

SUSTAINABLE QUALITY ASSURANCE IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) FOR NATIONAL SECURITY IN NIGERIA

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Abstract

TVET programme at all levels is in urgent need of revitalization. The quality, relevance and currency of skills and knowledge produced by the current training programme is clearly not meeting private sector need nor is it meeting student expectations for articulation, quality and employability. This is due to many challenges hindering effective implementation of TVET. This paper therefore presents the status of the programme and how national security is attainable through quality assurance in TVET. It further made recommendations on the way forward in improving and sustaining quality assurance in TVET Programme in Nigeria.

Keywords: Sustainable, Quality Assurance, Technical and Vocational Education and Training, National Security, Nigeria

Introduction

As the world emerges from the current economic downturn, the ability of a country to increase the skills of its workforce is a significant importance to attaining national security. The need to increase employment opportunities and to enhance the workforce's social mobility through improved employability is of uttermost necessity in Nigeria where a full school education followed by university may not lead to employment.

The global demand for skilled workers has strengthened, the capacity of national economies to meet that demand has declined. This is particularly true given these important facts:

- An extra one billion people in the world will become of working age within the next decade.
- Those 15 to 25 years of age in developing countries represent 85% of the world population, and
- Conservatively, 89 million more secondary training place are needed by 2015 (Kurt, 2009)

Technology and Vocational Education and Training are skill-based programmes. It is required that a recipient of the programme should acquire marketable skills and be able to fix the right habits of doing things. Saleable and manipulative skills are the basis and the emphasis of the programme (Uzoagulu, 2010). There have been extensive calls for entrepreneurial education in Nigeria (Ozor 1973; Chimuwaza and Obanya 1989, Parkin 1994). In 1983, the federal government of Nigeria urged training institutions in the country to gear their programmes towards vocational relevance for the production of graduates that possess relevant skills for self-employment and self-relevance.

However, Olaitan (1984) observed that Nigerian graduates could only be self employed and marketable if they acquire relevant skills and knowledge for successful establishment in occupation and gainful employment. It was also observed by Williams (2002) that the training programmes in the country both at secondary and tertiary levels have concentrated more on teaching knowledge and skills in principles devoid of practical experiences in related fields.

Parkin (1994) suggested that teaching and learning should emphasize the development of favourable skills and competencies towards specific discipline that could be utilized in real life situation. Chimuwaza and Obanya (1989) urged that for favourable skills and competencies to be developed in the learners, the strategies adopted should expose the learners to the acquisition of specific skills, knowledge and values. Burgess (1986) expresses the view that young people who have undergone TVET programme acquire knowledge of particular subjects, but are ill equipped to use the knowledge in ways which are relevant to the world outside the educational system. This imbalance, he observes, is harmful to the industry and society. A well-balanced educational programme should, of course, enhance analysis and the acquisition of knowledge relevant to the world of work.

The task of technical workforce development faces the changing realities of globalization and competitiveness, on one hand, and the need for national security on the other. The low literacy rate and lack of skill training of the vast majority of the populace poses a major hurdle in the journey towards national security. This article therefore, presents how national security is achievable through sustainable quality assurance in TVET programme and further made recommendations on how the challenges hindering effective implementation of the programme can be brought to barest minimum.

Objective of Technology and Vocational Education Training (TVET)

Vocational Education has well articulated objective for content in industrial development skills acquisition, which many desire to achieve what it meant to achieve. The National policy on Education, FRN (2004), highlighted the following as objectives of technology and vocational education as:

1. To provide trained human resources in applied technology and commerce, particularly at the sub-professional level.
2. To provide technical knowledge and vocational skill necessary for agriculture, industry, commerce and economic development.
3. To provide people who can apply scientific knowledge to the improvements and solution of environmental problems for use and convenience of man.
4. To give an introduction to professional studies in engineering and other technologies.
5. To give training and impart the necessary skills and other skilled personal who will be enterprising and self-reliant.
6. To enable, both young men and women to have an intelligent understanding of the increasing complexity of technology.

In order to produce both young men and women who would have intelligent understanding of the increasing complexity of technology, provide technical knowledge and vocational skills necessary for agriculture, industry, commerce and economic development, vocational education have to pass through different institutions.

The Concept of Quality Assurance in TVET

The poor quality of school outputs has largely been blamed on the quality of the teacher, teachers quality has been identified as a single factor that exert influence on the quality of education (Obioma, 2012). In the words of Ukeje (2004) quality teachers will produce quality products that will usher a productive society.

Quality teachers according to Shulman (1987) are known to possess the following:

- Content knowledge, this is the teacher's content background in the subject they teach.
- General pedagogical knowledge, this embrace principles and strategies of classroom management and organisation.
- Curriculum knowledge, which is the knowledge of the curriculum materials and resources that are relevant for the teaching of a particular topic.
- Pedagogical content knowledge which is the contribution of content and pedagogy.
- Knowledge of learners and their characteristics which comprises the knowledge of students, development level and prior knowledge and how teachers motivate student's learning.
- Knowledge of educational contexts which encompasses teacher's understanding of school environment including the classroom and knowledge of the school communities
- Knowledge of education ends, purpose and value and their philosophical and historical ground this knowledge helps teachers to put their goals into larger perspective.

In order to build on the progressive achievements in this regard, the Government will increase its efforts in human resource development through improving access and quality of education. In terms of improving access to education, efforts should be made to gradually address issues that limit children in particular girls and women enrolment. Improving quality of education, measures should be taken to address the shortcomings through increasing the number of teachers and schools.

The TVET Programme will serve as a potential instrument for technology transfer, through the development of occupational standards, accreditation of competencies, occupational assessment and accreditation, establishment and the strengthening of the curriculum development system. TVET institutions will serve as centres of technology accumulation for rigorous and regular monitoring and evaluation to be carried out amongst TVET institutions; both government and private monitoring will enable them to ensure the minimum levels of competency.

The key priority for TVET programme will be ensuring quality and relevance. To this end, the management and administration system of NBTE should be improved and strengthened, and efforts should be made to enable the Quality Assurance Unit to achieve their missions. The performance and implementation capacity of technology institutes should also be built upon. Adequate supply of technical teachers should be ensured through the implementation of a full fledged teacher development program. The revised curricula should be implemented in line with critical issues, such as, instructional process, assessment and examinations and student achievement.

The basis for the measurement and evaluation should look at whether the training taking place is in line with the demand of the economy, and whether trainers are satisfying the requirements cited in the trainers' competency package. It should also look at the trainees, and assess whether the trainees fit the profile and demands of their chosen occupation and are able to create job opportunities. Generally, the measurement and evaluation should evaluate whether the TVET institutions are on the right track with regard to the strategy, and if not, immediate corrective measures for improvement.

The Status of TVET in Nigeria

Technical secondary education is offered through a variety of programs at secondary schools to students from either primary or junior school, including academic, vocational and technical specialization subjects. At the end of the course, students may take the examinations for the Senior School Certificate. Vocational and technical education is designed to train low and middle level manpower and is offered in technical colleges or business and engineering skills training centers. A two-tier system of nationally certified courses is also offered, leading to the award of National Technical/Business Certificates and Advanced National Technical/Business Certificates. All certificates are awarded by the National Business and Technical Examinations Board

(NABTEB). Vocational and technical education is available at broadly two levels: the secondary and tertiary. At the secondary level, all junior secondary schools are expected to offer pre-vocational courses some of which are then carried forward to the senior secondary level.

TVET has suffered from low standing. Billet (2009) argued that dealing with TVET is as though its contributions are not fully appreciated or understood and its status is shaped by societal views and sentiments about the learning of vocational knowledge. Promoting African entrepreneurship is a long term process, involving overcoming negative cultural perceptions regarding entrepreneurship, which is often seen as something to be engaged in only by those who have failed in other ventures. For many Parents and students, TVET still remains a second class education mostly in developing nations. In 1999, the percentage TVET enrolment in the world at the secondary school level was 11%; out of which developed countries recorded 18%, countries in transition recorded 9% and developing countries 9%. In 2007 the figures stood at 10% (world), 16% (developed countries), 13% (countries in transition) and 9% (developing countries) (UIS, 2009).

In Nigeria, only 3.6% of senior secondary school students were enrolled in TVET in 2005 (Federal Government of Nigeria, FGN, 2009); and 3% out of 166000 enrolled in TVET in 2007 (UIS, 2009). On the average, FME (2009) reported a 2.5% enrollment in TVET at the secondary level as against the modest NPE target of 20% or 84% target of the Roadmap for Nigerian Education sector.

Presently, there are 159 recognized Technical Colleges offering trades at NTC/NBC level (made up of 19 Federal, 137 State and 3 Private) with a total enrolment of 92,216 (86.1% male and 13.9% female) in 2005. There are also 18 approved Vocational Enterprise Institutions (VEIs); 214 Vocational Schools owned by States and Local Governments as well as NGOs; 1,850 registered Open Apprenticeship Centres (50 per State and FCT). Currently, only 32 VEI programmes have been granted interim accreditation with a total carrying capacity of 2,880 students. TVET at tertiary level is offered in the Polytechnics, Monotechnics, Innovation Enterprise Institutions (IEIs) and Colleges of Education (Technical). These are under the supervision of the National Board for Technical Education (NBTE) and the National Commission for Colleges of Education (NCCE) respectively. There is a total of 115 approved Polytechnics/Monotechnics. There are 62 approved IEIs out of which only 22 have approved programmes with a total carrying capacity of about 7,420 (FME, 2009).

In the technical colleges there was a total of 2,730 teaching staff comprising 2,285 (83.7%) males and 445 (16.3%) females, in 2005. This gives a staff to student ratio of 1:35. The standard ratio is 1:25 showing the need for more qualified staff. The Polytechnics/Monotechnics have staff strength of 12,938 academic staff and 24,892 non-teaching staff; with a total enrolment of 360,535. The shortfall in academic staff is estimated at 17,078 (FME, 2009).

The present obsession about university education in Nigeria hampers economic development prospect of teeming mass who are better endowed with vocational skill than intellectualism. In 2009, out of 1.5 million candidates that applied for admission into higher institutions, only 300, 000 chose polytechnics and colleges of education as first choice (FME, 2012). If everybody becomes a university graduate and there are no such industries or vocational centres established to employ them, it will be more harmful than beneficial.

National Security Achievable Through Sustainable Quality TVET Programme

No matter how aligned a TVET Programme is with the employer needs, or how equipped the trainers and educators are, or how many trainings facilities are available, there are some conditions which need to be present to help enhance the quality of TVET programme for effective implementation and realization of national security through these avenues:

- TVET makes its recipients relatively secure from poverty and extends and sustains this security into retirement years.
- TVET reduces crime and the high costs of crime in the society.
- TVET engages the youth which are mostly the workforce population has a high impact on the country's productivity growth.
- TVET reduces inequality, filling income gaps that would otherwise exist between the rich and the poor.
- TVET ensures food security for the citizenry as agricultural produce will be on the increase thereby bringing hunger and starvation to the barest minimum.
- TVET perpetuates its benefits into retirement by maintaining or raising income during retirement.
- TVET reduces migration and offsets of the brain - drain syndrome.

Challenges of TVET in Nigeria

Kerre (2000) observes that one of the challenges facing education and training in Africa is the changing demands of the workplace. Technological changes occur often with new products and services appearing in the market. Employment trends, therefore, tend towards flexible and broad specialization. More emphasis is being laid on adaptive skills to new production environments.

Student quality: The quality of student intake has fallen over the last decade. Lack of transparency in student selection processes is another problem factor impacting on quality at entry. Some College Principals reported anecdotal evidence that increasing numbers of graduating students are now 'walking the streets'. There is a strong need for a tracer study to be conducted, to provide valuable feedback to College management and teachers on the quality at exit and effectiveness and relevancy of current TVET programs.

Teacher quality: there is crisis with the supply of appropriately trained teachers in the public TVET system. Many of the teachers have not had any teacher training, and those that have had some initial training, have very limited opportunities for upgrading their skills, knowledge and qualifications through industry attachments, on the job training (OJT) or scholarships for further study. Teacher turnover is on the increase partly in response to strong 'pull' factors in the current Nigerian labour market and partly in response to 'push' factors associated with conditions of employment and the availability and quality of teacher housing. Staff morale is very low in a number of the Colleges.

The process for recruitment of teaching staff and the placement of teachers on the Government payroll is complex, and a source of grievance and frustration for many teachers. The process contributes to the high levels of teacher attrition and the low state of teacher morale. There is little confidence amongst the relevant stakeholders in the teacher inspection system as a reliable and consistent mechanism for assuring teacher quality. In a nutshell the other challenges facing TVET in Nigeria include:

- Dearth of qualified and competent teachers
- Low esteem and remuneration for skilled vocational workers

- Low societal estimation of TVET
- Poor private sector participation in the implementation of TVET
- Use of outdated curriculum and training facilities, which results in a mismatch between what is taught and the needs of the labour market
- Low enrolment of female students

Conclusion

In response to the growing demand and need for skilled labour, and technicians across a wide range of sectors in Nigeria, a comprehensive, up-to-date and sustainable quality TVET programme is essential to national security as this will increase productivity, reduce poverty, improve both personal and income levels thereby minimizing crime rate and insecurity in the nation.

Recommendations and Way Forward

Though many TVET systems have seen a return on their investment and are enjoying national security, there is nothing that can hinder TVET more than government policy which detracts from the support needed for an effective quality TVET programme. If TVET is to play a role in meeting the skill needs of both the informal and formal sector, the quality of training provision will have to be substantially improved putting in place the required human and material resources.

The nation can develop economically beyond their current circumstances; governments need to ensure that the appropriate laws are in place to ease the development of quality TVET programmes. Perpetuate funding streams, establish a framework for uniform standards and encourage employer involvement.

The problems with TVET programme delivery in Nigeria are profound and deep seated. A high level political will from the government with support from development partners will be essential to navigate the inevitable major obstacles along the road towards improved quality.

The way forward needs to have a very strong focus on new organisational arrangements and commitment to quality and accountability, at all levels of the TVET programmes, a review and redesign of underlying funding mechanisms to support the focus on quality and a willingness to consider and implement the recommendations made in this paper.

Finally the following recommendations are made for a sustainable quality assurance in TVET for national security.

- The government policy on TVET should ensure alignment to current and future labour market demands.
- Engage the industry and business community.
- Ensure quality delivery of TVET programme.
- Increase accessibility to TVET programme.
- Standardization of TVET programme.
- Consistent tracking and measuring the effectiveness of the training so that improvements and changes can be made when necessary to maintain quality of the programme.
- Teacher training and retraining programmes.

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