LINKING TVET INSTITUTIONS AND INDUSTRIES FOR NATIONAL DEVELOPMENT: CHALLENGES AND STRATEGIES IN NIGERIA

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Abstract

The unemployable number of TVET graduates and retraining of TVET products immediately after recruitment in industries is clear evidence that linkage between TVET institutions and industries is weak and pitiable in Nigeria. This paper revealed that TVET institutions should have linkages with industries which are the end users of TVET products in order to solve the unemployment facing TVET graduates which has hampered national development. The paper highlighted the concept of TVET, TVET institutions and national development, reasons why TVET institutions need linkage with industries and finally strategies for effective TVET institutions-industry linkage in Nigeria. Sharing of equipment and tools between TVET institutions and industries and collaboration between TVET institutions and industries during curriculum development to carter for skills needs of the nation are amongst the recommendations made.

Introduction

The questionable quality of graduates from Nigeria institutions of higher learning has been a serious concern to employer of labour, as little or no value is placed on the skills possessed by these graduates. The employed among these graduates are often sent for retraining because the theoretical skills acquired from the school and the practical skills needed in the industry where they would be working are not compatible. These gaps may have been some of the factors promoting graduates unemployment in Nigeria and hinder national development. In Nigeria, the only educational sub-sector that can help in inculcating skills, knowledge and attitude to the learners to enable them becomes productive member of the society and the world of work upon graduation is Technical and Vocational Education and Training (TVET). TVET is saddled with the responsibility to prepare the learners with the right skills and values needed to be self-employed and or be employable in the world of work (FRN, 2007; Egbri and Chukwuedo, 2013). Industrial institutions in Nigeria are meant to be the end users of skilled personnel trained and nurtured by TVET institutions.

In Nigeria today, available records showed that there is little or no linkage between TVET institutions and industries as the skills needed in industries are different from the skills taught in TVET institutions. In order to bridge the varieties of gaps involving practical skills acquisition and classroom learning experiences with industrial skills, the Industrial Training Fund (ITF) was mandated to implement Students' Industrial Work Experience Scheme (SIWES) to enhance practical skills acquisition of TVET students and other allied area of study (Ekponyong, 2011; Egbri and Chukwuedo, 2013). The effort of ITF towards SIWES is certainly not good enough to have achieved the purpose of the programme probably because ITF alone cannot coordinate such a program involving large number of students or the laxity that exist in runing the programme (Egbri and Chukwuedo, 2013). Therefore, TVET institution-industry linkage in Nigeria will enhance learning outcome and practical skills acquisition among TVET students for national development. This paper aims at x-raying, the concept of TVET, TVET institution and national development, reasons why TVET need linkage with industries and strategies in linking

TVET institutions to industries to foster national development.

Concept of TVET, TVET Institutions and National Development

Technical vocational education and training (TVET) is the sub-sector in the education system widely recognized as the power house for economic, industrial and technological advancement in Nigeria. TVET as defined by UNESCO (2001) and adopted by the federal republic of Nigeria in her National Policy on Education (2014) as a comprehensive term referring to those aspect of the educational process involving in addition to general education, the study of technologies and related science and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupation in various sectors of economic and social life. In this broad definition, TVET refers to education and training given to the learners to acquire skills, knowledge and attitude needed in the world of work and necessary for employment in ones' chosen occupation. Goel in Okwelle and Ayonmike (2014) noted that TVET plays a vital role in human resource development for enhancing industrial productivity and improving the quality of life. TVET thus equips people with a broad range of knowledge, skills and attitude that are now recognized as indispensible for meaningful participation in work and life (Okwella, 2013). Institutions that deliver TVET programme are called TVET institutions.

TVET institutions are established organization saddled with the responsibility of providing TVET training and certification to the learners. Universities, Polytechnics, Colleges of education (Technical), Monotechnics and technical colleges are well known TVET institutions in Nigeria. TVET institution is the medium through which the nation's work forces are produced. It equips the learner with the right skills, knowledge, understanding and attitude needed in the world of work. The outputs of TVET institutions are the professionally trained lecturers, teachers and highly skilled personnel in universities, college of education, secondary schools and industries respectively. Therefore TVET is a powerful tool for National Development.

National development refers to the ability of a nation to improve the lives of its citizens socially, economically, politically and technologically. TVET provides to those who want it, who need it and who want to benefit from it with skills that are socially acceptable, economically viable, politically relevance and technologically driven in the world of work that promote national development. The UNESCO-UNEVOC Bonn declaration on learning for work, citizenship and sustainability in 2004 stated that "since education is considered the key to effective development strategies, technical and vocational education and training (TVET) then must be the master key that can alleviate poverty, promote peace, conserve the environment, improve the quality of life for all and help achieve sustainable development" (UNESCO, 2005).Sustainable development is all about the development of individuals and that of the economy for the benefit of present and future generation of which TVET is an agent. According to Kurya and Hassan (2007), sustainable development is a continuous and progressive increase and expansion of the volume of goods and services provided in a given economy with improvement in the social, political and economic life of present as well as future generation. This is in accordance with Okwelle and Ayonmike (2014), that TVET empowerment through industrial linkage would improve the nation's economy, provides job opportunities, reduces crime rates and encourage creativity and competiveness in nation building

Reasons why TVET Institutions Need Linkage with Industries

The following are the reasons why TVET need linkages with industries as anything in isolation will make national development to remain an illusion in Nigeria.

a. **Cost of Establishing TVET Institutions:** TVET is a skill oriented programme that

requires facilities for effective implementation and it involves huge amount of money. It has been observed that very few countries can afford to provide a comprehensive and effective TVET system purely through government financing (http://www.tvet.journal.com) and Nigeria is not among the few countries. In many developed countries, it is estimated that up to 80% of skills development is provided by industry for its own workers (Lembagu, 2012). This means that the facilities needed for up to date effective skills impartation are better found in industries when compared to TVET institutions. Linking TVET institutions with industries will provide the institutions access to facilities that are not in school and expose their students to have skills relevant to the industries. This is in line with Osman, Omar, Kofi, Mat, Darus and Rahman, (2008) that technical institutions should have closed linkages with the world of work to solicit support of industry in the enhancement of practical training through such activities as donations of equipment and tools, staff exchange programme and staff on work experience attachment.

b. **Because industries are the primary consumer of TVET Graduates:** The outputs of TVET institutions are the inputs of the industries. It is worthy of note that for the products of TVET institutions to be relevant and contribute to the nation's development, effective industrial – TVET linkages most be established. This is in agreement that in vocational education, practice and theory must go hand in hand, because the more intimately they are related to each other, the more the school will contribute to the learners immediate success in the school and make the person a master of his field (Amaand Offei-An-Sah, 2011). Similarly Pautler in Amu and Offei-AnSah, (2011) noted that TVET institutions must have a partner to help find solutions and this can be accomplished only by developing linkages with industries so that they can survive and accomplish their intended goals of providing the skilled manpower needs of the country. According to Daily Graphic (2005), poor linkage between vocational institutions and industries has resulted in graduates from such institutions not being accorded the deserved recognition by employers thus contributing to delays in the graduate employment and national development process. This is why TVET- industrial linkage is important for national development, as it enhances the skills of TVET products to be relevant in world of work.

c. **Because of the rigidity in TVET Institutions Curriculum:** The main aim of any educational institution curriculum is to serve the need of the society and TVET is not left behind in this context. The curriculum of TVET is meant to reflect the need of the labour market which is the end consumer of the products. In Nigeria, there exist a mismatch in the curriculum of TVET and the work skills requirement of the industries. It is noted that TVET curriculum teach the history of technology and not the practical skills currently required by industry (http://www.tvetjournal.com). Industrial participation in TVET curriculum and workplace training opportunities is the primary ways of achieving this. If employers are not involved in the process of the specific skill attitude and behavior required by graduates, they are less likely to see any relevance between TVET and their skills needs. Therefore, it is important to involve industries during TVET curriculum development so that required skills as needed in the industries are reflected.

Challenges facing TVET institutions linkage with industries in Nigeria

TVET is an important tool that can improve the employability of individuals, increase productivity in industry and reduce poverty,

however, it suffers from a mismatch as it produces entrants to labour force with qualifications that do not match the requirement of the productive sectors of the economy in Nigeria. The following are the notable challenges facing TVET-Industry linkage in Nigeria.

1. **Non-involvement of industry representatives in development of TVET Curriculum**: The curriculum of any TVET institutions should bear the skill needs of the industries in mind as they are the end users of TVET products. In the development of TVET curriculum, employers of labour are not usually consulted to provide the skills they need TVET institutions to inculcate in their students to become employable in the work place. According to Tansen (2013), TVET system is hampered by inadequate links with industry, outdated curriculum and delivery strategies, little flexibility to respond to training needs at the local level as industries are not consulted during the accreditation process of the curriculum. This shows that there is no feedback from the employers to TVET institutions leading supply driven training skewed in favour of theory. According to Amissah (2006), TVET linkages with industry in terms of input for curriculum development are weak resulting in mismatches of supply and demand skills. Technical graduates lack hands on experience and have poor work attitudes and are inflexible to changes happening in industries (Republic of Kenya, 2002)
2. **Lack of teaching and learning resources:** Lack of up to date teaching and learning facilities in TVET institutions is a factor that has contributed in widening the gaps between TVET and industries. It has been observed that most TVET institutions in Nigeria still use outdated facilities that are no longer relevant in industries as teaching and learning facilities. This is in agreement with UNESCO (2000) that less than 1% of secondary education in Nigeria is oriented towards technical and vocational skills, worse still, workshops for TVET at tertiary education level showcases dumps of outdated and obsolete machines, equipment and tools. This ugly situation could be attributed to inadequate funding of education by the government at all levels in Nigeria. According to Offei-Ansah (2011), TVET teachers have limited experience of life outside the classroom and no access to resources materials through which to emphasize relevance. It is has been observed that industries are the end users of TVET products, and currently, skill activities in industries are changing as the demand of the society is changing while little or no change is taking place in TVET institutions hence the gap between TVET and industries.
3. **Image of TVET in Nigeria**: TVET graduates are struggling to fit in the work place because of the wrong perception society placed on it. Nigeria graduates of engineering and other related trades are often referred to as engineers and this has a greater influence on the way society looks at it. It is entirely different in TVET graduates as there is no generally acceptable name given to the graduates from TVET to place them shoulder to shoulder with graduates from engineering faculties in Nigeria. It has been observed in industries where TVET students seeking for industrial attachment are been rejected on the ground that they are not from faculty of engineering. Similarly, Ratnata (2013), found out that young people and their parents whenever they have the possibility chose higher education over TVET due to their predominant perception of TVET not as valuable as general education. The statement also buttressed the assertions of Okoye and Okwelle (2014) that low societal estimation of TVET with its professional practice not seen as a substitute to gaining employment in any other quarters that are highly remunerated

lends TVET inferior in the eyes of the public. According to AU (2007) and Afeti (2008), the impression sometimes created by government that the primary objectives of the TVET track is to keep dropouts off the streets rather than project this type of training as an effective strategy to train skilled workers for the employment market. This is a worrisome situation that has hindered the advancement of TVET in the country including industrial linkage.

4. **Lack of Legislation**: In Nigeria there is no law binding TVET institutions and industries which are the end consumers of TVET products. According to Asare-Bediako (2005), there is no legal framework for coordination of the activities of the government ministries, private organizations and agencies that participate in the provision of TVET in Nigeria. Tertiary institutions and industries are two different social entities; as a result they differ considerably in the nature and objectives of their activities. This is in agreement with Siegal (2003) that cultural barriers are pervasive in tertiary institutions and industry interactions, given that stakeholders operate under divers organizational environment and have different norms, standards and values. The author noted that firms typically do not want researchers to publish their results and the academics believe that the body of knowledge generated through scientific activity is subject not to private, but to public ownership. This is obtainable in Nigeria, because there is no legislation bindi

Strategies for effective TVET Institutions-Industry linkage in Nigeria

It is evident that linkage between TVET institutions and industries in Nigeria is weak due to some known challenges which demand for enhancement strategies.

a. **Sharing of equipment and tools:** TVET is an expensive educational programme that government cannot finance alone because of the dynamic nature of the work skill requirements. Sharing of equipment and tools between TVET institutions and industries for teaching and learning will equip the students with the skills on how to use facilities that are not in school but are needed in the work place. This is in line with Republic of Kenya (1999), that techn ɔse linkag cit suppɔrt ɔf industry in the enhancement of practical training through such activities as donations of equipment and tools. It has been observed that most students do not have sound knowledge of what goes on beyond the school environment and so are not aware of the requisite skills, knowledge and attitudes expected of them in the work place (Asare-Bediako, 2005). Therefore, the sharing of equipment and tools between TVET institutions and industries will establish a good link, and as well solve the challenges caused by lack of up-to-date teaching and learning resources in TVET institutions.

b. **Staff/Students Exchange Programme**: Involving staff from industries to participate in the teaching of TVET students practical skills as it relate to the need of industries is a good link that will usher in the desired change in the nation's workforce. TVET teachers/lecturers can also go for instructors' industrial experience during long vacation to update their skills in latest tools and equipment used in industries. This is in agreement that technical institutions should have close linkages with the world of work to solicit support of industry in enhancement of practical training through staff work experience attachment (Republic of Kenya, 1999; Obwoge et al, 2013). According to Amu and Offei-Ausah (2011), excursions and field trips to industrial sites can be an effective means of establishing link between the TVET institutions and industry to help in equipping graduates with usable

skills for the world of work. The authors identified that participation of industries in the training of students in form of seminars and workshops is another major way of linking TVET institutions and industries.

c. **Involving industries in development of TVET curriculum**: It has been observed that the mismatch in the skills acquired in TVET institutions and the actual skills needed in the work place is as a result of non- involvement of industries in the development of TVET curriculum. Therefore involving industries during TVET curriculum development will serve as a major pathway to linking TVET institutions to industries. This is in accordance with Tansen (2013) that employer representatives if involved in curriculum development will identify occupations where training gaps exist and specify the required skills standard.

d. **Up Lifting the image of TVET**: There is no doubt that TVET is faced with image problem in Nigeria as a result of wrong perception that TVET is education for the dropouts. The creation of awareness to show that TVET is the power house of Nigeria work force as it equips individual with skills needed to be employable and self reliant in life becomes an imperative. This is in line with Okoye and Okwelle (2013) that providing training within national policy framework, increased funding strengthens guidance and counseling services to trainees as well as promoting industry and academic inter

image problem of TVET in Nigeria.

e. **Provision of Appropriate Legislation**: There can be meaningful linkage between TVET and industries in Nigeria, if there is any law mandating all the industries to participate in the training of both the students and staff of TVET to equip them with the skills needed in the world of work. This is in accordance that clear national legislation and policies to support linkages between TVET and industry with legal requirement of the compliance and enforcement by government are the ways to ensure TVET-industry linkage (http://www.tvet.com). Therefore, appropriate legislation that will ensure that all the industries in Nigeria participate and that the participating industries obtain cheap labour from TVET students and staff to maximize profit while both the students and staff acquire the practical skills, knowledge and attitude needed to be employable and self-reliant upon graduation will serve as good reinforcement to TVET-industry linkage.

Conclusion

This study looked TVET institutions and industries linkage for national development. The study has shown that there is little or no linkage between TVET situations and industries which are the end users of TVET products. This probably may have been the aim of many industries in Nigeria for rejecting TVET graduate applicants or retraining their new employees immediately after recruitment to equip them with the needed skills in the industries. If proper strategies and links are established, this mismatch will be greatly reduced and TVET graduates will come out with skills that are employable, effective, relevant and applicable to the labour market.

Recommendations

The following recommendations are made for effective TVET institutions and industries linkage for national development in Nigeria:

1. Sharing of equipment and tools between TVET institutions and industries should be encouraged to keep abreast of changes taking place in the world of work.
2. There should be collaboration between TVET institutions and industries during curriculum development to carter for the skills needs of the industries.
3. Nigeria government should set up policies and legislation requiring mandatory linkages between TVET and industrial

institutions to enhance employability skills among TVET graduates.

4. There should be regular staff and student exchange programme between TVET institutions and industries to equip students and staff with the practical skills while industries benefit from the theoretical knowledge of staff and students of TVET.

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