

## Technical and Vocational Education and Training (TVET) Sector in Nigeria: Structure, Challenges and Repositioning Strategies

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### Abstract

*The paper is an attempt to analyse the Nigerian Technical and Vocational Education and Training (TVET) with a perspective of repositioning the sector. It presents briefly the historical overview of TVET in Nigeria. It also discusses TVET in the Nigerian education system, major problems of TVET sector and offer suggestions to address these challenges. The paper agreed with the notion that TVET is an important tool to create employment, generate wealth, reduce poverty and increase the gross domestic product (GDP) of a country. The paper found that TVET sector in Nigeria is yet to be given the due recognition, needed support and acceptability. To reposition the TVET sector, the paper suggests that individuals, organisations and governments should be actively involved in planning, funding, advocacy, revitalization, development and administration of TVET.*

Keywords: Institutions, skills development, programmes, employment, enterprises

### 1. Introduction

Nigeria is undoubtedly the most populous country in the Sub-Saharan Africa and seventh in the world. It is one of the top oil producing countries with average gross domestic product (GDP) of \$432 billion, which is highest in the African continent as at the end of 2020. Despite its abundant natural resources and, large oil and gas reserves, Nigeria is confronted with high rate of unemployment. According to Nigerian Bureau of Statistics (NBS), it was recorded that the unemployment rate was 33.3% in the last quarter of 2020. This is very high and means that one-third of the working age group in Nigeria is out of work. Although, an average of half a million Nigerian youths are turned out from the higher educational institutions yearly, but the demand for these graduates is diminishing to fill the limited vacancies in both the public and private organisations (Zite & Zeedom, 2017; Okwelle & Deebom, 2017).

The socio-economic challenges bedeviling the Nigerian economy can be traced to lack of high demand and relevant skills by the large pool of labour force in Nigeria. They either lack skills and experience needed by the employers or capacity to create profitable enterprise(s). The inadequate abilities, skills and knowledge to harness the traditional and emerging job opportunities in the Nigerian and global economy have led to unemployment (Okwelle & Deebom, 2017). The resulting effect is that the overall productivity of the country is getting low.

This might be one of the reasons why there is agitation among unemployed youths for jobs, and the need to create more job opportunities. Despite several Government's interventions to arrest the situation, the rate at which formal jobs are created in Nigeria is very slow compared to the number of graduates produced annually. It is therefore important that the Nigerian education and training system be repositioned in order to provide the right skills to Nigerians who will be able to think creatively, generate employment and possess competencies that meet the diverse demands of the labour market (Ogbunaya & Udoudo, 2015).

Technical and Vocational Education and Training (TVET) has been recognized worldwide as an important tool through which any nation can experience economic growth and development. It can provide occupational skills, eliminate unemployment, reduce poverty and social vices among our teeming youths. TVET is vital for any economy to compete and grow, particularly in the era of economic integration and technological change. TVET as a form of education is meant to equip learners with practical skills, knowledge and entrepreneurial tools needed by the employers or in the workplaces. TVET programmes can equip people with abilities, skills and knowledge to harness present and future employment opportunities and build a self-sustaining nation. TVET is widely considered as a viable option to accelerated national development and reduce rates of unemployment, social vices and crime in a country. TVET thus has the potential to provide essential skills to Nigerians to earn a living by deploying their skills to solve societal problems. In Nigeria, TVET has been providing Nigerian workforce with skills though not as high as it is obtainable in the advanced economies of the world. It is therefore important that Nigerian TVET sector should be refined to enhance higher productivity, stimulate economic competitiveness, raise Nigerians out of poverty and promote social cohesion, equity and sustainability (Ogbunaya & Udoudo, 2015; Zite & Zeedom, 2017).

A number of prior studies have been carried out to analyze TVET in Nigeria. For instance, Atsumbe, Emmanuel, Igwe & Atsumbe (2012) examined the constraints and contributions of TVET to the manpower production in Nigeria. Among them were historical legacy from Colonial administration, societal attitudes, lack of adequate academic manpower, poor state of infrastructure and training equipment. The findings of the study enunciated new funding approach, collaboration with employers, accreditation of programmes, re-organisation and management of TVET institutions as some of the repositioning strategies for quality manpower production in Nigeria. Okoye & Okwelle (2013) examined the policies adopted by four different countries to revitalize their TVET sectors to achieve technological advancement and economic sustainability. It was suggested that Nigeria needs to embrace a credible and pragmatic approach to strengthen TVET delivery in Nigeria to be among the developed economies in the world.

Ayonmike, Okwelle and Okeke (2015) carried out a study among National Vocational Association members to ascertain the challenges and strategies to improve the quality of TVET programmes in Nigerian tertiary institutions. The authors group the challenges of TVET into three: students, school and government factors. The study identified that adequate funding, training and retraining, adequate internal and external supervision, and public private partnership are necessary to improve the quality of TVET programmes in Nigeria. Ogbunaya & Udoudo

(2015) examined the importance of TVET in creating employment for youth in order to address the effect of unemployment on national security in Nigeria. The study recommended that all relevant arms of government should be well funded to coordinate TVET programmes in educational institutions.

In a related study among Niger Delta youths, Okwelle & Deebom (2017) found that the major challenges of TVET implementation for sustainable empowerment of the youths are inadequate training facilities and acute shortage of trained qualified teachers. In another study to examine the challenges of TVET and propose strategies to enable it serve as a tool for national development. Zite and Deebom (2017) performed a study among a set of TVET lecturers. It was found that lack of required TVET facilities, poor funding and high cost of maintaining TVET institutions are challenges of TVET for national development in Nigeria. The study suggested that students with interests and skills should be admitted into TVET institutions. Oviawe (2018) proposed the need for private public partnership (PPP) model for skills development and to revive TVET sector in Africa. The study suggested that collaboration between the TVET institutions and industries would keep the learners abreast of new trends in the workplaces.

From these studies, it seems there is a lot to be done to revitalize the TVET sector in Nigeria and it is yet to be accorded the due recognition it deserves. This study is therefore an attempt to present the holistic overview of pros and cons of TVET sector development in Nigeria. In particular, the study intends to: determine the current structure of TVET sector in Nigeria; identify the challenges confronting the development of TVET sector in Nigeria; and propose innovative ways of improving and repositioning the sector for optimal skills development and utilization. The following questions were posed in the study: What is the structure of TVET sector in Nigeria? What are the challenges affecting the development of TVET sector in Nigeria? What are the pragmatic approaches to reposition TVET sector in Nigeria? It is envisaged that this study will enable policy makers, administrators and other key stakeholders in the sector to re-organise, revamp and revitalize the Nigerian TVET sector for improved national development and industrialization of the country.

## **2. TVET in Nigeria**

### **2.1 Historical Overview of TVET in Nigeria**

TVET in Nigeria could be traced to the pre-colonial era when handicrafts or trades such as blacksmithing, leatherworks, building construction, weaving, subsistence farming, bead-making, canoe-making among others were learnt through informal and traditional setting of apprenticeship system. The apprenticeship system involves a master artisan who is skillful in these trades and trains his/her apprentices through experience, observation, tutoring and group tasks. The formal TVET system came into Nigeria through the Colonial administration. The first set of vocational schools established in Nigeria such as Hope Waddell Training Institute, Calabar, Nasarawa School, Boys' Vocational Schools, Ibiono and Blaize Memorial Industrial School, Abeokuta. These Vocational schools had foreign expatriates and missionaries as their teachers while the Nigerian youths were trained to work for the Colonial administration as low level skilled manpower (Akpan, Usoro & Ibiritam, 2013).

In 1925, a Memorandum on Education policy in British Tropical Africa was approved and required that the Colonial government provide technical education to meet the increasing demand for middle level technical manpower needed by the country. In addition, there was further attention on TVET in Nigeria and this was captured in the Ten-year Plan for Development and Welfare of 1946. The implementation of the Ten-year Plan led to establishment of ‘handicraft’ centres to provide prevocational training in manual arts, ‘trade centres’ to provide training of skilled craftsmen and ‘Technical Institutes’ to train technicians. The candidates for the trade centres were selected from among primary school leavers. It was made up of three year of residential training followed by two years of apprenticeship or industrial training with the employers. The candidates would then sit for City and Guilds (London) for certification. The Technical Institutes were established to provide full time and evening studies for candidates enrolled for Ordinary National Certificate. This comprised of two years post-secondary course work and one year of industrial training (Kilby, 1964). As part of the implementation of these policies and plans, training schemes were established by the Colonial administration in the Land and Surveys, Marine, Public Works, Post and Telegraphy, Railways, Agriculture & Natural Resources Departments to train craftsmen and technicians required for national development. Furthermore, Technical Institutes were established at Yaba, Kaduna, Ibadan, Auchi and Enugu between 1930 and 1960. They were the first generation of tertiary technical institutions in Nigeria (Okoye, & Okwelle, 2013).

In an attempt to address the deficit in the various categories of technical manpower before and after Nigeria’s independence from the Colonial administration, the Ashby Commission of 1960 was set up. One of the key recommendations of the Commission was to make vocational and technical education available to both Nigerian youths and adults to fast-track the economic growth and technological development, industrial expansion and equal access to opportunities (Atsumbe et al., 2012). Furthermore, the Ashby Commission report recommended that pre-vocational and pre-technical subjects and training should be introduced at secondary school level, craftsman training should be introduced at the Technical Colleges (TCs), trade centres and vocational schools while technical training should be incorporated into the Polytechnics and Colleges of Technology education (Kilby, 1964).

The educational structure of Nigeria as at 1960 was made up of primary, secondary and higher education. The modern and commercial, grammar, teacher training and technical and vocational schools fall under the secondary education categories. The sixth form and Universities fall under the higher education category. The primary schools were comparatively well developed while secondary and higher education were underdeveloped in addition to low enrolment across the three regions (East, North and West) and Lagos (Kilby, 1964). The education system in the colonial era was 8-5-2-3 system (comprising of 8 years of primary education, 5 years of post-primary education, 2 years of higher school education and 3 years of university education) and later changed to a 6-5-2-3 education system (comprising of 6 years of primary education, 5 years of post-primary education, 2 years of higher school education and 3 years of university

education). The change in the education system allowed for incorporation of vocational subjects at the primary and post-primary levels (Anibueze, 2013; Akpan, Usoro & Ibritam, 2013).

After independence, the federal and regional Governments upgraded the existing Technical Institutes to the status of Polytechnics. The newly upgraded institutions became what is known today as Yaba College of Technology in 1963, Kaduna Polytechnic in 1968, Auchu Polytechnic in 1972 and Institute of Management and Technology (IMT) in 1973. In order to expand access to formal TVET sector in Nigerian, in July 1979, the Federal Polytechnic Act was enacted and also amended subsequently to establish more Federal Polytechnics in Nigeria (Akpan, Usoro, & Ibritam, 2013). Several Polytechnics, technical colleges and vocational institutions were also established by State Governments to train the technical manpower needed within their respective localities and for the nation at large, starting from the second republic when education sector was placed on the concurrent list in the Nigerian Constitution. Therefore, State Governments were given power to establish and operate educational institutions, establish ministry of educations and agencies to coordinate the development of education in their respective States.

As part of Government's effort to improve the quality and standards of education in Nigeria, the 6-5-2-3 education system was changed to 6-3-3-4 education system (comprising of 6 years of primary education, 3 years of junior secondary education, 3 years of senior secondary education and 4 years of tertiary education) and presently to 9-3-4 education system. This comprises of 9-year of basic education, 3 year of senior secondary education and 4 year of tertiary education. At the basic education level, pre-vocational and vocational subjects were introduced such as Local Craft, Music, Fine Arts, Introductory Technology, Applied Electricity, Wood work, Metal Work, Home Economics and Computer Education. The main issue despite all these reforms is that students are only taught in classrooms without sufficient opportunities to perform hands-on activities or practical works in the basic schools. In addition, teachers to teach these technical subjects were not readily available (Anibueze, 2013).

The Federal Ministry of Education (FME) is the arm of executive that is responsible for the formulation and implementation of educational policies and reform strategies in Nigeria. It also regulates educational institutions in Nigeria through the activities of agencies and parastatals under it. The apex body that is vested with the mandate to set the relevant policies and policy reforms in the Nigerian educational sector is the National Council on Education (NCE) and Joint Consultative Committee on Education (JCCE). The Honourable Minister of Education chairs the annual NCE and JCCE meeting to provide the necessary framework for policy formulation for the Nigerian Education System (Ogwo and Ezekoye, 2020). According to Leney (2014), functions of any Government regarding TVET are: policy development and design; funding and Quality Assurance. In Nigeria, the National Board for Technical Education, (NBTE), a parastatal under the FME is saddled with the responsibility to coordinate these three key aspects of TVET sector in Nigeria.

## **2.2 TVET in the Nigerian Education Structure**

The TVET sector in Nigeria comprises of basic, post-basic and tertiary sub-sector i.e., Technical Colleges (TCs), Vocational Enterprise Institutions (VEIs), Innovation Enterprise Institutions (IEIs), Monotechnics, Specialised Institutions and Polytechnics, Colleges of Education (Technical), non-formal and Informal TVET, Training Providers of the Nigerian Skills Qualification Framework (NSQF), industry, regulators, funding agencies, investors, etc. An overview of the inter-relationship between all the components in the TVET sector is shown in Figure 1. The primary and junior secondary schools presently constitute and provide the compulsory basic education in Nigeria. At the end of 9-year of studies, students are required to sit for Basic Education Certificate Examination (BECE) organized by National Examination Council (NECO) and any other examinations that might be organized by the State Governments for the basic schools under their control (Ogwo & Ezekoye, 2020).

Students who have passed BECE can proceed to Senior Secondary Schools, Technical Colleges or Vocational Enterprise Institutions to continue their studies. The duration of studies in each of these institutions is three years. Otherwise, students who fail may resit BECE or decide to venture into trading, farming, apprenticeship or look for paid employment. Final year students of Senior Secondary Schools or private candidates can seat for national and regional Senior Secondary Certificate Examinations organized by NECO and/or West Africa Examination Council (WAEC), as evidence of obtaining secondary education respectively. Secondary education is structured to enable students choose from one of the following subject groupings which may eventually guide the choice of their careers in future: Art, Commercial, Science and Technical subjects.

While final year students of Technical Colleges can seat for national examinations organized by National Business and Technical Examinations Board (NABTEB) to obtain National Technical Certificate (NTC) or National Business Certificate (NBC). Trades offered in the Technical Colleges are grouped into Business, Construction, Engineering, and Miscellaneous trades. In addition, General Education subjects are available for students in Science and Technical Colleges who are more inclined towards secondary education than technical education. The syllabi for these trades are developed by NBTE. Successful graduates of Technical Colleges are regarded as craftsmen. Similarly, holders of NTC and NBC qualifications can either proceed for Master Craftsman programmes in Technical Colleges or accredited Institutions to obtain Advanced National Technical Certification (ANTC) or Advanced National Business Certificate (ANBC). From prior experience, the Technical Colleges are the most appropriate Institutions to give basic and low-level skills to persons who are biased towards TVET. Vocational Enterprises Institutions (VEIs) award National Vocational Certificates (NVC) in multidisciplinary trade areas that prepare students for employment, capacity to think creatively, critically and acquire skills to create wealth. VEIs are majorly private-sector driven and should be responsive to labour market demand. Major trades offered by VEIs include Agriculture and related, Business, Construction, Engineering and related, Information and Communication and related areas. Special consideration is given to holders of Trade Test Certificates to further their studies in VEIs.

Young secondary school leavers with NTC, NBC or NVC can apply for admission into Innovation Enterprise Institutions (IEIs). They were established to widen access to TVET and serve the needs of industries and skill development in Nigeria. Graduates of IEIs are expected to have acquired requisite skills to generate or secure employment and create career paths for themselves. IEIs award National Innovation Diploma (NID) in various programmes in the following specific sectors: Agriculture, Engineering, Hospitality and Tourism, Paralegal Studies, Creative Arts, Multimedia, Information & Communication Technology (ICT), Oil and Gas Technology. As part of the conditions for the establishment of IEIs as well as VEIs, they must have a linkage with enterprises, industries or firms where their students can be absolved for intensive internship or industrial training scheme and employment. The duration of the NID programme is the same as National Diploma (ND) programmes. In order to encourage, NID holders who may wish to further their studies, the qualifications are accepted for admission into relevant Higher National Diploma (HND) programmes offered in Polytechnics and similar Institutions.

There are also opportunities for candidates with Senior Secondary School Certificates, NBC or NTC who have interest in TVET to proceed to Colleges of Education to study National Certificate in Education (NCE) in TVET programmes. The NCE (Technical) programmes run for three years. Holders of NCE (Technical) are regarded as teachers of applied art, business, technical and vocational subjects in secondary schools, technical colleges and similar educational institutions. In addition, technical teachers are recognized and registered as practitioners of technology or technicians by a number of professional registration bodies such as COREN, ICAN etc.

School leavers from Secondary Schools in Nigeria who want to be enrolled into tertiary technical institutions have options of pursuing National Diploma (ND) in either Polytechnics, Monotechnics or Specialized Institutions in any of the technology or non-technology based programmes. Holders of ND certificates are middle-level technical manpower. They are generally called technicians. National Diploma programmes are designed to produce manpower whose skills and competences will stimulate the growth of all sectors of the Nigerian economy. The ND programmes are designed to give the students sufficient background knowledge and skills for self-employment, job opportunities, and further education that may lead to HND or Bachelor's degree. The duration of the full time and part-time ND programmes are minimum of four semesters (two academic sessions) and six semesters (three academic sessions) respectively.

Furthermore, ND and NID holders can obtain Higher National Diploma (HND) in these tertiary technical institutions. HND programmes are meant to produce skilled technical manpower for the sustenance of the national economy. Holders of HND qualifications are designated as Technologists and expected to have competencies, knowledge and skills that will enable them undertake professional practices and post-graduate studies. The Nigerian TVET structure thus provides for HND holders to have the varied choices of pursuing direct entry into a Bachelor degree programme or Post Graduate Diploma programmes in Universities, or enroll for post-HND programmes in Polytechnics. At the peak of the structure is to enable individuals, who so

desire, to proceed for post graduate studies leading to the award of Master and Doctorate degrees in their fields of specializations.

The TVET structure recognized the continuous interactions between the institutions and the general public as a whole. For instance, the Institutions produce technical manpower for the industry, enterprises and organisations. Employees working in the industries also attend TVET Institutions to acquire additional qualifications and/or improve their competences. Investors established private TVET institutions to train technical manpower for the employers. The professional bodies and regulatory agencies also perform oversight and quality assurance functions in these institutions. The funding agencies, donors and Non-government organisations also provide a range of valuable support for the Institutions. Self employed, unemployed and employed persons can also be trained towards National Occupational Standards (NOS) in any relevant trades, assessed by quality assurance assessors to achieve National Skill Qualifications (NSQs), showing or certifying the skills possessed by these individuals.

Nigerian Skills Qualification Framework (NSQF) connotes a system that promotes lifelong learning and international recognition of skills possessed by Nigerians whether through formal, non-formal or informal training. It is a structure for the development, classification and recognition of skills, knowledge, and competencies acquired by Nigerians, irrespective of where and how the training or skills were acquired. NSQF improves career mobility and makes career progression routes easier and clearer in a rapidly changing world of work.

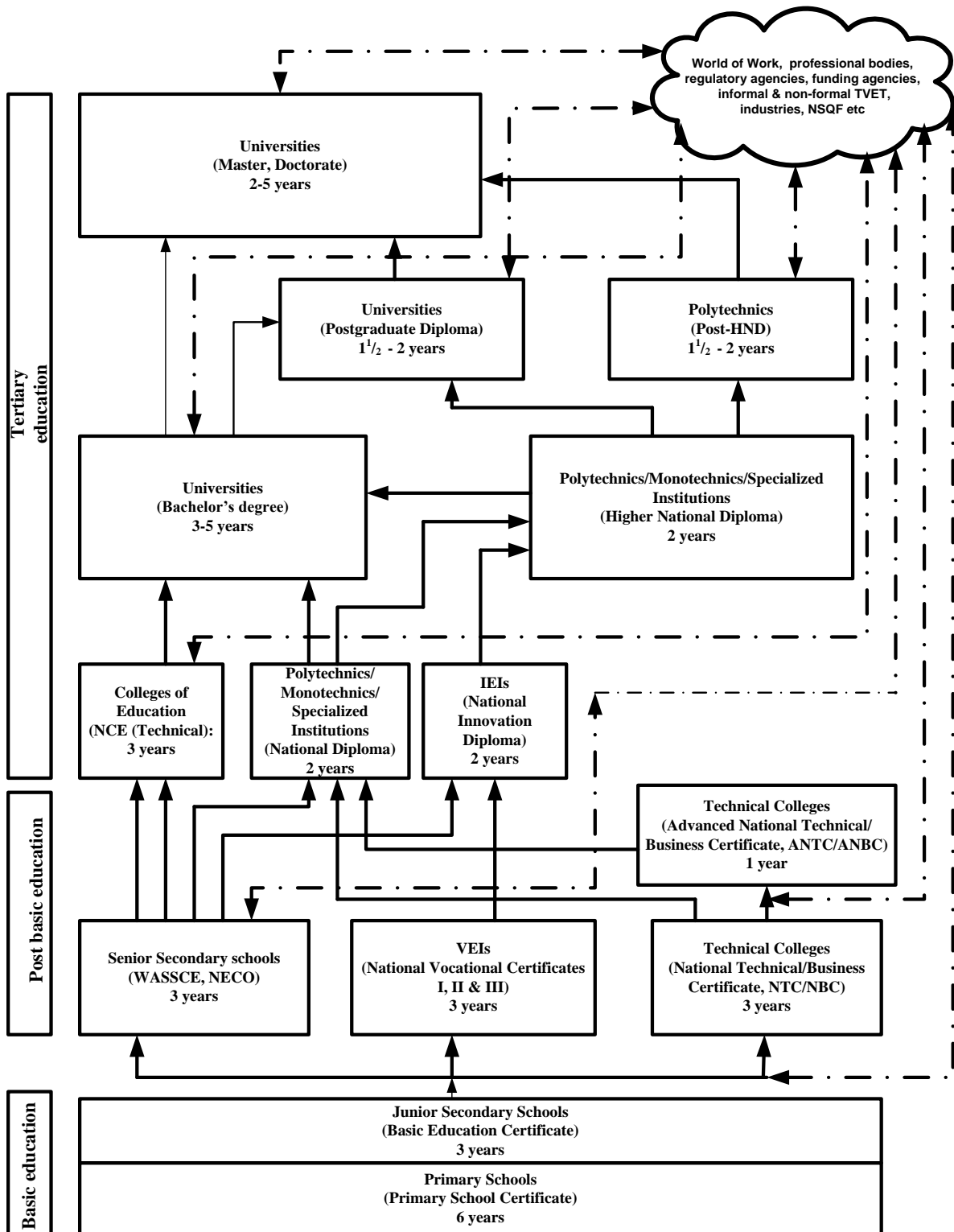


Figure 1 TVET sector in the Nigerian educational structure

NSQF takes into cognizance the prior learning of learners. With NSQF, qualifications awarded by the awarding bodies are relevant to the perceived social and economic needs of the industry. It increases the influence of stakeholders in the development of qualifications so that they are more responsive to the needs of the labour market. NSQF is meant to narrow the gaps between what TVET graduates know and can do, and the skills and knowledge that employers say they need. Thus, NSQF is aimed at ensuring that demand for skilled employees is met by TVET supply (NBTE, 2019).

National Skills Qualifications (NSQs) are awarded to competent learners after training and assessments. NSQ is a work related, competence based qualification with skills assessed at both the training centres and work places. NSQs reflect the skills and knowledge needed to do the job effectively and rewards the learners for the skills already possess. NSQs are quite different from conventional qualifications. Holders of NSQs must consistently show to assessor(s) that they can do a job competently and answer questions associated with the job. Learners enrolled for NSQ are trained towards national occupational standards (NOS) and assessed against it to determine whether they are competent or not. NOS consists of units or skills and knowledge needed to do a job effectively. It shows the practical performance, knowledge and understanding that competent learners in a job is expected to do.

NSQ is opened to young and adult Nigerians. It can be pursued by employed and unemployed Nigerian who are looking for employable skills or who want to re-skill themselves. Employees with NSQs are better motivated, reliable and adaptable in their employment. There are no minimum academic entry criteria required for NSQs. Individuals' ability and prior learning are determined after initial assessment by the assessors before they are trained towards the appropriate NOS. NSQs have some many benefits. For instance, it increases productivity and efficiency for the work places. It provides evidence of competency in a skill for individuals, which could attract promotion of greater remuneration. Finally, it will reduce unemployment and assist to produce trained workforce for export (NBTE, 2019).

NBTE is the regulatory body for all the activities of NSQF. Presently, appreciable success has been recorded to institutionalize NSQF in Nigeria. The important merit of this framework is that it can be linked to other frameworks in other countries of the world. This would thus facilitate mobility of certified Nigerians to work in the global labour market. There are awarding bodies, training and assessments centres in Nigeria that are well coordinated to award NSQs in areas such as hospitality and tourism, building and construction; engineering; agro-processing, ICT; power, fashion design, leather work, cosmetology/beauty, animal husbandry and administration. NSQF is being facilitated by NBTE in order to promote skill training and development in Nigeria. This will ensure that the skills needed by the Nigerian economy, local or global organisations are possessed by Nigerian workforce and reduce the unemployment rate in the country. Table 1 shows the six levels of NSQ and their comparison with the existing Nigerian education system and workplace positions (NBTE, 2019).

Table 1: Six Level of Nigerian Skills Qualification Framework

| NSQ/Competency-based Assessment and Certification | Nigerian Education System           | Approximate Workplace Positions   |
|---|-------------------------------------|-----------------------------------|
| NSQ Level 6                                       | Postgraduate                        | Senior Management                 |
| NSQ Level 5                                       | HND/Degree                          | Junior Management                 |
| NSQ Level 4                                       | ND/NID/ANTC/ANBC                    | Skilled and supervisory employees |
| NSQ Level 3                                       | NTC/NBC/NVC/Trade Test 1            | Semi-skilled employees            |
| NSQ Level 2                                       | NVC 2/Trade Test 2                  | Basic Skilled employees           |
| NSQ Level 1                                       | Pre-Vocational NVC I & Trade Test 3 | Entry level employees             |

### 3. Challenges of TVET in Nigeria

The TVET sector in Nigeria is bedeviled by challenges given below, which are generic and specific to the Nigerian environment. These are very much in consonance with issues that affect TVET in the region as expressed in the AU TVET Continental Strategy and the ECOWAS TVET Strategy for Skills Improvement and Employability, 2017 – 2026.

#### 3.1 Poor societal perception of TVET graduates

There is an historical perspective to unfavorable view about TVET in Nigeria. The Colonial administrators were University graduates of arts, who were symbols of prestige and esteem in pre-independence era compared to technical manpower in agriculture, engineering and other skill-based occupations. In addition, there was no job security or stable employment opportunities for graduates of trade centres or technical institutions at that time. The rewards for these technical personnel were very uncertain and varied from one firm to another. The duration of studies, prestige, remuneration and career prospects for University graduates were prominent and favorable compared to the craftsmen, technicians and technologists. These made sub-professional training and qualifications to be unattractive to Nigerians even after the independence. This has created dichotomy between holders of University qualifications degrees and their counterparts possessing TVET qualifications (Kilby, 1964; Okoye & Okwelle, 2013).

TVET is perceived in Nigeria as the form of education for the average or disadvantaged students. It is regarded as a career path for the less academically endowed learners. Their progression within the public service that is terminal at some point discourages most parents and candidates from pursuing TVET qualifications. It is viewed negatively as a sub-class or lower rank education. Most of the students enrolled into the TVET institutions are those who could not secure admission into the Universities, demoralized or lack interest. This issue has hindered the prospects for further education and professional development of TVET graduates. In addition, there is low self-esteem exhibited due to devalued status accorded to the TVET sector. The practice of referring or recommending average students to attend TVET institutions is a big challenge to the sector. The society is assuming that the TVET institutions is not for the bright students and in some cases has led to low enrolment compared to University education. TVET is yet to be fully recognized by the general public as means to secure suitable employment with higher income than white collar employment. It is thus yet to be accorded the dignity that will attract talented and brilliant learners to consider TVET (Oviawe, 2018).

#### 3.2 Poor Governance and Corrupt practices in TVET Institutions

Corruption seems to be deeply entrenched in every sector of the Nigerian economy. Some of the TVET policy and plans are either carelessly or fraudulently executed due to misappropriation of allocated funds and appointment of incompetent and fraudulent persons to manage the process. The decision makers of TVET institutions are expected to manage the affairs of their Institutions to meet the aspirations and preferences of the stakeholders. However, some of them are not genuinely concerned about the development of their Institutions. The situation in most institutions is lack of commitment and purpose to institutional goals and objectives; contract racketeering, extortion, nepotism, favoritism and other serious misconducts. Although, administrative measures have been put in place to ensure accountability and transparency in the utilization of resources, but these are often ignored due to their quest for personal enrichment. This creates an environment that does not foster their institutions to become centres of learning, character building and integrity. There are some persons who are not qualified to be teaching or conducting practicals in the TVET institutions who are currently there. There is thus poor service delivery, inefficiency and ineffectiveness due to administrators appointed for political reasons without skills, experience and talents to function in that capacity (Leney, 2014). As a result, a number of them engage in inappropriate practices instead of building Institutions where excellence, hard work and commitment are recognized. The adverse impact of corruption and poor governance in the TVET sector has led to compromised standards and inhibit the development of the Nigerian TVET sector (Ogunraku, 2016; Okorafor & Nnajiifo, 2017).

### **3.3 Inadequate manpower**

The problem of inadequately educated manpower is a critical issue that is influencing the quality of the human input in all phases of the development of the country. According to Kilby (1964), the main cause for the low quality of Nigeria's education system is the acute shortage of trained teachers. The quality of TVET depends on the availability of competent, qualified and experienced manpower. The current situation is that most TVET institutions in Nigeria do not have enough qualified, trained and experienced staff to implement the programme curricula. The recruitment and development of professional and technically qualified staff is an important challenge that cannot be easily waved aside. The acute shortage of staff has led to unbearable workload on the available staff members. To worsen the situation, most of our TVET institutions have not been able to sponsor their staff for training and re-training. Thus, they are not abreast with new development and latest technologies in their professions. This compromise the quality of training offered to TVET graduates that are required by employers of labour. The standard of teaching and mentoring is generally not very encouraging too.

Another reason why the TVET institutions is not having enough qualified and experienced academic staff is due to low remunerations and unattractive conditions of service compared to those in the oil and gas, organized private sector and high tech industries. The implication of this is that competent and talented personnel in the TVET sector are more likely to migrate to other high paying sectors than to remain in the TVET institutions. TVET sector also suffers the adverse effect of 'brain drain'. Many of the well experienced and scholars in the TVET institutions have migrated to Universities either in Nigeria or outside the country where remuneration is more attractive with improved conditions of service. It is very important to note

that lack of competent and self-motivated academic staff is a big challenge for implementation of TVET in Nigeria (Okoye & Okwelle, 2013; Zite, & Deebom, 2017).

Apart from this, staff recruitment and selection have not been very transparent, competitive and objective. Many lecturers and technologists were employed based on their relationship with the top management of TVET institutions. The staff working in the TVET sector are not well motivated. This type of situation creates a lot of challenges for setting up conducive environment where relevant skills are acquired and societal problems are solved (Okwelle, Deebom, Harcourt, & Okwelle, 2017).

### **3.4 TVET policies and implementation issues**

The inability of policy makers to formulate clear and coherent policy statements not susceptible to changes, even when there is change in Government, is one of the problems of the TVET sector. TVET in Nigeria in reality is not adequately planned and coordinated to an extent of addressing societal, national and global needs. There are at times Government proposed good policies but there is absence of strategies to implement and evaluate these strategies. Thus, many of these policies fail to achieve the intended outcome. There is no strong political will to implement policies related to TVET sector that will support the development of skill-based Institutions in Nigeria. Another reason for the failure of TVET and skill development in Nigeria is the lack of adequate coordination across ministries and parastatals under the Government. In Nigeria, there are some levels of difficulties in formulating, managing and evaluating TVET policies, strategies and plans. This could be as a result of weak coordination of interactions between Government (ministries, department and agencies) and social partners to successfully plan and manage policies of the TVET sector. There is no suitable inter-parastatal or inter-ministerial approach that could easily connect TVET policy development to synergistically achieve economic growth, social equity and sustainability.

Related to this is the lack of consistent quality policy framework to implement TVET programmes. Policy framework is the driving force to plan, implement and achieve the objectives of any policy. This threatens the development of TVET sector in Nigeria. Policy framework is very critical to the planning and implementation of any policy. For instance, a good TVET policy framework would support and regulate the development of technical manpower for national development. However, it is noted that when policy formulation or provisions of the Law are not properly articulated, there would be problem at the implementation stage and this may not produce any tangible results. The policymakers have not been able to adequately plan in advance the best approach to execute their formulated policies, leading to policy summersaults and inconsistency in implementation strategies. Thus, this might lead to negative impact from the policy change rather than it to benefit the public. For instance, the announcement by the Government to go into a public private partnership (PPP) with the IIEs/VEIs, which was not honoured as soon as there was change in Government.

It must be realized that there is a gap between policy making and implementation. This gap tends to create more problems for the system especially when the Institutional framework is weak. The

political decision makers and professional public servants who are involved in developing Institutional framework should work together to bridge the gap between the policy making and implementation (Awuzie, 2013; Okorafor & Nnajiifo, 2017).

### **3.5 Inadequate funding**

The objectives of TVET cannot be realized without sufficient allocation of human, physical, material and financial resources to undertake the routine and new activities as intended. Inadequate funding is a major constraint to administration and development of TVET in Nigeria. The percentage of Nigerian annual budgets allocated to education sector from 1999 to 2019 range from 1.69% to 13% (Ojileye, 2020). It is sad to note that the TVET sector has consistently received less than 25% of the total education budget for over the years. This is not in tandem with the requirements of the sector where training is undertaken with a lot of consumables, tools, equipment and machines. TVET sector is not well financed to achieve its objectives in Nigeria.

Funding comes mainly from the proprietors of the TVET institutions and in few instances, it emanates from diverse sources. The funding is not stable and sad enough, the available funds are not directed to critical and priority areas. There is an over reliance on Federal Government to fund TVET institutions in Nigeria. Even, the private TVET Institutions are canvassing to be included in Federal Government interventions through Tertiary Education Trust Fund (tetfund) just like their public counterparts. The current situation for most public tertiary TVET institutions is that their physical and staff development now depends on annual interventions from tetfund. One could not only imagine how Nigerian public Polytechnics would look like without tetfund's support (Agu & Kaduhur, 2016).

TVET is dynamic and comes with new requirements for adequate funding. Some of them require that TVET institutions should employ additional qualified and experienced academic and non-academic staff, provide ICT resources, current and relevant library resources, well equipped laboratories and workshops, sufficient practical and training consumables, constant power supply, comfortable office accommodations, conducive, green and safe environments, affordable students hostel accommodations, well-executed staff development and effective transport, security and utility services. Without commensurate funding by the proprietors, these requirements would not be met (Zite, & Deebom, 2017).

Furthermore, another critical issue is the capacity of the decision makers in the TVET institutions to utilize the available funds to address their critical needs. There are instances where due to misplaced priorities, lack of accountability and transparency, the academic leaders neglect their core mandates and key projects, and spend their scarce resources on frivolous overseas trips, expensive souvenirs, elaborate ceremonies and events, expensive official vehicles that have no direct impact on the goals and vision of their Institutions, etc. This type of financial irresponsibility has led to deterioration of quality in the TVET sector (Okwelle, Deebom, Harcourt & Okwelle, 2017).

### **3.6 Manpower demand and supply mismatch**

Another major problem facing TVET in Nigeria is the mismatch between demand and supply of technical manpower. The employers find it hard to employ graduates of TVET institutions without further training. There are skill gaps between the competencies of TVET graduates and those required by the limited job opportunities in the labour market. Most TVET graduates are perceived to lack soft and hard skills that will prepare them for employment in a competitive labour market. This is largely attributed to the fact that there is a weak collaboration between TVET institutions and employers to develop relevant teaching curricula and offer sufficient industry-based training. This has led to graduating students that do not have relevant knowledge and skills needed for national economic development. There are job opportunities or vacancies advertised on job websites or newspapers but the issue is the lack of competent, experienced and qualified persons to fill these vacancies (Okoye & Okwelle, 2013; Oviawe, 2018).

Many TVET graduates do not have the skill sets to make them fit into the industries because the quality of practical skills acquired are not sufficient to qualify them for job positions in the industry. Thus, expatriates are employed for these vacancies or left unfilled. Many of our TVET graduates are jobless and this has increased the crime rate, frustration, anger and criminal activities in the country. It is also important that most of the curricula for TVET programmes are obsolete and are not in line with recent and global development. It is unfortunate that outdated curricula are in use for training of students in the TVET institutions. The students are not opportuned or exposed to modern technologies available in the industries. Thus, the skills taught are not relevant to the market needs (Agu & Kaduhur, 2016).

### **3.7 Gender inequality**

The percentage of female students enrolled into the TVET institutions are still very low compared to male students. There is a strong negative social perception about the involvement of women in TVET, which has widened the gender disparity among TVET institutions in Nigeria. Most female students prefer to be enrolled into programmes with little or no utilization of industrial machines and equipment; such as Management, Finance, Hospitality and Tourism, Fashion Design & Clothing Technology, Mass Communication, ICT and Office Technology and Management etc. This could be attributed to limited number of female role models, inadequate quality guidance and counseling services, gender biased curricula, lack of job opportunities and incentives, and perceived difficulty or stress associated with these programmes. This is challenging in the sense that there are admission slots in the technology based programmes that could be occupied by female candidates but not yet to be filled by them (Ogwo & Ezekoye, 2020).

### **3.8 Poor infrastructure and utility services**

TVET institutions are suffering from inadequate and obsolete training equipment, instruments and tools. The current conditions of physical infrastructure, facilities and utility services in our TVET institutions are too poor to deliver lectures through online platforms or power point presentations. Even when the resources are there, the power supply is not stable and cost of running generators has been unbearable for these institutions. The laboratories and workshops are under-equipped while old ones have obsolete, dysfunctional and faulty equipment and

appurtenances. Some of the physical facilities built years ago are deteriorating without routine maintenance or renovation. Presently, the training infrastructures, physical facilities and utility services in the TVET institutions are not adequate (Agu & Kadughur, 2016; Okwelle, Deebom, Harcourt, & Okwelle, 2017).

Utility services such as electricity, water, gas, communication and transportation systems are in short supply. The absence of constant power supplies to most of the TVET institutions has brought down the percentage of practical coverage and more than often, the students are unable to perform the expected number of practical works and activities before graduation. They are just taught theoretical contents of the curricula. The poor state of training facilities and infrastructures has done a lot of damage to the quality of TVET graduates in Nigeria (Ogbunaya & Udoudo, 2015; Agu & Kaduhur, 2016; Oviawe, 2018).

### **3.9 Inadequate information on labour markets, employment and skill development metrics**

There is non-availability of current and reliable statistical information on labour market or employment-related data in Nigeria and in most African countries. The implication of this challenge is that TVET institutions do not have sufficient information to plan their programmes to supply the technical manpower needed by the economy. There is no structure in place for governments, employers and key stakeholders to produce information that show the strengths, opportunities, weaknesses and threats of the sector. In real sense, there is no information to highlight skills gaps or shortages in the various sectors of the Nigerian economy. It is very difficult to propose actions that will close the gap between the skills supply and demand in the country. Therefore, the current situation is that there is overproduction of technical manpower in some areas that are not needed by the economy, while there is under production of technical manpower for existing and evolving sectors where they are highly needed (Leney, 2014).

### **3.10 Inadequate quality assurance mechanism**

Qualifications obtained in Nigeria are hardly recognized outside the country as true reflection and reliable proxies of the abilities, knowledge and skills possessed by TVET graduates. Apart from these challenges discussed previously, this could be attributed to quality assurance mechanism that is weak to monitor the quality of programmes offered and recommend appropriate remedial measures to be taken to improve the sector. The internal and external quality assurance schemes are critical to the overall development of education sector in general. The essence of internal quality assurance scheme is to ensure that the quality of training within the Institution is not compromised while it continues to provide wider access and equity to Nigerians. The internal quality assurance scheme is to check the quality of input into the TVET Institutions. It is to ensure that only qualified students are admitted into the Institutions as well as qualified and talented academic staff are employed into the TVET institutions. The internal quality assurance also monitors and eliminates all forms of examination malpractices and misconducts and ensure that practical and theoretical contents of the curriculum are properly implemented by the Institutions (Oviawe, 2018).

It is however disheartening to note that internal quality assurance scheme is absent in most of the Nigerian TVET Institutions. In few institutions that have structure for it, they are not effective as they ought to be. Most TVET institutions in Nigeria only rely on external quality assurance scheme carried out periodically by the National Board for Technical Education (NBTE) to identify their weak points. This external quality assurance scheme might not be enough to check the compliance of institutions to the minimum academic standards over the period of time specified.

Over the year, NBTE has instituted different activities to ensure that the laid down minimum academic standards or benchmarks are maintained by the Institutions under its purview. It is pertinent to note that NBTE recorded high success between early 1980s and mid 1990s in respect to its quality assurance activities to TVET institutions. During this period, the products of Nigerian TVET institutions are well grounded and considered to be employable by the Industry. However, the challenges of inadequate funding and poor motivation which started more than two decades ago have seriously hindered NBTE to perform its quality assurance activities satisfactorily to the TVET institutions in Nigeria (Ogwo & Ezekoye, 2020).

### **3.11 Weak partnership, networking, private sector support and involvement**

Most of the industry and SMEs in Nigeria are owned and managed by the private sector. The industrial sector in Nigeria is not growing compared to the population growth rate. Thus, the rate of industrial growth appears to be very slow. Although, in our current democratic dispensation, new industries and enterprises have been established through direct foreign investment and entrepreneurial activities of Nigerians, but they are not enough to meet the local demands for goods and services, and employ Nigerian TVET graduates who are jobless. There is weak engagement of funding and social partners in delivery of the TVET programmes in the country. There is no strong connection with the Nigerian labour market to provide work-based learning opportunities and to improve the quality of their training (Zite, & Deebom, 2017; Oviawe, 2018).

In reality, the industries and enterprises are expected to interface with the TVET institutions to produce the right skill sets for the economy, re-skilling the TVET teachers, donate infrastructure and provide grants for them to carry out applied research or solve problems encountered by the industries. Unfortunately, in our context, the link between the industries and educational institutions is rather too weak or in some instances absent completely. The big organisations that are involved in corporate social responsibility have not given much needed attention to develop the TVET sector, which is very key to their continued operations. Generally, the industries are not willing to collaborate with the Nigerian TVET institutions possibly due to the need to minimize their operational expenses, wrong societal perception, lack of interest or ignorance about the benefits of such partnership to the nation. The weak institution-industry partnership is thus an important challenge towards developing the TVET sector in Nigeria (Akanbi, 2017).

### **3.12 Neglect of in-formal and non-formal TVET sector**

Nigeria has huge non-formal TVET sector with several untapped potentials and opportunities. These include all forms of training that are offered outside the formal TVET institutions.

Informal TVET is usually implemented through apprenticeship scheme. An apprentice is attached to a Master artisan until he or she is assessed to be skillful enough to graduate or obtain 'freedom' from his master. The duration of apprenticeship is not usually fixed. It depends on the ability of the apprentice to know or acquire the skills of the trade. The emphasis is on the practical skills and it is occupation-specific. The main attribute of informal TVET is that there is no curriculum developed to guide the apprentices through the period of training. The content of the training is not arranged in an orderly manner or semester by semester basis but based on the jobs at hand and experience of the master artisan (Zite, & Deebom, 2017).

The contributions of the informal TVET sector to the Nigerian economy are very significant. Many Nigerian youths who are not opportuned to attend secondary or higher education institutions are engaged or self-employed in the informal sector. Thus, there are a lot of activities there that actually provide employment to Nigerian youths. The activities of the informal TVET sector are presently not regulated or supported by Government. This sector has been neglected by Government and this has reduced the contributions of local content or indigenous technology to the national development (Ogwo & Ezekoye, 2020).

### **3.13 Preference for foreign goods and service**

The issue of higher patronage for foreign products compared to products made in Nigeria is affecting local industries that need TVET graduates to function and operate successfully. The general perception is that foreign products are more durable and superior to locally made goods. The influx of foreign products into the country is not helping our local industries to grow. In addition, it leads to capital flight and trade imbalance in favour of the exporting countries. There are many local industries that closed down or operate below their capacities due to lack of patronage from Nigerians. This means down-sizing the technical manpower. It is important to state that importation of finished goods to Nigeria indirectly will not encourage production of middle and skilled technical manpower in Nigeria. Without prioritizing the acceptance of Nigerian content in terms of goods and services among individuals, corporate organisations and Governments there will be serious implication for the growth of TVET and industrial sectors (Okoye & Okwelle, 2013; Agu & Kaduhur, 2016).

### **3.14 Illegal TVET Institutions and mounting of unapproved programmes**

Activities of illegal TVET institutions and satellite campuses in different parts of the Country are very worrisome. They offer sub-standard training and fraudulent certificates to the public. Many innocent Nigerians have been deceived and fallen victim of their illegalities. These institutions lack capacity to provide excellent student support services and deliver high-quality training to meet the needs of employers. Unfortunately, they have large number of students who are seeking for easy or cheap way to obtain nationally approved qualifications. The operations of illegal TVET institutions are seriously affecting the production of competent and qualified middle-level and skilled manpower for national development.

In addition, some TVET institutions do offer unapproved programmes especially those ones that are cheaper to run and have higher probability to admit more students. This is done to boost their

internally generated revenues to meet the financial needs at the expense of TVET policy which specify enrolment ratio of 70:30 in favour of science and technology-based programmes. The current situation is that non-technology based programmes in most of the TVET institutions are over enrolled beyond their carrying capacities creating more supply of manpower than what it is need by the Nigerian economy.

#### **4. Recommendations**

The following ways are recommended on how to reposition TVET and make it a key driver of socio-economic and technological transformation of Nigeria:

- TVET sector needs to be adequately financed for Nigeria to empower her citizens with lifelong and high demanding skills. The funding should be stable, sustained and possibly come from diverse sources apart from Government subventions or grants. This also should be based on the identified priority areas or focus of each TVET institutions. In order to harness the huge benefits and opportunities immersed in the TVET sector, there should be legal backing for government funding agencies to give equal or more priorities to TVET institutions with respect to post-basic and other aspect of tertiary education and Nigerian Skills Qualification Framework;
- There should be a balance between the relevance of curricula to meet current demands of employers and flexibility to face the fast changes in the labour market. Programmes offered by TVET institutions should therefore be developed based on the market needs and opportunities. These programmes should provide market-based solutions, be flexible and adaptable to the capabilities of the learners. The learners should be trained with skills that are highly demanded by the market. Soft skills that are not currently part of the TVET curricula should be included and introduced to their students by the TVET institutions to build their capacity for employment;
- There is a need to create Nigerian Labour Market Information Systems (LMIS) that will provide valid and reliable labour market data and information required to plan programmes and design curricula to match training with requirements of the labour market. The development of up-to-date and accurate Labour Market Information will assist TVET institutions to train manpower that have skills that are relevant and demanded by the labour market. In this regards, well administered national TVET graduate database or electronic tracking system should be created to gather information from TVET products and track their performance on the job, challenges and their career development. The database could be used for networking, tracer studies and to improve the quality of the TVET sector. This could also be useful for sharing employment opportunities and other relevant information;
- Hybrid learning programmes should be encouraged in our TVET institutions that will be a blend of both academic and vocational skills. For instance, the dual education system where TVET programmes are provided in both Institutions and industries has proven to be very successful in most countries that adopted it. This system where adequate practical learning experiences and relevant skills are acquired by students through the use of infrastructures and services that are not available in the Institutions is highly desirable to

salvage the Nigerian TVET sector. Every TVET institution needs to reach out to the industries to form partnership with them on how students and even staff could spend at least a semester in the industries to acquire industrial experience relevant to their fields of studies. Thus, there should be stronger linkage, partnership and collaboration between the TVET institutions and industry/employers to bridge the gap between them and enhance quality of TVET products in Nigeria;

- Nigerian Polytechnics and similar tertiary Institutions that are matured (that is, adequately equipped and staffed) should be upgraded to degree awarding Institutions to improve the career and academic progressions of TVET graduates who may wish to aspire to the peak of the profession. At least one Polytechnic should be identified in each geo-political zones of the Country and be upgraded to degree awarding status;
- There should be mandatory policy for all TVET institutions to provide more practical skills and hands-on experiences to their students than theory. Sanctions might be applied to defaulting institutions. To facilitate this, there should be special interventions by Government to provide renewable or alternative power supplies to accredited TVET institutions for uninterrupted conduct of laboratories and workshop activities, and acquisition of relevant practical skills. Apart from the initial practical training for certification of TVET students, these institutions should also be supported to organize advanced short-term courses to re-skill their products to meet the demands of a highly technical labour market, secure lucrative jobs or establish their own SMEs;
- Quality assurance scheme of the regulatory agencies should be well supported and strengthened by Federal Government or funding agencies such as tetfund to monitor implementation of curricula, quality of programme delivery, students' academic works, staff dispositions and training, students' welfare, physical development and staff conditions of service across all tertiary institutions periodically at little or no cost to the hosting institutions. Quality assurance mechanisms carried out separately by the professional bodies should be harmonized with that of the regulatory agencies to reduce the financial burden on TVET institutions. In addition, internal quality assurance unit should be established in all TVET institutions to ensure that minimum academic standards of programmes are maintained before or after external quality checks are undertaken by the NBTE;
- The Nigerian Skills Qualification Framework (NSQF) should be nurtured, supported, and promoted as the formal means of classifying and recognizing skills, competencies and knowledge possessed by Nigerian workforce irrespective of where the learning took place (either formal, semi-formal or informal settings). Effort should be made to recognize the prior learning of workers or trainees in the informal sector, private vocational or ICT training institutions, facilitate portability of their qualifications and develop progression pathways for them;
- Academic staff of TVET institutions needs to be highly remunerated, motivated and trained locally and overseas to retain them in the sector. The conditions of service for the staff of TVET institutions should be very good in order to attract qualified and experienced personnel into the sector. Also, government and non-government agencies

should offer free support and full sponsorship to train and retrain Nigerian technologists, technicians, craftsmen and artisans in the institutions so as to equip them with relevant and modern skills needed by the economy

- There should be continuous rehabilitation, modernization and expansion of the physical infrastructures and facilities in the existing TVET institutions to meet the growing number of students that would be enrolled annually and meet global standards. In addition, the ICT infrastructure and services of the TVET institutions should be strengthened to support online or virtual learning and complement the traditional mode of learning. This is important especially with the recent experience due to global health challenge;
- It is obvious that proprietors cannot fund TVET institutions alone. More support from local and international donors and development partners should be solicited to develop, strengthen, plan and coordinate TVET activities. Private, public and non-profit organisations, alumni associations and individuals should be further encouraged to donate training resources, instructional materials, and physical infrastructures to TVET institutions to revitalize the sector;
- Supervised Industrial Work Experience Scheme (SIWES) units in the TVET institutions should be actively involved in the placement of students in real and relevant working environments as well in their supervisions to enable the learners obtain quality practical skills and abilities. Exchange programmes between TVET institutions and industries should be encouraged to enable the students and staff acquire relevant practical skills and new technologies;
- Female students should be encouraged and sponsored to pursue TVET-based programmes in order to increase their access to employment opportunities, improve their livelihood and reduce gender disparity in the sector. In addition, the learning environments in the TVET institutions should be organized to encourage participation of Nigerian girls and women. Furthermore, there should be improvement in the delivery gender inclusive learning programme and environment to attract more female students into TVET. Furthermore, there should be adequate materials and incentives for girls and women to learn and work in the TVET institutions. There should be deliberate attempt to increase women's access to technology-based trades and programmes. In addition, articulated action plans and support should be established to increase female students' access to quality TVET and expand employment for the womenfolk;
- There should be a deliberate national education policy to eradicate low societal perception and stigma attached to TVET. Effort should be put in place to ensure that TVET is held in high esteem. Holistic enlightenment programmes on TVET to educate and inform the youths and general public should be undertaken regularly in print and electronic media as part of strategies to address poor awareness and social perceptions of TVET. Government should also introduce and approve scholarships and attractive remunerations for TVET graduates to encourage more candidates to enroll into TVET programmes;

- TVET sector should be challenged by Government and other stakeholders to carry out applied and cutting-edge research activities and disseminate their findings to address local and global challenges. Inter-institutional collaborations, interactions, exhibitions and competitions should be encouraged so that the sector can be more dynamic and result-oriented. Technological innovations developed by the TVET Institutions should be encouraged and supported by investors and industries to promote creativity;
- Teaching of pre-vocational subjects in the primary and junior secondary schools should be taken more seriously and specially rewarded to arouse the interest of the students on TVET right from their early stage of education. Career talks, guidance and counseling especially on TVET should be given priority in the basic education schools in order to enlighten the students on the prospects and opportunities in the sector;
- Students of TVET institutions should be encouraged to engage in apprenticeship or mentorship programmes to complement their studies while at schools. This could be monitored, assessed and rewarded by the Institutions. In addition, advanced entrepreneurship development programmes in critical areas of national needs should be offered to interested graduates or diplomates to acquire more entrepreneurial skills after graduation from any TVET institutions. This should be aimed at helping them to start-up and manage enterprises that offer products and services needed in the country;
- The cooperation and effort of security, anti-corruption agencies and other relevant organs of government are needed to fight against operations of illegal institutions, study centres and satellite campuses in Nigeria;
- More individuals, organisations and groups should be encouraged to establish private TVET institutions in order to expand access to TVET, respond to the preferences of the labour markets (local and global) and deepen private sector participation in TVET programmes delivery;
- Future TVET policy reforms should be developed or formulated with the active participation of stakeholders with emphasis on collaboration and interactions as alternative to centralized control. With more participation of employers or industries, such reforms will ensure that more relevant and high demanding programmes are offered in the TVET institutions. Thus, these policies will ensure that technical manpower provided from the TVET institutions match the demand for them at the labour market. The policy makers in the TVET sector should set up modalities to assess the impact of TVET policy and programmes and evaluate the prospect of improving academic research studies, innovation and projects. There should be continuous engagement, interaction and collaboration with key stakeholders so that TVET sector operates in a dynamic environment instead of present one that is static and inflexible;
- Regular ethical training should be organized for leaders and managers in the TVET sector. In addition, anti-corruption and security agencies should be strengthened to deal quickly with reported or identified cases of corruption or scandals in the TVET sector;
- Admission into TVET programmes should be strictly based on merit taking into cognizance the interest and aptitude of the prospective candidates. Incentives should also be provided for indigent students, internally displaced persons or minority groups to

pursue TVET programmes or courses in order to increase inclusivity and reduce students' drop out due to lack of financial support. There should also be a joint policy by the Joint Admission and Matriculation Board (JAMB) and National Universities Commission to increase substantially the percentage of ND and HND holders that gain direct entry admissions into the existing degree awarding Institutions. This will support academic progression of TVET certificate holders.

## **5. Conclusion**

TVET is a sure way to transform Nigeria into one of the leading and robust economies in the world. This would however require serious commitments on the part of the Government as well as other stakeholders in the sector. A robust plan of actions on these aforementioned recommendations would go a long way to attain the vision of our nation to produce highly qualified, skilled and employable workforce.

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