

Prospects for TVET in Developing Skills for Work in Nigeria

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Abstract

Education is considered the key to sustainable development and Technical and Vocational Education and Training (TVET) is thought to be pivotal to achieving national development goals in Nigeria. However, the country is plagued by persistent challenges of youth unemployment, inadequate skills in relation to requirements in the world of work as well as the vulnerability of youths to sponsors of violent extremism due to unemployment-triggered poverty. The persistent problem of unemployment has been linked to inadequate provision of requisite skills training and knowledge acquisition to students who later ended up unemployed due to lack of adequate employable skills. Using the eclectic approach of data gathering, this paper explores the current status of TVET delivery in Nigeria, the nexus between TVET and skills development, the opportunities for TVET in developing employable and job creation skills in the youth population in Nigeria, and makes recommendation for the repositioning of vocational education in the country through increased funding of TVET programmes, training and re-training of teachers, and provision of targeted TVET programs for cultivating relevant skills needed for access to decent work and life-long learning.

Keywords: TVET, Skill, youth, unemployment

1. Introduction

Nigeria has an estimated population of 190 million, making it the largest population in Africa, and the seventh largest in the world. The country is projected to become the third largest population in the world by 2050 behind India and China (United Nations Population Division, 2017). Nigeria has an economically active and working-age population that is over 50% of entire population and an unemployment rate of 14.2%. The dominant population group is 15-64 years (55.5%) (National Bureau of Statistics, 2017).

Before the recent global drop in oil prices which adversely affected the country's income generation, the country's economy experienced some rapid growth, but the rapid growth did not keep pace with the increasing number of job seekers, on the other hand, the growth bred the emergence of imbalance in the country with one section having high and diversified growth providing more job and income opportunities to a small share of the population, and the other in which workers are trapped in a low-productivity and traditional subsistence activities." (World Bank, 2015).

Education is pivotal in every form of development agenda because it is the hub upon which several other programs revolve. The definition of TVET which surrounds the subject of this paper defines TVET "*as 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 practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.*" (UNESCO, 2002) TVET has the primary objective of providing platform for acquisition of not only employable skills for the world of work or for job creation but also for social life. The unemployed economically active youth population in Nigeria need to be engaged in productive ventures to help make significant contributions to the national economy and overcome their vulnerability to anti-social forces that use them for activities against the security and peace of the country. They need access to quality education to cultivate skills needed for employment, jobs creation (UNESCO, 2012) as well as decent living.

Formal TVET was originally developed in Nigeria as in most African countries in the 1960s, to meet expected skill requirements of industrialization, but has been slow to respond to structural change and sectoral growth in the informal sector (Brewer & Comyn, 2015; Haan, 2006; Liimatainen, 2002; NISER, 2009). The intention of the government to use the development of modern industrial sector to serve the domestic market and facilitate the absorption of redundant or surplus workers in the urban economy could not be realized as the modern industrial sector could not absorb the migrants due to inability to generate enough employment opportunities (NISER, 2009).

The government of Nigeria has formulated several laudable policies and programmes over the years like National Economic Empowerment and Development Strategy (NEEDS), Subsidy Re-Investment and Empowerment Programme (SURE-P), National Directorate of Employment (NDE), National Youth Service Corps (NYSC), the country continues to be plagued by the combined problems of unemployment under-employment and poverty among the youth with the attendant negative impacts on the national security. Many young unemployed members of the society have easily become tools of fomenting violence and carrying out organized crimes.

2. Basis for Skills Development in Nigeria

Investing in knowledge and skills is seen by many governments as the cornerstone of developing an employable and globally competitive work force (AFDB & OECD, 2008). All young people require skills that prepare them for decent jobs so they can thrive and participate fully in their societies.

Skills and knowledge are engines of economic growth and social development of any nation. Quality education and skills not only empower the recipients for access to economically and socially rewarding jobs, but also empower them to create jobs, provide opportunities for re-integration of displaced workers and migrants and provide platform for school drop-outs and graduates to transit from school to work. (AFDB & OECD, 2008). Developing relevant skills and competencies among the youth, poor and vulnerable members of the society is crucial to reducing poverty and poverty-triggered insecurity in Nigeria. This becomes imperative as skills development in the global community is not just a part of a country's human resources strategies, but more of economic growth, poverty reduction and national security strategies.

Amid the constantly changing, knowledge driven global world of work, a coordinated strategy to boost labour demand and supply for the promotion of flexible employment growth and quality of jobs in Nigeria through the platform of education for skills is a national priority. This equally demands a strategic interplay between skills development sector and other sectors of the Nigerian economy to enhance labour demand and supply system, thereby reducing the impacts of unemployment, poverty and its attendant consequences in Nigeria.

Investment in education for skills as well as basic health and social protection will empower people to move out of poverty, equip people to be socially mobile and to avoid exclusion, as well as improve resilience for both individuals and society as a whole (AFDB, OECD, & UNDP, 2017). To ensure inclusive growth among individuals and the society at large, there must be a blend between investment in skills and knowledge along with monetary stimulus measures, updated business practice, infrastructures, efficient markets and investment in innovation which are key components for driving sustained growth and prosperity (World Economic Forum, 2017).

It has been observed that skilled and knowledgeable workforce not only improve a country's investment climate, it is also a major determinant of productivity and growth as well as international competitiveness (AFDB & OECD, 2008). Provision of skills oriented TVET programs will bring about the nurturing of many skills outlets in the youth population for employment or job creation. Investing in knowledge and skills in Nigeria will help to develop a more employable and globally competitive workforce to drive key sectors that are life blood of the country's economic development and make the country move up the global competitiveness index ladder.

The transformation of African economies into globally competitive economies with abundant opportunities for decent work for the young population which constitute a large portion of the continent's population has been hinged on investment in human capital development through acquisition of relevant skills and knowledge (World Economic Forum, 2015). Nigeria has the largest population in Africa and the largest youth population on the continent. As the largest economy in Africa, properly harnessing the vast human resources for the development of the country portends significant advantage to the country and the continent of Africa at large.

The country's long-drawn struggle with diverse sectional violence, insecurity, crimes and other social vices impact negatively on the country's image as a haven for investment. These constraints to development have been linked with persistent high unemployment among the youth and a major cause of unemployment is lack of adequate skills for employment among job seekers (Dike, 2009; NISER, 2009; Odu, 2010; Uddin & Uddin, 2013). In view of this, it is important to explore skills and training system (TVET) in Nigeria and identify the contextual challenges and opportunities for TVET in developing relevant skills for employment and job creation needed for national development.

3. Overview of TVET in Nigeria

3.1. The Structure of Technical and Vocational Education in Nigeria

TVET program in Nigeria is provided in formal, non-formal and informal systems. The formal system is school-based delivered at various levels in diverse types of institutions, including public and private technical and vocational schools, polytechnics professional institutions and apprenticeship training centers. The traditional apprenticeship offers opportunity for acquiring employable skills in the informal sector.

The school based TVET programs begin at the end of the lower secondary school level (Junior Secondary School). The Nigeria National Policy on Education of 1977, revised in 2004 made provisions for Pre- Technical and Vocational Education in the Junior Secondary School level, Technical and Vocational Education at the post Junior Secondary School level (Federal Government of Nigeria, 2004). The Pre-technical and vocational education provided at the Junior Secondary School level has the following purposes:

- a. Introduction into world of technology and appreciation of technology towards interest arousal and choice of vocation at the end of Junior Secondary School and professionalism later in life.

- b. Acquiring technical skills
- c. Exposing students to career awareness by exposing usable options in the world of work; and enabling youths to have an intelligent understanding of the increasing complexity of technology.

The post Junior Secondary School Technical and Vocational education as provided in the National Policy of Education has the following goals:

- a. Provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels;
- b. Provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development;
- c. Give training and impart the necessary skills to individual who shall be self-reliant economically.

The inclusion of pre-vocational courses at the lower secondary level is with the intention that the courses will be carried over to the senior secondary school level.

At the tertiary level, vocational and technical education is offered in technical schools, colleges of agriculture, technical colleges, colleges of education (technical), polytechnics and universities.

Formal TVET system begins upon completion of basic education of Junior Secondary School level. The options available to the students based on their performances at the Junior Secondary School final examination are: Senior Secondary School, Technical college, Out-of-school vocational training, apprenticeship scheme, Vocational Enterprise Institutions (VEIs) and Innovation Enterprise Institutions (IEIs) –institutions supported by the private sector and are occupation-specific vocational institutions which started to operate in 2007/2008 (UNESCO-UNEVOC, 2012).

3.2. Ownership

The Federal and State governments as well as private bodies run TVET programmes in Nigeria. Formal institutions coexist with a multitude of informal on-the-job training and informal vocational institutions. Formal TVET institutions include a variety of training institutions at various levels. TVET institutions include polytechnics, mono-technics, and technical colleges, overseen by the National Board for Technical Education (NBTE), while the informal system works mainly through apprenticeships. Polytechnics train graduates of senior secondary schools to the standards of National Diploma (ND), Higher National Diploma (HND), and the Post-Higher National Diploma (Post-HND) (UNESCO-UNEVOC, 2012).

There are Federal, State and private polytechnics and monotronics/specialized institutions, colleges of health technology, technical colleges, Federal and State colleges of agriculture as well as Vocational Enterprise Institutions (VEIs) and Innovation Enterprise Institutions (IEIs) run and supported by the private sector and are occupation-specific.

4. Pre-Vocational Education at Lower Secondary School in Nigeria

Nigeria operates the 6-3-3-4 education system, with the first 9 years for the basic education cycle, composed of 6 years of primary and 3 years of junior secondary education; the next 3 years cover senior secondary education; and the final 4 years cover tertiary education. The junior secondary education intended to develop in the individual functional skills and capacities for creative and critical thinking that will enable him or her to make appropriate decision, solve problems and carry out practical tasks(Federal Ministry of Education Nigeria, 2012).

The curriculum at the junior secondary level is both academic and pre-vocational designed to generate interest of students in pre-vocational skills early in life and to give general education and opportunities for career choice. The National Policy on Education places more emphasis on science and technology and the acquisition of knowledge and skills to provide a foundation future manpower development (Federal Ministry of Education Nigeria, 2012).

Pre-vocational education is offered with emphasis on six pre-vocational subjects with Introductory Technology as the core subject and five other electives including agriculture, business studies, home economics, local crafts and computer education. The intent was that the courses will be carried forward to the senior secondary school level (Federal Ministry of Education Nigeria, 2005).

The split in secondary education into junior and senior secondary education in Nigeria was made to create an exit point after completing junior secondary education. According to the National Policy on Education, on completion of the Junior Secondary School, there is expected to be a terminal transition to various destinations in the following proportions: 60% to senior secondary schools; 20% to technical colleges; 10% to vocational training centres, and 10% to apprenticeships. However, the proportion of transition to the senior secondary school is far more than the recommended 60% because of negative factors in the educational system. Technical and vocational education has low status (Federal Government of Nigeria, 2004; Federal Ministry of Education Nigeria, 2005).

The dismal enrollment of students in technical and vocational programmes has been linked to the inadequate teaching and learning resources, with many schools not having the required workshop for practical

subjects, and in places where workshops exist, they are poorly equipped and lacked trained teachers, which has turned this core subject into an optional subject in most schools. Generally, the pre-vocational training offered at the junior secondary level is of inadequate quality despite its prohibitive cost (Federal Ministry of Education Nigeria, 2005).

5. Challenges of TVET in Nigeria

The organization of TVET in Nigeria is beset with many problems inhibiting the delivery of the needed programs for skills development in learners. Studies have identified late introduction of TVET program to learners or poor provision of TVET programs when available; curriculum of studies and infrastructures available are obsolete and archaic (Okoye & Okwelle, 2013); the curriculum is rather of liberal bias or not practically oriented (Dike, 2009). Consequently, the learners are deficient in practical and employability skills when they come to the world of work.

The dearth of qualified teaching staff, inadequate number of technical and vocational colleges and low social estimation of vocational education are key constraints of TVET (Federal Ministry of Education Nigeria, 2009). Parents who can afford university education rarely send their children to a vocational school. Parents and students predominantly prefer general education because of the negative public perceptions on the status of blue-collar jobs. No one is keen on blue-collar careers in a society in which social advancement depended much more on academic careers (World Bank, 2000). This lack of attractiveness has been linked to loss of interest in TVET occasioned by inadequate provision of teaching and learning resources in schools (Federal Ministry of Education Nigeria, 2005).

The unavailability of equipment for the subjects and activities that the students engage in Introductory Technology and other pre-vocational subjects at the junior secondary stage is a major constraint to introduce learners to skills development programs at the early stage (Federal Ministry of Education Nigeria, 2005). The same problem pervades the higher levels of TVET system in the country (Uwaifo & Uwaifo, 2009). The lack of equipment has made training offered to be biased towards white-collar jobs and more of theories with insufficient opportunities for practice (Liimatainen, 2002). With lack of adequate teaching and learning materials for TVET at the early stage of the young learners' education ladder, the purpose of awakening interest in TVET could not be met. The young learners, even when they have the interest to study, could not sustain such interest when the environment for learning is not available.

Moreover, there is the wrong impression that TVET is the last option for the low performing students in the regular school system. This wrong impression among the youth and the society has been identified as one key factor responsible for the high rate of youth unemployment in Nigeria (Adesina, 2013). Apart from this, the limited resources for expansion, exclusion of technical and vocational education from the main stream curriculum, lack of guidance services among others are constraints to effective TVET delivery in Nigeria (World Bank, 2000).

On the other hand, there is the challenge of inadequate trained manpower to teach technical and vocational education (National Bureau of Statistics, 2015) which could be traced to the general low enrolment in technical colleges, polytechnics and technical colleges of education (AFDB & OECD, 2008; Federal Ministry of Education Nigeria, 2005).

Also, private sector's participation in provision of TVET is very low in contrast to what obtains in other arms of education: primary, secondary and university, where private sector's participation has enhanced the quality and level of achievement in these arms of education. The cost of running a TVET institution is a major factor making investment in it unattractive for the private sector. It is a known fact that TVET teaching materials, equipment is costly, but TVET has consistently been underfunded by the government as more attention is given to the regular school programmes (Uwaifo & Uwaifo, 2009).

Finally, low teachers' salaries, pervasiveness of poorly documented informal TVET as well as poor integration of TVET into the economy's demand for skills, including the problems of low external efficiency due to the absence of linkages between curriculum design and labor market information, especially from industry and enterprises has caused skill mismatch as industries could not get the right type of workforce for the right type of jobs (Adams, 2008; AFDB & OECD, 2008; Mourshed, 2012)

6. TVET and Developing Skills for Work

TVET has been described as a crucial platform for the acquisition of skills and knowledge for employment and sustainable livelihood (Maclean & Wilson, 2009). There is general belief that TVET provides the needed employable skills and attitudes necessary for effective performance in the workplace. On the global scale, major reforms are being carried out in different countries because of the increasing recognition of the crucial role of higher technical skills play in enhancing competitiveness, social inclusion, decent employment and poverty reduction. The ILO Decent Work Agenda identified the development of relevant skills as key to improved productivity and working conditions as well as promoting decent work in the informal economy (Adams, 2008;

AFDB & OECD, 2008).

Technical and vocational education, until recent decades, has suffered from being considered as the final option for those who failed in the 'more academic streams'. However, with the changing role of work and its impact on national and international economies, technical and vocational education has assumed a key educational role (Hughes, 2005).

Formal secondary schooling has been described as the most effective way to develop skills needed for the world of work and life and the integration of well-structured and functional skills development TVET programme in the secondary school curriculum especially from the lower secondary school level provides the platform for building the foundation skills which later develops to transferable skills and finally technical and vocational skills (UNESCO, 2012).

The inclusion of functional pre-vocational education in the Nigeria National Policy of Education was intended to create the required learning environment for young learners to embrace skills development early and stimulate their interest to move up the ladder in developing skills for work or life in recognition of the significance of skills development in reducing unemployment, inequality and poverty, and promotion of growth (Federal Ministry of Education Nigeria, 2005). Quality TVET can strengthen skills acquisition and lifelong learning for inclusive economic growth, employment and decent work, poverty alleviation, social well-being, gender equality and sustainable learning (AFDB et al., 2017).

The increasing global demand for international competitiveness, flexibility and innovativeness, as well as greater skills and flexibility from the labour force, calls for a repositioning of TVET system in Nigeria to meet this demand. Also, increasing influence of globalization on national economies, has made learning become lifelong with its foremost skill being learning how to learn (Wilson, 2001). Nigeria's intention of ensuring the country has the desired trained labour force in the face of changing world of work is realizable if the nexus between TVET and skills development is adequately harnessed by effectively integrating skills and knowledge acquisition program into the country's post-basic education system.

7. Opportunities for TVET in Nigeria

Two windows of opportunities for TVET in developing requisite skills and knowledge for the world of work and job creation are identified: the opportunity in the challenge of out-of-school children and the opportunity of demographic dividend.

7.1 Opportunity of Out of School Children

Education for All (EFA) programmes have concentrated too exclusively on Universal Primary Education and literacy. However, the need to complement the EFA with vocational skills training programmes to reach and empower marginalized groups is of equal importance as the society pays higher costs as children who fail in school find their opportunities limited in their lives after school with costs to both the individual and their society (Hughes, 2005).

Many graduates of primary schools in Nigeria do not proceed to the lower secondary school. In 2009, the estimated enrolment figure for Junior Secondary School was 9.27million, but only 3.27 million were enrolled. Existing figures indicate that just a little over half of children who complete primary education progress to the junior secondary level in Nigeria (Federal Government of Nigeria, 2009). Majority of the out of school children and adolescents in Nigeria live in rural poor communities. A partnership of EFA with technical and vocational education and training (TVET) can make major strides towards meeting the EFA goal in line with the education goal of post 2015 development agenda of ensuring inclusive and equitable quality education and promotion of lifelong learning opportunities for all in recognition of the important role of education as a main driver of development and in achieving the other proposed Sustainable Development Goals (UNESCO, 2015).

The challenge of the out of school children and adolescents is an opportunity for the repositioning of TVET programme in Nigeria to productively engage the active young population and curb the trend of their vulnerability to anti-social agents. In view of the global focus on using TVET as a tool for developing skills for the world of work, the current TVET structure in the country need to be equipped to make it more inclusive, accessible, and attractive to the young school leavers for skills and knowledge acquisition in preparation for decent work and living.

A large portion of the number of children who completed the primary education never entered secondary school and a large part of those who entered did not transit to the upper secondary level. These set of children left the formal school system without acquiring the basic skills needed for them to have access to decent work and income. Their choices were limited by the lack of relevant employable skills and they become vulnerable to anti-social forces who can give them token for their survival amid poverty. Specialized TVET programmes for this group of children will remove the limitation of choices available to them and give them the opportunity to contribute positively to the development of their immediate society.

7.2 Demographic Opportunity

Nigeria is said to have the potential to become a top-20 economy in the world by 2020 and has the potential to move 70 million Nigerians out of poverty (IBRD & World Bank, 2015). The country has the largest population in Africa and the youth population is also the largest in the continent. Majority of the youth are engaged in the informal sector of the economy due to failure of the formal sector to create employment opportunities for increasing number of entrants into the labour market. Studies have shown that not less than 75% of the country’s labour force is in the informal sector for employment and income generation (Akande & Akerele, 2008). There is high possibility that future employment of youth will be inclined towards the informal sector (NISER, 2009).

According to the ILO, informal employment is defined as the “total number of informal jobs, whether carried out in formal sector enterprises, informal sector enterprises, or households” (ILO, 2002). Activities in the informal sector have low skills requirement and are characterized by low productivity, vulnerable work environments, poor quality of products, lack of access to social security and insufficient technical and vocational skills. Equipping the young population with requisite skills will impact positively on the productivity level in the informal sector and have a ripple effect of bringing down the unemployment and poverty levels as well as improving the country’s economic growth.

Unemployment and under-employment in Nigeria is highest among those aged between 15-34. The national unemployment rate of 14.2% is far higher than the International Labour Organization’s (ILO) global unemployment rate of 7.2% for the same period (National Bureau of Statistics, 2017). The high rate of unemployment in Nigeria has been linked to lack of relevant practical skills, which can only be reduced through skills acquisition (Dike, 2009). Recent data released by the National Bureau of Statistics (2017) shows that the problem of unemployment has continued to be on the increase as shown below:

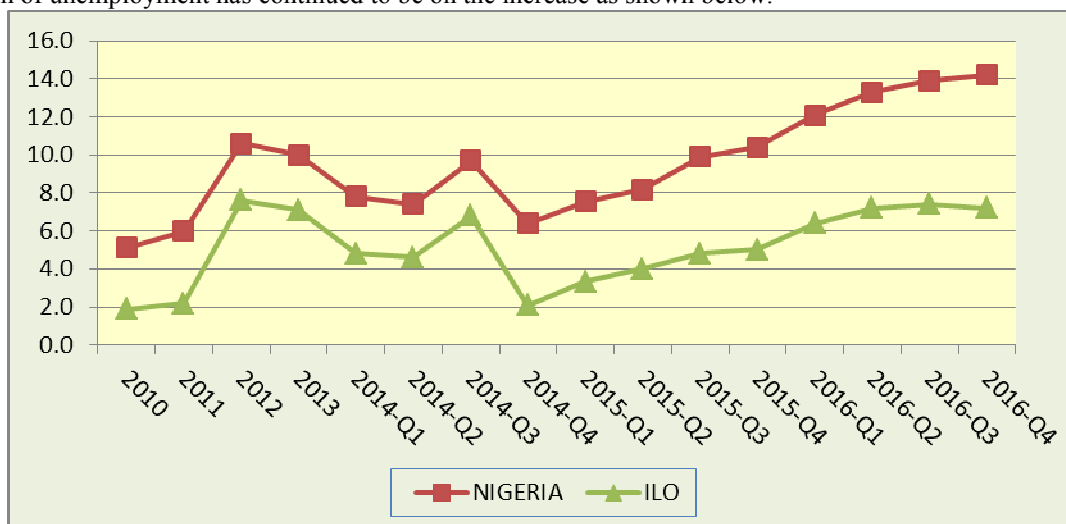


Figure 1. Unemployment Trend in Nigeria 2010-2016 (National Bureau of Statistics, 2017)

Of equal concern is the trend of under-employment among the working age population. The term under-employment is said to occur when a person works less than full time hours, which is 40 hours, but works at least 20 hours on average a week and /or if the person works full time but not engaged in an activity that underutilizes the person’s skills, time and educational qualifications (National Bureau of Statistics, 2017). During the period between 2010 and 2016, under-employment trend was higher than that of unemployment among the working age population in Nigeria as shown in the chart below:

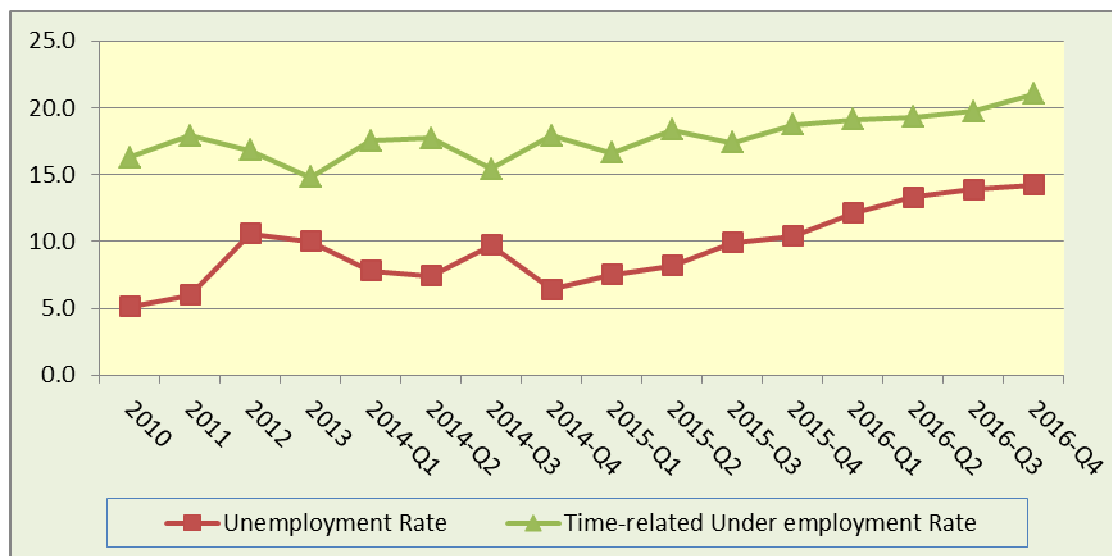


Figure 2. Unemployment and Under-employment Trend in Nigeria 2010-2016 (National Bureau of Statistics, 2017)

TVET can empower the youth for creative problem-solving ability through specialized skills acquisition programmes. The specialized programmes will provide skills for specific needs in the immediate environments of participants in view of the fact that a large portion of the target of technical and vocational training participants are in rural poor agrarian areas. This will ensure that participants are prepared with a substantial measure of the practical and technical skills needed for the transformation of their societies (King & Martin, 2002). This becomes more important as the country is faced with serious economic challenge of decline in global oil price. The country needs to diversify its economy by focusing on non-oil exports to break away from the over-reliance on oil and primary commodity exports. The areas the country can focus on in the immediate period are agriculture, mining, infrastructure and tourism. Trainings should be provided for participants to be employed in these areas, while they also have the opportunity for life-long learning while on the job.

This brings up the question of how are the graduates of these specialized skills training programmes going to be employed after training? The government must provide the enabling environment for employment of graduates from the skills training programme with room for on the job trainings. It has been argued that developing relevant skills facilitates the application of new technologies, increases individuals' employability and enterprises' productivity and competitiveness. However, TVET by itself is not sufficient. It needs to form part of integrated policies directed at economic growth and employment to be fully effective (AFDB & OECD, 2008). This calls for tying the TVET programmes to specific national development programmes as was the case in China (Guo & Lamb, 2010).

8. Conclusion

TVET is not only an indispensable platform for skills development but also key to national development and poverty reduction. To move the citizens out of poverty, the Government of Nigeria needs to strengthen the TVET platform for developing employable skills or skills for work. Constraints on staffing, facilities, and equipment, resulting in low access and quality should be addressed. Also, the problems of low external efficiency due to the absence of linkages between curriculum design and labor market information, especially from industry and enterprises need to be addressed to ensure that the right type of workforce is trained for the right type of jobs (Mourshed, 2012).

Meanwhile, government should ensure expanded access to basic education through expanded access to TVET; especially at the lower secondary school level. The success recorded in the EFA should be complemented with vocational education at the lower secondary level as the combined approach of basic education and vocational training provides the means to move ahead economically and breaks the cycle of poverty (Hughes, 2009). Equally important is the need to make pre-vocational education more attractive at the lower secondary school level through increased funding, provision of equipment and manpower training to promote students' interest in TVET at an early age, and develop in them relevant skills to assist them in their career choices.

The government should make provision for a more TVET oriented Pre-technical and Pre-vocational education at the junior secondary school level to nurture students with appropriate foundational technical and vocational skills. The graduates will have the options of transiting directly to the Technical Colleges after completion of their studies, take up employment or create employment with the skills acquired. The junior TVET is expected to bridge the gap in the number of students enrolling in Technical Colleges as well as in

higher TVET institutions. The current general education system cannot satisfy the country's demand for skilled low and medium cadre work force required to drive the economy of the country.

Finally, qualified technical and vocational education teachers are needed in the secondary schools and technical and vocational colleges. These teachers also need adequate professional development to help them carry out their duties effectively. Government should recruit more teachers for technical and vocational education, while dedicated TVET teacher training institutions should be established to train the teachers and offer professional development programmes for in-service TVET teachers. The existing Federal Colleges of Education (Technical) should be equipped, funded and upgraded to TVET universities to enhance training of TVET teachers as well as carrying out quality researches in the field of TVET.

References

- Adams, A. V. (2008). Skills Development in the Informal Sector of Sub-Saharan Africa. *Labour*, (2006), 1–23.
- Adesina, O. S. (2013). Unemployment and Security Challenges in Nigeria. *International Journal of Humanities and Social Science*, 3(7), 146–156. <https://doi.org/10.1017/CBO9781107415324.004>
- AFDB, & OECD. (2008). *African Economic Outlook 2008*.
- AFDB, OECD, & UNDP. (2017). *African Economic Outlook 2017*.
- Akande, S. O., & Akerele, W. O. (2008). *Employment Generation in the Informal Sector of Nigerian Economy, Nigerian Institute of Social and Economic Research (NISER) with the support of ACBF/ ILO*.
- Brewer, L., & Comyn, P. (2015). *Integrating core work skills into TVET systems: Six country case studies*.
- Dike, V. E. (2009). Addressing Youth Unemployment and Poverty in Nigeria: A Call for Action, not Rhetoric. *Journal of Sustainable Development in Africa (Volume 11, No.3, 2009)*, 11(3), 129–151.
- Federal Government of Nigeria. (2004). *National Policy on Education*. Lagos: NERDC Press.
- Federal Government of Nigeria. (2009). *Report of the vision 2020 on education sector – National Technical Working Group July 2009*.
- Federal Ministry of Education Nigeria. (2009). *Roadmap for the Nigerian Education Sector*.
- Federal Ministry of Education Nigeria. (2012). *4-Year Strategic Plan for the Development of the Education Sector*. Abuja: Government Press.
- Federal Ministry of Education Nigeria. (2005). *Nigeria Education Sector Diagnosis: A Framework for Re-engineering the Education Sector*.
- Guo, Z., & Lamb, S. (2010). *International Comparisons of China's Technical and Vocational Education and Training System*. <https://doi.org/10.1017/CBO9781107415324.004>
- Haan, H. C. (2006). *Training for Work in the Informal Micro-Enterprise Sector: Fresh Evidence from Sub-Saharan Africa (Technical and Vocational Education and Training: Issues, Concerns and Prospects, Volume 3)*. <https://doi.org/10.1007/1-4020-3828-3>
- Hughes, P. (2005). Why access to TVET for all is essential if education for all is to be achieved. *Prospects*, 35(3), 253–267. <https://doi.org/10.1007/s1125-005-4263-3>
- Hughes, P. (2009). Access to TVET for All: An Essential Basis for Education for All. In D. Wilson & R. Maclean (Eds.), *International Handbook of Education for the Changing World of Work Bridging Academic and Vocational Learning* (pp. 2039–2052). Netherlands: Springer Netherlands.
- IBRD, & World Bank. (2015). *More, and More Productive , Jobs for Nigeria : A Profile of Work and Workers*, 86.
- King, K., & Martin, C. (2002). The vocational school fallacy revisited: Education, aspiration and work in Ghana 1959-2000. *International Journal of Educational Development*, 22(1), 5–26. [https://doi.org/10.1016/S0738-0593\(00\)00083-3](https://doi.org/10.1016/S0738-0593(00)00083-3)
- Liimatainen, M.-R. (2002). *Training and Skills Acquisition in the Informal Sector: A Literature Review (Employment/Skills Working Paper No. 9)*. International Labor Organization.
- Maclean, R., & Wilson, D. (2009). *International Handbook of Education for the Changing World of Work*. (R. Maclean & D. Wilson, Eds.). Dordrecht: Springer Netherlands. <https://doi.org/10.1007/978-1-4020-5281-1>
- Mourshed, M. (2012). McKinsey Center for Government. Retrieved from <http://mckinseysociety.com/education-to-employment/>
- National Bureau of Statistics. (2015). *LABOUR PRODUCTIVITY IN NIGERIA (2010 - 2014): A SHORT ANALYSIS*.
- National Bureau of Statistics, N. (2017). *Unemployment/Under-Employment Report (Q4 2016)*, (April).
- NISER. (2009). *Study on Skills Development for the Informal Sector of the Nigerian Economy* (Vol. 29). Retrieved from http://www.journals.cambridge.org/abstract_S0001972000060666
- Odu, K. (2010). Skills acquisition in Nigerian education system: problems and prospects in technical education. *Journal of Qualitative Education*, 6(1), 20–26.
- Okoye, K. R. E., & Okwelle, P. C. (2013). Technical and Vocational Education and Training (TVET) In Nigeria and Energy Development , Marketing and National Transformation. *Journal of Education and*

- Practice*, 4(14), 134–139. Retrieved from www.iiste.org
- Uddin, P. S. O., & Uddin, O. O. (2013). Article information :Causes, effects and solutions to youth unemployment problems in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences*, 4(4), 397–402. Retrieved from http://reference.sabinet.co.za/webx/access/electronic_journals/sl_jetems/sl_jetems_v4_n4_a4.pdf
- UNESCO. (2002). *Technical and Vocational Education and Training for the Twenty-first Century*. United Nations Educational, Scientific and Cultural Organization (UNESCO) and International Labour Organization (ILO). Retrieved from <http://unesdoc.unesco.org/images/0012/001260/126050e.pdf>
- UNESCO. (2012). *ESD + TVET: Promoting Skills for Sustainable Development*. Retrieved from www.unesco.org/education
- UNESCO. (2015). Education 2030. *World Education Forum 2015*, 51. Retrieved from <https://en.unesco.org/world-education-forum-2015/incheon-declaration>
- UNESCO-UNEVOC. (2012). *World TVET Database Nigeria*. Germany. Retrieved from www.unevoc.unesco.org
- United Nations Population Division. (2017). *World Population Prospects: The 2017 Revision, Key Findings and Advance Tables*.
- Uwaifo, V. O., & Uwaifo, I. U. (2009). Training Technology And Vocational Education Teachers For The New 9-3-4 Education System In Nigeria: Its Problems And Prospects. *International NGO Journal*, 4(4), 146–159.
- Wilson, D. (2001). Reform of TVET for the changing world of work. *Prospects*, 31(1), 21–37. <https://doi.org/10.1007/BF03220047>
- World Bank. (2000). *Nigeria Education Sector Analysis: An Analytical Synthesis of Performance and Main Issues*. WORLD BANK Report. Retrieved from http://siteresources.worldbank.org/NIGERIAEXTN/Resources/ed_sec_analysis.pdf
- World Bank. (2015). NIGERIA ECONOMIC REPORT, (3).
- World Economic Forum. (2015). *The Global Competitiveness Report The Global Competitiveness Report* (Vol. 5). <https://doi.org/92-95044-35-5>
- World Economic Forum. (2017). *The Global Competitiveness Report*. Geneva. Retrieved from www.weforum.org/gcr.