

The Challenges of Sustainable Vocational and Technical Education for Industrial Development in Nigeria

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Abstract

Vocational and Technical Education is a skilled oriented education which prepare the learner to become a self reliant and useful citizen to the society, government and industry. This paper described the various challenges and benefits of VTE to industrial development. It concluded that if a nation must fast develop then there is the need for refocusing VTE for a sustainable industrial development. It was also suggested that the Nigerian Government should put in place a mechanism that will enhance and lead to a sustainable VTE through proper funding and quality assurance in supervision.

Introduction

The development of any nation depends largely on the kind of education that is available to its citizens. In other words, it is not education for the sake of it but functional education that propels a nation on the path of development, progress and greatness. The issue of functional education brings to focus Vocational and Technical Education (VTE). There is no gain saying that Vocational and Technical Education holds the key to the profile of Nigeria industrial sustainability. Vocational and Technical Education is considered as an instruction of a skill or procedure, usually of a mechanical type, and at a level between that of the professional scientist or engineer and that of a skilled craftsperson. Technicians support scientists and engineers by designing, developing, producing, and maintaining machines and materials. Vocational and Technical Education can also be described as the aspect of education, which is concerned, with the preparation of skilled manpower. It is a form of education, training or retraining which is directed towards developing the learner to become productive in a paid employment or in self-employment. It is therefore the bedrock in which a country's socio-economic, technological and cultural advancement must be built. Ethel (2007) stated that the emphasis for Vocational and Technical Education should therefore not only emphasised on the provision of skilled manpower for a static economy but also continuing to do so for a dynamic one, especially with changing societal needs for technological advancement. Sandstone (1973) reported that Vocational Education enhances opportunities for all types of learning. This type of education has the

economic role of providing qualified manpower demanded by changing the individual and in enabling him to use complex technology. As a matter of fact, vocational and technical education is aimed at developing not only practical skills but also attitudes and habits that makes the recipient a creative, innovative and resourceful person that will be useful for industrial national development. Although there is the need for improvement in educational systems, sustainable industrial development need to be considered most carefully if these changes are to bring about effective improvement in the quality of school-leavers.

Education is a very important tool for national development as the prosperity of a country is judge by the level of its educational excellence (Adeyemi 2001: 188). The Nigerian government has tailored its educational system towards skills acquisition, knowledge and training that makes an individual to be self reliant. The establishment of Industrial Training Fund by the Federal government is to encourage close partnership between education and industry. It is a body that co ordinate the activities between industry and the institutions of VTE. One important of the scheme is the way in which students in VTE are given industrial orientation which tends towards developing the Nigerian industries.

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The VTE programs are still fraught with problems of misconception of the nature and values of VTE, poor funding, poor planning and forecasting, inadequate guidance and faulty implementation of curriculum with emphasis on knowledge acquisition instead of skills acquisition necessary for self reliance. The factors militating against the smooth operation of VTE call for a critical re-appraisal, review and reform of the policy document. The rapid pace of change in business and industry and the increasing demand for training workers combine to provide a call to those who educate trainers to continually examine the practice of training trainers who will be able to meet the needs of our industry (Joyce & Voytek, 1996). Thus, institutions of higher education, among many other entities who are involved in preparing trainers for positions in business and industry, must be prepared to meet that need. Determining what competencies should be taught is a question that needs to be answered on an ongoing basis. The roles of vocational educators involved with business and industry are distinctly different from those of vocational educators employed in secondary public schools. As training and development programs become increasingly prominent in business and industry and as vocational teacher education programs at the university level take on the expanded role of preparing professionals for training and development positions, VTE programs must change accordingly. It is imperative that any evolving curricula embrace the knowledge base and skills required to perform this emerging industrial needs successfully. Those who formulated the National Policy on Education had a clear vision of an intended mission that is making Nigeria a self reliant nation. Unfortunately the programme has not been given its right place in national development due to organisational and implementation problems. Other challenges hindering the

full implementation of vocational and technical education in Nigeria include the following among others:

Poor Public Image/Societal Perception of VTE

The image of VTE in the eyes of public in Nigeria is very poor compare to other conventional courses, this is because many still considered the study as meant for those who cannot progress academically. This is corroborated in the new policy document on education in section 6, subsection 47 which recognizes the general public attitude, with regard technical education as somewhat inferior to other types of education. The present government efforts should be geared towards raising the VTE's socio-economic status. The public/society should also strive to boost VTE graduate's status; there should be an increasing public awareness of the importance of VTE and the role it is expected to play in the nation's industrial development.

Poor Administration and Supervision of Vocational Technical Education Programmes

Poor administration and supervision affects the effective implementation of VTE. There is lack of co-ordination between the various federal and state Agencies responsible for the administration of VTE programmes. This lack of co-ordination has resulted in costly duplication of efforts. According to Akamobi (2005) most secondary school principals are products of general education, which brings about problems in the implementation of vocational and technical education policies. These general education principals will definitely give priority to their own type of education before considering vocational education and this action to a great extent will reflect in the quality of the vocational and technical education system.

Shortage of Qualified Personnel

Prior to the early years of Nigeria independence, one of the problems of VTE was its inability to produce technical personnel to man our industries. Shortage of qualified personnel is a very serious problem in vocational and technical education in Nigeria. The need for technical manpower in the present stage of development is very important as the nation strive towards being self reliant, no meaningful development can take place without a conscious effort to develop technical manpower. Nigeria is starting another curriculum this session making VTE a compulsory subject for all students at secondary school level, the big question that needed to be answered is where to get the teachers to teach these vocational subjects. The shortage of equipment and facilities is a significant problem affecting the VTE for a sustainable industrial development.

Crisis of Identity

The problem of identity for proper placement of VTE between engineering and technology is a major setback for full implementation of VTE in our national curriculum. This is a major problem that needs to be addressed so that VTE can be placed in its Proper position as a bedrock for industrial development. Different perspectives regarding the role and purpose of

VTE in public education within Nigeria continue to be widely debated and publicised. Not only has the problem been exacerbated by disagreement and confusion within the VTE profession, but also by differing perceptions outside the field. Daugherty and Wicklein (1993) observed that math and science teachers did not perceive "the study of the development of technology, biological systems, and transportation as being characteristic of technology education". This gives a great deal of time and effort to continue to be committed to reducing the perceived identity crisis of the VTE profession. VTE education professionals should also give attention to clarification of academic content and identity.

Poor Funding of VTE

The poor funding of Vocational and Technical Education has been a problem in the implementation of the programme in Nigerian. The implementation of Vocational Technical Education will remain a mirage without competent Vocational Technical Education Teachers, equipments, Workshops, training materials and money for maintenance of equipment. Vocational technical education need to be funded adequately to enable the programme achieve its aim of ensuring industrial sustainability. The funding needs of VTE are quite enormous and they need to be addressed promptly.

Benefits of VTE to National Development

Osuji (2004) highlighted that government strongly believes that the objectives of job creation and poverty reduction can only be realised through appropriate education which empowers the products of the education system with skills and competencies to become self employed. This hope of the federal government can only be true and realized only if the vocational and technical education subjects are well taught in our secondary schools and tertiary institutions. In another view, it is believed that VTE affords a self-dependent life after formal education, by giving individuals the opportunities to put into use the acquired skills thereby enabling Nigeria youths to become job-creators rather than job-seekers. 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 (2004 edition) spells out the broad goals of vocational/technical education as being meant to:

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

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 live 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 following will benefit the nation through effective VTE programme self-employment youths, national technological improvement, higher standard of living among the citizens and create a national political stability.

Refocusing Vocational and Technical Education in Nigeria for Industrial Sustainability

Nigeria is a richly endowed country with abundant human and natural resources. The country is blessed with a variety of mineral deposits including petroleum, natural gas, uranium, tin, columbite, coal, precious metals and gemstones. But the nation is presently facing enormous social and economic problems to handle, ranging from unemployment, crime, terrorism and communal clashes. Though, the negative attitude towards vocational and technical education is just been overcome as the nation is now focusing on entrepreneurship education as a basis for industrial sustainability.

The problem necessitating refocusing of Nigeria's VTE is youth unemployment which appears to be accelerating every year. According to Adefaye (2004, p.30), the neglect of VTE in the country has increased youth unemployment. Adefaye stated further that, in 2003, primary school leavers accounted for 14% unemployment, secondary school leavers accounted for 53.6% while tertiary education graduates shared 12.4%. From this data on unemployment situation among school graduates, there is a clear indication that the primary and secondary school leavers have total unemployment of 67.76%. This fact was corroborated by Okoro (1993), when he stated that about seventy-five (75) percent of secondary school leavers in Nigeria do not go further in higher academic pursuit. It is therefore, disturbing to have a situation where many youths who are most physically able to render services towards industrial development are highly unemployed. (Oyelaran, 1997) observed that other reasons for the poor performance of manufacturing enterprises include poor investment phase preparation, (inadequate feasibility), lack of adequate techno managerial skills for investments production and maintenance, misuses of monopoly powers, poor capitalization resulting in inadequate working capital, defective capital structures resulting in heavy dependence on government for the operation in their relations with supervising ministries, mismanagement, corruption and nepotism. Ndomi (1998) supported this fact with his comment on Nigeria's state of unindustrialisation when he said that the nation's predicament is heavily dependent on her ability to come up with a competent and dedicated workforce. The lack of dedicated and competent workforce is Nigeria's headache and the most militating force against the nation's technological and industrial sustainability. VTE at this point stand very tall in helping the nation get out of the problem of lack of appropriate manpower.

Conclusion

The national industrial development cannot be over emphasised, this is because for a nation to become a developed one there is need for sustainability in her industrial development which can only be achieved through VTE. Therefore the Nigerian Government should put in place a

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mechanism for development of sustainable VTE that will enhance a viable industrial development. Adequate funding, quality assurance in supervision and procurement of equipment is of paramount importance for industrial sustainability in Nigeria. It is also important that a good relationship exist between the need of industry and the training being given in our institutions.

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