

The Role of Vocational and Technical Education in Nigeria Economic Development

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Abstract

The researchers tried to ascertain the role of vocational and technical education in the Nigeria economic development using historical survey in analyzing the views of various academic authors in an attempt to inform researchers' on current issues on the field. The research reveals that there was a defect in the curriculum of vocational and technical education programmes in Nigeria. The role of Vocational and Technical Education in the production of skilled manpower cannot be achieved if an efficient and effective teaching and examination is not maintained. No nation can develop without vocational and technical education. The solution to the economic development is total commitment to accepting vocational and technical education in Nigeria. Vocational and Technical Education graduates are not given proper training, therefore, are unable to be engaged in the area of maintenance of roads, pipe water, electricity, refineries, improving the food supplies etc. Conclusion and recommendations were made.

Introduction

Vocational and technical education has no one specific definition. It has been defined in so many ways by various authors. For example Evans and Herr (1979) in Toby (2000) defined vocational and technical education as that part of education which makes an individual more employable in one group of occupations than in another. Ekpenyong (2001) says vocational and technical education can easily be traceable to the different interpretation attached to them. It is common to find the terms used compositely when they should be used in a restricted sense and vice-versa. Sometimes, where the terms are used conjointly some individuals (including intellectuals)

interpret vocational to mean business subjects or studies and technical to mean technical subjects or studies or that which has to do with engine or metals. When used in relation to school, vocational school is taken to mean where only business subjects are taught, while technical school is taken to mean where only technical subjects are taught. This goes to support the general notion that vocational means that which has to do with business studies, while technical stands for that which has to do with technical studies.

Ekpenyong (2001) further stated that this mistaken notion was carried even further in a Nigerian university where the titles Vocational Education and Technical education were used in the certificates of students who qualified in business and technical education respectively. It was only through series of protests by the affected (business education) students of the programme that the nomenclature of the certificate could later be amended by the university authorities.

Units under the Vocational and Technical Education

Vocational and technical education is an umbrella which covers so many units. They are the Agricultural Education unit, Business Education which is also an umbrella to Secretarial or Office Education, Accounting Education, Computer Education, Distributive/Marketing Education. Another unit is the Industrial and Technology which has Electrical Education, Mechanical Education, Building Education, Woodwork Education and Metal work Education.

In the first instance, vocational and technical education ought to have been made and referred to as a faculty of vocational and technical education. This is because of its large and important nature to the economic development of the country.

According to the faculty of education students hand book (2002-4), the following are the objective of vocational and technical education.

Objective of Agricultural Education

- To produce graduates who can teach effectively at the senior secondary schools and tertiary institutions.
- To equip graduates to pursue graduate work in education.
- To enable them to fit into administrative cadre in government and in institutions of higher learning.
- To produce skilled manpower with a strong background required for self reliance and self-employment if the need arises.

Objectives of Business Education Programmes

- To produce graduates who can teach effectively at the senior secondary schools and tertiary institutions.
- To equip graduates to pursue work in education.
- To enable them to fit into administrative cadre in government and in institutions of higher learning.
- To acquire skills and competence required for self-reliance.

Objectives of Home Economics Education Programme

- To produce graduates who can teach effectively at the senior secondary schools and tertiary institutions.
- To equip graduates to pursue work in education.
- To enable them to fit into administrative cadre in government and in institutions of higher learning.
- To acquire skills, and competence required for self-reliance.

Objectives of Industrial and Technology Programmes

- To teach introductory at the junior secondary school level.
- To teach at least two of the following subjects at the senior secondary school or at the technical college level: building construction, wood work, technology, applied electricity, basic electronics, automobile technology, metal work technology, technical drawing etc.
- Produce graduate teachers with understanding of the basic principles of vocational education and their implication for the technological development of the nation.
- Produce graduates that can be self-reliance and enterprising.

In all the units, emphasis is placed on self-reliance. This therefore calls for the government assistance towards vocational and technical education programmes by providing enabling environment, funds, infrastructure, and regular supervision of universities as well as creating soft loans with very meager interest.

According to Esene and Agbobu (1997) Vocational education is that aspect of education which, through its programmes helps to acquire practical skills or become more efficient in occupations of their choice. These programmes, by equipping people with job skills, help those who are working or want to work in any part of the complete range or occupations needed by society: Technical education is that aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge.

The Nigerian economy is characterized by low level of technology, low rate of invention and slow production of goods and services. In such an economy it is difficult to attract foreign investors because there are no enough

incentives. As a result of the low level of development and productivity, the national income is low. The overall effect of these is the mass poverty, sufferings and low standard of living. Nigeria's low performance in the development process which has resulted in the fast crumbling per capital income and dwindling gross national domestic product calls for the provision of education that will develop her citizens to understand the economic situation and environment in which they operate.

Any discussion on national development without emphasis on the role of education is meaningless. The process of educating the people cannot be successful if the academic processes crumble. This is why government must invest very well on universities.

The National Policy on Education (1981 revised), (1998 revised) as well as revised in 2004 is certainly the most important educational development of the country's past colonial era. Section 6 of the policy outlines the aims and objectives of vocational and technical education as follows:

- (1) to provide trained manpower in applied science, technology and commerce particularly as such-professional grades.
- (2) to provide the technical knowledge and vocational skills necessary for agriculture, industrial, commercial and economic development.
- (3) to provide people who can apply scientific knowledge to the improvement and solution of environment problems for the 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 leading to the production of craftsman, technicians and other skilled personnel who will be enterprising and self-reliant.

(6) to enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

Curriculum Development

Curriculum development of vocational and technical education is a vital aspect which the government has failed to come up with a drastic law which implementation must be followed to a logical conclusion. For instance, universities where vocational and technical education programmes are offered, courses are mounted departmental unilaterally without recourse to a Federal Government central point. For instance Ebonyi State University, Abakaliki business education has a department of its own and Delta State University, Abraka has a unit of Business education, headed by a unit head, while in Ambrose Alli University, Ekpoma business education is under the department of vocational and technical education.

Pitman (1974) defined curriculum as a prescribed courses of studies. While Hornby (2006) says curriculum are the subjects that included in a course of study or taught in a school etc. According to Okoye (1991) the process of curriculum development and planning is continuous. It does not end once and for all times. Uhumuavbi and Ebhomhen (2006) in their own vain stated that irrespective of the level of education and training given during the pre-colonial days in African, it was functional because the curriculum was relevant to the needs of the society. Unemployment if it existed at all was minimal and very few young men roamed the villages and towns with nothing to do. According to Snyder (2008) a flexible curriculum is important because there is no single curricular path to career success. We are giving students more flexibility this is not a radical departure from our curriculum. Robert and Booth (2008), stated the curriculum changes allow students to increase the intensity of their studies.

The present Nigerian universities vocational and technical education curriculum has overstayed. Therefore, it is important that they be modified to meet today's needs. This is very essential from the standpoint of academic integrity. One may be tempted to ask at this juncture, is there anything wrong with the present Nigerian universities vocational and technical education curriculum? The researchers answer is "YES" but that does not mean that the present curriculum on ground cannot be improved upon. The reasons for the request of reformation of vocational and technical education curriculum is aimed to help create tomorrow's competitive workforce and to avoid technological "garbage in, garbage out" system.

The Growth and Development of Vocational and Technical Education in Nigeria

According to Esene (1997) one of the major defects in the Nigerian educational system is the low priority accorded to vocational and technical education. As in most former British colonial territories, education in Nigeria was conceived largely as purely literary education. The phrase 'men of the book' had a double meaning: in one sense it referred to 'Bible men' (in the mid-nineteenth century) and in another sense it referred to 'man of literature' (in the mid-twentieth century). For almost a hundred years in Nigeria the educated men were those who read classics – Latin, Greek, Milton and Shakespeare. Indeed most of Nigeria's early scholars were noted for their literary erudition. As aptly observed by the Commission of Higher Education: "...The first Western schooling brought to Nigeria was a literary education, and once civil rule was established the expatriate administrators were graduates, most of them in arts. And so the literary, tradition and the university degree have become indelible symbols of prestige in Nigeria; by contrast, technology,

agriculture and other practical subjects, particularly at the sub-professional level, have not won esteem. It is small technology, is not popular.

The establishment of courses in the various government departments, for example Nigerian Railway, Marine, Public Works, between 1908 and 1935 marked the beginning and critical turning point of organized technical and vocational education in Nigeria. These were followed by the engineering course at the Yaba Higher College in 1932. Even then, only a selected few could benefit from this type of arrangement. Moreover, the courses were of post-secondary school nature. Consequently, there was no formally organized technical or vocational education at the post-primary or secondary school level.

The first major recommendation for the introduction of technical and vocational education was made in 1945 when the Commission on Higher Education in West Africa proposed that the premises of the defunct Yaba Higher College should be converted into a technical institute: The first technical institute for Nigeria should be centered near Lagos; We recommend that it should be at Yaba. We visualize a future need for further technical institutes in Nigeria as, for example, at Enugu and Kaduna. The Higher College at Yaba can provide not only the buildings but also much of the necessary equipment, and we recommend that it should become the technical institute of Nigeria. It would provided (we believe more economically) for much of the instruction at present being given in several government departments, and would benefit the students by enabling them to share in the activities of larger and more varied groups. The commission also recommends a territorial college for Nigeria with a view to meeting the needs of government and commercial firms as the post-secondary level, (Fafuwa 1991: 177).

The 1946 ten-year plan for development and welfare incorporated the commission's recommendations. The plan

proposed handicraft centres for training in manual arts; trade centres for the training of skilled craftsmen, and technical institutes for the training of technicians. A grant of €400,000 was provided by the government under the Colonial Development and Welfare Scheme towards the promotion of the programme for the first five years. The three regional governments started in earnest to implement the scheme; particularly in the north where fourteen craft schools were built between 1956 and 1960 (the West built four, the East nine, and Lagos two). In spite of this initial enthusiasm on the part of the various regional governments, technical education remained the Cinderella of Nigeria education even in the 1970s.

Reasons for Non-Performance of Vocational and Technical education in Nigeria

The vital role of Vocational and Technical Education is the production of skilled and competent manpower for economic, industrial and social development for the nation. This cannot be achieved if an efficient and effective teaching and examination is not maintained. Therefore, there is no way a nation can develop without vocational and technical education. One may be tempted to ask "why are our roads death traps today? Why do we have water board without a single drop of water? Why are our buildings collapsing? Why are our refineries in a state of comatose? Why are our traffic lights not functioning? Why are we having shortages of food even when grains can grow in our lands? Why do we have frauds in our establishment today? Why do we have incompetent and indolent office workers today? And why are our industries not working?"

The simply answers to all these questions are outright, sincerely, truly and total commitment to accepting vocational and technical education in Nigeria. Unfortunately, contrary is the position of our government on the issue of vocational

and technical education programme. Vocational and Technical Education graduates are not given proper training as well as non proper utilization of graduates of vocational and technical education who are expected to engaged in the maintenance of our roads, pipe water, electricity, refineries, improving the food supplies. There are short supply of technical teachers; supply of teaching equipment, non provision of cost of administering technical education, public perception and interpretation of government policy on technical education, industry-college liaison, poor conditions of service for technical teachers, lack of careers guidance and job placement of graduates of technical education. To us the present call for awareness of vocational and technical education programme by the federal government seems a mere call without total commitment. Vocational and technical education graduates are not employed coupled with the fact that they were not given the right skills for national economic development. On the area of road and power sectors, Ajagu and Bamalu (2008) stated that a declaration of state of emergency is recommended.

While on agriculture, according to Ohiwerei and Nwosu (2009) in the area of food, is the food available? The National President, Nigeria Institute of Food Science and Technology, looking at the millennium development goals and targets set to meet them by 2015 with MDG. Eradication of extreme hunger and poverty as first, he said "if left unaddressed, hunger sets in motion as array of outcomes that perpetuates malnutrition, reduces the ability of adults to work and to give birth to healthy children and erodes children's ability to learn and lead productive healthy and happy lives"

The World Bank Policy Paper on vocational and technical education (1991) in Alam (2008) says that to get the maximum benefit to national development from vocational and technical education, the following factors must be considered:

Well timed modern courses linked of local and global demand;

Relevant and up to date vocational and technical education courses need to be developed;

Proper justification in respect of individual country that at which level of schooling is best in offering vocational and technical education courses; and wider range of vocational and technical education courses need to be developed in terms of demand and cost effectiveness (not only for offering various courses but also for duration of the courses, for student classification in terms of their merit, ages, job market, etc.).

Table 1: Some indexes of development for five underdeveloped countries including Nigeria

Country	HDI Rank	GDP per Capital (PPP\$)	Adult Literacy	Education Index Rate	Life Expectancy	Corrupt country index placing 1
Bangladesh	145	1,602	41.3	0.40	0.57	01
Nigeria	148	896	63.9	0.58	0.44	01
Angola	161	2,187	42.0	0.36	0.34	03
Madagascar	147	840	66.5	0.59	0.46	03
Kenya	134	1,022	82.4	0.72	0.43	03

Source: 1 Corrupt country index placing according to Transparency International. Asia-Pacific Journal of Cooperative Education, 2008, 9(1), 25-44

Table 2: Some indexes of development for five developed countries (UNDP 2005)

Country	HDI Rank	GDP per Capital (PPP\$)	Adult Literacy	Education Index Rate	Life Expectancy	Corrupt country index placing 2
Finland	10	24,996	1	0.99	0.77	01
Denmark	14	27,627	1	0.98	0.85	02
Iceland	7	29,581	1	0.96	0.90	03
Sweden	2	24,277	1	0.99	0.91	04
Canada	3	27,840	1	0.98	0.90	05

Source: 2 Transparency rating according to Transparency International. Asia-Pacific Journal of Cooperative Education, 2008, 9(1), 25-44

Present Situation of Vocational and Technical Education

The present situation of vocational and technical education in Nigeria is in a sorry state when considering the fact that Federal, States and Local Governments are only playing lip-service to vocational and technical education programmes. The vocational and technical education which are not only offered in very few universities, are offered under ill-equipped system, lack of qualified teachers and no stream-line curriculum development.

Jeong (1999) claims that before joining at the labor force, workers need to be trained to be more productive and to perform their tasks properly. Atcharena and Cailods (1999) say that workers need the training before joining the labour force, and also need in service training to maintain up to date skills. But Nigeria has taken the decision to build more traditional educational institutions rather than vocational and technical education institutions, which has resulted in producing graduates rather than skilled person power. Vocational and technical education is inherently multidisciplinary in nature, and depends to a significant extent on specialists from relevant disciplines in the country, as well as those in developed countries where development has been progressed through multidisciplinary activities (Watts, 1985). So the multidisciplinary nature of vocational and technical may help the students to reach the labour market and further education, with a solid foundation. Under such circumstances, there are many unemployed young people in Nigeria. Such people engage in socially undesirable activities such as kidnapping, internet fraud, armed robbery and drug taking resulting in social problems.

Non-Supervision of Vocational and Technical Education Programmes

Supervision is the process whereby an authorized person whose nomenclature thereafter called supervisor sees to the work of others to see whether it is in line with stated standard, and if not, he/she corrects, directs, teaches, demonstrates, assisting in processing of evaluating and examination and revising curriculum and courses of study, holding conferences or group meeting to discuss problems, attending local, state, regional and national professional conventions etc.

While Anderson (1982) in Kathleen (2006) stated that “even the terminology of supervision causes discomfort and weakens allegiance”. In some situations, supervision has been defined for legal and contractual purposes. For example, according to Hazi (1994) in Kathleen (2006), New Jersey law defined a supervisor as “any appropriately certified individual assigned with the responsibility for the direction and guidance of the work of teaching staff members.” In that context, supervision is defined by the administrative code and is “legally synonymous with evaluation”. But it is unfortunate to note that this essential aspect has evaded vocational and technical education programmes. For any nation to achieve it’s vocational and technical education programme objectives, it requires effective supervision.

According to Frederick (2009), the function of the supervisor is to help the workers to find himself, to discover his own best way of doing whatever that has to be done.

Kathleen (2006) says supervision is not a simple task. The field has a variety of sometimes incompatible definitions, a very low level of popular acceptance and many perplexing and challenging problems. While Anderson (1998) in Kathleen (2006) stated that even the terminology of supervision causes discomfort and weakens allegiances. Lack of supervision has adversely affected the economic growth of

the nation. This goes to show that vocational and technical education graduates were not employed and even when they are employed are not given on the job retraining and regular supervision for the maintenance of our refineries, building, roads, water board and industries etc.

Lack of Infrastructure

Virtually there is no university running vocational and technical education in Nigeria that can beat its chest to claim to have workshop, laboratory and equipment in stead when it is time for accreditation they go out borrowing equipment and converting offices/any available space for emergency and fire brigade temporary laboratory and workshop. National universities commission has failed totally in the aspect of supervision. A more pragmatic and drastic approach ought to be adopted such which is called inspectors that should visit the universities unannounced like is done in the banking industries.

The totality of this problem is on the part of the government, who for no reason has consistently refused to fund education in Nigeria. To ensure that there is a total stop deceptive and window dressing of our education, academic staff union of universities members has consistently be on the throat of the government to improve the sorry and decay state of Nigerian universities system. They went on strike from 8th June, 2009 till October, 2009, yet as reported widely by Nigerian media, the former Nigerian education minister celebrated his birth day within this period, with millions of naira, president and members of his family, governors, senators, house of representative members, legislators were travelling around the world, while the children of the politicians are schooling abroad, the children of the poor citizens stayed at home without schooling from June, 2009 to October, 2009 as a result of ASUU strike.

The importance of facilities to the overall success of any educational enterprise has never been in doubt. It is on this account that Buremoh (1985), Olutola (1989) and Morphet and Roe (1974) emphasized the need for the provision of adequate training for facilities. In vocational and technical education, there should be need for the availability of functional training facilities and equipment such as modern office machines in terms of computers, word processors, and electronic typewriters, and office copiers, modern home economic equipment, latest farm implements, good workshop and laboratory for analysis, electrical and mechanical equipment, building modern equipment, wood work, metal and automobile modern equipment is to say the least, critical. There is also a dire need for adequate working and storage space.

Conclusion

In conclusion, without urgent review and regularly reviewing of curriculum of vocational and technical education in Nigeria, there is no way vocational and technical education can contribute positively to the economic development of the country. For vocational and technical education to play its role in national development the government must assist vocational and technical education by providing funds, infrastructure, electricity, regular supervision of universities and personnel produced by the universities as well as creating an enabling environment and entrepreneurship soft loan to assist those who may wish to be self-reliance in the society.

Recommendations

The role of vocational and technical education in Nigeria economic development was identified in this research which can serve as a fundamental basis for future development. In view of this therefore, the authors recommended as follows:

1. That the Nigeria universities commission should harmonize the curriculum of all universities in Nigeria offering vocational and technical education.
2. Concerted efforts should be made for the supervision of vocational and technical education programmes and graduates personnel at their work places with a view to giving them regular re-training.
3. Regular review of the vocational and technical education curriculum is urgently required. This view is supported by that of Snyder (2008) which stated that flexibility curriculum is important because there is no single curriculum path to career success.
4. Government should provide both funds and equipment to assist for a holistic regular curriculum designers and implementers for smooth running of vocational and technical education programmes. This is in line with Omo-Ojugo and Ohiwerei (2008) which stated that local, state and federal governments should assist by providing fund and equipment for teaching and learning of vocational and technical education.
5. More courses should be incorporated into vocational and technical education curriculum such as entrepreneurship etc to provide more jobs opportunities for graduates of vocational and technical education.
6. Finally, it is hereby recommended that agricultural education and home economics education should form a department of their own called vocational education department. Electrical education, mechanical education, automobile education, building education, wood work education, metal education should form a department called technology department. While secretarial or office education, accounting education, computer education, commerce/co-operative or distributive/marketing education, should form a department called business education as is presently done in some universities.

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