

VOCATIONAL AND TECHNICAL EDUCATION: AN EFFECTIVE MECHANISM FOR SUSTAINABLE NATIONAL DEVELOPMENT IN NIGERIA

Charity Uche Eziechine¹; Abigail O. Ofume²

^{1&2}Department of Vocational and Technical Education, University of Delta, Agbor, Delta State. eziechinecharity@gmail.com, charityezechine@unidel.edu.ng. ²sonnyofume@yahoo.com

Abstract

The paper examined vocational and technical education as an effective mechanism for sustainable national development in Nigeria. Conceptual clarification of vocational and technical education and national and sustainable national development were x-rayed. The paper discussed the roles of vocational and technical education in sustainable national development. Obstacles

of the VTE program in sustainable national development and the way forward were also x-rayed. Based on discussions, a conclusion was drawn and recommendations made as follows: a review of the VTE curriculum to reflect the current trends in technological development, adequate funding of the program, regular training of VTE personnel, inclusion of VTE experts in decisions that affect the program, among, others.

Keywords: Vocational and Technical Education, National Development, Sustainable Development

Introduction

The need for vocational and technical education at the various levels in our education system is paramount to national development and sustainability, particularly in developing its citizenry. Vocational and technical Education is a planned program of courses and learning experiences that begins with exploring career options, supports basic academic and life skills, enables the achievement of high academic standards, development of individuals and leadership qualities, advanced continuing education and preparation for industry-defined works. The emphasis on vocational and technical education for sustainable national development is not just a Nigerian factor but a long-time discourse in academics and practice worldwide. This is why Abdullahi (2013) stated that the general emphasis on Technical and Vocational Education could likely be linked to the global trends in the economic and labour markets that are currently driven by scientific and technological changes. The world has recognized the link between the meaningful progression of socio-economic development of nations and the possession of skilful knowledge for entrepreneurial adventures, especially in times of limited job opportunities in industries and government sectors.

Consequently, in any nation where the majority of its populace does not possess the skills and knowledge needed for entrepreneurial adventures, no meaningful socioeconomic progress could be visible in such a nation. In Nigeria, various governments have made efforts to ensure a stable advancement in vocational and technical education programs. As a result, the National Council of Education (NCE) approved the establishment of the National Board for Technical Education (NBTE), which classified vocational and technical institutions into vocational schools for the award of different level certificates in vocational and technical education based on the subjects/courses offered and the duration. It is believed that quality, skilled-based education is the key variable for the survival of any nation, particularly at this time of global competition in the market environment. The easiest way to create wealth and improve the economy of our dear nation, Nigeria, is to encourage skill acquisition programs and training through vocational and technical

education. In doing this, the optimism that Nigeria would in no time become self- dependent with viable and stable national development will no longer be a dream but a reality as outlined in the objectives of VTE in the national policy on education.

Objectives of Vocational Education in Nigeria

The National Policy on Education-revised (2014) gave the following as objectives of vocational and technical education in Nigeria:

- The provision of technical knowledge and vocational skills necessary for agriculture, industrial, commercial and economic development.
- To give an introduction to the world of technology.
- To expose students to career awareness.
- Training and imparting necessary skills produces craft men, technicians and other skilled personnel who will be enterprising and self-reliant.
- The provision of trained manpower in applied sciences, technology and commerce, particularly at sub-professional levels.
- To enable youths to have an intelligent understanding of the increasing complexity of technology.
- To provide people with applied scientific knowledge to improve and solve environmental problems for the use and convenience of man.

Conceptual Definitions:

(a)Vocational and Technical Education:

Vocational and technical education is a channel for entrepreneurial skill acquisition that helps improve productivity and distribution of goods and services in different areas of specialization. The National Policy on Education (Revised 2014) greatly emphasises vocational and technical education. The policy describes vocational and technical education as a comprehensive term covering the general education process that involves studying technology-related sciences and acquiring practical skills, attitudes, understanding and knowledge relating to occupation in various economic and social life sectors. Technology is a dominant factor in determining national growth and development. According to Ekpo and Aiyedun (2018), vocational and technical education concerns the qualitative and technological development of manpower directed towards building a national pool of skilled and self-reliant artisans, technicians and technologists.

(b) National Development:

National is a phenomenon that encompasses a nation with legal sovereignty and boundaries. National development is the overall development of a country's collective socio-economic, political and religious advancement. It involves the exploitation and utilization of both human and material resources to improve the lots of a nation and the social welfare of the people. National development is a growth plus the change in all ramifications. The most effective means of development and change is education in general and vocational and technical education in particular. The socio-economic and technological advancement of any country depends on creative and productive abilities of its citizens with majority as job creators rather than job seekers, thus

helping reduce the dependence of young school graduates on government-owned jobs. Balogun (2015) states no nation can be self-reliant without developing and utilizing its indigenous talents and technologies. The undergoing of skill-based programs in vocational and technical education could enhance the betterment of individuals as they possess skills, knowledge and abilities needed to be self-reliant, useful and productive for national development, advancement and sustainability

(c) Sustainable National Development:

Sustainable national development is a long-term progress plan. The concept covers a broad scope of environmental, social and economic developments, which are paramount to life and living. Sustainable development is geared towards the enhancement of individual sustainability and the development of the economy of a nation. As noted in Brundtland's Commission Report, "Our Common Future" (1987), sustainable development is the most frequently used definition. The Commission introduced the contemporary paradigm shift and proposed a brief description of the term as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Aina, 2013). Sustainable development is the approach to a country's economic development without compromising the environment's quality for future generations. The new paradigm captured the three fundamental pillars of sustainable development: social, economic and environment.

The social components encompass population increase and urbanization, poor social amenities, inequality among the citizenry and weak governance/poor leadership. These components, which are driven by poor/weak leadership, hinder capacity-building accountability and promotes corrupt practices in governance, leading to miss appropriation of fund which would have been used in facilitating education/training for the acquisition of high-potential skills, knowledge, creative abilities and values for national growth and sustainability. Apart from the plethora of social components that threaten sustainable national development, the economic and environmental components are also significant issues in developing sustainability. Inflation, high cost of governance, budget padding, and lack of financial resources to carry out sustainable projects threaten Nigeria's sustainable national development. Poor waste management policies and climate changes also hinder sustainability in national development. A nation is said to attain sustainable development when it has reached a level of equilibrium in its economy's social, economic and environmental features. But when there is hunger, inflation, unemployment, poor governance, and insecurity, among others, these are indicators that the nation lacks sustainable development.

VTE and Sustainable National Development:

Vocational and technical education is vital in unlocking the golden and hidden treasures on which national development and sustainability hinged. Vocational education is how to apply skills in making decisions, taking responsibility, creativity and integrating such to the long-term future of the society. According to UNESCO (2014), the fundamental purpose of vocational and technical education is to equip people with skills that can broaden their opportunities in life, help prepare them for the world of work and provide them with skills needed for self-employment and national development. Acquiring skills, knowledge and abilities via vocational and technical education promotes entrepreneurial creativity skills. Grootings and Nielsen (2016) noted that vocational and technical education is crucial in developing the national economy via the quality and skilful pool of professionals and experts in the field of creativity. VTE engenders creativity and innovative ideas that enlarge the economic status of the individual and the nation. Lawal

(2014) also asserted that “for a country to advance socially, economically and technologically, its citizens must be creative and productive with the majority being job creators rather than job seekers”. It is believed that a lifelong vocational education could gradually improve the economic and social development of both the people and the country. By implication, it depicts that the technological progress of a nation may largely depend on the level of resourcefulness of its citizenry and reflects the quality of training they acquired. Other critical roles that vocational and technical education could play in national development and sustainability as reported by Agbionu (2020) include the followings;

- **Generation of job opportunities and employment:** Technical and vocational education help reduce the unemployment rate in society by creating jobs for its beneficiaries as the skilled acquired help them to be self-employed. This makes the individual not to be a liability to society but an asset to him-self and the nation at large.
- **Industrial development:** Vocational and technical education helps a nation develop technologically and industrially by producing people with competence and capability to develop and utilise technologies for industrial and economic enhancement. It is a tool used to develop and sustain the manpower needs of a nation.
- **Entrepreneurship strategy and Poverty alleviation:** Vocational and technical education offers the beneficiary the ability of job creation and become an employer of labour as most graduates of vocational and technical education often fall back to skills acquired in technical and vocational institutions during an employment crisis.
- **Promotion of the National Economy:** Vocational and technical education promotes the national economy by attracting foreign exchange by producing and exporting products. Vocational and technical education knowledge helps convert local raw materials into foreign exchange products.
- **Develops Soft Skills:** Vocational and technical education helps develop soft skills that create job opportunities. These skills include interpersonal, communication, negotiation, managerial, and networking skills, among others. These roles notwithstanding, the VTE program seems to be bedevilled with persistent issues hindering the effectiveness of its contribution to sustainable national development in Nigeria.

Obstacles of VTE Program in Sustainability National Development

Despite the formidable roles of vocational and technical education in sustainable national development, there are basic constraints to the smooth implementation of the program. Habibu (2017) asserted that barriers are hindering Nigeria's effective implementation of vocational and technical education. The author includes the following;

Societal Value System: The emphasis placed on certification in our educational sector, and the work environment has made the implementation policy on VTE to be held in low esteem. Before now, some parents prefer their children to study courses that are trending and popular in society without considering the mental, emotional and academic implications of such a course. As a result of this trend, young school leavers are cajoled into chosen courses rather than skill-based programs such as vocational and technical education (Nworlu–Elechi, 2013). In Nigerian society today, most vocational and technical education graduates are occasionally denied the opportunity to exhibit the knowledge and skills acquired. Still, society seems to see them as commercial graduates who may

not have anything to offer in the nation's development. This belief has perhaps created the wrong impression, making the program and its beneficiaries unpopular.

Weak Policy and Poor Curriculum Implementation: The curriculum of a subject with practical content is generally organized into an average of 67% for theoretical classes and 33% for workshop or practical classes. Olunloyo (2012) noted that one of the issues confronting the design of appropriate curricula for vocational and technical education for sustainable national development is the current global paradigm shift from the usual theory-based education to technology-based education. This situation has contributed to the low pace of industrialization and technological growth in nations, as ways of utilising the scientific and technological ideas that promote industrialization seem to be missing in the educational curriculum. These have slowed down the attributes of vocational and technical education in national development.

Insufficient funding: Vocational and technical education has made some notable impact on national development, but the issue of improper funding has remained a significant concern in the program's effectiveness. According to Odu (2013), inadequate funding of vocational institutions has caused the turning out of half - baked graduates in the field of vocational education as there are not enough funds to build and maintain standard laboratories that have modern equipment and as such, most the beneficiaries of the program were no privileged to come in contact with most of the laboratory equipment used in skill acquisition. Momoh (2015) maintained that the government's lack of commitment to adequately funding vocational and technical education has weakened Nigeria's program, and national development is slow. Oryem Origa (2018) also affirmed that only 40% of institutions of higher education in Nigeria have laboratory and workshop spaces for technical education programs; the remaining 60% do not have laboratory non-workshop space, and as a result, teaching and research remain difficult in technology-based programs needed in national development and sustainability.

Irregular Training of Manpower in VTE Training of academic staff is supposed to be a continuous exercise to ensure consistent improvement in performance quality. Training and development enhance performance and expose trainees to current trends in their areas of professionalism. Irregular training of the VTE workforce keeps their knowledge obsolete as current trends in modern pedagogy that could add value to them in terms of efficiency in performance and high productivity for national development may have eluded them. Agbionu (2020) argues that training and development of manpower provide skillfulness that enables the workforce to be more efficient, thus enhancing their productivity level to boast national growth and sustainability.

Dearth/Attrition of Skilled Manpower The movement of skilled manpower from institutions where they are very much needed to other institutions or countries that they feel will offer them better conditions of service has created a socio-economic and technological dilemma in the nation's development. According to Bassi (2014), about 45% of Nigerian professionals, including vocational and technical education experts, have left the nation's shores. About 500 lecturers from Nigerian tertiary institutions have continued to migrate each year, mainly to Europe, America and other African countries in search of better pay packages, thus brain-draining most of the tertiary institutions in the country. The incessant strike actions in Nigerian tertiary institutions have also contributed to the movement of these highly qualified professionals, leaving most of the Nigerian

tertiary institutions, especially VTE departments, with inexperienced workforce who no longer have mentors. Consequently, the contribution rate to national development seems to be very low as those who are supposed to contribute to the stable development of the national economy have all migrated for better opportunities.

Political Apathy and Interruptions: Education generally has been grossly neglected in Nigeria. The National Board of Technical Education (NABTE) has been facing several challenges in trying to make the government understand the great importance of giving vocational and technical education a free hand to operate for the sustainability of the nation's development. Most times, there seem to be interferences by the political kingpins who would deliberately prefer diverting funds meant for vocational programs to their projects where they could easily benefit, making VTE programs jeopardy and unable to contribute to the enhancement of national development maximally.

Way Forward

There are several suggestions put forward that could boost the implementation of vocational and technical education for nation development and sustainability. These include:

- Changing public perception via orientation and sensitization on the value of VTE in national development
- . Review of VTE curriculum to reflect the current trend on how to advance in technology education and proper implementation policy.
- Adequate provision of funds required for modern facilities and procurement of modern equipment for the laboratories with a stable source of power for maximum utilization of the laboratories and other facilities that could expose the beneficiaries of the program to the knowledge, skills, abilities and attitude required for job creation and the sustainability of national development.
- Organizing regular training for VTE personnel via conferences, workshops and sponsorship for foreign training would expose them to novelty, enhance productivity and promote national development.
- Giving vocational and technical education experts a free hand to monitor the budgeted and released funds for the program for adequate utilization and proper accountability.

Conclusion

Recognizing that vocational and technical education is the bedrock of national development and sustainability, it is essential to re-brand and reposition the program for national growth and sustainability. The 27th edition of the Nigeria Economic Summit (2021) report stated that Nigeria is a country blessed with great potential in different professions that can saddle the policy implementation assignments for positive outcomes and national growth. Harnessing the abundant human and natural resources, good geographic position, and good climate that is relatively free from disasters require experts with professional skills such as vocational and technical education experts with the technical knowhow to optimally organize and utilize these abundant resources for sustainable national development.

Recommendations

Based on the conclusion, recommendations are made as follows:

1. Proper awareness should be created of the importance and values of VTE in national development.
2. Vocational and technical education curricula should be reviewed to reflect the new trends in technology development in VTE programs.
3. Adequate funds should be readily available for proper funding of VTE program procurement of modern equipment for the laboratories and a stable source of power generation for optimal utilization of the equipment, especially during practical classes.
4. Regular training and development of the human capital via conferences, workshops and other in-service training should be made compulsory to enhance attitude toward work and promote high productivity.
5. Staff welfare packages and other entitlements should be improved upon and promptly released to staff as a motivation that would discourage the dearth of manpower.
6. There should be the inclusion of VTE experts in making decisions that affect the program, and giving the free hand to demonstrate their expertise knowledge without external or political interferences.

References

- Abdullahi, M. D. (2013): Technology and science education an overview. *Education Today Journal*, 6 (3), Lagos: Mbeyi and Associates.
- Adegbite, P.O. (2016). Technical and vocational education in Nigeria: *A Critical Analysis Paper Presented at the Seminar on TVE in Nigeria*. Abuja, Nigeria.
- Adele, S. O. & Olukayode, S. I. (2017): Technical and vocational education for productivity and sustainable development in Nigeria. *A Paper Presented at the 20th Annual National Conference of National Association of Teachers of Technology (NATT)*. Kaduna
- Agbionu, E. O., (2020). The role of vocational education in national development: *Journal of Technical Teacher Education*, 1 (2).
- Aina, J. K. (2013). Importance of science education to national development and problems militating against its development: *American Journal of Educational Research*, 1. 225-229, <http://dx.do1.org/10.1269/Education-1-7-2>.
- Balogun, A.M. (2015). Challenges of higher education in Nigeria: *A Manager's perspective*. A Paper Presented at the Maiden Edition of the Faculty of Education, Annual Sector Series: University of Ado-Ekiti
- Bassi, S.Y. (2014); "The role of the directorate of technical cooperation in Africa (DCTA) in technology transfer and acquisition in countries: *Proceeding 2nd African Regional Conference on Engineering Education*; University of Lagos.,35 -42.
- Bloom, D. Canning, K. & Chan, K., (2016). "Higher education economic development in Africa: *The World Bank, Africa Region Human Development Working Paper Seminar*, 110-112
- Brundtland (1987). Brundtland report: "*Our Common Future*". Oxford University press.
- Ekpo, C,G, & Aiyedun, T.G. (2001). Environmental education: essential tool for attainment of sustainable development goals in the 21st century in Nigeria.
- Federal Republic of Nigeria, (FRN, 2004). *National policy on education*, Lagos National Education Research Council
- Federal Republic of Nigeria, (FRN, 2014). *National policy on education: (6th edition)*: Lagos:
- Federal Republic of Nigeria, (FRN, 2021). *Report on the 27th edition of economic summit*. Abuja:
- Grootings, P. & Nielsen, S. (2016). Skill development for poverty reduction: *International Journal of Vocational and Technical Education*. ISSN 2141-534X:doi:105897/IJVTE.

- Habibu, R. G. (2017): Technology education as a tool for productivity and sustainable development in Nigeria: *A Paper Presented at the 20th Annual National Conference of National Association of Teachers of Technology (NATT)*, Kaduna Polytechnic.
- Lawal, A. W., (2014). Re-branding vocational and technical education in Nigeria for sustainable national development: *Annual National Conference of National Association of Teachers of Technology (NATT)* Retrieved online, www.nationalplanning.gov.ng. 1 (2).
- Mamman, J., Chadi, A. M., Jirgi, I. M., & Mubaraka, C. M. (2013). The role of vocational and technical education in skill acquisition in Nigeria: *Journal of Education and Practice*. 4,(10). ISSN 2222 – 1735 (Paper) ISSN 2222 – 288X (Online).
- Momoh O. A. (2012). “Revitalization of technical education in Nigeria as a vehicle for transformation: *Proceedings of COREN 21st Engineering Assembly*, 53 – 81.
- NESG, (2021). Nigeria Economic Summit Group: www.nesgroup.org. Retrieved 2023.
- Nworlu-Elechi, O. (2013). Technical and vocational education for national transformation: *Proceeding of 1st ASUP Zone D National Conference*. 21-37.
- Odu, K. O. (2013).”Reappraising the work skill requirements for rebuilding technology education in senior secondary schools for optimum performance in Nigeria” *Proceedings from Africa Society for Scientific Research (ASSR): The First International Technology, Education and Environment Conference: Human Resource Management Academic Research Society*.
- Ogunmola, M. O. (2021). The influence of vocational and technical education towards 6-3-3-4 system of education for national development: *International Journal of Humanities, Social Sciences and Education. (IJHSSE)*. 8, (2), 174-181.
- Olunloyo, V. O. S. (2012). *The challenges of globalization for the design of technical curriculum in developing countries*: (1st edition). University of Lagos Press. 217 – 237.
- Oryem-Origa, S. O. (2018). *Vocational education and manpower development*: Lagos: Nigeria Vocational Monograph.
- UNESCO, (2014). Teaching and learning: achieving quality for all: *Global Education Monitoring Report Team* (96).