

## DIVERSIFICATION OF TECHNICAL AND VOCATIONAL EDUCATION FOR HUMAN CAPITAL DEVELOPMENT IN NIGERIA: A REVIEW

<sup>1</sup>OLUBODUN, M. E. AND <sup>2</sup>ADARADOHUN, A. V.  
<sup>1</sup>DEPARTMENT OF ARCHITECTURAL TECHNOLOGY,  
<sup>2</sup>DEPARTMENT OF ARTS AND DESIGN,  
<sup>1&2</sup>THE FEDERAL POLYTECHNIC, ILARO, NIGERIA.  
[matemi.olubodun@federalpolyilaro.edu.ng](mailto:matemi.olubodun@federalpolyilaro.edu.ng)

### ABSTRACT

*The focus on human capital as a driver of economic growth for developing countries has led to an undue attention on Technical and vocational Education and Training (TVET). Developing countries have made considerable progress in closing the gap with developed countries in terms of TVET skills and competencies, but recent research has underscored the importance of TVET skills and competencies for economic growth. This paper takes a look at the origin of technical education in Nigeria, vis a vis current situation as well as implications for national development.*

**KEYWORDS:** *Technical, vocational education, development, entrepreneurship, education.*

### INTRODUCTION

Education is a basic human right and considered by many as a key tool for national development. Education according to Okolocha and Baba (2016) is a right of every individual. It unlocks the development of personal and national potentials of citizens of a country and the world at large. According to Balogun (2010), education is the light without which the world will be in darkness. It is the basis for scientific and technological breakthrough and also the basis for modernity which has made all nations of the world to accord it immense priority, even though the level of priority varies from one country to another.

Also, education is generally viewed as crucial for rapid economic growth, and essential. If we wish to

increase the productivity of the poor, by reducing fertility and providing people with the skills they need to participate fully in the economy and in society. Okolocha and Baba (2016) believes that emphasis is shifting away from the general education that encourages mere acquisition of certificates to skill-based education which centers more on what one can do and the ability to apply requisite skill in real work environment. In Nigeria, the rising unemployment has helped to heighten the need for vocational and technical education.

The types of educational process that involves the study of technologies and related sciences in addition to general education, as well as acquisition of practical skills, attitudes, understandings and knowledge, relating to occupations and vocations in various sectors of economic and social life is



referred to as technical education. Vocational education according to Roberts (1965) in Ikpe (2000) could also be defined as that aspect of education designed to develop skills, attitudes, work habits and aspirations encompassing knowledge and information needed by workers to enter and make progress in employment on a useful and productive basis. He further described vocational education as an integral part of total education programme contributing towards the development of good citizens by developing their physical, social, civic, cultural and economic competencies. The aim of vocational education is to prepare young people and adults for useful occupations, particularly for skilled trades and semi professional careers. It also may update the knowledge and skills of workers in occupations of this kind.

## **THE CONCEPT OF VOCATIONAL TECHNICAL EDUCATION**

Vocational Technical Education (VTE) according to Ojimba (2012) is a form of education whose primary aim is to prepare persons for employment in recognised occupation and this encompasses field of study (agricultural, fine and applied arts, business, technology and vocational trades in soap making, hairdressing, computer training among others). Iheanacho (2006) defined vocational education as that aspect of education that deals with business education, farming, book keeping and bricklaying among others with aims of acquiring vocational skills in these fields. Uwaifo (2009) in Okolocha and Baba (2016) also posited that technical education is the training of technically-oriented personnel who are to be initiators, facilitators, and implementers of technological

literacy that would lead to self-reliance and sustainability. It is evident that technical education has direct impact on national development and welfare. Banjoko cited in Dokubo (2013) summed it all stressing that skill is a major distinguishing aspect of vocational education which makes it outstanding from liberal arts. In a nutshell, the nucleus of vocational and technical education is the development in the individual, the knowledge, skills, and desirable attitude for legitimate work.

Usoro (2006) believes that technical education has a philosophy which is a derivative type because it belongs to the area of vocational education. Technical education philosophy believes in establishing an educational environment where students can achieve learning experiences in design and development, production operation or control, installation, maintenance and sales. The programme, in addition, must provide sufficient coverage of basic fundamentals in mathematics and sciences (general education) as well as practical laboratory manufacturing techniques (cognitive and psychoproductive skills) so the students can readily prepare themselves to assume specific responsibilities in a variety of industrial jobs for sustainable national development (Straight and Hartzler, 1987).

Ogundele, Akingbade and Akinlabi (2012) believe that Vocational and Technical Education (VTE) programs have significant role in the economic development of any nation because of skill acquisition. The relevant occupational skills acquired through Vocational and Technical Education (VTE) by individuals can bring about job generation, and self employment, which in return,

will drastically, reduce the rate of poverty and corruption in Nigeria.

## **HISTORICAL DEVELOPMENT OF TVET IN NIGERIA**

Arguably, one can trace the origin of technical education in Nigeria to the learning of craft, which often began from parents to children in the crafts like hair plaiting, blacksmithing, basket weaving, carpentry, bricklaying, and mechanic, etc. Then personal service to the masters by the young ones who would later be introduced to a trade. The arrival of missionaries in Nigeria around 1840 according to Ogundele et al (2012) brought about some changes in the training of young ones in some vocations. This led to the development of vocational and technical education in Nigeria. In 1895, Reverend Hope Wandell from the Presbyterian church of Scotland founded the first training institute (technical college) in Calabar. Programs developed were tailoring, carpentry, and some commercial subjects in secretarial studies. By 1909, government established the first indigenous technical school called Nasarawa for courses in metalwork, carpentry, weaving, and leatherwork.

As stated earlier, the origin of vocational and technical education in Nigeria has a chequered history. Its roots could be trace to pre-colonial era when traditional education was in practice. The instructional method then was observation and imitation of the parent or master. During the colonial era, the child was trained in the family trade through direct apprenticeship by either the parents or relations. During this period, non-indigenous companies like shell BP, the PZ and the UAC started

training artisans among their employees who were to serve the skill needs of the companies at that particular time (Okolocha and Baba 2016). There were no arrangements for examination or issuance of certificates. The emphasis was to improve the learners' ability to accomplish more complex tasks. In other words, during the early part of the colonial era, vocational training was encouraged. However, schools were built primarily for the purpose of evangelism by the early missionaries. Specifically, the early missionary activities were characterized by literacy types of education which was geared towards winning converts and producing clerks and interpreters (Ajayi and Ayodele, 2002). It was not until 1908 when government department started to organise some forms of vocational training school. The marine training school came on board in 1982. The public works, the post and telegraph and railway training school where also established around 1931.

Government active participation in the provision of technical education became obvious between 1930 and 1960. The first technical institute established in Nigeria was the Hope Waddell Institute in Calabar in 1885 with the aim of proving education in the rudiments training in the technical trade and teachers' education, (Mamman, Chadi, Jirgi, & Mubarak in Okolocha and Baba 2016). Yaba Higher College was officially opened on January 19, 1934 and later became the first vocational and technical institute in 1948 with the motive to train Artisans, crafts men and Technicians, together with teachers of technical education to teach in trade centres, (Aina in Mamman, Chadi, Jirgi & Mubarak, 2013). Thereafter, technical colleges were established by various regional governments in several locations

in the country, namely: Enugu (1950), Ilorin (1951), Kano (1953), Bukuru (1953), Sapele (1955), Ijebu-Ode (1959), Osogbo, Oyo (1961), Owo (1963), Aba (1964) and Abakaliki (1966). These colleges were not fee paying and they were adequately funded by the government at that time. In 1959, Nigeria Federal Ministry of Education set up a commission—the Ashby commission to conduct an investigation into Nigerian needs in post secondary education. The Ashby commission recommended that adequate attention should be given to technical and vocational education. It also recommended that students studying technical drawing and craft subjects should be encouraged. Similarly, technical schools should be upgraded to award the City and Guilds London Certificate. In 1963, the Commission for Technical Education recommended three levels of vocational and technical education as follows: Pre-vocational and pre-technical training usually offered in secondary schools; Craftsmen training usually offered in technical colleges, trade centres and vocational schools and Technical training usually offered in polytechnics and colleges of technology. In 1986, the fourth Commonwealth Education Conference (1986) recommended that industry should be closely associated with technical education. This could be through policy-making, manpower planning and curriculum development, and provision of opportunities for industrial experience, accreditation, consultancy services part-time courses and vocational guidance.

In 1987, the National Council on Education (NCE) approved the National Board for Technical Educational (NBTE) which classified vocational and technical institutions into: Vocational Schools -

These are made up of vocational/artisan training centres to produce artisans. They are post-primary level institutions that offer courses leading to the award of the Federal Ministry of Labour and Productivity Trade Test Certificates. Technical Colleges - Institutions that produce craftsmen at the craft level and master craftsmen at the advanced craft level. They are post-Junior secondary school institutions offering courses that lead to the award of the Advanced National Technical Certificate/Advanced National Business Studies respectively. Polytechnics/Monotechnics/Colleges of Technology: - These are post– Senior Secondary school institutions, which produce technicians and technologists. The courses offered by these institutions are of two-year duration, each leading to the award of National Diploma (ND) and Higher National Diploma (HND) respectively. Federal Government of Nigeria (2004) identified a range of courses offered under vocational and technical education as mechanical trades, computer, craft practice, electrical engineering trades, building trades, wood trades, hospitality, textile trades, printing trades, beauty culture trades, business trades and leather goods manufacture. This historical evidence has shown that the VTE existed in Nigeria during the olden days before its transformation as it exists today.

## **HUMAN CAPITAL DEVELOPMENT**

Human resource development is very important to achieving stability in a country. The human resources required depend on the recent pattern and structure of the country economy. In the past, public education may be sufficient for the development of human resources, but now human resources required



are different. For example, in new era, more engineers and technicians are needed as the nation develops. Any nation which expects productive human capital must adequately develop it. It is when a nation develops its human capital that human can drive its economic advancement through the growth of small and medium scale businesses. Human capital is the talent, skills, competencies and other advantages which people possess, that can be put to use to give individuals, organizations and nations significant benefit. Uyabemem and Dantawaye (2018) explain that human capital can be understood from the perspective of the populace that can be put to positive use towards the development of the nation. In other words, human capital represents the fundamental human infrastructure for technological development and by extension economic development.

Human capital is the stock of knowledge, habits, social and personality attributes, including creativity, embodied in the ability to perform certain labour so as to produce economic value. On the other hand, human capital can also be defined as a collection of resources and all the knowledge, talents, skills, abilities, experience, intelligence, training, judgment, and wisdom possessed both individually and collectively in a population. These resources are the total capacity of the people that represent a form of wealth which can be directed to accomplish the goals of the nation or state or a portion thereof. It is an aggregate economic view of the human being acting within economies, which is an attempt to capture the social, biological, cultural and psychological complexity as they interact in explicit and/or economic transactions. In the light of this,

many theories explicitly connect investment in human capital development to education, and the role of human capital in economic development, productivity growth, and innovation has frequently been cited as a justification for government subsidies for education and job skills training.

Looking at it semantically, the concept of human capital is the mixture of human and capital. But economically, the capital according to Boldizzoni, (2008), refers to factors of production used to create goods or services that are not themselves significantly consumed in the production process. Along with the meaning of capital in the economic perspective, the human is the subject to take charge of all economic activities such as production, consumption, and transaction. On the establishment of these concepts, it can be recognized that human capital means one of production elements which can generate added-values through input.

The method to create the human capital can be categorized into three types. The first is to utilise ‘human as labour force’ in the classical economic perspective. This meaning depicts that economic added-value is generated by the input of labour force as other production factors such as financial capital, land, machinery, and labour hours. On the other hand, most researchers have accepted this thought viewing the capacity of human being is knowledge and skills embedded in an individual (Beach, 2009). Similar to Beach’s thought, a few researchers show that the human capital can be closely linked to knowledge, education, and abilities (Garavan, 2001; Youndt, 2004). Also, Rastogi (2002) conceptualizes the human capital as ‘knowledge, competency, attitude and behaviour embedded in an individual’.

There is the second viewpoint on human capital itself and its accumulation process. This perspective stresses on knowledge and skills obtained throughout educational activities such as compulsory education, postsecondary education, and technical and vocational education (De la Fuente & Ciccone, 2002). Despite the extension of that concept, this perspective neglects that human being would acquire knowledge and skills throughout his/her own experience.

The third is closely linked to the production-oriented perspective of human capital. Romer (1990) refers to the human capital as ‘a fundamental source of economic productivity’. Rosen (1999) refers to human capital as ‘an investment that people make in themselves to increase their productivity’. Similarly, Frank & Bernanke (2007) defined human capital as ‘an amalgamation of factors such as education, experience, training, intelligence, energy, work habits, trustworthiness, and initiative that affect the value of a worker's marginal product’. Considering the production-oriented perspective, the human capital is ‘the stock of skills and knowledge embodied in the ability to perform labour so as to produce economic value’ (Sheffin, 2003). Furthermore, some researchers define human capital as ‘the knowledge, skills, competencies and attributes in individuals that facilitate the creation of personal, social and economic well-being’ with the social perspective (Rodriguez & Loomis, 2007).

Consequently, human capital simultaneously includes both of the instrumental concept to produce certain values and the ‘endogenous’ meaning to self-generate it. In order to dependently or independently create these values, there is no doubt that leaning

through technical-vocational education and training can be an important terms of defining the concept of human capital. Considering that experience, skill and competences can be included as a category of knowledge; the human capital is therefore knowledge embedded in individuals.

### **TVET AND ECONOMIC STABILITY**

Olubodun (2010) opines that there was the urgent need for leaders of Nigeria to take vocational and technical education with all seriousness it deserves. The country really needs to move forward economically at this crucial time, the neglect of this aspect of education has been partly the cause of our economic backwardness and poverty. The development of vocational education has helped many countries to achieve economic stability, and this has made them thrive towards sustaining the programme. With adequate technical knowhow, we can develop manpower skills that can stand shoulders high with peers around the globe, have people design and produce our own cars, machines and the likes.

Most of the products imported into this country are results of certain forms of technology or the other, by the time foreign exchange is considered, they become so expensive and out of the reach of an average Nigerian. If we are able to source for raw materials locally and manufacture our own products, the cost of products will be reduced and an average citizen will be able to afford such. Nigeria can develop manpower resources necessary for technological advancement if we focus on adequate development of our vocational schools (Olubodun, 2010).

He went further to explain that there used to be at least three technical/vocational schools in every state of the federation about three decades ago, and that the graduates from such schools were adding to the economy, not necessarily seeking paid employments. The reverse is the case today, most of those schools now wear sorry looks, some practically non-existent! As stated earlier, the polytechnics are expected to produce skilled manpower in terms of technology, if the vocational schools are operating in full capacity, our economy would not have been in this kind of mess we find ourselves today.

Also in line with Olaitan (1996), it should be clear to us that vocational/technical education is an important force that dictates man's economic existence and social order. Vocational education is perceived to be the greatest force that can be used to achieve quick desirable changes and development of the nation's economy.

### **JOB CREATION, EMPLOYABILITY AND MANPOWER DEVELOPMENT**

Usoro (2006) argues that the central concern of technical education and job creation revolves around capacity building/entrepreneurial ventures by

individuals in training. This concern is predicated upon the fact that productive work and employment are central elements of development. Sustained economic growth and sustainable development as well as the expansion of productive employment must go hand in hand. Productive employment is strictly based on skills acquisition in jobs of great importance to the nation. In this regard, creating enough jobs and productive employment to break the vicious cycle of poverty remains one of Africa's most daunting development challenges (UNESCO, 2006). The region's economies have not achieved adequate employment creation or enough labour absorption capacity-to keep pace with population growth, urbanization and the rising expectation of their citizens. Dike (2009) observes that 80% of the youth in Nigeria are unemployed and 10% are underemployed. The solution to this problem lies in creating jobs for the Nigerian youth.

In this regard, technical and vocational education holds the key. A close analysis of technical education programme options is instructive. The analysis of the options indicates jobs in which skills are provided to produce the needed manpower for sustainable national development. Technical education options and related jobs are presented in figure 1 below.

### Technical Education Options

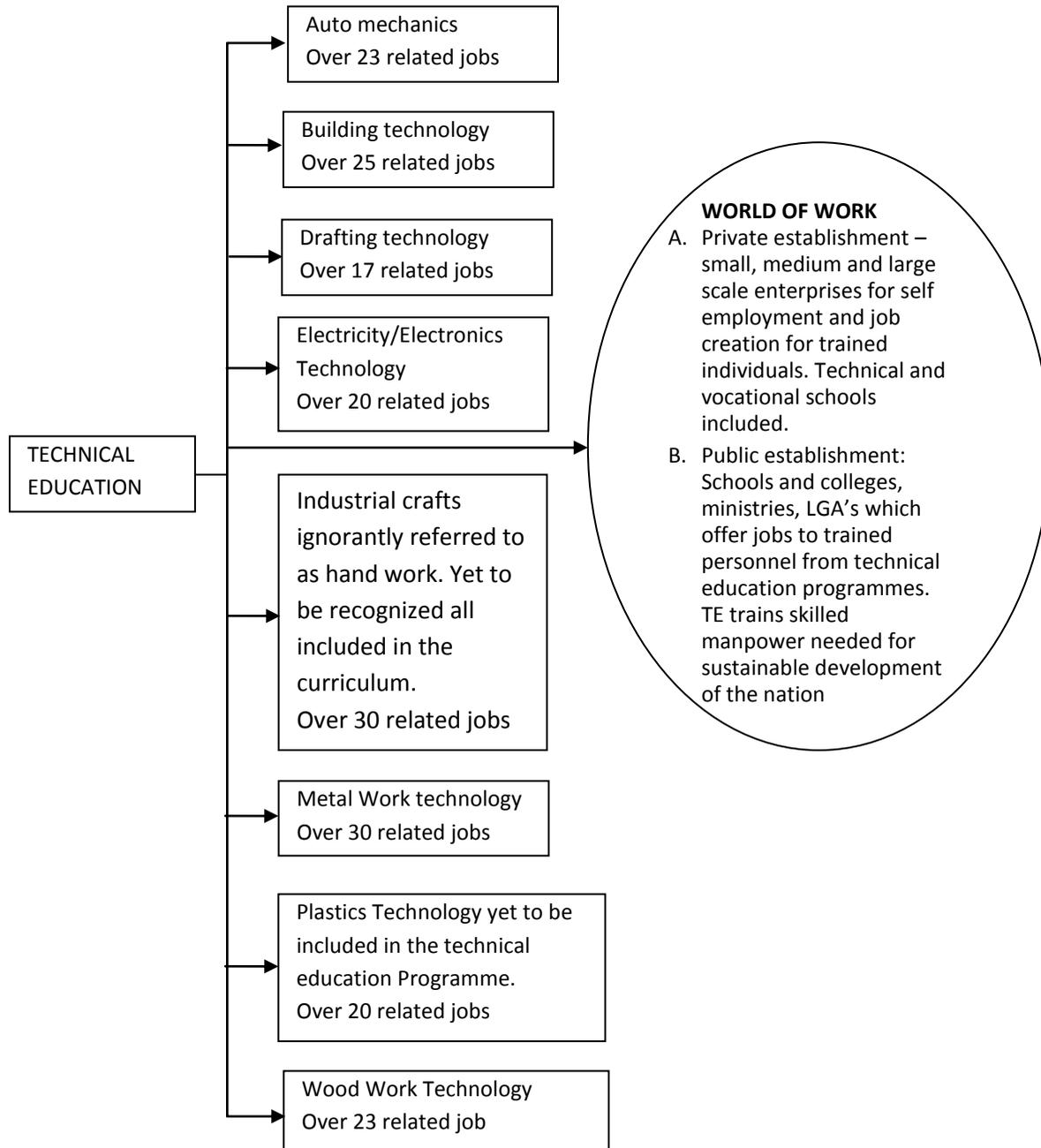


Figure 1: Technical Education options and Related Jobs (Usoro, 2006)

## **DIVERSIFICATION AND ECONOMIC DEVELOPMENT**

Nnajifor, Okoroafor and Wogu (2017) noted that the surest means of achieving economic diversification for economic development and sustainability is investing heavily on human capital and infrastructural development. Unfortunately, these areas have not been given adequate attention by the government. Uzonwanne (2015) in Nnajifor et al (2017) noted that a significant bottleneck to economic development in many countries is poor physical infrastructure. Essential series such as electric power, water, roads, railways, ports, and communications have been neglected, especially in the rural area.

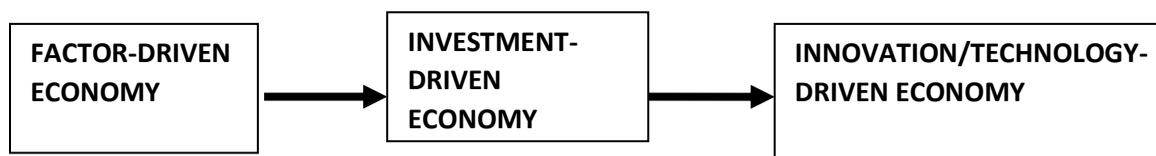
Economic diversification means energizing many economic sectors (investing in a variety of assets) to be functional and productive. It is the process of growing the range of economic outputs, thereby having many sectors of the economy contributing fairly to the GDP. Economic diversification strives to smooth out unsystematic risk events in a portfolio so that the positive performance of some investment will neutralise the negative performance of others. Nigeria must diversify its markets for exports/income sources. Fortunately, there are

numerous potential economic sectors that could be exploited such as agriculture, forestry, mining, manufacturing, tourism and many others.

It is crystal clear, that the traditional trading, commerce and service sectors alone cannot provide sufficient jobs for the number of school leavers in any growing economy; hence the overall strategic plan of the government should be to diversify and accelerate economic growth through industrialisation. This can be classified as the early phase of industrialisation, where the educational priority will be to provide and expand primary, secondary education, including technical education, entrepreneurship and vocational training skills. This system was put into practice in Singapore between 1960s and 1970s. It was only in the 1980s onwards, that an increasing emphasis was placed on improving the level of skills and quality of the education and training system, including universities and polytechnics in Singapore (Seng 2007).

The economic development of a developing nation can be classified into three phases as shown in figure 2. A “Factor-Driven” economy if properly administered can metamorphose into an “Innovation-Driven” economy, which will be powered by the needs of knowledge intensive industries.

Figure 2- Phases of Economic Development



To get through these stages, a developing nation will have to start from an “early industrialised” economy

to a “newly industrialised” economy and onto a “globalised and diversified” economy. There is no

doubt that entrepreneurship and vocational training form and integral part of all three facts itemised above. In tandem with the changing economic landscapes, the VTE system will have to be involved in response to the changing manpower needs. The education and training needs must ensure that graduates from various institutions have the necessary knowledge and skills for the many new jobs to be created in a rapidly growing economy. For the purpose of clarity, the economic, manpower and strategies which can be implemented during these developmental states will be elaborated here.

### **LABOUR INTENSIVE ECONOMY**

The major challenges we have in Nigeria today is how to create jobs for our teeming youths! In a bid to avert the continuation of this, the economic strategy has to be shifted from that of import substitution to that of rapid industrialisation by attracting foreign investment for export oriented and labour – intensive manufacturing (Seng 2007). From the education and training perspective, the immediate and herculean task is to ensure that the workforce has the basic vocational and technical skills to support the labour-intensive manufacturing and production activities such as engineering, steel metalworking, plumbing, electrical and electronic maintenance and repair, civil and construction activities etc. The priority then, is to expand the educational system, especially the vocational schools, with the technical education department of the ministry of education rising to the challenges.

### **CAPITAL INTENSIVE ECONOMY**

If a developing nation is able to surpass the first stage of economic development, the next stage of capital-intensive economy follows but as the name implies, it is expensive in nature. The new focus will

be on the development of new industries such as petrochemicals, biotechnology, information technology, as well as manufacturing services. Again, the education and training system will be called upon to respond to the manpower needs of more capital-intensive industries. In this scenario, the stage will be set for working adults to engage in further general education and some vocational training. With anticipated increasing educational and training opportunities, it is apparent that both young school leavers and working adults alike have the potentials for self-development and enhanced working conditions with attendant and complementary remunerations. In the light of this, where does poverty stay in such an economy? It is a general note that economic restructuring has a direct impact on the capability of the existing workforce. What is expected of the workforce in terms of education and knowledge will no longer be adequate hence the need for further vocational training. Companies will be expected to diversify, upgrade and develop into strong export-oriented companies and invest in the regional economies. This is what we see in the practice of our commercial banks in Nigeria, having branches in neighbouring West African countries.

### **KNOWLEDGE INTENSIVE ECONOMY**

There is the need to increasingly develop into a globalised, entrepreneurial and diversified economy. While continuing to strengthen the higher end manufacturing activities, there is a clear recognition of the importance of the service sector as an engine of economic growth. Concerted efforts need to be formulated to attract and nurture new growth sectors such as the biomedical sciences, information technology, creativity technology and higher level engineering. The response of the educational sector

in this regard is more than paramount. We can see that entrepreneurial and vocational training is the centre of the circle of economic development in any economy if poverty is to be phased out.

## THE ROLE OF STAKEHOLDERS

The first question that may likely come to mind is who the stakeholders are. In the context of this discussion, stakeholders here are the government, ministry of education, the regulatory agencies, the institutions, the lecturers, students and the parents as well. To achieve a robust and balanced technical education, the government through the regulatory agencies like the National Board for Technical Education must put in place an enabling environment for teaching and learning. This has to do with provision of workshop and laboratory equipments that will aid practical activities in the institutions, while giving enough room for institutional research and development of new innovations to put our graduates at par with those from other countries. We have to bridge the huge infrastructural gap to stop breeding work force for China, Indonesia, Thailand and the rest.

## ROLE OF LECTURERS AND INSTRUCTORS

Lecturers and instructors have a vital role in training students to be competent. The first point of training students is in the institutions and these establishments are to provide knowledge, skills and the right attitude in the students they train. The Polytechnics provide tertiary education through full time courses in the fields of manufacturing, commerce, science and technology, applied social science, applied arts and such other areas as may be determined by the body responsible for higher education. It also encourages the study of technical education as well as provision of opportunities for

development, research and publication of research findings. Research conducted by Japan International Cooperation Agency (JICA, 2008) on technical and vocational education also confirms this mandate of the polytechnics to train and produce higher skilled technologists, managers and engineers. All these efforts are to facilitate Nigeria's quest for industrialization, and lecturers and instructors, have no other option than to fulfil these directives (Alam *et al.*, 2009). The polytechnic teachers are also mandated to teach, undertake research and offer community services among others. They are also to train, counsel, serve as role models to these students, promote professional competence and maintain high academic standard and excellence. The question then is; are the polytechnic teachers equipped enough to fulfil such mandates? Yes, we are!

## ROLE OF THE ACADEMIC INSTITUTIONS

The training institutions have an important role to play by providing the enabling environment for lecturers and students to promote teaching and learning through the provision of the necessary facilities. In addition, management should collaborate with relevant organizations to help provide the competences in students through industrial attachment and lastly to provide the needed support for staff development and training (Alam *et al.*, 2010). Without proper execution of these roles by the training institutions, it is not likely to achieve the aim of building the required competences among students. Building the right competences among students will only be effective when the process for building the competences are identified and applied. When little or no attention is given to the identification and application of the essential competences needed at industries and for self employment, then our training is unlikely to

build the required competences for the job market. The introduction and implementation of CBT programmes in some of the polytechnics is to provide quality training, meeting the needs of industry and to create job opportunities for graduates. If all stakeholders will play their roles effectively, then we will all be assured that Technical and Vocational Education Training (TVET) will stand the test of time.

## **ROLE OF THE INDUSTRY**

The industry in a general sense is the production of goods and services in an economy which also refers to a group of enterprises (private businesses or government-operated corporations that produce specific type of goods or services. They are classified as primary, secondary and tertiary industries.

The primary industry uses raw natural resources as major inputs; e.g. agriculture, mining and forestry. Secondary industry on the other hand uses producer goods (final product of another industry) to assemble their product; e.g. construction and manufacturing industries while the tertiary industries are those that provide services; e.g. retail stores, hotels, banks, media, hospitals, academic institutions and government institutions. Industries are the only place for students to learn competences or execute competences learnt at school. Though, some of the trainees after graduation could establish their own businesses. Already some of the industries have been playing their roles in ensuring that adequate competences are built in students by accepting them for industrial attachment and subsequent employment upon graduation. Sometimes experts are invited from industries to give a talk to students on campus which some of them hardly turn down.

However, industries could still play the following roles to help the academic institutions to train relevant, competent and competitive graduates who will fit easily into the world of work:

- Experts from industry to accept more collaboration with the polytechnics to provide the desired training for staff and students;
- Open their doors for polytechnic staff and students to acquire industrial experience;
- Work together with the polytechnics as partners in research, development and dissemination of appropriate technology;
- Assist the polytechnics to assess, review curricula and share information regularly; and
- Provide certain equipment to the polytechnics for training of students. A research conducted by JICA (2008) indicates that majority of TVET implementing institutions (60%) are of the view that there is lack of link between theory and practice in the current curriculum of TVET programmes and this was attributed to industries' non involvement in the curriculum development process (JICA, 2008). Some of the institutions also believe that there is a weak link between the training institutions and industry.

## **ROLE OF GOVERNMENT**

Government has a very important role to play in ensuring the proper implementation of TVET in Nigeria. As suggested by Alam and Hoque (2010), the following are some of the roles government could play in ensuring that adequate human capacity is built for national development:

- To provide financial supports to the polytechnics for competency building;

- To supply equipment and infrastructure for competency building in technical institutions;
- Provide incentives to encourage industries to train students on attachment;
- To formulate policies to streamline industrial training for both staff and students; and
- To establish regional training centres to build students' competences for industry

More importantly too, students need a lot of encouragement from academic staff. It is part of our duties to see to their well being and good performance. Academic staff of our institutions as well as parents and guardians should identify students with high inclination towards technology and give them adequate encouragement in that line. The bulk of the job to achieve the much needed advancement lies on our table as givers of the training, we need to buckle our belts and be ready to be on the driver's seat in our quest to create a developed technological economy for the country. We should be able to develop unique training models that place emphasis on skills and practicals in all facets of the economy since we have the required personnel to do the job.

## CONCLUSION

Technical/Vocational education is an engine to national development of any nation. In an economy where every able person is gainfully employed, especially with background training in technical education, poverty is bound to reside behind the fence (Olubodun and Aremu 2011). From the international perspective however, (Olubodun and Aremu 2011) opines that there is no one ideal system that can suit the needs and aspirations of all countries. The systems are often shaped by the economic, social and cultural conditions of the local

community. A fundamental question is whether sufficient attention has been paid to those who need and can benefit from vocational and entrepreneurship education. As highlighted above, there are policy decisions and choices to be made.

## RECOMMENDATIONS

To have a stable and sustained technical and vocational education for self-reliance and national development in furtherance to Olubodun (2010), this paper makes the following policy recommendations:

- **Entrepreneurship Education** – The government should lay more emphasis on acquisition of business and technological skills through entrepreneurship education in technical and vocational schools. The relevance and utility of entrepreneurship education lies in the practical application of what is taught as the economic and social benefits of literacy do not spring from learning literacy skills but from using literacy skills.
- **A mental re-orientation of Nigerians** – This is important in the current Nigerian situation as holders of vocational/technical certificates are rated far below pure academic certificates. If there is proper orientation, people especially the young ones will see the need to go for technical/vocational training.
- **Job creation** – This paper focuses on technical skill as a pivot to national development, there is the need for avenues where the skill so acquired will be put to practice. Fingers can never be equal, while some vocations can stand alone and he graduate float their businesses, some cannot. There is the need to initiate job creation efforts for those who may not be able to stand alone immediately after graduation.

- **Funding** – There is need for adequate funding of technical/vocational education across the country to ensure continuity and maintain standards. Adequate funding will make it possible to ensure a revitalised Technical and Vocational Education and Training to build skilled and highly competent workforce of technical professionals.
- **Follow up** – It is highly important to put in place good monitoring techniques for any programme. Once this aspect of education is given its right place, graduates of the schools who either enter the job market or run their own businesses need to be monitored for possible assistance.

If these steps are followed going by the above discussions, there will be a complete turnaround in technical/vocational education, and skill acquisition becomes easier. At the end of the day, positive national development will be achieved and poverty out of the way, when all points on the circumference meet at the centre. The centre is bound to hold tight as things refuse to fall apart. It is our collective responsibility to make it work!

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