International Journal of Academic Research in Business and Social Sciences
February 2012, Vol. 2, No. 2
ISSN: 2222-6990

Achieving Sustainable Economic Development in Nigeria through Technical and Vocational Education and Training: The Missing Link

Yusuff, Mulkat Ajibola
Department of General Studies, Federal Polytechnic, Ilaro

Soyemi, Jumoke
Department of Computer Science, Federal Polytechnic, Ilaro

ABSTRACT
In Nigeria, over the years, emphasis has been on general education, with vocational education at the receiving end. This has resulted in large number of educated people remaining unemployed. This phenomenon has now been recognized by the policy makers and hence there is a greater thrust on vocationalisation of education. Another shortcoming is the perception of TVET as a career path for the less academically endowed being fuelled by the low academic requirement into TVET programme, rather than an effective strategy to train skilled manpower for economic development. This paper discusses the current environment in which TVET in the country operates and the effort government has taken to revitalize it as well as the lessons that can be learnt from countries that have achieved sustainable economic development through TVET. The paper argues that for TVET to be a key to sustainable economic development in the country, there is need for changes in public perception and image of TVET, rejuvenate the nation's moribound technical training colleges, instructors in training schools to leverage on industry partners to gather industry based experience and strict monitoring of industrial trainees. The paper concludes that technical and vocational education is a necessary but not sufficient condition for sustainable economic development. What are required includes government policies that can stimulate the economy and adequate infrastructural facilities.

Key words: *TVET; sustainable economic development.*

Introduction

Technical and Vocational Education and training (TVET) have been recognized the world over as tools for empowering people, especially the youth, for sustainable livelihood and social-economic development. The United Nations Educational Scientific and Cultural Organization (UNESCO) and the International Labour Organization (ILO) recommendations of 2000 on technical and vocational education and training for the twenty-first century, defined TVET as those aspects of education process involving, in addition, to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. TVET is further understood to be:

- An integral part of general education;

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ISSN: 2222-6990

- 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;
- An instrument for promoting environmentally sound suitable development
- A method of alleviating poverty

The overriding goals of TVET in Nigeria are to:

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

The development of technical and vocational skills is vital to economic development for two important reasons. First, technical and vocational skills are needed for enterprise productivity and profitability, as well as for national productivity and wealth creation. Without the necessary technical skills, enterprise and national growth can be seriously hobbled. Technological innovation and economic growth fuel the demand for skilled workers. The need for technical and vocational skills is increasing because of a convergence of factors—technological change, changes in work organization, growing economic openness and competitiveness, and capital deepening (increasing capital per worker). The second reason development of technical and vocational skills is of vital importance is because it is essential for individual prosperity. Skills enable the individual to increase productivity and income. This is especially important for those who are seeking out a living in the informal sector of the economy.

Today in Nigeria, population growth and urbanization; poverty and lack of income generating capacity and failure of graduates from schools system to secure employment clearly highlights the importance of career development which is achievable through TVET. To enable those still in post- secondary schools to be relevant to the world of work as well as to draw the majority of jobless people out of the unemployment market, there is need to reposition TVET as the best means to improve economic opportunities for the teaming youths which will eventually enhance economic development of Nigeria.

This paper sets out to examine if the revitalization of TVET as it is being currently done by the policy makers is adequate to achieve economic development so as to enable the country realize her goal of becoming one of the 20 economically developed economy in the world by year 2020.

Current Status of TVET in Nigeria

TVET varies from country to country and are delivered at different levels in different types of institutions: technical and vocational schools, polytechnics, enterprises and apprenticeship training centres. In Nigeria, the acquisition of formal technical education is possible from secondary to tertiary levels of the country's 6-3-3-4 education system. At post-secondary/ tertiary levels, technical and vocational colleges, Polytechnics, Monotechnics and Universities, have been the institutional structures meant to enhance nation's technical growth. The duration of school based technical and vocational education is between three to five years,

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depending on institution and model. However, formal TVET in Nigeria are currently operating in environment that is characterized by:

- **Low quality training:** In general, the quality of training is low, with undue emphasis on theory and certification rather than skill acquisition and proficiency testing. Inadequate instructor training, inappropriate training equipments (demonstration equipments instead of actual equipments use in the industry), poor aspiration of incoming trainees, obnoxious policy of 80 percent success rate of trainees before accreditation of polytechnics and lack of instructional materials are some of the factors that combine to reduce the effectiveness of training in meeting the required knowledge and skill objectives.
- **Mismatch between training and labour market skill demand:** This accounted for high incidence of unemployment among graduates from formal school system. The reason for this situation is lack of collaboration between the training institutions and industries.
- **Poor perception of TVET:** For many years technical and vocational education has been considered as a career path for the less academically endowed. This perception was fuelled by low qualification requirements for admission into TVET programmes (cutoff point of 160 for polytechnics in unified JAMB examination rather than 200 as obtainable for universities.) Also the view that polytechnics were set up to train the middle-level manpower that the nation needs for economic development make schooling at polytechnic secondary, after attempts to gain admission into universities have failed.
- **Discrimination against graduates of technical schools:** Constitutionally, the Universities and Polytechnics/Monotechnics in Nigeria are at par; they are all tertiary institution of learning. The Bachelor of Science degree (B.Sc) earned from Universities and Higher National Diploma (HND) earned from the Polytechnics are equivalents. Both B.Sc and HND holders spend at least five years in school and undertake the National Youth Service Corps (NYSC); a compulsory one year service to the federal government of Nigeria. However, this parity does not go further than the aspects mentioned above. HND graduates for instance, are not admitted into a Masters of Science (M.Sc) programme until they have acquired an additional post graduate qualification to their HND. Also, graduates of Polytechnics are not placed on the same salary level and step even in the Nigerian Federal and State civil services. The B.Sc holder's salary is always higher. Furthermore, the HND holder is discriminated against by most professional bodies in their registration.
- **Low enrollment at all levels of technical education:** This situation stem from poor public perception of TVET and discrimination of graduates from technical schools. Worse still is the stigma attached to artisans and craftstmen (those skilled in using their hands) which has led to the disappearance of trade schools and technical training colleges
- **Weak monitoring and evaluation:** Training institutions do not track the employment destination of their graduates. Consequently, valuable feedback from past trainees on the quality of training they have received and the opportunity of their experienced-based inputs to be factored into the review of curricula and training packages are lost.

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- **Inadequate financing:** It must be recognized that TVET is expensive on a per student basis. Even though subvention to training institutions particularly polytechnics has been increased, it is still grossly inadequate because unit costs are necessarily higher in TVET institutions than in primary and secondary schools due to small student-to-teacher ratios, expensive training equipments and costly training materials that are wasted during practical lessons.

Moreover, the non-formal TVET in Nigeria which is the system of training imparted to young boys and girls by self-employed artisans and technicians is pervasive. According to Aworanti, (2010) this type of TVET accounted for 90 per cent of skill training in the country and they are poorly documented.

Government efforts to revamp and revitalize TVET

In a bid to strengthen TVET system as part of the human resource and manpower development to meet present and future needs for rapid socio-economic development of the nation, the federal government through the National Board for Technical Education in 2000 and 2007 signed an Aide Memoire with UNESCO for the development of new curricula, e-books and training manual for use in polytechnics, monotechnics and other specialized institutions.

To this end, the NBTE has produced 200 new curricula for national diploma (ND), higher national diploma (HND), post-higher national diploma (PHND) programmes offer in polytechnics, monotechnics and colleges of technology. The board in addition produced 20 new curricula for ND programmes offered in innovation enterprise institutions, and 88 new curricula for programmes offered by vocational enterprise institutions and developed 356 e-books.

To widen access to TVET and encourage private participation in skill training, the federal ministry of education approved the establishment of private sector-led vocational enterprise institutions and innovation enterprise institutions. Between 2007 and 2010 a total of 49 IEIs and 13VEIs were approved by the minister of education, while 23 additional ones were given operational licenses. The IEIs and VEIs are to cater for the interest of school leavers who wish to acquire demonstrable practical to secure employment or generate employment; persons seeking for career paths that do not need university degrees; persons without time for full time study but want to enhance their skills; persons wishing to go into self-employment; university graduates seeking employable skills and adults seeking to re-skill themselves.(NBTE

Other notable efforts of the federal government were the release of #15bn trust fund for the supply and installation of science laboratory and workshop equipments in 51 beneficiary polytechnics and monotechnics, the $42 million five-year TVET project for upgrading of 10 TVET institutions and restructuring the present supply-driven TVET into demand-driven system that responds to the needs of the private sector financed by the Federal ministry of education-African development bank, the establishment of 6 additional staff development centres in six geo-political zone of the country for polytechnics staff development. These centres are:

South South – Delta state polytechnic Otefe-Ogharra
South East – Akanu Ibiam Federal polytechnic Unwana
South West – Federal polytechnic, Ilaro
North East – Federal polytechnic, Damaturu
North West – Kano state polytechnic

North Central – Federal polytechnic, Idah (UNESCO – NIGERIA TVE ,2008) and
The recent local content policy of the government.

Lessons from other countries

The East Asia development practice in education, particularly the indispensable role assigned to the education and training system as a driver of sustained economic and social development provide important lessons that this country can learn from. In Singapore, apart from policy shifts to align education systems with economic development, the barrier of poor public perception and image of TVET was overcome by making basic workshop subjects such as metalwork, woodwork, technical drawing and basic electricity compulsory at secondary level. "Top of the Trade" television competitions and "Apprenticeship of the Year" awards were also used to create interest and promote the importance of technical skills among the youth. Since industries as potential employers have much to contribute in defining skills competencies, standards and values required, they were allowed active participation in curriculum development process. Law Song Seng (2010). In Germany, the dual system of vocational training was adopted. This system allows for learning to take place in a vocational school and in a privately – owned but properly registered businesses or entrepreneurship agency concurrently.

Challenges yet to be surmounted

Although capacity development initiative in technical education had been done through the introduction of related courses in colleges, polytechnics and universities, some challenges are still present which if not address may militate against the use of TVET as a driver of sustainable economic development. These are negative perception of TVET as career path for less academically endowed, discrimination against graduates of technical institutions, lack of linkage between formal and non-formal TVET, poor implementation of staff development training policy, insufficient laboratory and workshop equipments, low enrollment in technical schools, absence of partnership between training institutions and industry, societal respect for the "scholars" and disdain for "mechanics" and mismatch between training and labour market needs.

Conclusion

Achieving sustainable economic development through technical and vocational education and training requires collective and serious efforts and strong commitments on the part of parents/guardians, educational institutions/training providers, employers and government. Parents should support children to choose vocational education track and reject the perception that TVET is for less academically endowed. Government need to increase funding to support the sector, while educational institutions need to deliver flexible and demand – driven training and employers need to contribute to the development of national skill standards.

However, it must be accentuated that acquisition of skills is not sufficient to bring economic development. It is a prerequisite, but a lot more needs to be executed. Poor governance, poor economic policy, corruption have to be abolished and adequate infrastructural facilities put in place before the much needed economic development can be achieved.

Recommendations

- **Enhance status and attractiveness of TVET:** This involve changing perception and attitudes of the public about technical and vocational education. To achieve this, the use of role models in TVET, the involvement of successful entrepreneurs in motivation campaigns, especially in schools and upgrading polytechnics to offer technical or skill degree will be necessary. Technical and vocational education should be seen as a valid passport to a good job and not as a second best choice or only educational route for the less academically endowed.

Establish strong linkage and collaboration between training institutions and the industry: This will provide opportunities in industry for TVET teachers to regularly update their workplace experience and will also help to develop appropriate curricular that is relevant to employers' needs.

Introduce sustainable financing scheme for TVET: Government needs to increase the percentage of total expenditure on education to TVET and grant financial aids to trainees who are interested in pursuing technical training programme at whatever level. The aids could be in terms of grants, sponsorships and loans. This will in turn attracts people, enhance interest and shift considerable attention to the relevance of technical training

Remove discrimination against graduates of technical institutions: This call for parity in career progression for HND and first degree holders, correction of anomaly of non registration of polytechnics graduates by professional bodies and placement of HND and first degree holders on the same salary scale and step.

Establish link between formal and non-formal TVET: To achieve this, there is need to establish a registration body that will keep a comprehensive register of practitioners and training points in the non-formal sectors, design standard programmes/syllabus of training for them, work out appropriate codes of practice that will guide their activities and, as well, monitor them closely to ensure that they adhere strictly to the codes of practice. The technical colleges should develop a curriculum flexible enough to accommodate the level of literacy of the trainees of non-formal vocational training centres to afford these trainees a period of exposure to relevant theoretical in the formal vocational training school. It is also important to give the trainee of the non-formal sector the opportunity of writing a practical qualifying examination to certify the knowledge of vocation or career acquired through non-formal learning. The trainers in this sector should be encouraged to participate in formal adult vocational training to gain the current methodological and theoretical experience they need to improve on training concept and method in the training of the learners

Enforce good staff development training programme: the staff development centres should be mandated to carry out the responsibility for which they were established.

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