
VOCATIONAL TECHNICAL EDUCATION: A VIABLE TOOL FOR NATIONAL DEVELOPMENT IN NIGERIA

¹Dr. OWODUNNI A. SAMUEL, ²HASSAN A. MOHAMMED, ³SANNI T. ABDULRAMAN, ⁴NAKAKA, M. DANTALA AND ⁵OGUNTUYI A. NELSON

Abstract

Vocational Technical Education (VTE) systems play a crucial role in the social and economic development of a nation. Vocational and technical education a multifaceted, multi-disciplinary and pragmatic field of study, is aimed at equipping the individuals with requisite vocational and technical education literacy skills, which will enhance their relevance and functionality in the society. As a result, it plays a vital and indispensable role in the development of the society. This paper therefore examines concept of the development of vocational and technical education in Nigeria, its significance and role with regards to the Economic and Technology development in Nigeria, concept of Vocational Technical Education and Training (VTET), VTE and National Development. Other issues discussed are VTET for self-reliance and National Development, the administration of VTE in Nigeria, the challenges ahead as well as possible and suggestions for moving VTE forward with enhanced effectiveness for the benefit of the nation and incoming generations.

Introduction

Vocational and Technical Education {VTE} has not been given the priority it deserves by many African countries. After years of neglect, instigated by a complex set of reasons that included budgetary constraints and criticisms of the World Bank in the early 90's on its direction and focus. The World Bank had argued at a time that the cost of technical and vocational education was too high compared with the returns to the economy, that the quality of training was poor and that there was considerable mismatch between training and the needs of industry. Simply put, the delivery of vocational education and training was not cost-effective. However, since the beginning of the new millennium, a fresh awareness of the critical role that VTE can play in economic growth and national development has dawned among policy makers in many African countries especially in Nigeria in particular, and within the international community.

The increasing importance that African governments now attach to VTE is reflected in the various Poverty Reduction Strategies that governments have developed in collaboration with the World Bank (Bloom, Canning, and Chan, (2006). In its poverty reduction strategy document, Cameroon for example intends to develop vocational and professional training to facilitate integration into the labour market; Cote d'Ivoire talks about strengthening vocational training; Ghana links vocational education and training with education of the youth and the development of technical and entrepreneurial skills; Lesotho and Rwanda focus on linking VTE to businesses while Malawi emphasises the need to promote self-employment through skills development. Other countries that have prioritised VTE initiatives in their national development policy documents include Chad, Ethiopia, Guinea, Senegal, Sierra Leone, Uganda and Zambia.

One of the most important features of VTE is its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. VTE delivery systems are therefore well placed to train the skilled and entrepreneurial workforce that Nigeria needs to create wealth and emerge out of poverty (Okorie, 2004). Another important characteristic of VTE is that it can be delivered at different levels of

sophistication. This means that VTE can respond, not only to the needs of different types of industries, but also to the different training needs of learners from different socio-economic and academic backgrounds, and prepare them for gainful employment and sustainable livelihoods. A skilled workforce is a basic requirement for driving the engine of industrial and economic growth, and VTE holds the key to building this type of technical and entrepreneurial workforce.

The term "VTE" as used in this paper is in line with the UNESCO (1997) International Standard Classification of Education definition, which is education and training to "acquire the practical skills, know-how and understanding necessary for employment in a particular occupation, trade or group of occupations or trades." It is important to note that VTE is not only about knowing how to do things but also understanding why things are done in a particular way. The conceptual definition of VTE cuts across educational levels (post-primary, secondary, and even tertiary) and sectors (formal or school-based, non-formal or enterprise-based, and informal or traditional apprenticeship). It is therefore important to keep in mind the transversal and longitudinal nature of VTE as we attempt to highlight the importance of this type of education (Olaitan, 1996).

The development of vocational and technical education in Nigeria

The education system of Nigeria has been influenced by the British system of education. This type of education neglects the cultural and vocational interest of the nation. The apprenticeship system according to Olaitan (1996) was the earliest type of vocational education practiced in Nigeria and it provided employment for youth as they learnt how to use their hands in specific trade (vocation). Extensive development of vocational education started in Russia in 1888 with the introduction of shop classes in addition to the existing apprenticeship system. Shop classes involved the development of a problem and specially prepared drawings made to tackle the problem. Then the students were made to perform the same exercise individually, until they are proficient in that skill. In United States of America, vocational and technical education is organized through agencies. These includes public high schools, public and private junior colleges, technical institute, extension services, labour unions and the armed forces. While dozens of programs are organized, specialization in training for all type of occupation exists (Nwogu & Nwanoru, 2011).

The change in educational system in Nigeria came after the enactment of the land grant foundation Morrill's act of 1890. This foundation in the United States of America influenced the educational reforms after the abolition of the slave trade. Simple Job training skills through companies and schools were introduced. Learning of skill in carpentry, tailoring, mechanizing, craft making etc, started in some schools in Nigeria, like the comprehensive high school Aiyetoro and Mubi and the technical college in Yaba, Lagos. Vocational and technical education remained dormant for a long time with the introduction of western education.

The first attempts to introduce and develop Vocational Education in Nigeria can be traced to the early missionary educational activities in the country. Specifically, the teaching of vocational subjects started with the establishment of the Hope World institute, Calabar in 1895. In the early part of the 20th Century, technical courses and programmes had been established in selected government departments. These included the public work Department, Nigeria Railway, Marine and so on. These were sections meant to train

technicians specifically in jobs related to the activities of the departments. Thus, the period between 1908 and 1935 marked the visible beginning of organised technical and vocational education in Nigeria, perhaps, these formed the basis of the teaching of engineering courses at the Yaba Higher College (later Yaba College of Technology) founded in 1973 (1974) (Fafunwa, 1974)

He further stated that evidence was through Sir Hana Vischers strategies which he adopted when he was appointed the first Director of the Education Department of Northern Nigeria in 1899 and later charged with the responsibility to introduce Western education in the North. He concluded that it should be recalled however that the Asquith and Elliot Commission of 1943 had anticipated the need for higher education to aid the country in its social and economical growth.

However, the first major recommendation for the introduction of technical and vocational education was made in 1945 when the commission on Higher Education in West Africa proposed that the premises of the defunct Yaba Higher College should be converted into a technical institute. The following year that is in 1946 the Ten Year Plan for Development and welfare incorporated the Commission's recommendations. This it demonstrated following a grant of N400, 000 for the promotion of the programme for the first five years. With the support of the grant, the Northern Regional Government established the craft schools between 1956-1960, the West built 4, the East 9, and Lagos 2 (Fafunwa, 1974)

In 1949, the Federal Government appointed a two man panel to assess the need for establishing a college or college of higher technical education. Their report led to the establishment in 1952 of Nigeria College of Art, Science and Technology with branches in Ibadan, Enugun and Zaria. The first branch was opened in the North in January, 1952. The Ibadan branch open on 27th February, 1954, while Enugu branch opened in 1955. Then in 1961, the Banjo Commission was set up to review the western Nigerian educational system. His report recognised Nigerian' need for middle level manpower made up of skilled workers who could set up business of their own, whether in repairing electrical apparatus or motor ears or manufacturing small piece of equipment or assembling parts of apparatus purchased from abroad, or using their commercial knowledge acquired in commercial college (Ejiogu, 1986)

One year later in 1962, the Eastern Government of Nigeria released the Dike Committee Report which was set up in 1958 to review the system of education in Eastern Nigeria. His report recommended that consideration should be given to the establishment of secondary education and not the academic type alone, that is, technical or comprehensive secondary schools. But by the term the Dike report was released in 1962, another committee known as the Ikoku Committee on the review of education system in Nigeria had been appointed in June 1962 by Western Government.

In 1962, the former Western Nigeria Government created the Aiyetoro Comprehensive High School on the advice of Chief Somade (then Chief Inspector of Education) and Dr. Adams Shapski. Another of such schools planned for Port Harcourt took off in 1964 but could not last long due to the Nigerians crisis of 1967-1970.

The Aiyetoro experiment of the comprehensive system secondary education largely influenced the perspectives of Nigerians regarding education. In fact, it can be claimed

that the experience of Aiyetoro High School had influenced the 1969 National Curriculum conference.

Concept of Vocational Technical Education and Training

Vocational technical education is undoubtedly a very important aspect of the Nigerian educational system under the 6-3-3-4 programme. It develops occupational competence and teaches those skills which enable an individual earn a living as cited by Kayoma (2009) in Okorie (2001). The National Policy on Education (2004) defined vocational technical education as that aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge. Nwogu (2009) quoting Okonkwo (1993), declared technical vocational education as viable industries and a prerequisite to new world technological order and therefore requires adequate support of human and material resources. Immaculate (2005) in his opinion said "that technical and vocational education are leaving experience meant to be impacted to an individual systematically in order to get him/her adequately equipped for a good employment in a recognized occupation.

The programme includes numerous occupational areas such as agriculture, various trades, health services and technical training (Brickmen 2006). Vocational, technical education and training therefore, can be defined as an educational training, which has been designed technically and systematically to accommodate both the trainer and the trainee in order to enable most importantly the trainee acquire the basic knowledge, skills abilities, understanding and attitudes needed for ones efficient performance in his/her chosen occupational carrier for self-reliance and national development (Nwogu & Nwanoru, 2011).

Skills are vital for poverty reduction, economic recovery and sustainable development. As a consequence, policy attention to technical and vocational education and training (TVET) is increasing worldwide. TVET comprises formal, non-formal and informal learning for the world of work. Young people, women and men learn knowledge and skills from basic to advanced levels across a wide range of institutional and work settings and in diverse socio-economic contexts. And for technical and vocational education and training systems to have a significant impact on youth employment, they need to transform themselves,"

The focus according to of technical and vocational education and training and the labour market as an area of core competency is on the supply side of the labour market (i.e. the supply of workers) and the intermediation between labour supply and demand (Okafor, 2011). Technical and vocational education and training also performs a social function by empowering people to participate actively in civil society processes.

Although technical and vocational education seem deficient in "citizenship or leadership training" (Friedman 1982) it provides students with "life skills" (Alwasilah, 2002) to become productive entrepreneurs as it engenders creative and innovative ideas, enlarge the economic pie, and increase personal freedom. Most of the so-called "expatriate engineers" who are being paid millions of dollars to build Nigeria's roads and bridges are graduates of technical and vocational colleges.

Vocational Technical Education and National Development

A country's well being depends on its economic development (Nwogu, 2009). An economist by name Walter Rodwey in Igweh (2004), asserted that development in human society is many sided phenomenon which is complex and means different things in different societies in different situations and to different thinkers. Musa (1985), in his view sees the concept of development as an Euro-American term through culturally based, used to characterize the relative standard of living of the people between the highly industrialized nations of the North and the consumer import dependent nations of the South.

Igweh (2008), stressed that the most suitable definition of development may be that which is based on the experiences of the developing countries which is cited by Seers in Igweh (2001). He defined development in terms of reduction in the levels of poverty, illiteracy, and unemployment and income inequality. However, Falodun, Omogiafor and Ezeaku (1999) in Nwogu (2009) emphasized that "national development encompasses social and political development as well as economic development which is defined as the attainment of a number of ideas of modernization such as a rise in productivity social and economic equity, improved institutions and values". Economic development is thus an important part of general development in any society.

The main objective of economic development is to raise the standard of living and the general well being of the people in an economy where almost everybody can be self-reliant. It involves changes in the structure of an economy that includes:

- ❖ Emphasis on developing manufacturing industries as opposed to agriculture;
- ❖ Movement of labour from rural to urban industrial areas and;
- ❖ Less reliance on imported goods in preference to home produced goods (eg made in Nigeria products).

The Place of Technical Education in National Development Presently Nigeria is offering education in general subjects, but to achieve development, it must offer a variety of courses for disciplines such as technical, vocational, professional, agricultural, and so on, because the country needs a balanced distribution of manpower for all professions (Alam, 2003, 2007), so that the vast population of Nigeria can contribute to economical growth by participating in different professions. Vocational and Technical Education (VTE) systems play a crucial role in the social and economic development of a nation. Owing to their dynamic nature, they are continuously subject to the forces driving change in the schools, industry and society. Mechanized farming requires technical skills that could be obtained in technical and vocational schools. The real tests of success of VTE are the employability of the graduates, personal development, opportunities for further education and career development, public acceptance and image. Ultimately, the effectiveness and responsiveness of a VTE system would be measured by its impact on the social and economic development of the nation.

Vocational Technical Education and Training for Self-Reliance

There are five types of technical and vocational training institutions, National policy on Education recognized outside the university system. Yabam in Igweh (1997) indicated that three broad classifications are recognized by the National Board for Technical

Education (NBTE). They are vocational schools, technical colleges, colleges of education (technical) or polytechnics, all the above listed are training institutions meant for the production of graduates who shall be self-reliant and contribute their quota for national development through instrument of vocational technical education.

However, vocational technical education and training in Nigeria according to Nwogu (2009) “should emphasize entrepreneurship awareness for it to be relevant in achieving the national educational aim of inculcating the right type of values and attitudes for survival of an individual and Nigeria society”. Enahoro (2008), in his view said vocational training is utilitarianism and it is a concept of reorganizing the importance of labour. Therefore, to train someone in his appropriate field and for him to substantially contribute his quota to the overall good of the nation, he has to pass through vocational technical education and training. It is a fact that needs no further investigation to say that when and if it is good with a nation, it is also good with its inhabitants and vice versa. For this reason, any nation or country that gives proper training in one sided area of importance to her citizenry or gives improper training to people in all areas of importance has nothing to gain. People are differently gifted and therefore, should be given equal vocational technical education and training for self-reliance in the different occupational areas. Nigeria should be such that people are trained for the different opportunities or openings that abound in the country, in compliance with the tedious task of giving suitable and proper training to individuals for optimum productivity amongst others.

The Administration of Vocational and Technical Education in Nigeria

Bayode (1994) stated that vocational and technical education is geared towards the production of the educated man who can effectively work with his head, heart and hands. The development of the economy and the crave for self-reliance and self-sustainability is the driving force for acquiring this programme.

The national policy on education (FGN, 2004) states that the objective of vocational and technical education expected to be realized, includes:

- i. To acquire vocational and technical skills.
- ii. To expose students to career awareness by exploring usable options in the world of work.
- iii. To enable youths to have an intelligent understanding of the increasing complexity of technology.
- iv. To stimulate creativity.

The national policy on education highlighted Nigeria’s desired to achieve her national goal through education, hence the need for the acquisition of appropriate skills, abilities and competence both mental and physical as equipment for the individual to life and to also contribute to the development of the society, thus, no society can develop to appreciable extent without relevant functional and technological based vocational and technical education.

The need for vocational and technical education cannot be over emphasized in Nigeria schools. Therefore, Uwaifo, and Charles (2000) asserted that full vocational training should be offered by students in the 6 year programme of the post primary schools (in addition to their general education courses) to enable them develop sufficient skill in their

chosen occupational skill to obtain employment on leaving school. Post secondary vocational education courses in the universities, colleges of technology and polytechnics should be offered to students who took vocational courses in secondary and now need to increase their level of skill through further training. Wenrich (1974) stated that vocational and technical education provides various avenues for discovering and developing the individual's potential for work. It has a broadening effect, which motivates learners to be more exploratory, realize their capabilities and develop their potentials for success in the world of work. Forshey (1970) opined that there is a very good reason for young people to begin the process of being productive in the world as soon as they are capable of doing so. This is simply what vocational and technical education opts to do.

Vocational Technical Education Training for National Development

Vocational technical education and job training has been an integral part of national development strategies in many societies because of the impact on human resources development, productivity and economic growth (Dike, 2007). Nigerians according to Ibeneme (2007) does not seem to accord vocational technical education the attention it deserves despite its proven contributions in other nations. It is important to note that UNESCO and ILO (2002) understood technical and vocational education to be a means of preparing for occupational fields and for effective participation in the world of work, an aspect of lifelong learning and a preparation for responsible citizenship and an instrument for promoting environmental sound sustainable development amongst others.

As a matter of fact every nation, especially developing countries are making efforts to develop industrially, economically, technologically and socially. It is important to note also, that any type of developmental effort or initiatives requires human capital amongst others. The development of human capital requires skilled human capital that has appropriate skills, right attitude and good knowledge of how to retrieve process and utilize natural resources for the benefit of humanity. Development of human capital that has appropriate skills, right attitude and good knowledge of how to retrieve, process and utilize national resources come within the preview of vocational, technical education and training for national development. Igweh (2008) in his opinion declared that if the artisans, craftsmen, technicians and technologists are adequately trained; they will fit well in small scale enterprises, industries, colleges and universities. There will be less dependence on foreign technical personnel in our cottage and main industries. Indigenous technology will be encouraged. There will be adequate manpower to handle our road maintenance, building, plumbing work, electrification, mechanical works, agriculture, and computer and so on. By so doing our production capacity will be increased while our import duties will be decreased, all the benefit he said will lead to national development.

Challenges Facing Vocational Technical Education in meeting National Development

There are numerous challenges facing vocational technical education and National Development which has affected negatively on our national life and national development. Among the numerous challenges are:

1. The lack of skilled manpower in Nigeria is aptly portrayed by the experience of many graduates deployed to industries and companies due to lack of link between the industries and technical and vocational institutions, to the end that industry

chosen occupational skill to obtain employment on leaving school. Post secondary vocational education courses in the universities, colleges of technology and polytechnics should be offered to students who took vocational courses in secondary and now need to increase their level of skill through further training. Wenrich (1974) stated that vocational and technical education provides various avenues for discovering and developing the individual's potential for work. It has a broadening effect, which motivates learners to be more exploratory, realize their capabilities and develop their potentials for success in the world of work. Forshey (1970) opined that there is a very good reason for young people to begin the process of being productive in the world as soon as they are capable of doing so. This is simply what vocational and technical education opts to do.

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and field experts will transfer technologies to the institutions, which will then produce technicians that are readily absorb-able by the industries to create a mutually dependent relationship. Such relationship, the World Bank policy says, should “focus more dearly on areas in which the presence of significant external social benefits and market imperfections exist.”

2. Lack of qualifying teachers and personnel to teach and manage vocational technical education programme has made its effectiveness difficult. It is however most surprising to know that most vocational technical education departments still depends on engineering workshop and lecturers to teach technical education concepts in this 21st century
3. The available facilities, programme as at today are inadequate quantitatively and qualitatively and besides they are obsolete. Okoro (1998) pointed out that the facilities which include the buildings, equipment, tools and school materials available are inadequate for effective use in schools and colleges.
4. Lack of functional policies, poor attitudes of the government, faulty planning process and political instability has made policies formulated for implementation of vocational technical education programme inconsistent
5. In Nigeria today, the allocation to vocational technical education as a share of the GDP is quite minimal. Till date, government funding of vocational and technical education programmes have not been impressive.
6. Lack of motivation due to poor remuneration and non-payment of salaries has made the best vocational technical teachers to leave teaching thereby, resulted to lack of teachers in the programme.
7. Lack of entrepreneurship education in vocational technical education and training that will enable the graduates of programme to either be self employed or employers of labour.
8. Lack of adequate security/security needs for the vocational technical education teachers and
9. Poor emphasis on the practical aspect of vocational technical education as most institutions charged with the responsibility to teach vocational technical education subjects in Nigeria today are poorly equipped with machines and relevant tools/equipment

Conclusion

The question still floating in our minds is ‘in the 21 century, does Nigeria need VTE? Is it Significant?’ This paper concludes that in spite of its limitations the significance of VTE to the development and industrialization of Nigeria economies cannot be overemphasized. Nigeria needs to be more inventive and innovative in a way she can develop solutions to her problems internally.

The indiscriminate adoption of foreign technologies and theoretical concepts of the developed countries is a misnomer, this is because we must appreciate that the developed countries industrialized and developed within different contexts and circumstances that differ from the context and circumstances facing Nigeria today. VTE thus remains significant because it provides an opportunity to develop practical solutions to Nigerian problems, based on a thorough analysis of the prevailing conditions.

A well established VTE system should lead to the development of technologies that are tailored towards meeting the needs of the community. However, it must be accentuated

that acquisition of skills is not sufficient to eliminate all the problems facing Nigerian economies. It is a prerequisite, but a lot more needs to be executed. Political instability, poor governance, lack of security, poor economic policies and unequal distribution of income among other ills must be abolished if the significance of VTE is to be felt in our National development.

Suggestions

In the foregoing discussion, it is evident that the significance of VTE is not being felt in Nigeria because of the limitations facing this sector. Thus, this paper suggests that;

- 1 Government by providing adequate funding to schools and colleges which are directed VTE in Nigeria will enable research and development, acquisition of appropriate and up-to-date equipment and tools and general maintenance to be carried out in VTE
- 2 Government should make policies that will protect and encourage VTE programme in Nigeria. The policies should give more attention or equal priority to the VTE sector as that offered to the general academic education. Nigeria policies on VTE must revolve around vocational technical education that is flexible and adaptable to capture the rapid changing demands of the society
- 3 Government should provide workshops/classrooms, tools, equipment and necessary facilities for vocational and technical education programmes to sustain and improve carrying capacity in VTE institutions. The vocational and technical education equipment, machines, tools supplied should be properly installed with adequate provision of power supply to enable the equipment function as required by the capacity of the equipment and machines to assist development and carrying capacity in VTE institutions.
- 4 Vocational and technical education teachers that are unskilled and lack the knowledge of using equipment and other facilities should be trained and retrained on the job through inservice training, seminar and workshop, to enable the teachers gain current knowledge of new devices and equipment to cater for the desired carrying capacity in Nigeria. For vocational technical education to meet the economic, social and political trends of the time, the nation must use qualify vocational training professionals/teachers in implementing vocational technical education programme.
- 5 The government and non-governmental agencies should encourage vocational and technical education to assist in human resource and capacity building by funding the programme to improve carrying capacity in tertiary institutions.
- 6 The acquisition of skills and competencies is very necessary for one to fit into jobs especially in this era of technological changes. The three tiers of government, education stakeholders and employers should give massive support to vocational technical education programmes, by investing in the programmes in order to give the needed security to the programme.
- 7 The teachers teaching VTE courses in our institutions should always lay emphasis on the practical and entrepreneurship components of the courses to enable the students acquire the necessary practical needed for self-employed after graduation.

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