Technical and vocational education in crisis: Which way out

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Technical and Vocational Education in Crisis: Which Way Out?

by

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Abstract
The indisputable right of all Nigerian citizens to education is put in a nutshell in the constitution of the Federal Republic of Nigeria. Nigerian government at all levels sees functional education, not only as a tool for individual and societal advancement, but also as a means of promoting the international recognition of the country. Even the foremost economic development policy document in Nigeria, the National Economic Empowerment and Development Strategy (NEEDS) recognizes education as a vital instrument for achieving government development objectives as well as the accomplishment of the Millennium Development Goals. Consequently, the educational sector has been assigned the sole responsibility of generating the required personnel in the right quantity and quality. Specifically, the personnel so produced are expected to possess skills and knowledge that can propel and sustain the country’s development agenda as envisaged in the NEEDS initiative. This paper therefore examined the crises in Technical Vocational Education (TVE) and highlighted possible strategies towards curbing the identified problems.

Introduction
At the moment, there appears to be a disconnect between Technical and Vocational Education (TVE) which has the mandate of producing quality workforce in required quantity for Nigeria’s technological and industrial take-off. In a study by International Labour Organization (ILO) conducted in 2007 as a pre-requisite for a programme-Know About Business (KAB)-that focused on developing entrepreneurship education in Nigerian tertiary education, the ILO reported that:

Nigeria’s education system turns out hundreds of thousands of school leavers who enter the labour market each year. The formal sector (public and private) absorbs only about 10 percent of these, leaving most of the remainder to the unemployment queues and the informal sector. In consequence, unemployment and underemployment, particularly among the youth, are now on a massive scale and poverty is worsening; yet, the education system, on the whole, does not have in place a programme to prepare its trainees for the new realities of the labour market, despite recent calls for policy and other interventions to ensure this.

Several reasons could account for this ugly situation. For example, the Nigerian labour market sees fresh graduates as not possessing the requisite knowledge and skills for employment in their areas of training and holds pre-service training responsible. Specifically, employers of graduates from Nigerian institutions of higher learning (just like their counterparts at the lower levels of education) report that available graduates do not have adequate exposure to hands-on experiences in their chosen vocations.

There is also another handicap in the graduates produced in Nigerian educational institutions; All but few graduates go for paid employment as a result of lack of entrepreneurship skills! The absence of entrepreneurial skills among school graduates is blamed on the inability of the Nigerian educational system to fathom and include entrepreneurial skills and knowledge in the school curricula. This situation has not only reduced the efficiency of the school system to produce the needed generation of workers for the country’s industries but has also reduced Nigeria’s ability to generate employment, create wealth and reduce poverty.

The goals of wealth creation, employment generation, poverty reduction, and value re-orientation can be effectively pursued, attained, and sustained only through an efficient, relevant and functional education system that has TVE in its proper place and shape. However, the delivery of education in Nigeria has suffered from many years of neglect, especially under the military rule. This was compounded by inadequate attention accorded to sustainable policy that will futuristically match manpower production to the emerging needs of the Nigerian economy. As a result, emphasis used to be placed on theoretical knowledge at the expense of technical, vocational and entrepreneurial education.

The Nigerian government, having realised this obvious flaw, has commenced working on ways to improve the productive capacity of Nigerian graduates through skills acquisition, entrepreneurship development, establishment of career and innovation centres and knowledge based enterprises development. The objectives are to foster an increasing entrepreneurial culture that helps students and teachers understand the fundamentals and feasibility of forming enterprises, to educate, encourage and support Nigerian graduates in their quest to establish and manage sustainable business ventures, including but not restricted to those arising from research. Re-engineering technical and vocational education for entrepreneurship: issues and challenges for the realization of the millennium development goals which is the focus of this conference is based on the KAB programme developed by International Labour Organization (ILO) and implemented in many developing countries of the world.
My contributions in this paper is to show the crises in technical and vocational education and to demonstrate how entrepreneurship education can promote enterprise culture among school leavers with the end result of stimulating the creation of economic activities and employment which are essential in the realization of the millennium development goals.

Historical Development of Technical and Vocational Education in Nigeria.

Secondary level technical and vocational education started in Nigeria since the introduction of western education in 1842, though; technical and vocational education has always been treated as an insignificant adjunct of the country’s educational system. Fagbemi (1988) observed that all educational ordinances enacted in the country before 1917 gave little or no recognition to vocational education. Following this neglect, only five technical institutions of post-primary status existed before 1938 as training schemes devoted to Nigerian employees in government departments. The training schemes were Railway training institute, established in 1901, Lands and Survey, established in 1908, marine institute, established in 1908, post and telegraph training centre, established in 1931 and the veterinary school, vow, established in 1935 (Osuala, 1987).

To the contrary, “liberal type” grammar schools received considerable attention. For example, both the missionaries and colonial officers funded grammar schools at that time. Consequently, at the time of independence, and nine years later, when Nigerians began to agitate for a balance in educational opportunities/facilities, there existed an imbalance in absolute numbers and students’ enrolment figures between grammar schools and technical and vocational schools (uwadiae, 1992). Fafunwa (1991) reported that in 1970, there were a total of 42 government owned technical/vocational schools as against more than 1,240 grammar schools. Students’ enrolment figures for the same categories of post-primary institutions between 1962 and 1970 were as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Grammar</th>
<th>Technical/Vocational</th>
<th>Relative o/o in Tech /Voc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>195,499</td>
<td>7,241</td>
<td>3.56%</td>
</tr>
<tr>
<td>1963</td>
<td>211,879</td>
<td>7,355</td>
<td>3.35%</td>
</tr>
<tr>
<td>1964</td>
<td>205,012</td>
<td>10,085</td>
<td>4.91%</td>
</tr>
<tr>
<td>1965</td>
<td>209,015</td>
<td>12,756</td>
<td>5.75%</td>
</tr>
<tr>
<td>1966</td>
<td>211,305</td>
<td>15,050</td>
<td>6.65%</td>
</tr>
<tr>
<td>1967</td>
<td>(civil war year)</td>
<td>(civ w year)</td>
<td>4.15%</td>
</tr>
<tr>
<td>1970</td>
<td>310,054</td>
<td>13,421</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Fafunwa (1991)
A close look at both the enrolment ratios and absolute number of technical and vocational institutions would reveal progressively diminished ratios from 1963. However, after the Nigerian Civil War, the gap widened again making it imperative for steps to be taken to arrest the ugly situation in the interest of overall industrial and technological development of Nigeria. Consequently, the National Policy on Education (NPE, 1981) was launched which recommended inter alia that:

i. technical and vocational education be included in the curriculum of secondary schools;

ii. Either a vocational centre or a technical college is sited in each local government area of the federation.

Over two decades since the introduction of the policy, the military had been in power. Therefore, it is timely that this conference is convened now to “Re-engineer technical and vocational education for entrepreneurship”. The focus should be to “rake up” strategies and modalities for the improvement of course offering, as well as their functionality in the present dispensation.

Constraints to the Development of Technical/Vocational Education in Nigeria.

Several constraints militate against the development of technical/vocational education in Nigeria. These include:

1. Historical Antecedents

The origin of the present problems of technical and vocational education in Nigeria started with the introduction of the current form of western education. Oranu (1994) reported that before the advent of the Western type of education in Nigeria, labour and handwork were glorified and highly esteemed. At that time, productive workers were revered, recognized and given place of honour in their communities according to the type and quality of skills they possessed. As a result of this respect for skills and handwork, the entire inhabitants of the current geographical area called Nigeria were known to anxiously plan for the time they could produce children who would take after them and possibly advance the family skills beyond the prevailing horizon.

However, with the advent of western education, the focus of technical and vocational education gradually shifted from skill-oriented manual labour to sedentary activities. Several works (Ohuche, 1987; Eze, 1990; and Abelega, 1996) showed that the type of vocational education introduced at the time was the “bookish” type of western education that neglected practical experiences which were strong points of the undocumented traditional education the former replaced.

Oranu (1994) observed that the new set of elite’s produced as a result of this shift in occupational preference used their monthly salaries to show-off and consequently displaced vocationally skilled workers socially. Abelega (1998) reported that consequent upon the new orientation,
there was crave for “white collar” and schools were established to guarantee the production of such category of workers. At the same time too, Sofolahan (1987), Ohuche (1987) and Oranu (1994) reported that Nigerians who possessed psycho-productive skills were made to be subservient to personnel of liberal or “bookish” education as more of the “white-collar” skills were rewarded.

2. Dysfunctional policy and low capacity for policy implementation

As reflected in the history of technical and vocational education in Nigeria, successive governments in the country formulated vocational education policies to handle emergencies in their regimes without adequate reference to employers, industry trades union and society. The net effect is absence of coherent legislative framework to enable a launching of a national strategy for change that will ensure that apart from actually providing vocational and technical education, government fulfils the roles of giving leadership, vision, facilitation, coordinating, establishing quality assurance and ensuring that technical and vocational education is for all through identifying and addressing community service obligations. Closely related but different from the issue of policy formulation is that of low capacity for policy implementation. Implementing public training policy in vocational education is a complex task that requires considerable professional and managerial capacity. To respond to the needs of the economy demands a degree of freedom from short-term bureaucratic control that is difficult to achieve in line ministries. However, all successive Nigerian governments have failed to establish function National Training Authorities, NTAs, that would involve employers, worker organizations and government in monitoring labour markets, training costs and outcomes for vocational institutions nationwide. Similarly Nigerian governments have failed to provide training funds to training institutions in accordance with established criteria that will facilitate flexible use of resources for curriculum adjustment, staff development, new equipment, and, on occasion, renovated or new facilities.

3. Absence of Entrepreneurship Skills in Current Vocational Education Programmes

Another constraint in the current vocational education programmes in the country is the absence of entrepreneurship skills in the curriculum of the existing vocational courses. As a result, students graduate from courses in agriculture, Business, Home Economics and Technical Education without the slightest knowledge of how they could be self-employed gainfully. The net effect is that instead of vocational education reducing the problem of unemployment and underemployment, it is enhancing it.
4. **High Opportunity Cost of Training.**
Most Nigerians live below poverty line by world standards, despite the establish fact that even if technical and vocational education programmes are free, few poor students can afford to be out of the work force for the three or four-year, full-time education and training programmes needed for access to wage employment in the country. Similarly, women are handicapped by domestic and childcare responsibilities. Together or in part, these handicaps amount to opportunity cost to vocational education programmes currently offered in the country.

5. **Inefficiency in Current technical and vocational education Programmes**
Internationally, vocational/technical education is looked at as a means of producing efficient workforce at least cost to employers. In Nigeria, however, this general focus is lost due to poor implementation of vocational/technical education programmes. Reasons often adduced for the ugly situation includes poor institutional capacity for the programmes; poor resources needed to improve outcomes in vocational training and education and poor instructional practices.

6. **Mixing Education and training**
Unlike Education, training places different demands on systems, institutions, instructors and administrators, though both are essential to productivity. Education is more effective when delivered by institutions with a degree of autonomy and rigidity that is difficult to achieve in informal education systems that characterize vocational training centres. Clear separation of education and training provides advantages to both, thus enabling educators to concentrate on their essential missions and trainers to develop the specialized technical and managerial capacity needed to link training more closely to the economy. At present, however, vocational education and training are mixed in the country as if these learning situations are the same. To make the bad situation worse, both vocational education and training in trade centres are administered under the ministry of education amidst bureaucratic procedures that militate against flexibility needed in training for wage/self-employment.

7. **Poor International support for vocational Education**
Due to prolong military rule coupled with its attendant political sanctions, limited international support for vocational and technical education has come into the country. Elsewhere, World Bank and other donor agencies have contributed more than 45% of the total funds required in building pre-employment training at various levels to serve youth in less developed countries (World Bank, 1991). These amounts of international aids have contributed to the establishing of a base of training capacity in those countries. In the current democratic dispensation, such donor assistance should easily be mobilized to support government programmes aimed at expanding training capacity in vocational technical education.
Strategies for Improved Vocational Technical Education in Nigeria.

It is difficult to proffer universally accepted solutions to problems of technical and vocational education in Nigeria. However, the basic needs, aspirations, goals and values of most Nigerians can be enhanced if the nation would adopt the following strategies:

1. **Building Capacity for Policy Implementation**

   Public training policy implementation requires complex managerial and professional capacity to respond to the needs of the economy. As observed before, the efficiency of training programmes in Nigeria are often thwarted by short-term bureaucratic control. Therefore, it is necessary for the nation to develop capacity for policy implementation among agencies charged with responsibility of evolving and supervising training programmes in technical and vocational education. Agencies like National Board for Technical Education, National Commission for Colleges of Education, National Universities Commission and so on should be exposed to key elements in effectiveness of policy implementation. The structure of these organizations may vary. However, the key elements could revolve around governance that involves employers, worker organizations and government; adequate and stable financing; the ability to use resources flexibly and a high level of professional capability. Additionally, training agencies and their supervisors should monitor labour markets and training costs and outcomes, in planning, in providing professional services, in establishing outcome standards, in organizing temporary training systems in response to worker dislocation and in developing private training capacity.

2. **Inclusion of Entrepreneurship Skills in Vocational/Technical Education**

   Experience within the last two decades in Nigeria has shown that provision of technical/vocational skills alone is not adequate in serving the needs of the clientele and society as many graduates of vocational education are still found among the “sea of unemployed youth” in the country. An inventory of the factors responsible for this ugly phenomenon could include, among other things, the inability of the training institutions to impact entrepreneurship skills that are relevant for self-employment within the locality. Consequently, it is perceived that if the technical/vocational programmes in the current democratic dispensation include entrepreneurship training programmes that are closely adjusted to local markets and technologies, it will serve the individual and society better. For example, there could be entrepreneurship training in low skill occupations in which entry is easy because of low capital requirements. Additionally, the current technical/vocational programmes should revise their curriculum to shift from single to multiple skills build from local market opportunities. These programmes should incorporate useful traditional skills and increase the flexibility of course offerings.
With regards to the content of the expected entrepreneurship skills, the courses should cover topics like achievement motivation, market environment, financing, product selection, marketing, skill development, management, production, procurement, personnel, legal systems and letter writing.

3. Reducing Opportunity Cost of Training
As state before, majority of students in technical and vocational programmes in Nigeria are from very humble background. Such students cannot afford to be out of work force for three to four years, full-time education needed for access to wage employment, even if the programmes were free. The opportunity cost of their training could be reduced by offering shorter, more intensive courses or by providing training in the evenings at convenient locations.

4. Improving Efficiency in Public Training
Worldwide, it is recognized that effectiveness and efficiency in public training is a good strategy for improving vocational/technical education. This is accomplished through creating a permanent pipeline of market information on the demand for skills and their supply. More directly, building good links between training institutions and employment agencies/enterprises can improve the flow of information on the demand for skills and the success of training in meeting the skills standards of employers. Some of the mechanisms to accomplish the link are constitution of advisory and curriculum development committees with members representing employers and the schools, vocational guidance and placement activities, surveys of local employers, and training strategies that include periodic, supervised placement of trainees in work experience.

Further to this, utilizing information on employment rate by skills levels, economic returns on different levels of training, current vacancy rates, and employer projections of employment opportunities are likely to expand in the medium term. Such feedback’s enables training agencies and institutions to meet the training needs of the clientele and the world of work.

5. Separation Education and Training
Another shortcoming of technical and vocational education identified in this paper is the administration of education and training under the same roof. As observed earlier, education and training place different demands on systems, institutions, instructors and administrators. Consequently, there is need to separate them for efficiency of technical/vocational education.

One way to separate training and education is to concentrate skills acquisition learning activities outside of the general education ministry. This approach would help train skilled workers for
wage or self-employment without the bottle-necks currently experienced in the ministry of education. Removal of bureaucratic bottle-necks will provide the needed flexibility in specialized technical schools established nationwide.

A further strategy for separating education and training is to get the ministry of education to run vocational training programmes intensively at the end of senior secondary schools programme. This should also demand students to choose among occupations a year or less before the seek employment, when they should be more mature, and probably, when their choices would be more related to the state of existing labour market.

6. Improving Training Outcomes

A unique quality of technical and vocational education is its ability to improve the skills of workers and consequently enhance productivity. However, developing vocational and technical skills costs a lot more than general education with the result that inadequate budget lead to inadequate outcomes. When skills are not developed, on the other hand, productivity will not increase, and the benefit to society and individual will not materialize. Vocational educators believe that meeting the recurrent costs of paying qualified managers and instructors and providing up-to-date teaching materials and maintenance are essential to achieving good training outcomes.

In Nigeria, the current practice of uniform salary structure for every worker is creating problems of technical and vocational development especially in occupations where there is great demand for the same calibre of workers in the private sector and in which the need for training is greatest. Inadequate pay reduces the quality of teaching. It is also a poor indicator of the value society places on the trade students are learning. If government cannot afford to pay market rates, to training instructors and managers, it should, at least, let wages rise for those occupations that are in greatest demand. This would usher in differentiated salary systems necessary for retaining technical and vocational teachers in the school system.

A similar strategy that can ensure improvement in learning outcomes is provision of adequate textbooks, practice materials for workshops, and other instructional materials. Developing materials for technical and vocational education can be expensive because of the rapid need for revision in the rapidly changing occupations. In Nigeria, however, such funds are hardly available in the existing technical and vocational institutions. Therefore, it might be good strategy to work out a close co-operation between technical and vocational schools and employers to adapt existing materials to the training needs of changing occupations. Generally, also, training
materials for self-employment should be developed to incorporate skills that are specific to local technologies and products. Similarly, it should also include business management skills that fit the local regulatory and market environment.

7. Attracting International Support for Vocational/Technical Education
World Bank (1991) reported over $600 million international support for vocational education worldwide in the 1980s. Unfortunately, Nigeria did not benefit from the assistance due to military policies. With the advent of democratic governance, however, Nigeria can attract such assistance if she knows how to go about it. Such amount of international aid can contribute to the establishment of a base of training capacity for vocational programmes.

Entrepreneurship Education as a Means to Improving Technical and Vocational Education.
The case for entrepreneurship education in Nigeria as a means to improving TVE and Poverty alleviation is well known. Poverty, in essence, is defined by low incomes, which in turn stem mostly from unemployment and underemployment. Given the low capacity of the formal and public sectors to absorb the growing numbers of the unemployed and new entrants into the labour market, increased attention should be paid to self-employment and small business development as avenues for job creation. The experience of several countries around the world – in Europe, USA, South East Asia, to name but a few – confirms that small businesses including the self-employed are now major vehicles for net job creation. It is noteworthy that many of these countries also provide entrepreneurship education at various levels (primary, secondary, tertiary) of their education system.

The imperative of entrepreneurship education as a means to redressing the quality of TVE in developing countries including Africa is known. Kenya, for example, has successfully integrated entrepreneurship in all government vocational and technical training institutions and also has universities that offer Masters and even Ph.D. degree programmes in entrepreneurship as well as electives for undergraduates. Other examples in Africa, where similar initiatives are being developed, include South Africa, Ghana and Zambia.

In the long-term, the supply and quality of entrepreneurship can be enhanced through the integration of entrepreneurship in the educational and training system for both formal and informal training. The ILO has developed a programme for this purpose, entitled Know About Business. This Entrepreneurship Education programme had become part of the national curriculum in 10 countries in Africa, Asia and Latin America, and is actually pilot tested in 15 countries in Technical and Vocational Education Training, secondary education and higher education.
With the commitment of the Government of Nigeria to its own internal and international goals such as NEEDS and the MDGs in the pursuit of poverty reduction and job creation for youth, there is a need to pursue a reversal of the situation where graduates of tertiary institutions are poorly trained, unproductive and lack in applied technical skills.

A Model of Entrepreneurship
Across the globe, governments and people are choosing entrepreneurship education as a means of attaining self-sustaining development and fairness which are the foundations of human progress. Entrepreneurship is now recognized as a critical force for creating economic activities that add to human growth (UNDP, 1998). Entrepreneurship education assists individuals create value through the identification of business prospect and improvement of personal competencies necessary to assemble the resources that will bring the prospect into reality.

However, to achieve the objectives of entrepreneurship education in the long run, it is necessary to develop an enterprise culture and the enabling environment to sustain the culture especially among the youths.

Enterprise culture sees entrepreneurship as a desired way of achieving economic, social and political success, provides the social, financial, technical, and market support networks that facilitates entry into and conduct of business.

Young people growing up in this culture are exposed and immersed in business operations in their formative years. Their attitudes and predisposition to entrepreneurship and self-employment are shaped and reinforced by abundant role models and a value system that reinforce enterprising behaviour.

In the Nigerian society where opportunities for young people to be exposed to the practice of entrepreneurship and to the actual operations of business is limited, entrepreneurship education and education for enterprises should be incorporated at all levels of the educational system beginning with Vocational, Technical Training and Selected Tertiary institutions.

The proposed model of entrepreneurship education presupposes that:

1. Positive attitudes towards business are developed during the formative years of an individual;
2. Many people have dormant entrepreneurship endowment which can be improved through formal education and training programmes;
3. Incorporation of Vocational training and entrepreneurial skills can result to self-employment and venture establishment;
4. People with professional technical skill and higher levels of education have a greater potential for input into growth oriented business;
5. There exists basic general knowledge, competencies and skills particularly among the educated youths which are pre-requisite for further entrepreneurial development;
6. Developing individuals precedes enterprise development; and
7. Interaction between local business/industrial communities, credit, training and research institutions enhance enterprise creation. Through such interactions, the students could meet with role models, financiers and other agencies that support small enterprise development.

This model aims at promoting and enhancing enterprise culture at pre-start and start-up levels of enterprise creation by developing a large pool of potential entrepreneurs out of students of our technical/vocational education in tertiary institutions. Emphasis should be on fostering entrepreneurial attitudes; motivation and developing appropriate skills to enable students take advantage of various opportunities abundant in the environment. This is important for purposes of self-reliance or survival through self-employment and gradually to entrepreneurship.

Conclusion
The paper perceives Nigerian technical and vocational education in crises; it links the crises to constraints which began at the inception of technical and vocational education in Nigeria and proffered strategies for restructuring technical and vocational education programmes nationwide. The paper argues that entrepreneurship education is not only an imperative but it is a must if unemployment, underemployment, poverty reduction and industrial development of Nigeria will some day become a reality. It is hoped that the ideas and insights shared in the paper coupled with the strategies and mechanisms to be evolved in this conference will positively change the future of technical and vocational education in Nigeria. If vocational education becomes more functional, more youth will obtain economic independence, which is sine quo non for a sustainable democratic culture in the country.
References


