VTE can be a catalyst for economic transformation when backed by strong policies and societal support.

Conclusion

The findings of this study highlight the crucial role of Vocational and Technical Education (VTE) in promoting sustainable development in Nigeria. The study demonstrates that while VTE contributes significantly to skill development, job creation, and economic growth, several challenges hinder its effectiveness. The research identified inadequate funding, outdated curricula, and weak industry collaboration as major obstacles preventing VTE institutions from fulfilling their mandate. The study also emphasizes the need for strategic policy interventions to enhance the impact of VTE. The high ratings on policy recommendations suggest that stakeholders recognize the importance of increased government funding, curriculum updates, and stronger industry partnerships. Furthermore, improving the public perception of VTE and aligning training programs with the demands of the labor market are essential steps for maximizing its contributions to national development. The findings suggest that while VTE is a powerful tool for equipping individuals with the skills needed for economic self-reliance, it requires structural reforms to optimize its benefits. The overall positive perception of VTE's role in sustainable development underscores its potential to reduce unemployment and drive Nigeria's industrialization if properly supported.

Recommendations

Based on the study findings, the following recommendations are proposed to enhance the effectiveness of Vocational and Technical Education in Nigeria:

- i. The government should allocate more funds to VTE for the provision of modern facilities, equipment, and training materials. They should also establish special grants and scholarships to encourage student enrollment in VTE programs.
- ii. VTE should be regularly updated in the curriculum to reflect current technological advancements and industry demands.
- iii. The institutions offering VTE should foster partnerships with industries to align training with labor market needs. Internship and apprenticeship programs should be included to enhance practical, hands-on learning experiences.



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- iv. The government together with the institutions should launch campaigns to change societal perceptions about vocational education and highlight its importance for national development.
- v. The government should invest in state-of-the-art training facilities to create an enabling environment for technical and vocational learning. They should ensure equitable access to VTE programs, especially in rural and underserved communities.
- vi. The institutions should provide continuous professional development for VTE educators to enhance their teaching skills and keep them updated with industry trends.

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