
Technical and Vocational Education and Human Capital Development in a Diversified Economy

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Abstract

For any nation to create jobs and be self-reliant there is need for human capital development through technical and vocational education. This paper therefore examines the concept of education and human capital. It further talks about technical and vocational education and how it engenders human capital development. It also highlights how the academic structure, teaching pedagogy, academic staff, industry participation and learning support programmes will help to stimulate human capital development. The paper recommends the need for government at all levels to have a deliberate policy to create conducive environment for technical and vocational education to flourish, thereby realizing its objective of enhancing human capital development in Nigeria. It further recommend the need for social education and reworking of education curriculum to make technical and vocational education compulsory from primary school to tertiary education level.

Introduction

Advance economies of the world have been dependant on human capital that is adequately developed. Norasmah Norhazifa and Rahamah (2012) stated that the importance of skilled

manpower / entrepreneur to the economic system has led to the importance of practical oriented education nowadays. Technical and vocational Education (TVE) does not only play a critical role in preparing the individual for the world of work, but it is a contributing factor to the development of quality human capital in terms of its ability to explore new skills in technology (Hisrich, Peter & Shapherd, 2005).

Matsuura (2001) opined that education should be for all and most importantly TVE which is an indispensable segment of education crucial to the technological empowerment of people and consequently the nation. According to Obadara and Oyebolu (2013), TVE is the key to self-reliance and human capital development which enhances economic growth opportunities

for diversified subsistence production as well as establishment of small, medium and large scale industries. Consequent on the foregoing, most developing countries that desire development laid great emphasis on human capital development through enhance TVE. Countries such as South Korea, Singapore and Malaysia have achieved remarkable success in economic growth and development using various strategies such as innovative TVE curriculum, development plans, loans, donor programmes, international funding agencies and the like (Udofia in Fajimi, 2005)

Unfortunately, in Nigeria little or no effort has been made towards this direction. United Nation Development Programme (UNDP) report (2004) rated Nigeria low in its human capital development balance sheet on various fronts ranging from education down to infrastructure. Nigeria has become one of the poorest countries in the world in spite of its abundant resources. This is sad indeed and the reason for this sorry state of affair is because

Nigeria's human capital is neglected and TVE is not deliberately encouraged and supported. Without a well nurtured skill and hands on practical ability through proactive TVE, no genuine human capital development and national growth can be feasible (Obisi and Anyim, 2012). The question that is yet to be answered is; are there enough documents on TVE and human capital development? The irresistible urge to ask this question necessitated this study.

Education

For human capital to be developed, they need technical knowledge and skill which can only be acquired through education. There is a saying that people perish for lack of knowledge. Entrepreneurial abilities are a product of education. Nigeria should invest strategically on education, so that her human capital can be developed and ultimately will become entrepreneurs. Yusuff and Soyemi (2012), noted that through education, specific human capital abilities would be acquired which include;

1. Acquisition of conceptual knowledge
2. Development of capacities
3. Development of skills, attitudes and orientation, which small business owners would need to grow

Educational institutions need to take upon themselves to reinvigorate curriculum to impart knowledge and practical abilities which entrepreneurs would take advantage of.

The Concept of Human Capital

It is not an overstatement to say that any nation which fails to develop its human capital should not expect productive human capital. It is when a nation develops its human capital that human can drive its economic advancement through the growth of small and medium scale businesses. Obisi and Anyim (2012), stressed that human capital is the talent, skills, competencies and other advantages which people possess, that can

be put to use to give individuals, organizations and nations significant benefit.

Yusuff and Soyemi (2012), explains that human capital can be understood from the perspective of the populace that can be put to positive use towards the development of the nation. In other words, human capital represents the fundamental human infrastructure for technological development and by extension economic development. The Nigerian economic summit further explains that the higher the human capital of a society, the higher is the potential for economic growth.

Concept of Technical and Vocational Education (TVE)

TVE refers 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 sector of the

economy and social life (Uwaifo and Uddin, 2009).

The emphasis of TVE is therefore the acquisition of requisite technical and scientific skills that would supposedly promote the technical and technological growth of the nation through a cognitive practical orientated human capital. Hence, it aims at enhancing the human capital growth through the acquisition of skills that would qualify students as entrepreneurs not job seekers. It therefore stirs no surprise that the Federal Government of Nigeria (FGN, 2004), explain the goals of TVE thus;

1. To provide trained manpower in the applied sciences, technology and business particularly at the craft, advance craft and technical levels.
2. To provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development.

3. Give training and impart the necessary skills to individuals who shall be self-reliant economically.

Deriving from the above goals, it is obvious that TVE is designed to redress the anomaly of a massive unproductive human capital in the country that is roaming the streets looking for non-existent white collar jobs. The curriculum is designed to empower the nation's human capital economically and technologically. Suffice it to state that TVE has the potential of not only reducing the rate of unemployment but throwing the ugly trend of unemployment into the waste bin of history. Little wonder the curriculum of TVE emphasizes;

1. General education
2. Theory and related course
3. Workshop practice
4. Industrial training/practical field work

5. Small business management and entrepreneurial training (FGN, 2004)

The curriculum therefore aligns with the needs and aspirations of Nigerian state for a resourceful human capital development. It therefore behooves on the teacher and educational administrators to ensure the implementation of the curriculum so as to achieve desired human capital cum national development.

Realizing Human Capital Development through TVE

In line with the goals of TVE and the role of afore stated; TVE expectedly performs the following roles in the effort to Nigeria's human capital development leading to economic and technological transformation of the country.

1. **Individual Empowerment:** through acquisition of requisite skills in TVE, students will be empowered to meaningfully contribute to family upkeep

as well as help realize economic and technological viability of the nation. Nwamaka (2009) Obviously, acknowledging this role, posits that the following courses/ areas of vocational education are relevant to women empowerment:

1. Textile design including batik, ties and die, adire and the like
2. Weaving (kente, asoke, akwaete and the like)
3. Crocheting and knitting
4. Interior decoration (beauty touch to moms)
5. Clothing construction or sewing
6. Toy production
7. Production of household articles such as bed-spreading, pillow cases, table clothe and the like

8. **Technical / Technological**

Empowerment: Technical education would empower its students with requisite practical and innovative skill to establish themselves in areas like woodwork, automobile services, machinshop, (spear fabrication) welding and fabrication, building construction, block moulding and the like. These skills would enable the Nigerian human capital compete with the rest of the world in terms of per capita income generation and gross domestic product (GDP).

9. **Eradication of Unemployment:**

Through viable TVE, young Nigerians would be gainfully self-employed rather than roam the streets seeking for non-existent white collar jobs.

10. **Growth of Small and Medium**

Scale Enterprises: TVE would improve the quality and quantity of small and medium scale enterprises which

obviously holds the key to private sector initiative and economic transformation.

11. Increase Self Value: The human capital of the country will have an increased worth and self-value based on the technical competence and ability to create solutions and make things happen. They would consider roaming the streets for job as a misnomer and degradation of their ego. Such self-value would make them also adhere not only to the ethics of their professions but the societal norms and values which help in the making of a better society.

12. Reduce Crime Rate: Since the idle mind is the devils workshop, skills acquired through TVE as earlier noted would keep our young graduates busy that they would not have time to engage in criminal activities.

In order to realize this sustainable human capital development through TVE, TVE has to be

strengthened with the introduction of few innovative approaches (Ismail, Aweng and Ibrahim, 2011). Ismail, Aweng and Ibrahim further stressed that the present academic structure, pedagogy and the role of academic staff should be reshaped to suit the global trend in TVE and entrepreneurial education. Above all, industry participation must be emphasized in teaching and learning of TVE courses at the same time increasing the learning support programme.

Academic Structure

Academic structure is an important element for success or failure of human capital development through TVE. The type of degree programmes offered, the content of the syllabus as well as classroom pedagogy must reflect and emphasize practical skill and hand on work. Even more especially, every module and course within each faculty/ school of the institution- whether it be technical, vocational or industrial technology

must include the attributes of practical experience as the backbone of the curriculum (Ismail et al, 2011).

In a nut shell, the academic curriculum and structure must be so designed to take into account the institution's mission to produce graduates imbued with practical and technical skills as well as entrepreneurial attributes and who are innovative with creative ability to adapt to environment and apply real life situation to their education.

Pedagogies

The teaching of newly designed courses embedded with technical and vocational elements demands instructors who are known as technical and vocational educators, to be creative and innovative in the delivering system (Bukola, 2011). The key source of TVE will no longer depend solely on the conventional teaching but must shift to Student Centered Learning (SCL). The pedagogy will pay attention to student needs, technical abilities, Interest and learning

styles with the teacher as the class facilitator. Even at that, SCL cannot stand alone, it has to be integrated in the curriculum for several reasons, such as to strengthen student's motivation, promote peer communication, reduce disruptive behavior, build student-teacher relationship, promote discovery/ group practical work (Ismail, et al 2011).

Transforming the Role of Academic Staff

TVE students must be taught the right resource. Bukola (2011) opined that it is imperative for students at large to appreciate what the world of practical and creative work entails and imbibe the necessary skills; academic staff must first be trained and sufficiently exposed to acquire the ability to master the teaching of TVE. Only then will such lecturers/ instructors develop the requisite attribute in technical and vocational trades which will then influence them as to how best TVE can be taught in class.

Industry Participation

Adequate diverse means should be use to deliver TVE curriculum. Ismail, et al (2011), posited that besides lectures, tutorial, practical classes, field work and industrial training, the curriculum should also include sharing experiences with industry experts and company chief executives, small business and trade management in periodically held talks. The talk can be scheduled once in three months. Students should be the major participants of this talk while a number of technical experts and vocational business owners are invited to join, so as to provide the platform for the students to interact and acquire first-hand information and awareness. These experience and exposure are expected to develop interest and inculcate entrepreneurial spirit among the students and thereby understand at close quarters the long and winding road in the arena of establishing a trade to express their acquired technical skill.

Learning Support Programmes

Established learning programmes of any higher institution which aspires to train students to

acquire technical skill for a self-reliant life should be supported. This should be done during semester breaks where about 10-14 days might be use for a kind short term internship. The emphasis is not on learning and experiencing a piece of the working world, but on how to help the students establish small and medium scale industries and practice their acquired skill upon graduation and how they can be efficient at it (Nelson, 1999). Under this approach, students are given the liberty to choose the industry or occupational area they would like to engage in. they then proceed to observe professionals –in practice in the actual business environment related to the course taken. The observation they make among the professional must lead to the production of and postulation of a proposal for how these trades and business can expand, grow, and be profitable. This type of learning according to Jason, Dennis and John, (2010) are called students in enterprise programme (SIEP) which is really an extension of basic internship cum

practical training aspect of all degree programmes.

The human capital of any nation developed in the area of technical and vocational skills is a great enabler, which unarguably will level the playing field between developed and developing countries and regions. Be it as it may, human capital can only truly develop when the TVE is properly harnessed, nurtured and implemented to the later. Without a well-developed human capital, genuine economic growth and national development would remain a distant dream.

Conclusion

It is sad to say here that the situation on ground shows neglect to purposeful and effective human capital development. This is evident from poor infrastructure, little social amenities, little or no recognition of technical educators and students, lack of support for people with innovative skills and ideas and the like. All of these serve as log in the wheel of human capital development, unless drastic steps are taken to remove the issues

highlighted above, and revamp TVE as well as human capital development capable of steering the ship of genuine national development, all of these laudable possibilities would never be achieved.

Recommendations

In view of the foregoing, the following recommendations are advanced:

1. Government at all levels must have deliberate policies to create conducive environment for a functional TVE to genuinely impart on the human capital.
2. Social education and reworking education at all levels by making TVE compulsory from primary level to tertiary level would help encourage the study of TVE and thereby groom a more productive human capital.
3. Teachers are the key to TVE and as such they should develop by providing

training, particularly in practical and interactive teaching methods.

References

- Bukola, A.B. (2011). Entrepreneurship education: Imperative for sustainable Development in Nigeria. *Journal of emerging trends in educational research and poly study*. 2,1 26-29
- Famiji, O. (2005). The place of technical education in achieving the objective of national economic empowerment and development strategy (NEEDS). *Akoka journal of vocational education*, 4,1 90-97
- Federal Government of Nigeria (2004). *National policy on education*. Lagos.NERDC.
- Hisrich, R.D., Peters, M.P. and Shapherd D. (2008). *Entrepreneurship*. New York. Mcgrow-hill company INC.
- Is mail, A.A., Aweng, E.R. and Ibrahim, C.O. (2011) Sustainable human capital development Through: entrepreneurship education. Global higher education forum, Hotel equatorial, pulao
- Jason B. P., Dennis W. D. and John C. R. (2007). Identifying Technical Content Training Needs of Georgia Agriculture Teachers. *Journal of Career and Technical Education*, 23, 1, 44-54
- Matsuura, K. (2001). Keynote address at the 9th ministerial review meeting, Beijing, china. 8,4,1
- Nwamaka, L. (2009). The place of fashion business in gender empowerment against poverty. *Journal of arts, science and technology*. 4, 43-49



Nelson, R.E. (1999). Exporting entrepreneurship. *Vocational education journal*, 6,35-43

Norhasmah, O. Mor, H.O. and Rahman, G. (2012). Impact of globalization on entrepreneurship education and entrepreneurship skill in higher education institutions. Second international conference on economics, trade and development (DPR), 36

Obadara, O.E and Oyebolu, S.O (2013). Impact of technical and vocational education on manpower development. *Mediterranean Journal of Social Sciences*,. 4,3, 409-413

Obisi, C. and Anyim, F.C. (2012). Developing the human capital for entrepreneurship challenges and success. *International journal of academic research in business and social sciences*, 2,3 54-61

Uwaifo, V.O. and Uddin, P.S.O. (2009). Technology and development in Nigeria: Missing Link.

Journal of human ecology, 28,2 107-111

Yusuff, M. A. and Soyemi, J. (2012). Achieving Sustainable Economic Development in Nigeria

through Technical and Vocational Education and Training: The Missing Link.