

Prioritizing and Re-orienting Vocational Education for Sustainable Development in Nigeria

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ABSTRACT

In Nigeria, the potential of vocational education as a catalyst for sustainable development remains largely untapped, despite its significant role in addressing unemployment, poverty, and skill gaps in the labor market. This paper examines the need to prioritize and re-orient vocational education to align with the demands of sustainable development. It explores how an integrated vocational education system can equip individuals with relevant, hands-on skills that contribute to economic growth, environmental responsibility, and social equity. Drawing on case studies and policy analyses, the study underscores the need for strategic partnerships between government, private sector, and educational institutions to reform curriculum, improve facilities, and enhance teacher training. Key recommendations include incorporating green skills training, fostering entrepreneurship, and promoting inclusivity, particularly for marginalized communities. By realigning vocational education with sustainable development goals, Nigeria can create a workforce capable of driving long-term economic resilience and environmental stewardship, ultimately contributing to a more equitable and sustainable society.

Keywords: Vocational education, technical, industrialization, sustainable development, skills.

INTRODUCTION

Nigeria faces significant socio-economic challenges, including high unemployment rates, skills mismatch, poverty, and regional economic disparities. With a rapidly growing population, the country's need for a workforce skilled in various trades and industries has never been greater. Vocational education, a key tool for equipping individuals with practical, job-ready skills, holds the potential to address these challenges and propel Nigeria toward sustainable development. However, despite the apparent benefits, vocational education in Nigeria has historically been underfunded, undervalued, and misaligned with the evolving demands of the modern labor market.

The wealth and prosperity of a nation depend on the effective utilization of its human and material resources through industrialization (Rashtriya, (2005) as cited in Ukuma, Ochedikwu and Deke, 2013). The industrialization catalyzes sustainable development through revamping and prioritizing technical and vocational education (TVE). This was stated in UNESCO's International Experts Meeting on "Learning for Work, Citizenship and Sustainability" in 2004 that a new paradigm of both development and TVET was needed after a five-year review of the progress of the Second International Congress on Technical and Vocational Education (TVET) held in Seoul, Korea, in April 1999. The Preamble to the Recommendations in the Final Report of that review stated thus:

'We have considered the emerging challenges of the twenty-first century, a century that will be an era of knowledge, information and communication. Globalization and the revolution in information and communication technology have signalled the need for a new human-centered development paradigm. We have concluded that Technical and Vocational Education (TVE), as an integral component of lifelong

learning, has a crucial role to play in this new era as an effective tool to realize the objectives of a culture of peace, environmentally sound sustainable development, social cohesion, and international citizenship'. (UNESCO, 2004).

This has brought to the fore, the need to prioritize technical and vocational education in pursuit of sustainable development (United Nations Educational, Scientific and Cultural Organizations, (UNESCO) 2006). According to UNESCO (2012) prioritizing refers to the act of placing a higher importance or focus on certain aspects to drive change or achieve a particular outcome. Re-orienting involves reshaping or modifying something to better align with new or evolving goals.

Education and training are the primary agents of transformation towards sustainable development, increasing people's capacities to transform their visions for society into reality (UNESCO, 2006). The terms vocational and technical education can be jointly or synonymously used and can be referred to as education geared towards skill acquisition for gainful employment (Ogwo and Oranu, 2006). Other studies defined vocational and technical education as education for work which prepared learners to develop profitable social habits required by society (Olaitan, Nwachukwu, Igbo, Onyemachi and Ekong, 1999). UNESCO's definition of Technical and Vocational Education and Training (TVET) is: "a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of knowledge, Practical Skills, and attitude relating to occupations in various sectors of economic and social life" (UNESCO, 2005). Vocational education is also a form of training focused on providing individuals with specific skills and knowledge for particular trades or careers. In the Nigerian context, it encompasses programs aimed at practical skill acquisition, ranging from traditional crafts and manual trades to newer, technology-oriented fields. Vocational education plays a crucial role in workforce development and can directly impact economic growth, especially when aligned with market needs. UNESCO & International Labour Organization. (2018)

Unemployment continues to pose a significant challenge to the Nigerian economy, particularly among the youth demographic. The youth is defined as young people between the ages of 15-24 by the United Nations. The Nigerian Youth Population Policy defines the youth as the population aged between 15 to 35 years. The youth in Nigeria account for about 70 percent of the country's population and presents a unique opportunity for economic growth and development if properly harnessed (NGYouthSDGs, 2024). Despite the considerable potential of the youth population, unemployment remains a pressing issue, with the youth unemployment rate escalating from 15.5 percent in the second quarter of 2023 to 17.2 percent in the third quarter of the same year (NGYouthSDGs, 2024; NBS, 2024). Specifically, the unemployment rate for individuals aged 15 to 24 increased from 7.2 percent in the second quarter to 8.6 percent in the third quarter of 2023.

In an effort to address the issue of unemployment, the Federal Government of Nigeria has implemented a range of policies. These initiatives include the Economic Recovery and Growth Plan (ERGP), the National Employment Policy (NEP), the National Digital Economy Policy and Strategy, and the revised National Youth Employment Action Plan (NIYEAP). While the formulation of such policies is critical, their effective implementation is paramount in addressing unemployment and generating decent jobs for all, thereby facilitating the achievement of Sustainable Development Goal Eight. The revised NIYEAP (2021-2024) specifically aims to support the job creation target outlined in the National Youth Policy (2019), which seeks to generate 3.7 million jobs annually from 2019 to 2023. Despite these efforts, securing a decent and productive job upon entering the labor market in Nigeria remains a formidable challenge (Dare, 2021). This situation contrasts sharply with more developed economies, where there is a significant emphasis on ensuring that young individuals can transition seamlessly from academic environments into the workforce (Kabaklarli and Yağmur, 2013). The elevated unemployment rate among youth contributes to numerous social issues, alongside the fact that many young workers experience difficulties finding stable employment, often moving between various positions before settling into preferred roles. This transitional challenge could be alleviated by establishing connections between students and employment opportunities through vocational education programs and apprenticeships with industry partners (Ryan, 2001).

A nationwide survey conducted by NGYouthSDGs in collaboration with the United Nations Department of Economic and Social Affairs, International Labour Organization, and the Federal Ministry of Youth and Sports Development to understand the decent work aspirations of young Nigerians found out that one of the major causes of unemployment among young people is skill mismatch which is a disconnect between the (school-acquired) skills possessed by job seekers and those demanded by employers. However, 45 per cent of young women and 38 per cent of young men were of the opinion that completing formal education, apprenticeship and vocational training were major contributors to employment, therefore, the importance of quality education, whether technical or vocational, in ensuring access to decent job opportunities and a smooth transition into the labour market cannot be underrated (NGYouthSDGs, 2024). This is because through TVE, youths acquire work-related skills which will guarantee their employability after leaving schools.

Sustainable development, which integrates economic, environmental, and social goals, requires a re-orientation of education systems to produce not just employable graduates but also responsible citizens capable of contributing to environmental stewardship and social equity. In Nigeria, this entails a shift from a narrow focus on academic qualifications to a broader emphasis on practical, market-relevant skills. Re-orienting vocational education with sustainability goals involves updating curricula, investing in facilities, training teachers, and forging partnerships between government, industry, and educational institutions.

This study explores the current state of vocational education in Nigeria and identifies strategic interventions to align it with the country's sustainable development priorities. By examining both local and international best practices, the study aims to provide insights and recommendations for making vocational education more effective, inclusive, and resilient. Emphasizing skills such as entrepreneurship, green technology, and social responsibility, this research highlights how a re-prioritized and re-oriented vocational education system can address Nigeria's socio-economic challenges while laying a foundation for long-term sustainable growth.

Conceptual and Theoretical Framework

Technical and Vocational Education (TVE/T) is vital for improving labor mobility and productivity and has proved to be a fore runner to attaining economic development and technological advancement (Jadoon, 2022; Khilji, 2012). According to Egesi, Okoro, and Anyatonwu (2014), Technical, Vocational Education and Training (TVET) in Nigeria is seen as a kind of education that provides learners with the technical skills that can be used generally in technical fields under the Ministry of Education, Science and Technology. These trainings are well tailored to prepare individuals in skills, techniques, knowledge, and attitudes for effective employment and for various positions in industry and the informal sector and in the world of work generally. Adebisi (2023) agreed that vocational and technical education provides the recipients with employable job skills and self-reliance capabilities while Yakubu (2006) defined vocational and Technical Education as the acquisition of functional practical skills that empowers an individual to sustain himself in the world of work and also enable him survive in a globalizing world economy.

Different countries administer TVE at certain levels of education as TVE does not mean a complete absence of formal education. For instance, vocational education in Pakistan is complex and consists of many agencies and levels where the government vocational education institutes are administered by the provincial education department, while training on various skills is conducted by polytechnics, vocational training centers, apprenticeship departments, and commercial and training institutions (Jadoon, 2022). In India, vocational education is offered through various channels and institutions like the Industrial Training Institutes (ITI) funded by the government, polytechnics, National Skill Development Corporation (NSDC), State Skill Development Missions, etc. While in Nigeria, Technical Training Institutes, Polytechnics, Institutes of Science and Technology, and Universities offer this training (Egesi et al, 2014).

This study is hinged on the Human Capital theory propounded by Gary Becker in the early 1960s. Human capital corresponds to any stock of knowledge or characteristics the worker has, either innate or acquired that

contributes to his or her productivity (Daron, 2009). The human capital theory states that additional education or vocational training increases an individual's practical knowledge and technical skill which helps to increase an individual's productivity and lifetime income (Becker, 1964; Kabaklarli and Yağmur, 2013; Jadoon, 2022). The effect of training may differ from one individual to another based on factors like gender, age, duration, and cost of training. This theory assumes a positive relationship between an individual's training and productivity which also has a positive effect on the economy. The decision to invest in training and education is dependent on the cost and future profit. Increased wage and future profit are the major motivation for investing in human capital development in the form of education or training but some literature asserts that higher education does not always guarantee higher wages (Netcoh, 2016). Finally, the human capital theory considers human capital as a major factor that contributes to economic growth and productivity of labour which could be increased by investing more in human resources.

REVIEW OF RELATED LITERATURE

Subiyantoro, Tarziraf, and Asmara (2023), conducted qualitative research on the role of vocational education as the key to economic development in Indonesia, using descriptive analysis, results of the study showed that vocational education plays a crucial role in the economic development of Indonesia. Vocational education creates a skilled workforce needed by various industrial sectors which helps to reduce unemployment rates by giving graduates better job opportunities, as well as encouraging entrepreneurship by teaching the elements of business. It also triggers innovation and creativity among individuals thereby helping Indonesia compete in the dynamic world economy.

Jadoon (2022) explored the influence of vocational education on the economic growth of Pakistan. Utilizing time series data, the study revealed a positive correlation between vocational education and economic advancement. It recommended enhancing vocational centers across the country and equipping them with well-trained instructors to achieve improved outcomes.

Egesi et al, (2014), in their study of TVET and sustainable future in Nigeria, decried the nature and disadvantages of the mechanical type of education in Nigeria which focuses on writing and passing examinations without passing on any tangible and useful skills to the students. The study recommended that better attention be given to TVET, building more of such institutions and encouraging more individuals to take advantage of such training. Government funding and legislation can help to enlighten more people on the importance of TVET and modify school curricula to involve more practical-based training to support Science Technology, and Innovation (STI).

Ukuma et al, (2013) in their study Revamping Vocational and Technical Education in Nigeria for Sustainable Development discussed the discouraging state of vocational education and centers in Nigeria and how successive governments have preached the importance of vocational education without matching actions toward its realization. The study also discussed the importance of research and discovery in vocational education as a means of global economic recovery and sustainable development as it would bring about innovative ideas, techniques, skills, and professional suggestions to revamp vocational and technical education. The study suggested that research be conducted on ways to reawaken and revamp TVE in Nigeria, and also executed to the letter for greater service delivery and sustainable development.

Kabaklarli and Yağmur, (2013) also examined Vocational education and training for sustainable development by focusing on the Turkish vocational educational system and its contribution to sustainable development. The study did a comparative analysis of vocational education structures in the European Union Nations and Turkey from 2000 to 2009. The results of the analysis showed that vocational education is mainly prevalent in Germany, the United Kingdom, and Denmark while Turkey has the lowest rate of enrollment of students in vocational education. It recommended that government should render more support to the establishment and sustainability of both public and private vocational centers in Turkey as theoretical literature has shown that vocational education helps to combat youth unemployment.

Onoriode and Odjeba in (2012) studied the emerging roles and responsibilities of stakeholders in vocational education and sustainable national development in the 21st century. The study examined the contribution of vocational education to sustainable national development in Nigeria and the challenges faced by the education system. It found that factors like societal expectation, value system, poor funding, and inadequate infrastructure impaired the growth and realization of the full benefits of vocational education. The study noted that the stakeholders who are the major players in vocational education have various parts to play in changing the narrative. While there is a need for re-orientation on the part of society, teachers need to give their best in service delivery while the government should translate the political will into visible actions in revitalizing vocational education in Nigeria.

METHOD OF STUDY

This study utilized qualitative research method where substantial literatures on vocational education and training in relation to sustainable development were reviewed. It highlights case studies from the two most populous countries that have implemented vocational education initiatives for sustainable development, assessing their effectiveness in driving progress in these nations.

Case Study One: China

Generally, education and its development have been given great priority in China as it has established the world's most extensive education system, which ensures that hundreds of millions of Chinese people receive education, thus significantly improving the quality of life for the entire nation (Jing, Chung and Gregory, 2022). However, China also understood and embraced the importance of vocational education and training in achieving sustainable development and the government made a resolve to redouble its efforts to improve vocational training (Xinhua, 2024). In maximizing the potential of the excess workforce in China, its government under the Belt and Road Initiative, has established a strong cooperation among more than 400 higher vocational colleges in China and foreign educational institutions in running schools, with Luban Workshop established in over 20 countries. These vocational education programs have produced high-quality professional employees over time.

Currently, China has the world's largest vocational education system. The Ministry of Education data in 2023, revealed that there are 9,752 secondary vocational schools in the country, with over 17.8 million students. In 2022, there were 1,521 higher vocational schools with over 5 million students. On average, 10 million high-quality technical personnel are produced each year (Xinhua, 2024). In 2020, there were a total of 11,500 vocational schools nationwide, with over 28 million students; 6 million of them were enrolled in secondary vocational schools, accounting for 41.7% of high school education, and about 4 million enrolled in higher vocational college, accounting for 52.9% (Ministry of Education of the People's Republic of China, 2021). In addition, overseas vocational and exchange programs were also established to better serve the development of Chinese enterprises overseas, thereby reducing unemployment among its workforce and the hassle of transitioning from study to work.

According to Jing et al, 2022, the development of vocational education in China is flourishing as scholars have paid utmost attention to it as it is of great practical significance for the development and prosperity of the Chinese economy. China is also voraciously developing vocational education and developing its human resources as a major way to propel the country through science, technology, and education as it moves towards capitalism. This is a smart move to comprehensively improve the quality of its people and to take absolute advantage of the massive population pressure, turning it into a rewardable workforce. This is evident as the unemployment rate in China has remained stably low (around 5.0-5.2%) over time. In 2023, the surveyed unemployment rate in urban areas averaged 5.2 percent, 0.4 percentage points lower than that of the previous year (National Bureau of Statistics, 2024). Irrespective of some challenges, vocational education in China has grown tremendously in a relatively short period and has provided countless opportunities for millions of students from low-income families and skills training to boost the economy (Jing et al, 2022).

Case Study Two: India

India has experienced substantial economic growth and development in recent times. This would not have been possible without the crucial role that Vocational education has played, especially in providing skills training to millions of people across the country. This section explores how the government training scheme for India established the impact of vocational education on economic growth and development.

India, the most populous nation with over 1.4 billion people (World Bank, 2024) is made up of more young population with an average median age of 28 years. In a quest to make India the Skill Capital of the World, its Ministry of Skill Development and Entrepreneurship (MSDE) was established in 2014 with an overall objective of promoting skill acquisition and entrepreneurship development in India. In 2015, MSDE launched its principal training scheme, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), which is designed to encourage and promote 'skill development in the country by providing free short-duration skill training and incentivizing youth for skill certification' (Government of India; Ministry of Skill Development and Entrepreneurship, 2023). Cumulatively, more than 1.37 crore youths have been trained between 2015 and 2022 across various sectors which is equivalent to over thirteen million.

According to Dixit and Ravichandran (2023), approximately 13.4 million candidates have benefitted from the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) nationwide as of December 31, 2021. Over 5 million candidates have received the -Short-Term Training (STT) certification. Out of these certified candidates, 2.37 million individuals have been successfully placed in various sectors across the country, including 295,000 candidates who have become self-employed (PIB, 2022). Shome (2018), (as cited in Malik, 2023) found that out of the total PMKVY trained and placed data, around 78 percent were in wage employment while 22 percent were in self-employment, during 2016-17. However, the reports published for 2016-20 also indicate placement breakup in the same proportion. Many other studies have demonstrated the positive impact of this national program on economic growth and development.

Seeing the benefits of technical and vocational education, many countries have adopted same. For instance, Germany is known for its globally recognized dual system of vocational education and training which employs a combination of both classroom theory and training in a real-life work environment (Federal Ministry of Education and Research, n.d). The dual system was firmly established in the German education system in 1969 with the passing of the Vocational Training Act which was subsequently amended in 2020, by introducing a close alliance between the Federal Government, the federal states (the 'Länder') and companies with a view to providing young people with training in nationally recognized occupations. Such trainings are then documented by the issuing of certificates by legally recognized and competent body like the chamber of industry and commerce or a chamber of crafts and trades.

Annually, about 70 % of students get enrolled into the dual system of vocational education in Germany while the remaining part of the students completes a full-time school-based education at a vocational school (Hogeforster and Döding, 2012). This shows the importance of the dual system to the German enclave. Trainees spend two to three and a half years in the dual vocational training at two different venues (Deissinger, 2015) where part of each week is spent at a vocational school and the other part at a company alternately. This initiative has resulted in very low unemployment rate for Germany over the years with maximum values of 6.7% and below in the past ten years (Statista Research Department, 2024).

Also, a study in Spain showed that that the graduates from dual tracks obtained substantially better mean labor market outcomes than their full-time counterparts. This study also observed that the dual vocational education graduates accumulated 27% more (full-time equivalent) days of work during the first twelve months, while the relative difference in earnings amounts to 32%. (Bentolila, Cabrales and Jansen, 2018).

Vocational Education in Nigeria

Every nation is striving to attain economic growth and development through massive industrialization. Industrialization on the other hand can be propelled when the required skills and qualification are available

in the workforce, hence the need for education, whether vocational or not as may be peculiar to each economy. Nigeria as a nation has laid more emphasis on formal education (Egesi et al, 2014), relegating vocational education and skill acquisition to the background as opined by Okonko-Iweala (2005) that the education system in Nigeria emphasizes theoretical knowledge at the expense of technical, vocational and entrepreneurial education. This has led to massively producing graduates who are not adequately and sufficiently skilled to function in the world of work. This assertion was explained by Egbele and Momoh (2007) that the Nigerian education system produces more individuals who lack job skills and attitudes toward employment than those the economy requires to remain vibrant and competitive. This has resulted in high unemployment rates over time, not because there are no jobs but because of job mismatch and lack of required skills. The Guardian (2009) agreed with this stand that the unemployment index was rising not as a result of no jobs but primarily because the skills available are not necessarily relevant to the industry's needs. Besides, the available skills are not adequately fashioned to undertake the available jobs.

It is therefore important for an urgent and decisive measure to be taken towards prioritizing and re-orienting vocational and technical education in Nigeria to harness the massive human capital available in Nigeria just like in other advanced nations of the world for sustainable economic growth and prosperity of the citizenry.

Challenges of Vocational and Technical Education in Nigeria

Education generally has been facing a lot of challenges in Nigeria and vocational education is under this umbrella. Chief among the problems being faced by education in Nigeria is funding. UNESCO's recommendation for education funding is at least 26% of a nation's annual budget, and 15-20% of public expenditure which is 4 to 6% of GDP (UNESCO, 2024). However, Nigeria's budgetary allocation to the education sector has remained poor and discouraging (Onoriode and Odjeba, 2012). This has led to ill-equipped classrooms, laboratories, and workshops where students cannot have standard practical classes. Lecturers are no longer financed to go to conferences and other knowledge-exchange programs that could help sharpen their knowledge to catch up with the fast-evolving technology and scientific advancements. This in turn leads to low morale among lecturers and instructors.

Beside from low funding, there seem to be few or no establishments of vocational education centers in Nigeria. Only a few Universities and tertiary institutions of learning of comparable standing have established vocational and technical education courses or programmes (Ukuma et al, 2013). The government has also not invested in government-owned special vocational training institutes as obtained in other countries like China and India. These countries do not just operate these institutes but go a step further in financing their graduates who desire to go into entrepreneurship while partnering with industry owners for placement for others who do not want to be self-employed but prefer paid employment.

There is also a form of low perception and social stigma associated with Vocational education in Nigeria as many regard TVE as an educational alternative meant for those who are not mentally capable of handling normal professional education and school dropouts (Onoriode and Odjeba, 2012; Egesi et al, 2012). This low perception has made many to boycott vocational education in favor of theoretical education even if it takes them many years to secure admission into the university. As a result, Nigerian universities have churned out huge numbers of graduates who also struggle to gain white-collar jobs even when they have some form of technical skills. This results in massive youth unemployment especially among these graduates.

On the other hand, discrimination in workplaces in the form of wages, role allocation, and work conditions is another discouraging factor among people who may desire to enroll in vocational training. This happens because TVET-based qualifications and careers are still poorly perceived and recognized in the workplace (Egesi et al, 2014). This is evident in the treatment meted to graduates who attend polytechnics as against their counterparts who graduated from the university.

RECOMMENDATIONS

The federal government of Nigeria should adhere to UNESCO's recommendation of budgetary allocation to education. This could help to revamp the education sector including the vocational education arm of the

sector. However, the political will to shun corruption and utilize these funds appropriately will go a long way in putting the required changes in place like building and furnishing vocational institutes to international standards, adequate remuneration and training of vocational teachers including financing them for conferences and other knowledge exchange programs and provision of other materials necessary for sound training in this sector.

Through policy recommendation, planning, and implementation framework, specialized Government-owned vocational schools can be established across the federation even in very remote areas as in the case of India's PMKVY where everyone, irrespective of one's social or financial class, can access such training, and eventually get either self-employed through government-assisted funding or secure employment, sometimes through the government partnership with industries.

The public should be educated through various advocacy and awareness programs about the significance of vocational education in promoting sustainable development through industrialization and the role individuals play in making this a reality. It is essential to highlight the dignity associated with engaging in productive vocation education activities that contribute to economic development. By doing so, we can shift the prevalent negative perceptions of vocational training, encouraging more young people to engage in vocational training opportunities. Ultimately, this will help to significantly reduce youth unemployment in the country.

Government can make anti-discriminatory policies that are fair to all in the labour market where a worker is paid according to productivity while maintaining standard conditions of work. This could encourage people to take up vocational education without fear of facing unfair treatment and wage discrimination in the future.

CONCLUSION

Vocational education plays a crucial role in fostering technological advancement, which is essential for sustainable economic growth and development across all economies. It equips the workforce with the requisite skills and knowledge necessary for enhancing productivity and making meaningful contributions to the economy. Furthermore, vocational education not only generates employment opportunities but also contributes to poverty alleviation and increased productivity, thereby promoting overall economic growth.

Vocational education has demonstrated its effectiveness as a valuable tool for managing a burgeoning population and an idle workforce by engaging individuals meaningfully and preparing them to become productive contributors to economic growth, as illustrated by various case studies in this research. Unfortunately, vocational education in Nigeria has encountered numerous challenges, pushing it to the brink of extinction. However, concerted efforts from various stakeholders such as the government, educational institutions, vocational education teachers, and the broader society—can aid in revitalizing this essential sector. Structural changes, accompanied by policy recommendations, are necessary to reorient and prioritize vocational and technical education in Nigeria, paving the way for the achievement of sustainable development.

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