

TOWARDS PROMOTING QUALITY ASSURANCE IN TECHNICAL VOCATIONAL EDUCATION AND TRAINING FOR SUSTAINABLE NATIONAL DEVELOPMENT IN NIGERIA

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Abstract

The paper promoting quality assurance in TVET for sustainable National Development is aimed at examining the possible measures and steps through which quality delivery in TVET programmes can be achieved in line with the objectives set out in the National Policy on Education. The paper wishes to examine if the quality, relevance and currency of TVET skills and knowledge are meeting the demands of the labour markets, relevant to technological work environment and contribute to poverty eradication and ensure wealth creation in our country. It is believed that these are achievable through quality assurance. Most importantly the paper further enlisted areas of priority for agencies vested with the responsibility for the implementation of the quality assurance monitoring, assessment and evaluation of TVET programmes to improve and strengthened. The paper ex- ray the present status of TVET programmes and how national development can be achieved through quality assurance in TVET. It further made critical recommendations on the way forward for improving and sustaining quality assurance in TVET programmes in Nigeria.

Keywords: Promoting Quality Assurance, TVET, National Development

Introduction

Quality assurance can be said to be the processes of ensuring that specified standards or requirements for teaching, learning, education administration, assessment and the recording of achievement have been met. Quality assurance encompasses any activity that is concerned with assessing and improving the merit or the worth of a development intervention or its compliance with given standards (UNEVOC, 2011). On the other hand, quality assurance, entails the processes and procedures for ensuring that qualifications, assessment and programme delivery meet certain standards. The need to reposition and promote a

functional education system that addresses societal needs and instill in the recipients the necessary competencies needed for self-reliance, job creation and wealth generation cannot be overemphasized. The high rate of youth unemployment and wide spread of poverty with its concomitant consequences pose the greatest challenges to technical and vocational education and training providers and government (Ugwuegbulem, 2021).

The cause of geometric increase in the rate of youth unemployment may not be unconnected to lack of functional education that promotes practical skills training that exposes the virtues of self-employment. The development of TVET to enhance economic development is very crucial to reduce unemployment and ameliorate wide spread of poverty. Skills and knowledge are the engines of economic growth and social development of any nation (Goel, 2010) and TVET holds the key for training for skilled and entrepreneurial workforce (Afeti, 2010) in (Ayonmike, Okwelle & Okeke, 2015). In view of the fact that a skilled workforce is one of the basic requirements for achieving sustainable national security and development in any nation, technical and vocational education is perceived as the key to building this type of skilled workforce for sustainable national security and development in Nigeria (Ayonmike et al). According to Mclean and David (2009), technical and vocational education and training is concerned with the acquisition of knowledge, and skills for the world of work to increase opportunities for productive empowerment and socio-economic development in knowledge economics and rapidly changing work environment.

Technical Vocational Education and Training thus equips individuals not only with technical and vocational skills, but with a broad range of knowledge, skills and attitudes that are now recognized as indispensable for meaningful participation in work and life. TVET is a specialized education designed to empower learners through the development of their technical skills, human abilities, cognitive understanding, attitudes and work habits. This assertion therefore calls to mind one of the theories of TVET, propounded by Prosser and Quigley (1949) as cited in Nwachukwu (2014) that vocational technical education only functions in proportion as it will enable an individual to perform a job. In effect, vocational technical education and training equips individuals with relevant skills in different occupations to enable them earn a living. And for the individual to be competent in skill performance, habits of correct thinking and of correct doing must be established through training. Hence its fundamental theory must be that of habit psychology. In order to address the growing expectations of industry, job markets, and other employers of labour, continuous enrichment of the quality of technical and vocational education and training is a key priority in Nigeria.

Quality Assurance in TVET

Quality Assurance is a key component of successful internalization mechanism for building institutional reputation in a competitive local and global arena and necessary foundation for consumer protection (National University Commission, 2007). However, over the years Nigerian TVET Programmes are bedeviled with numerous challenges that have been affecting the quality of TVET programmes both in output and input (Okoye & Okwelle, 2013; Onyeson & Ashibogwu, 2013, Uwaifo and Uwaifo, 2012). According to these authors, these challenges include inadequate funding of TVET, inadequate infrastructures, poor water supply, shortage of qualified TVET teachers/ instructors, poor supervision of TVET programmes; inadequate/outdated curriculum; poor planning and implementation; and lack of

institutionalization of quality assurance units in most tertiary institutions. However, various strategies or measures have been put in place to tackle the challenges of quality assurance in TVET in different countries of the globe. This however, cannot be said of Nigeria where quality of TVET is reported to have been marred by several challenges (Ayonmike, Okwelle & Okeke, 2015). Quality assurance is aimed at remedying all aspects of educational programme which include facilities for learning, teaching periods, consumables, instructional materials, teaching and learning processes, examination, school environment and human resources. In a situation where indicators and indices of quality assurance pose as obstacle, there is need to ratify them. The main focus of this paper therefore is to highlight how quality assurance will assist in addressing the problems of lack of skill acquisition in TVET programmes. On the basis that TVET is envisioned and positioned to address the problems of unskilled graduates and youth unemployment.

Quality enhancement is one of the main objectives of the TVET system, hence it was stated as goal 4 of the Sustainable Development Goals (SDGS) which emphasizes on quality education.

In Nigeria educational system, the quality assurance agencies for TVET include the National University Commission (NUC), National Board for Technical Education (NBTE), and the National Commission for College of Education (NCCE). All the agencies mandate, include the accreditation, monitoring and evaluation of programmes, and assessing how adequate are infrastructural facilities, teaching and non-teaching staff and instructional materials.

From the foregoing, the performance yardstick for evaluating or appraising a functional education system is the capability of that system to address societal needs. (Ugwuegbulam 2021). TVET as such is seen as a functional education programme capable of transforming the present and future needs for rapid socio-economic development of the country.

However, over the years Nigerian TVET programmes are perceived by many scholars as not meeting the objectives as set out in the National policy on Education (Alfred & Kayoma, 2012). Okoye and Okwelle, (2013) Technical and Vocational Education and training has well-articulated objectives for content in industrial development skills acquisition, which many desired to achieve for self-reliance or empowerment. The National Policy on Education (FRN, 2014) highlighted the following as objectives of TVET as;

- To provide trained human resources in applied technology and commerce, particularly at sub-professional level.
- To enable individuals acquire vocational and technical skills and knowledge for agriculture, industry, commerce and economic development.
- To enable youths acquire an intelligent understanding of the increasing complexity of technology.
- To give training and impart the necessary skills and other skilled personal who will be enterprising and self-reliant.
- To provide people who can apply scientific knowledge to the improvements and solution of environmental problems for use and convenience of man.

Objectives of Quality Assurance in Technical Vocational Education and Training

Conceptually, Quality Assurance (QA) refers to performance measures designed by the authorities for assessing the performance of educational institutions with a view to

ensuring that the learning outcome meet the needs of society (Onyesom&Ashibogou, 2013). Furthermore, within the policy circles, quality assurance represents a potent tool which enables policy makers to determine national educational needs, to assess new approaches, to resolving issues and to evaluate the effectiveness of policies and strategies (Akhuemonkhan, Raimi & Dada, 2014). From the foregoing, an effective quality assurance should focus on critical elements such as access/participation, funding, relevance and quality of TVET (RECOUP, 2011). To ensure that quality and standards are maintained, different nations and TVET institutions (formal and informal) have put in place quality assurance mechanisms that suite their socio-economic and educational aspirations (Akhuemonkhan, Raimi & Dada, 2014).

For instance, the United States of America employed the accreditation systems as quality assurance mechanisms at regional, national and specialized levels for effective monitoring and coordination of educational services. Whereas, Australia created a full-fledged quality assurance unit called Australian Universities Quality Agency (AUQA) to ensure effective quality control of educational services in tertiary institutions (Mohsin & Kamal, 2012). Similarly, the Nigeria government established supervisory agencies to enforce quality assurance in tertiary institutions. The National University Commission (NUC) maintains oversight functions over the universities, the National Board for Technical Education (NBTE) takes charge of the polytechnics; and the National Commission for Colleges of Education (NCCE) oversees the academic programmes of colleges of education.

Technical Vocational Education and Training is a specialized education designed to empower learners through the development of their technical skills, human abilities, cognitive understanding, attitudes and work habits in order to prepare learners adequately for the world of work or position them practically for self employment after graduation (Winner, 2000; Oni, 2007).

However, Badawi (2013) noted that UNESCO and International Labour Organization unanimously defined TVET as “A comprehensive term referring to those aspects of the educational 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”. Considering the importance of TVET to National Development, it has attracted different names such as Technical Education (TE), Vocational Training (VT), Vocational Education and Training (VTE), Technical and Vocational Education and Training (TVET), Occupational Education (OE), Apprenticeship Training (AT) and Career and Technical Education (CTE), in education research literature . Nigerian government at one time or the other has consistently articulated its commitment to Technical and Vocational Education and training in the National Policy on Education (NPE) because of the prospects of poverty eradication, job creation, sustainable national development and actualization of the transformation agenda (Akhuemonkhan, Raimi & Dada, 2014). Apart from poverty reduction potential of TVET, its effective implementation could also serve as instrument for curbing social exclusion, where cost of higher education is out of the reach of the majority and as antidote for youth unemployment where the labour market is saturated (ETF, 2005).

In addition, Maclean (2011) asserted that TVET if well positioned could play multidimensional roles of stimulating economic growth, social development, improving conventional education, empowerment, wealth creation, poverty reduction and skills

enhancement. In a nation with recurring incidences of youth restiveness, kidnapping for ransom and other social vices, TVET is well positioned to help youths and adults become self-dependent and self-reliant, while for those working in the industry, TVET is helpful in the area of skills enhancement, mitigation of high job turnover and risks of obsolescence (Okalocha, 2012).

Quality assurance in TVET are measures put in place to ensure that the minimum standard in teaching and learning does not degenerate into low standard. Quality assurance ensure that funding, facilities for teaching and learning are provided, staffing teaching and non-teaching staff, utilities like water, electricity, consumables for practical skills training, teacher-students ratio, teaching qualifications, examination code of conducts are maintained as stipulated in the policy paper for accreditation. It is necessary to state at this juncture that the purpose of accreditation exercise as one of the measures in quality assurance in USA, Australia and Nigeria is to ensure that standard and quality of higher education are strictly regulated, maintained and enhanced by educational institutions in line with changing needs of the society and industry and labour markets (Mohsin & Kamal, 2012; Onyesom&Ashibogwu, 2013).

Challenges of TVET

One of the major challenges of TVET in Nigeria is lack of employment skills among graduates of Technical and Vocational Education institutions. Though, several approaches have been adopted as solution to these problems, there seems to be no head off (Ayomike et al). According to Okwelle (2008) Technical and Vocational Education in addition to providing technical skills and job oriented behaviours for individuals sustainable life, it increases a nation's productivity by making economic, efficient and effective use of resources, thus helping in raising the standard of living of the citizenry. Therefore in order to produce individuals who would have intelligent understanding of the increasing complexity of technology, provide knowledge and vocational skills necessary for industry, agriculture, commerce and economic development, TVET have to pass quality assurance test through different institutions of learning.

In their views, Igwe, Owodunni& Nwankwo (2013) expressed their concern that poor quality of graduates as school outputs are largely blamed on the quality of the teachers. Therefore, teachers quality has been identified as a single factor that exert influence on the quality of technical and vocational education . On the quality of teachers, the Baguada seminar reports on quantities and qualities of teacher education in Nigeria (NERC, 1980) cited by Nwachukwu (2014), also shared the consensus that teachers are the main determinants of quality in education;

If they are apathetic, uncommitted, uninspired, lazy, unmotivated, immoral and anti-social, the whole nation is doomed. If they are ignorant in their disciplines and thus impart wrong information, skills, knowledge and attitudes, they are not only useless but dangerous. Therefore, the kind of teachers trained and posted to schools may well determine what the next generation will be like (Nwachukwu;2014,69-71).

In Nigeria, achievement at any level of education is crowned with certificates for those who successfully complete the course of study with good academic records (Obioma&Salau, 2007) cited in (Nwachukwu, 2014). In this regards, quality teachers will produce quality products that will usher a productive society . In vocational and Technical

education (VTE), the training of youths and adults is aimed at equipping them with useful skills and improving their knowledge and skills in the desired area of study or occupation (Nwachukwu, 2014).

Therefore, all hands must be on deck by all stakeholders in TVET education institutions to ensure quality in instructional delivery, assessment, examinations and students achievement.

In summary, the other challenges facing TVET in Nigeria include;

- Dearth of qualified and competent teachers
- Low teacher esteem and remuneration for skilled TVET teachers
- Poor or low societal perception of TVET
- Poor private sectors/industry participation in the implementation of TVET
- Use of obsolete curriculum and training facilities which results in a mismatch between what is taught and the needs of labour markets.
- Inadequate hours/periods assigned to practical skill development of students.
- Declining enrolment of both males and females in TVET programmes

Finally, the National policy on Education stated, “No Education System can rise above the quality of teachers in the system” (FGN, 2006).

Students Quality: The quality of students intake has fallen over the last decade. This may be as a result of lack of vocational career guidance/awareness among students at the secondary level of education. Societal perception of vocational technical education also accounts for the poor enrollment of students into TVET programmes. The perception was that TVET is meant for the less intelligent or dropout from schools. Since JAMB is vested with the conduct of entrance into tertiary institutions, lack of transparency in students selection processes is another factor impacting on quality at entry level. Further more, examination mal-practice by students also impact negatively on quality.

Infrastructure Quality: According to Nwachukwu et al (2021), the need for industry collaboration in TVET is justified by the fact that TVET institutions and their programmes are ineffective and of low quality in terms of learning environment, facilities and infrastructures, equipment and tools, lack of instructional materials and poor quality of teaching staff. While Okeshola (2012) stated that the poor hygiene and sanitary conditions in most TVET institutions are contributory factors to poor achievement and participation in TVET programmes. As a result of the above challenges, most formal TVET institutions are currently operating in an environment that is characterized by low quality training and mismatch between training and labour market skills demand (Yusuf & Soyemi, 2012), the quality of TVET facilities like workshops, books, classrooms, learning environment, machines, computer rooms, TV/Audio visual among others are in most cases obsolete in many tertiary institutions (Akhuemonkhan, Raimi & Dada, 2014).

In fact, all these and more were identified as challenges responsible for low quality skill training given to the learners which resulted to most of them not acquiring adequate skills required for getting and sustaining employment in the labour markets or being self-employed.

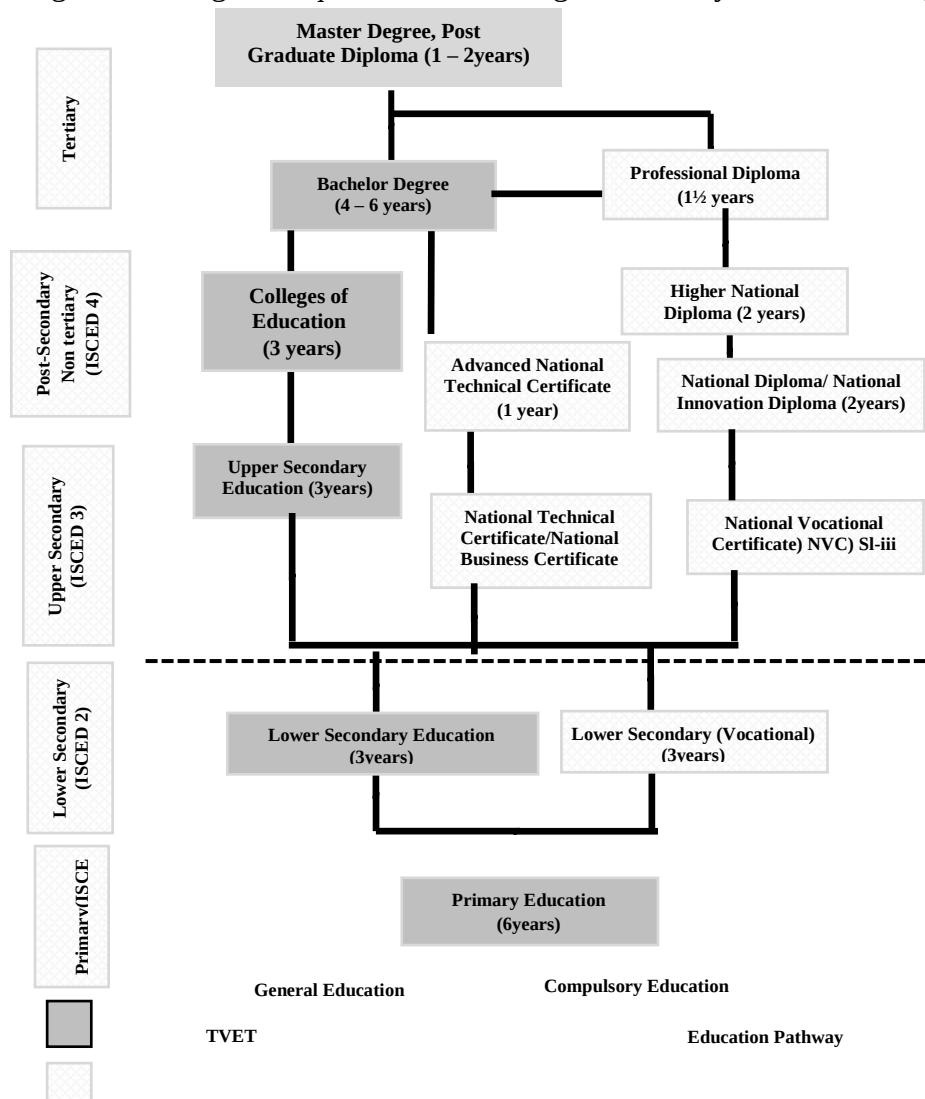
Present Status of TVET

Technical Vocational Education and Training (TVET) in Nigeria aims to assist the Federal and State Education authorities in their effort to revitalize, reform and expand the provision

of skills, vocations, science and technology to meet the nations present and future socio-economic needs (UNESCO, UNEVOC, 2019). Though the objectives of TVET is to provide technical and vocational teachers with intellectual and professional background adequate for teaching technical and vocational subjects (Umar & John 2017). Presently, technical vocational subjects are taught at junior secondary school level as basic technology subjects while at the senior secondary level, students are required to choose any technical or vocational subjects of interest for the senior school certificate examination. Also, at the technical college level, there are various departments, where students are prepared for the National Technical Certificate (NTC) in any of the following; block laying/ bricklaying and concreting, carpentry and joinery, upholstery and furniture, electrical/electronics, motor vehicle/automobile maintenance, welding/ fabrication craft practice, metal work, mechanical craft practice. The national Business and Technical Examination Board (NABTEB) is responsible for the conduct of the National Technical Certificate (NTC) and National Business Certificate (NBC), Advanced National Technical Certificate (ANTC) and, Advanced National Business Certificate (ANBC) examinations.

At the tertiary level of education, TVET programmes are accredited by either of the following quality assurance agencies, National Universities Commission (NUC) for universities that run TVET programmes, National Board for Technical Education (NBTE) for Technical Colleges, Polytechnics, Innovation Institutes and Mono-technics, and National Commission for Colleges of Education (NCCE) oversees the accreditation of programmes of the colleges of education (Technical) and other private colleges of education that run technical vocational education programmes.

The diagram below gives a quick understanding of TVET systems in the Nigerian education



Source: UNESCO – UNEVOC International Centre

Prospects/Current Reforms in TVET

In February 2020, the Federal Government of Nigeria inaugurated the National Council on Skills (NCS) which is the highest decision-making body on skills development in Nigeria. Its aim is to further boost the employability of young Nigerians and as a result reduce unemployment in the country (Okoye, 2023). The council will direct the conduct of regular skills survey to identify the skills gap in the country so that training will be demand-based and to fast track the institutionalization of the National Skills Qualification Framework (NSQF) in Nigeria and also to enforce legislation on the use of certified professionals in the country. The council will also bring coherence to skills development in the country by the facilitation of policy formulation.

Also on February 2023, the Federal Executive Council approved a six level Nigeria skills qualification framework (NSQF) for the country. The National Board for Technical Education (NBTE) was charged with the responsibility to come up with skills level for proficient training that would be good for award of skills certificates. The skills levels have been quantified into equivalent degrees' level to accommodate all the professional skills status such as Artisans, craftsmen, technicians, technologists up to degree and master degree levels. The NSQF levels are based on learning outcomes that must be possessed by learners, regardless of whether their education was formal, non-formal or in-formal (Federal Ministry of Education FME, 2023; NBTE, 2023). The Nigeria Skills Qualification Framework (NSQF) was developed for the TVET sub-system. The framework covers six level qualifications in line with the Developed National Occupation Standards (NOS). The responsibility of developing the NSQF is that of the Federal Ministry of Education. The NSQF is monitored and evaluated by the National Board for Technical Education (NBTE) and has six levels as follows

Level	Academic Qualification	Technological	National Skills Qualifications
1	Pre-vocational junior school certificate 3	Labour Trade certificate 3	NSQ Level 1/NVC1
2.		Labour Trade Certificate 2	NSQ Level 2/NVC2
3.	Senior School Certificate	National Technical Certificate/National Business Certificate/ Labour Trade Certificate 1	NSQ Level 3/NVC3
4.		National Diploma (ND)/ Advanced National Technical Certificate (ANTC), Advanced National Business Certificate (ANBC)	NSQ Level 4/ National Innovation Diploma
5.	Bachelors Degree	Higher National Diploma/Degree	NSQ Level 5
6.	Masters Degree/Doctorate	Master's or Doctorate in Technology	NSQ Level 6

(Source: NBTE, 2019)

Furthermore, recent key reforms regarding TVET, include the establishment of more TVET Institutions, the development of the Nigerian Skills Qualification Framework (NSQF), and the introduction of ODFL/Flexible skills in the institutions. Flexible skills Development

(FSD) is designed to improve the quality of teaching and learning using ICT tools and to provide access to formal and non-formal education. Flexible Skills Development (FSD) is a Commonwealth of Learning (COL) initiative which employs a blend of capacity building methods including online training workshops and online community of practice.

Open and Distance flexible learning (ODL) is a flexible and open approach to distance learning to promote access to the labor markets.

Also, in order to include all categories of learners for education for self-reliance, the Non formal TVET systems offer programmes / courses in Arts and crafts, graphics, painting, ceramics, textile, fabrication and welding, cabinet-making, blocklaying and concreting, livestock management, etc, the National board for technical Education (NBTE), National commission for Mass Literacy, Adult and Non Formal Education (NMEC), and National Directorate of Employment (NDE) offer non formal TVET programmes. These programmes / courses are as well captured and built into the various levels in the Nigerian skills qualification framework. NBTE was mandated to monitor and evaluate the quality of the programme. It is believed in line with the recent policy in TVET and with strict adherence to implementation, TVET will in no distant time equip people with the technical and professional skills needed for socio economic and industrial development of our dear country Nigeria.

Conclusion

In response to the growing demand and need for skilled workforce that are capable of turning every unproductive asset to production-oriented resources, TVET programme if implemented in line with the current reforms and the Nigerian skills qualification framework training levels will no doubt equip individuals with competency based skills needed for economic and technological development.

The essence of quality assurance in TVET is to ensure that the objectives of TVET as stated in the National policy on Education (Federal Republic of Nigeria, 2014) is achieved through effective monitoring, co-ordinating, assessing and supervising all aspects of technical and vocational education. The National Board for Technical Education (NBTE), National Universities Commission (NUC) and National Commission for colleges of Education (NCCE) are Federal government parastatals and regulatory bodies under the ambit of the ministry of Education. The bodies provide standardized minimum guides for the TVET curricula, supervises and regulates through an accreditation process, the programmes offered by technical institutions at secondary and post-secondary education levels: TVET programmes are essential for industrial and technological development in that the skilled and well trained graduates of TVET will eventually work in our industries or impart similar skills to learners in our learning institutions.

Suggestions

In order to improve on the progressive Achievements government should increase its efforts in human capital development through improving access and quality of education. In this regard, efforts should be made to gradually address issues that limit female enrolment in TVET. TVET programmes should serve as a potential instrument for technology transfer, through the development of occupation standards, accreditation of competencies, occupational assessment and evaluation, in other words competency based assessment ,

establishment and strengthening the curriculum in line with relevant skills in this 21st century. Adequate supply of technical-vocational education teachers with the needed competencies should be ensured through the implementation of a full -fledged technical teachers' development programme.

Quality assurance agencies such as NUC, NBTE and NCCE should synergize in their responsibilities to ensure that issues such as instructional process, assessment and examinations and students' achievement are based on the maximum level of competency. TVET institutions should ensure that their programs are meeting the current skill needs of industries and society.

In essence, the following suggestions are made for a sustainable quality assurance in TVET for national development.

- Government policy on TVET should ensure alignment to current and future labor market demands.
- Adequate funding of TVET institutions is highly recommended
- Embracing competency-based training in TVET programmes by recruiting qualified teachers/instructors.
- Involve the industry and business community in making TVET curricula relevant to labour market.
- Ensure quality delivery of TVET programme through institutionalization of quality assurance centers.

The above measures / recommendations if adopted and implemented would no doubt enhance the skills and knowledge of individuals who would be called upon to improve our socio-economic well being and develop our nation.

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