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Vocational and technical education for sustainable development: A roadmap to peace building and socio-economic reconstruction in Africa

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Abstract

This study provided critical examination of policy formulation and implementation of Vocational and Technical Education (VTE) in some African countries. The study brought to fore relevance of VTE in engendering peace building and socio-economic development in Africa by examining four African countries: Nigeria, Botswana, Tanzania and Algeria. Apart from Nigeria in West Africa, three other countries were randomly selected one each from South, East and North Africa respectively. Juxtaposition of the objectives of VTE in the four countries was made. The study advocated a holistic implementation of policies on VTE in the African continent. Thus, it critically examined the concepts of vocational and technical education, relationship between vocational and technical skills acquisition and peace building in Africa. It also considered the roles of VTE in socio-economic reconstruction in the continent and how VTE engenders peace among the youths. National governments of each nation should give VTE due attention that makes school children and youths acquire work-related and work-based skills which will guarantee their employability after leaving schools rather than being school leavers who lack the required employable skills in the labour market. The study concluded that if this is done, every youth will be gainfully engaged and have no time for idleness and restiveness.

Keywords: Vocational/technical education; Sustainable livelihood/development; Policy formulation/implementation; Peace building; Socio-economic Reconstruction

1. Introduction

Work is key to sustainable livelihood just as peace is central to socio-economic development and general human wellbeing. There cannot be meaningful sustainable development if there is no sustainable livelihood as well as peaceful living and co-existence. Adebisi (2013) noted that sustainable development goes hand-in-hand with sustainable livelihood. When God created man, he provided work for him to do by putting him in the Garden of Eden to 'dress' and 'keep' it (Holy Bible, Gen. 2:15, KJV). That was with a view to sustaining human existence and living. Doing and keeping one's job/work is a catalyst for sustainable development and peace of mind. Vocational and technical education (VTE) is a sub-system of education designed to equip individuals with vocational and technical work skills. However, this sub-system of education has been regrettably neglected in many African countries. The consequences of which have been high rate of unemployment and joblessness culminating into restiveness among youths in the continent.

Very large population of youth in Africa is idle. According to Kamer (2022), around 12.7 percent of the African youths were unemployed in 2022. Mahdjoub and Miliani (2017) writing on the menace of unemployment in Algeria lamented that in a country with a population of over 39 million, 60% of whose citizens are under 30 and 27% under 14, the hardest hit by unemployment are the educated young people. Thus, these youths are susceptible to engaging in insurgence and militancy plus the associated crimes, which are the foremost evils of this generation. There is an African

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adage which literally means that those who have work or business would not want to or do anything detrimental to their works or businesses. On the contrary, those who do not have work or business would almost be available to foment troubles since they do not have any thing at stake to lose. Most unemployed youths in Africa are frustrated and depressed and at a very slight provocation are prone to restiveness. Adebisi, Akinsooto and Akpomuje (2014) observed that the level of unemployment in a country has direct negative effects on the level of crimes and insecurity in such country. European Training Foundation (2000) stated that poverty is associated with unemployment. According to Van der Veen and Simone, (2020) unemployed youths are frequently perceived as a high risk for the stability of a country. It therefore means that creation of jobs and employment opportunities are viable ways of maintaining peace, law and order in the African societies. Thus, promoting vocational and technical education is very crucial and germane in creating jobs and self-reliance among the youths in the continent. Creating jobs and employment opportunities in turn will make the youths to be occupied and engaged with legitimate sources of livelihood thereby curbing their involvements in criminal activities such as frauds, kidnapping, armed robbery, banditry and insurgency. Unemployment, according to Adebisi, et al (2014) has made many youths embrace crimes as a means of survival.

2. Vocational and Technical Education in a Conceptual Exploration

Federal Republic of Nigeria (FRN) (2014) in the National Policy on Education (NPE), used the nomenclature: Technical and Vocational Education and Training (TVET) to conceptualize vocational and technical education (VTE). FRN (2014: 24) describes TVET as 'those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life'. From this definition, VTE can be seen as a process of education which combines both the liberal and practical training in the development of individuals towards various occupations.

The Botswana's Revised National Policy on Education (RNPE) provides the general framework for the formulation of a policy to guide future development of vocational education and training in the country (Ministry of Labour and Home Affairs, 1997). The RNPE sees the need to focus attention on a training system which is distinct from general education and which should be accorded significant priority given the importance of skills training in the achievement of Botswana's development objectives as very germane. In Botswana, the National Policy on Vocational Education and Training, therefore, provides clear direction for future development of vocational education and training. The main aim of Botswana's vocational and technical education and training system is to develop a well-trained workforce with the skills necessary to foster economic development (World Bank, 2015). Employment creation, productivity improvement, and overall human resource capacity building are seen to be major challenges in Botswana's efforts to achieve economic competitiveness and sustained development. The country, therefore believes that training and skills development of its youths are key in meeting these challenges. According to Oketch (2014) vocational education is no longer simply training to facilitate job entry, but a way to facilitate vocational-specific skills over lifetime.

In Tanzania, VET is viewed as a form of education that provides the necessary knowledge and skills required to exploit the natural resources of the country through scientific and technical discovery. The Tanzanian Government believes that VET enables the material wealth of a nation to be built up. Thus, the Tanzanian policy on VET emphasizes that the availability of technical personnel in the right numbers, at the right time, in the right place and with the right balance of technical knowledge and practical skills determine the pace and direction of industrial innovation and socioeconomic development of the county (The United Republic of Tanzania, 1996).

Vocational education in Algeria was said to have a checkered past. At independence from the French, Algeria was found with no national vocational education policy. History has it that colonial authorities often opened vocational schools as a second-class educational option for the "natives," so not surprisingly, after independence, Algerians had a strong apathy for going to school to acquire vocational/technical skills. Also at that time, and for decades, the Algerian Government was the main employer in the country, and general education was viewed as the appropriate form of training for government employment. In Algeria, vocational education was intended to provide graduates with immediate employment and to provide the country with a trained work force as Algeria concentrated on developing heavy industry. Students were to be trained as apprentices for up to five years (education.stateuniversity.com). According Clark (2006) a major goal of education in Algeria immediately after the country's independence in 1962 was the promotion of a skilled class of workers and technicians through the emphasis of technical and vocational education.

Arising from the above concepts of VTE across the national education systems of countries under study, it becomes worthwhile for the African countries to combine both the knowledge-based economy and the skill-based economy to achieve balance and cater to the employment needs of the teeming unemployable youths and college graduates in the continent. Vocational and technical education provides the recipients with employable job skills and self-reliance

capabilities. Lumbreras, Oviedo, and Hans-Ferdinand (2021) asserted that personal elements are important for the pursuit of a sustainable future. They were however concerned that building a sustainable future is one the greatest challenges humanity needs to address.

The Table below presents juxtaposition of aims and objectives of vocational and technical education in Nigeria, Botswana, Tanzania and Algeria. The objectives are laudable. The concern will then be that if each country has such laudable and fantastic objectives of VTE stated in their national education policies, why then do we still have large numbers of unemployable graduates and school leavers as population of jobless youths in the continent? The juxtaposition of the objectives revealed that the countries aimed at the same things using different words and expressions.

Table 1 Juxtaposition of Aims and Objectives of Vocational and Technical Education in Nigeria, Botswana, Tanzania and Algeria

Objectives of vocational and technical education in Nigeria, Botswana, Tanzania and Algeria			
Nigeria	Botswana	Tanzania	Algeria
<p>The goals of Technical and Vocational Education Training shall be to:</p> <ul style="list-style-type: none"> • provide trained manpower in the applied sciences, technology and business, particularly at craft, advance craft and technical levels; • provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development of Nigeria; and, • give training and impart the necessary skills to individuals for economic self-reliance. • provide courses of instruction and training in engineering, and other technologies, applied sciences, business and management, leading to the production of trained manpower; • give training that imparts the necessary skills for the production of technicians, technologists and other skilled personnel who shall be 	<ul style="list-style-type: none"> • to plan, promote and deliver skills training for the workforce to meet specific standards and quality targets defined by all stakeholders and to contribute to the productive development of the informal sector • to provide continuing education and training for skills upgrading and re-training in the light of rapid technological change • to provide initial training for school-leavers of basic education to acquire skills which will enhance their opportunities for employment or self-employment • to establish an open and flexible training structure that will facilitate horizontal and vertical mobility within the general education and training system and contribute to a change of attitudes and stereotypes towards vocational education and training • to achieve equity in the provision of vocational education and training • to initiate programmes which use innovative training and delivery 	<ul style="list-style-type: none"> • To train sufficient numbers of skilled, competent and reliable technicians and technologists, to meet the needs of formal and informal sectors; • To establish, maintain and consolidate training institutions by equipping them with sufficient manpower and facilities for high quality training to meet their specific objectives; • To promote coordination between educational, manpower and economic planners, through the National Council for Technical Education; • To encourage industry to take an active role in the education and training of artisans/craftsmen, technicians, technologists and engineers; • To ensure that, there is a free flow of information between training institutions, government parastatal organisations, and any other organisations offering technical education and training; • To ensure that technical education and training at all levels of education is properly integrated with the national economic development programmes; 	<ul style="list-style-type: none"> • the re-establishment of the original purpose of vocational training through the revival of traditional craft trades and the development of manual trades, particularly in agriculture and construction; • the introduction and promotion of occupations created by the new knowledge-based economy; • the funding of training and advanced training for the sector’s human resources, especially the teachers; and iv) the diversification of funding sources. • <i>Source: Algeria-African Development Bank (2008). Purpose of Vocational Training... p. 116</i>

<p>enterprising and self-reliant;</p> <ul style="list-style-type: none"> • train people who can apply scientific knowledge to solve environmental problems for the convenience of man; and, • give exposure on professional studies in the technologies. <p>• <i>Sources: Federal Republic of Nigeria (2014). National Policy on Education. Nigerian Educational Research & Development Council (NERDC), Abuja. P. 24 & 45-46</i></p>	<p>methods for increased participation in vocational education and training</p> <ul style="list-style-type: none"> • to develop national standards for vocational qualifications and regulations for the provision of vocational education and training • to establish mechanisms for the effective co-ordination of the training system <p>• <i>Source: Ministry of Labour and Home Affairs (1997). National Policy on Vocational Education and Training, Republic of Botswana. P. 7</i></p>	<ul style="list-style-type: none"> • To promote a self-employment culture through entrepreneurship education development; • To promote indigenous and endogenous technologies; • To ensure that, the national technical education and training standards match with international standard classification of occupation; • To improve the employment conditions for teachers/lecturers in technical education and training system in order to attract and retain qualified personnel; and • To promote and encourage women participation in technical education and training. <p>• <i>Source: The United Republic of Tanzania (1996). The Technical Education and Training Policy in Tanzania. P. 3</i></p>	
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3. Relationship between Vocational and Technical Skills Acquisition and Peace Building in Africa

Suleiman (2013) proffered vocational skills acquisition as a disarmament and peace building tool in Africa by stating that:

- Achieving human security and peace includes not just protecting people but also empowering people to fend for themselves. So, jobs creation is an antidote to insecurity and peace building strategy.
- Vocational training skills is easier to access than other types of skill learning and provides an opportunity for people with low qualification levels to acquire new skills. Majority of the youths involved in crimes are people without or with low levels of educational qualifications and or vocational and technical skills.
- Vocational training is also more appealing to these groups than general education because vocational training skill is closer to the labour market and usually includes work based practical learning rather than classroom based theoretical studying.
- That vocational and technical education is needed in the African continent is an understatement. The problem of banditry and insurgency among the African youths will be drastically reduced if they are given the necessary vocational training that will keep them occupied and busy.

4. The Roles of Vocational and Technical Education in Socio-economic Reconstruction in Africa

The United Republic of Tanzania (1996) lamented that the shortage of technicians, engineers and technologists in every sector of the economy create a serious bottleneck in the implementation of the economic development programmes on which the nation depends. Nguliamali and Temu (2014) conceived development as moving from one step to an improved one through technical know-how. They believed that skilled persons have important roles to play in transforming various sectors of the economy including agriculture, industry, construction industry services in urban and rural areas, schools and in many other development activities. The following are ways that vocational and technical education can engender socio-economic reconstruction in the African continent.

- Vocational and technical education helps to tackle the problems of unemployment and reduces the number of people seeking white collar jobs. Training the youths and adults in vocational and technical trades empowers them to be self-reliant and self-employable by acquiring work skills in different vocations such as electrical, plumbing, automobile, vulcanizing, computer engineering, agriculture, cloth weaving among others culminating in adequate money circulation in the economy.
- Vocational and technical education is a motivating force in individuals to work for the nation because it stimulates technological and industrial development through the production of competent and honest workers who are capable of utilizing the abundant natural and human resources available in a country for economy and industrial growth and development.
- VTE helps to engender rapid economic development. Personal or individual's development is what presupposed the societal or national development. Continuous economic growth is essentially required to cater to the emerging and daily needs of the people in all aspects of life endeavours. The continent's vision 2063 can only be realized when the vocational and technical education among others is harnessed to empower youths in the continent.
- Utilizing vocational and technical education, there is a need by trained indigenous artisans, technologists and fabricators to invent and design relevant machines and equipment required to tackle the emerging developmental and societal challenges confronting the African continent. It is high time the African continent moved away from importation of hardware to the production or manufacturing of the same.
- Agriculture itself is a vocation as there is a strong bond between vocational and technical education and agriculture. Adequate inculcation of farming skills into the African youths will empower them to become 'intelligent users of our natural resources' (Morebise, 2022: 3).
- Vocational and technical education is also needed to prevent unprecedented mass emigration of youths from the continent to other continents especially to Canada, America and Europe resulting into brain drain and waste of human resources.
- Employment and job opportunities should be created where vocationally and technically trained African youths could utilize their vocational and technical skills rather than employing expatriates to do the work that the locales could and should do.
- Through effective vocational and technical education and training, a country can soar high in manpower development leading to sustainability of economic production within her boundaries.
- VTE has the potential of providing the much needed skills in the huge informal economy in Africa, which accounts for about 72% of non-agricultural economy (Ofori, 2017).
- Investments in vet could create the much needed boom in manufacturing and agro-processing industries in agriculture and other informal sectors.
- VTE has the ability to train and absorb a sizeable workforce to add value to primary products and natural resources in the agricultural sector, thereby starting an industrial revolution in Africa.
- Farm machinery and implements could also be made by skilled labour from VTE, resulting in an improved agriculture.
- VET could churn out competent technicians and artisans required in automobile, road and building construction and sanitation industries.

According to Van der Veen and Simone (2020), wider access to vocational and technical education not only leads to a decent workforce or boosts the national economy, but also enhances the security situation in conflict-affected environment.

5. How vocational and technical education engenders peace among the youths

- VTE plays a significant role in turning lazy and unbecoming people into productive workforce
- It makes the youths employable and self-employed.
- It provides youths with vocation and occupation.
- It gives the youths opportunities for investment and asset acquisition.
- It serves as rehabilitation panaceas to the repentant insurgents and bandits

6. Conclusion

The time has ripen for African countries and governments in the continent to allocate adequate resources, formulate and implement policies aimed at developing and revamping VTE since it is the key to industrialization, wealth creation and poverty reduction. The desire for peaceful living and socio-economic transformation in Africa must therefore highlight VTE as a driver of human development. More so, since the rehabilitation of many repented bandits and

insurgents hinges on making them undergo vocational training with a view to making them acquire vocational and technical skills that will make them self-employed, the onus is on the various nations' governments in Africa to see to the proper implementation of the set objectives of vocational and technical education and training. It is high time the African continent moved away from mere formulation of education policies to implementing the same to the letter.

“Prevention is better than cure” goes the common saying. Vocational and technical skills acquisition should be made mandatory for all students and young adults. A hungry person is an angry person! Joblessness will cause poverty. Poverty will cause hunger and hunger will cause anger. Anger in turn will cause violent reactions and violent reactions will cause crises. There can never be peace when there are crises neither can there be development when and where there is no peace. Therefore, Africa's economy must continue to undergo a rapid transition from a predominantly traditional to a more modern economy in which skill acquisition will be the main vehicle for employment and self-reliance.

Compliance with ethical standards

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