Review

A viable vocational technical education curriculum: A tool for economic and technology development in Nigeria

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Vocational Technical Education (VTE) systems play a crucial role in the social and economic development of a nation. Due to their dynamic nature, they are continuously subject to the forces driving change in the schools, industry and society. Often shaped by the needs of the changing economy and local community, the challenges and opportunities are unique. The issue today is not so much about the value and importance of VTE; how to ensure its relevance, responsiveness and value in an increasingly global economy is the issue. The development of any nation is critical to the economic survival and vibrancy of that nation. This holds particularly true for developing nations like Nigeria, who is still grappling with chronic factors like unemployment and underemployment, which have kept them in the perpetual bondage of economic frustration. 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 future of vocational and technical education in Nigeria, its significance and role concerning the economic and technology development. In Nigeria, the challenges ahead are as well as possible suggestions and recommendations for moving it forward with enhanced effectiveness for the benefit of the nation and incoming generations.

Key words: Vocational Technical Education, economic and technology development.

INTRODUCTION

Vocational and Technical Education (VTE) is now on the priority list of the development agenda of many African countries, after years of being 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 the time that the cost of technical and vocational education was too high as 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 donor community. The increasing importance that African governments now attach to VTE is reflected in the various Poverty Reduction Strategy Papers that governments have developed in collaboration with The World Bank. 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 and 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 emphasizes the need to promote self-employment through skills development. Other countries that have prioritized 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 1997 UNESCO 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.

DEVELOPMENT OF VOCATIONAL AND TECHNICAL EDUCATION IN NIGERIA

The British system of education has influenced the education system of Nigeria. This type of education neglects the cultural and vocational interest of the nation. The apprenticeship system 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.

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 and companies and schools now introduced simple Job training skills. Learning of skill in carpentry, tailoring, mechanizing and craft making 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.

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 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.

CONCEPT OF 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 a 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 Euro-American term though culturally based and 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 based on the experiences of the developing countries 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, Falodum et al. (1999) in Nwogu (2009) emphasized, “national development encompasses social and political development as well as economic development 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 wellbeing of the people in an economy where almost everybody can be self-reliant. It involves changes in the structure of an economy that includes:

1. Emphasis on developing manufacturing industries as opposed to agriculture;
2. Movement of labour from rural to urban industrial areas and;
3. Less reliance on imported goods in preference to home produced goods (for example, made in Nigeria products).

Vocational technical education and training for national development

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 the National Board recognizes three broad classifications for Technical Education (NBTE). They are vocational schools, technical colleges, colleges of education (technical) or polytechnics, all the aforementioned 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 to contribute substantially 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 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.

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 crave for self-reliance and self-sustainability is the driving force for acquiring this programme.

The national policy on education (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 desire 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. To contribute to the development of the society, 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. Universities, colleges of technology and polytechnics should offer post-secondary
vocational education courses to students who took vocational courses in secondary school 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 and 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 Ibenneme (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:

1. A means of preparing for occupational fields and for effective participation in the world of work;
2. An aspect of lifelong learning and a preparation for responsible citizenship and
3. An instrument for promoting environmental sound sustainable development.

In 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 necessarily 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 natural resources come within the preview of vocational technical education and training for national development.

Igweh (2008) in his opinion declared that 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 work force to handle our road maintenance, building, plumbing work, electrification, mechanical works, agriculture, and computer. By so doing, our production capacity will increase while our import duties will decrease and all the benefit mentioned by Igweh 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. Lack of skilled man power,
2. Acute shortage of vocational technical teachers
3. Lack of adequate training facilities and equipment
4. Inadequate vocational, technical education policies
5. Lack of follow –up and continuity in government policies
6. Poor funding of vocational technical education
7. Poor remuneration of vocational technical teachers;
8. Lack of entrepreneurship education in vocational technical education and training
9. Lack of adequate security/security needs and
10. Poor emphasis on the practical aspect of vocational technical education as most tertiary institutions charged with the responsibility to teach vocational technical education subjects in Nigeria today are poorly equipped with machines and relevant tools/equipment.

**SUGGESTIONS**

In the foregoing discussion, it is evident that the significance of VTE is not felt in Nigeria because of the limitations facing this sector, thus, this paper suggests that there is need for increased funding towards VTE in Nigeria. This should be directed towards research and development, acquisition of appropriate and up-to-date equipment, tools, and general maintenance and management of VTE institution. More attention or equal attention should be offered to the VTE sector as that offered to the general academic education.

There is a need to emphasize on rural development in order to reduce income differences between the urban and rural areas. Thus, those with technical and vocational skills will not have the urge to transfer their skills to already overpopulated urban areas where their skills become unutilized. In addition, there should be more established VTE institutions in the rural areas and they should emphasize at providing technical and vocational skills to meet the needs of the community. There is also need to look into the economic policies upheld by our
countries. Ways and means in which capital can easily be obtained by those with entrepreneurship skills but are unable to start income generating activities due to lack of capital should be established. Governments should encourage the development of micro finances and also through their national commercial banks offer friendly loans to even the poor and young entrepreneurs willing but unable to establish money making activities.

Although, the effects of globalization are inevitable, governments need to develop policies that protect their economies against harmful importation of products and services that discriminate against those goods produced internally. This can be achieved by looking inwards and encouraging domestic production to substitute for imports.

To ensure that VTE is more market driven, it is necessary for the governments to involve organizations in the formulation of the curricula and in the certification of skills offered. In addition, the governments should encourage organizations to participate in providing on the job training by creating incentives for companies by reimbursing training costs, by subsidizing apprenticeship wages and for those companies who earn huge profits, by allowing for tax concessions.

CONCLUSION

The question still floating in our minds is ‘in the 21st century, does Nigeria need VTE? Is it significant?’ This paper concludes that in spite of the limitations put forward, 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 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. If the significance of VTE is to be felt, political instability, poor governance, lack of security, poor economic policies and unequal distribution of income among other ills should be abolished.

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