

TECHNICAL VOCATIONAL EDUCATION AND TRAINING (TVET) A RESPONSE TO FUTURE SKILL NEED AND JOB CREATION FOR A GREEN ECONOMY IN NIGERIA

BY

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Abstract

Technical Vocational Education and Training is education for those who need it, those who want it, and those who want to progress by it. The study systematically reviewed literatures as they relate to the study. Concepts such as Technical Vocational Education and Training, future skill need and job creation, green economy, acquiring technical and vocational education in Nigeria were examined as posited by various scholars. Some areas where Nigerians can acquire vocational and technical skills include institutions of learning such as National Agency for Science and Engineering Infrastructure, Petroleum Technology Development Fund and National Agency for Science and Engineering Infrastructure. Key constraints to technical vocational education and training (TVET) in Nigeria and strategies for revamping TVET in Nigeria was also discussed in the study. The study concluded that TVET programmes need to be expanded to meet current trends in terms of skills and employment. Also, graduates of TVET should be equipped with the necessary skills that would make them outstanding in their chosen field. Based on the conclusion deduced from the study, it was therefore suggested among others that the Federal and State governments should establish more technical and vocational schools for the teaching of technical and vocational courses.

Introduction

Technical Vocational Education and Training (TVET) is a necessary tool to boost the economy of a nation. If Nigerian is to overcome the challenges of the 21st century taking cognizance in the face of the much talked about vision for future skills needs and job creation, Technical and Vocational Education Training (TVET) must be allowed to play a critical role. TVET helps individuals to escape poverty by providing them with skills and knowledge to raise their output and generate income. This calls for a

lifelong learning in entrepreneurship and TVET. Technical, Vocational Education and Training (TVET) is the most viable panacea to all manners of unemployment challenges in Nigeria (Ogbunaya & Udoudo, 2015).

TVET is an important skill-oriented education with the prospect of stimulating employability and national development through ensuring sustainable job creation (Inyiagu, 2014). National development involves unending process of qualitative and quantitative transformation in the

capacity of a state to organize the process of production and distribution of goods and services for the material benefit of the society in a manner that sustains improvement in the well being of its individual member in order to enhance their capacity to realize their full potentials (Sijibomi & Miller, 2014). Sofoluwe (2013) stated that TVET is a concept reserved for the education of technologist and technician cadre of manpower in all occupational fields which is offered by the Polytechnic, Monotechnic and Colleges of Education. The worldwide constant innovative changes have shown that the future is unpredictable, especially as it concerns education, technology, skills and competencies which are considered the bed rock of economic, social and political mobility and growth. For Nigeria to have a robust economy, occasioned by response to future skills needs for job creation, it must recognize the need for empowering individuals through training for acquisition of the necessary skills that will help the individuals to make meaningful contributions to the immediate society. Indeed, TVET is a veritable tool in achieving a self-reliant economy. Technical Vocational Education and Training (TVET) must respond to future skills needs for job creation.

Unemployment has been described as a social plague which contributes to problems such as poverty, theft, untimely

death, violence and juvenile delinquency (Aibieyi, 2006). Apeon (2004) contends that anything done to increase the quality and standard of life of a community is empowerment. This paper attempts to highlight where Nigerians can acquire skills needed for job creation and self employment. This study also brings out some constraints confronting TVET implementation in Nigeria and makes recommendations on the way forward.

Concept of Technical Vocational Education and Training (TVET)

Technical Vocational Education and Training (TVET) is a cardinal factor in any economic development of a country. Training in general has potential benefits which accrue to the individual, organization and the nation in general. To the individual training enhances their future earning potentials career progression and employability. The concept of Technical and Vocational Education (TVET) is associated with education for work or kind of education purposely designed to equip learners with professional competences needed to fill the yeanning gap in manpower development for a sustainable economy (Ekpenyong, 2010). Technical Vocational Education and Training is the education for those who need it, those who want it, and those who want to progress by it (Okoye, 2013). UNESCO-UNEVOC TVETipedia (2017) defines TVET as “education concerned with the acquisition

of knowledge and skills for the world of work”, a definition that restricts itself to the role of TVET in transitioning learners from school to work. Thousands of graduates leave school yearly depending on white collar job when in reality the job market is flooded with less to zero skill-oriented graduates.

In Nigeria, majority of graduates out of formal school system are unemployed, although opportunities for skilled workers exist in the economy. The situation is brought by mismatch between training and labour market skill-demand. Lack of inputs from prospective employers into the curriculum design and training delivery in Universities and colleges is partly responsible for this mismatch (Agbulu, 2016). TVET is understood to comprise of education, training and skills development relating to a wide range of occupational fields, production, services and livelihood” (UNESCO, 2016). As part of the lifelong learning process, TVET now includes workplace based learning, skills development and continuing professional development. It is no longer a terminal learning stage after secondary education (Cedefop, 2020).

Future Skill Need and Job Creation

Future skills are those skills needed by graduates of TVET to get employment or to create a job where none exist. They are skills that will help graduate transit smoothly from school to labour market and compete favourably with their

counterpart. *Mfon, Ini & Essien*
prerequisite to sustainable development in any country. Technical Vocational Education and Training (TVET) are expanding due to the technological changes and societal needs and this expansion requires creation of more jobs for which training must be provided. Job creation according to Muhammad (2011) is the process of providing new functions especially for people who are unemployed.

Sule (2013) defined job creation as the establishment of a labour market with social and economic dimensions capable of accommodating the unemployed. James (2012) opined that job creation is the notion that paid occupations are created in response to some sort of event or situation. Agbulu (2016) posited that productive employment is restricted to skill-acquisition in jobs that are of benefit to individuals and society. Some literature puts that 80% of youths are unemployed and the solution is to create more jobs through TVET. According to Agbulu (2016) graduates of TEVT should acquire skill in the following areas among others:

1. Skill acquisition in crop production which involves skills in pre-planting, planting and post-planting phases.
2. Skill acquisition in animal production enterprise especially housing, feeding and management of animals of various kinds.

3. TVET in agricultural mechanization, particularly the skills in the operation of farm machines and other farm-machinery.
4. Skill acquisition in Building Technology
5. Skill acquisition in Electrical/Electronic Engineering
6. Skill acquisition in Refrigeration, TV, Radio etc.
7. Skill acquisition in Wood work Technology

All these provide ready-made jobs for graduates in order to be self-reliant and create wealth for others and themselves.

Green Economy

The concepts and discourses of the green economy represent a radical transition for more efficient, environmentally friendly and resource-saving technologies to reduce emissions and mitigate the effects of climate change (Jänicke, 2012), and tackle resource depletion and serious environmental degradation. It discourses have strategic merit in reframing a negative debate around constraints into a positive one about opportunities (Bowen and Fankhauser, 2011). The green economy concept also has the potential to ensure that, when national, regional and international implementation plans are designed, the Sustainable Development Goals (SDGs) and the post-2015 development agenda can overcome inherent conflicts between the goals.

The green *Mfon, Ini & Essien* popularity in international, regional and national policy circles: initially as a response to the financial crisis (Bina and La Camera, 2011), but also a motor for growth and development. Presently, green economy concepts and frameworks have influenced discourses and policy in many countries. These include the UK, France and China with a greater focus on growth (Bailey and Caprotti 2014). Ferguson's (2015) study encompasses three forms of green economy discourse: weak green economy, transformational green economy, and strong green economy. Weak green economy discourses have a macroeconomic trajectory of green growth and encompass unmodified Gross Domestic Product (GDP) as an indicator. Transformational green economy discourses reflect elements of selective growth often encompassing green consumerism and modified GDP as an indicator. However, both these categories still utilize GDP as a signifier of socioeconomic development. Strong green economy discourses embody post growth or limits to growth as central to their macroeconomic trajectory and encompasses measures of welfare as a critical indicator. CEDEFOP defines green skills as 'the knowledge, abilities, values and attitudes needed to live in, develop and support a society which reduces the impact of human activity on the environment' (CEDEFOP 2012). More generally, since the transition towards a sustainable economy is

increasingly pervasive and horizontal across economic activities, green skills can be defined as the skills needed by the workforce, in all sectors and at all levels, in order to help the adaptation of the products, services and processes to the changes due to climate change and to environmental requirements and regulations (OECD 2014).

Acquiring Technical and Vocational Education in Nigeria

Many people learn on-the-job and supplement their practical knowledge with correspondence courses and evening schools. Increasing number of technicians receive their education in trade schools, technical high schools, vocational-technical schools, community or junior colleges, or technical institutes. The trend is toward education beyond high school, with more skilled technicians and technologists completing either two or four years of college Education (Brickman, 2008). Many technical courses and programmes are available. Some schools offer technical training in only a single field or trade, others in a variety of fields or trades. Some schools combine agricultural and industrial training within the same school; other schools train skilled craft men as well as technicians.

Vocational Education programmes include numerous occupational areas, such as office skill, agriculture, health services, and technical training. The

scope of Vocational Education is broad, ranging from

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skill to those requiring a high degree of skill and scientific knowledge (Brickman, 2008). Abdulazeez (2004) observed that the National Policy on Education; supports the establishment of vocational centres for the training of primary school leavers to acquire skills that will enable the individuals to be self-employed or work in industries. While some stop at the primary or junior secondary school level to contend with their areas of skill for self-reliance, others may decide to complete senior secondary education and proceed to tertiary institutions to accomplish their chosen areas of study for future stability. Furthermore, TVET could be acquired in Nigeria from centres/agencies such as the following:

- i. **National Agency for Science and Engineering Infrastructure:** The National Agency for Science and Engineering Infrastructure (NASEN) has pioneered a paradigm shift in the effort to utilize advanced manufacturing technologies in the industrial and manufacturing sectors of the economy for global competitiveness. The agency has invested in human capacity development in various areas of advanced manufacturing technology. The Science Equipment Development Institute (SEDI) Enugu, one of the outfits of NASENI, is charged with the responsibility of developing products and technologies related to

scientific equipment and other technical items, including machines, and passing on to the private sector for local mass production and commercialization. The intention of the government was to arrest foreign exchange outflow as well as generate employment in the public sector, in pursuance of national economic development. The agency has developed special primary and secondary science kits for teaching science in primary and secondary schools in Nigeria (Alabira, 2008).

ii. **Petroleum Technology**

Development Fund: The Petroleum Technology Development Fund (PTDF) is a scheme that was initiated by the government of Chief Olusegun Obasanjo in 1999 to meet the long term capacity requirement of the oil and gas industry through the training of qualified Nigerians in oil and gas fields such as Engineering, Geological Sciences, Environmental and Energy studies at the postgraduate level. It replaced the Gulf Oil Training Fund which was established for the purpose of training and education of Nigerians in the petroleum industry.

iii. **National Agency for Science and Engineering Infrastructure:**

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Key Constraints to Technical Vocational Education and Training (TVET) in Nigeria

Although Technical Vocational Education and Training (TVET) has been seen as a key element in the changing world economic order, nevertheless, TVET in Nigeria like in many other countries still face a lot of challenges (Manifred and Jennifer, 2004). For TVET in Nigeria to compete with their counterparts globally

in the changing economic order, it must address the following key challenges:

1. Putting in place workable policies and strategies
2. Advocating TVET as a key element in the education industry.
3. Learning in authentic and real-world environments.
4. Encouraging continuity in TVET.
5. Putting in place coherent guidance and counseling system which would help to put students in proper career path.
6. Encouraging the development and usage of qualified trainers.
7. Creating awareness through image building, vocational attractiveness and participation in TVET in Nigeria.
8. Setting up ambitious and realistic goals that would enable Nigeria to be the most competitive and knowledge based economy.
9. Creating and sensitizing the Nigerian populace on the need and vision of TVET.
10. Maintaining approved school age and exit in order to pave way for physical and mental maturity required for the acquisition of technical and vocational skills.
11. Encouraging investment in quality TVET.
12. Tackling the issues of insufficient and lack of up-to-date assessment of progress in TVET.
13. Adopting stringent measures for proper and efficient execution of policies regarding TVET.

14. Adopting uniform standard and certification in TVET at all levels.

15. Trainin *Mfon, Ini & Essien*
technology skills.

16. Making available the necessary occupational information to the public.

Strategies for Revamping TVET in Nigeria

The vision statement of FRN (2004) for secondary and tertiary levels is to provide trained manpower in applied science, technology (Ghouri, Khan, Malik & Razzaq 2010) and business Ghouri & Khan, 2012) particularly at craft, advanced craft and technical levels, provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development and to give training and impart the necessary skills to individual who shall be self-dependent economically. At the tertiary level, TVET graduates are expected to acquire both physical and intellectual skills, which will enable them to be self-dependent and useful members of the society. To meet the policy goals of NPE, and to address the challenges facing TVET in Nigeria, vocational educators like Akpan (2004) and Brickman (2008) are of the opinion that TVET should adhere to the following strategies:

- i. **Institution of Flexible, Workable and Adaptable Programme:** For Nigeria to address the socio-economic changes currently taking place worldwide, TVET must be

ready to amend and revise some of its curricula where necessary so as to effectively become a driving force for the implementation of the adjusted socio-economic development strategies. Sansaliyu cited by Alaku (2007) lamented the gap between policy decisions in the field of education and implementation of those policies. Nigerian policies on TVET must revolve around TVET that is flexible and adaptable to capture the rapid changing demands on ICT as well as support tourism, hospitality and agro processing, among others.

- ii. **Technical Vocational Education and Training should Strive to Adopt Strategies to Produce Graduates who are Innovative and Adaptable to Changes in the World of Work:** Vocational technical education graduates should strive to be job creators rather than job seekers who roam around the streets of Nigeria with dozens of certificates in endless search for jobs. This implies the production of competent TVET graduates who can adapt to changing economic situations in Nigeria. Vocational technical education should keep its gate open, flexible and learner oriented since one of the factors contributing to poverty in Nigeria is lack of equal access to education, and lack of employable/vocational skills. The

Nigeria government should also device a viable strategy of making its po

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continuous exercise from the planning, implementation and evaluation stages. Continuity and full implementation of the programmes lead to better success while disjointed programmes lead to disjointed success and perpetual exit of the programmes.

- iii. **Ensuring High Quality and Appropriate Skills:** For TVET to meet the economic, social and political trends of the time, the nation must use qualified TVET professionals/teachers in implementing TVET programmes. These professionals are pivotal in promoting TVET policies/reforms and strategies in Nigeria. The professionals have all the necessary skills, abilities and capabilities (Manfred and Jennifer, 2004) for carrying out the programme since the quality of TVET depends mainly on the quality of TVET teachers and trainers. The use of professionals would help in keeping pace with the rapid changes in the work environment and the content of the programme especially now that instruction is fast shifting from pure instruction to include learning facilitation and innovation. The use of non-professionals in the execution of TVET policies has led to disjointed implementation and

diversion of the greater percentage of the fund mapped out for the training. Disjointed implementation and diversion of fund has led to non-achievement of the programme objectives and lack of students' interest resulting in low enrolment and poor performance in the programme.

Conclusion

The worldwide constant innovative changes have shown that the future is unpredictable, especially as it concerns education, technology, skills and competencies which are considered the bed rock of economic, social and political mobility and growth. TVET programmes need to be expanded to meet current trends in terms of skills and employment. Graduates of TVET need to be equipped with the necessary skills that would make them outstanding. When these graduates are equipped they would in turn create jobs for themselves and others who may so desire to work with them.

Job creation should not only be a concern of government as the labour market is flooded with graduates without a saleable skill to offer but stakeholders should join hands in ensuring jobs are created through quality training given to students while in school. The green economy represents a radical transition for more efficient, environmentally friendly and resource-saving technologies to reduce emissions and mitigate the effects of climate change. The green economy

requires skill for anyone to be relevant and TVET graduates should not be excluded. *Mfon, Ini & Essien*

~~themselves for changes that may surface in future.~~

Suggestions

This study, in the light of the foregoing, makes the following recommendations:

- i. The Federal and State governments should establish more technical and vocational schools for the teaching of technical and vocational courses.
- ii. The federal and state governments need to establish more industries and/or review the existing ones. This will provide employment opportunities for trained youths who may not have the wherewithal to start a business on their own.
- iii. Government policies should be properly developed and implemented, and programmes should be adequately funded.
- iv. There should be good incentives for technical and vocational educators/trainers as well as trainees.
- v. There is need to involve community and industry in TVET in order to develop our nation's economy.
- vi. Government should create technical and vocational programmes that deliver professionally successful graduates. This will bring the products (graduates) of these

- programmes to limelight and make TVET to be highly demanded.
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