FUNDING OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) AND ITS IMPACT ON ENVIROMENTAL SUSTAINABILITY

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Abstract
This paper examines the funding of Technical and Vocational Education and Training (TVET) and its impact on environmental sustainability. Technical Vocational Education and Training (TVET) faces huge demands globally due to the high level of unemployment and the quest for technological development, industrialization and economic growth. For TVET to achieve its objectives of enabling learners to meet up with the ever-changing living standard in a fast growing technological world and creating jobs for sustainable living, it must be strengthened through alternative sources of funding because government cannot singlehandedly shoulder this enormous task. It is with this understanding that this paper examined the need for adequate alternative funding for TVET for environmental sustainability. The paper considered the effect of climate change on the socio-economic lives of Nigerians and how funding of TVET can reduce the hardship caused by the climate change. The paper concluded that TVET is the only sustainable solution to the socio-economic hardship caused by climate change and therefore it cannot be neglected or underfunded. Such deliberate action will have a multiplier effect on the citizenry and to effectively manage climate change. The paper therefore, suggested the way forward to alleviate the socio-economic lives of the citizens caused by climate change; government should embark on a rigorous form of TVET programme that would engage all categories of people for sustainable growth and development of the nation.

Keywords: TVET, Environment, Climate Chang, environmental sustainability, Socio-Economy, Funding, Agriculture, Technology, job creation

Introduction

The planet world in which we live has huge variety and richness in both material and human resources. However, humans are increasingly damaging what God has created. Our actions as a result of technological development, industrial pollution and increasing consumption are causing environmental degradation and climate change. The climate naturally changes over time, but in recent years climate change has accelerated and the world's leading scientists now agree that this is caused by human activity such as the use of fossil fuels and deforestation. Climate change is affecting weather patterns, by increasing global temperatures, causing erratic rainfall distribution, raising sea levels and intensifying cyclones. Environmental degradation has a huge impact on the lives of poor people because they depend more directly than the wealthy on resources from the natural environment. The effects of climate change are already being felt most in poor countries, due to their geographical location and lack of capacity to cope. Excessive consumption and large unregulated industries certainly have a negative impact on the environment. However, Ogbuabor and Eguchukwu (2017) opined there is also a need for development organizations to respond effectively and to ensure that their own work does not negatively impact the environment. Ogbuabor and Eguchukwu stressed that one of the ways to positively respond to climate change is to embrace Technical and vocational education and training

Technical Vocational Education and Training (TVET) is globally recognized for its role in preparing people for dynamic engagement in occupations of functional value and effective source of skilled workforce. Mahabubul (2008) pointed out that TVET is essential because it creates job for sustainable living and provides training that individuals require to catch up with the dynamic and ever-changing living standard in a fast growing technological world. TVET is a training that any nation requires to foster its socio-economic development. The UNESCO and ILO intervention with relevant recommendations has in recent times compelled thorough-going reforms globally towards revamping TVET for sustainable skill development. According to UNESCO (2001), what countries need mostly is how to successfully enforce implementation of their policy initiatives to make TVET effective through skill development towards reducing unemployment. This requires revamping TVET through rigorous

and realistic alternative sources of funding, making huge investment, showing repeated commitment to the cause of TVET and for TVET to gain proper public image. This paper examined the funding of TVET for effective environmental sustainability

Principles and Definitions of Environmental Sustainability

The term 'environment' is used to describe our surroundings – both the natural physical surroundings such as the land, water, climate, plants and animals that we can see, and the places in which we live with their social, cultural, economic and spiritual dynamics (usually called the human environment) (Stewart, 2005). People depend on the natural environment for survival. Our food, medicines, shelter, fuels and clothing are all sourced from it. For example, a farmer's crop relies on adequate water, sunshine, fertile soil, unpolluted air and soil, and balanced insect life and micro-organisms. Without any one of these, the crop is threatened and the farmer may not have enough food to feed the family or to sell in the market. People in urban areas also depend on the environment but perhaps in a less direct way. Their food may come indirectly through markets and shops. They usually buy rather than collect fuel for cooking. Manufactured products rely on the environment for:

i. the raw materials such as wood or plant fibres
ii. energy – usually from fossil fuels such as oil or diesel, to work the machinery
iii. water – factories often use a lot of water for manufacturing processes
iv. transport – over land by road and rail, across oceans or along rivers to customers.Human interaction with the environment often has a negative impact. Sometimes poor management of one resource leads to other environmental problems. For example, over-exploitation of forest reserves increases deforestation which can lead to landslides, flooding and soil erosion. There could be a loss of biodiversity or soil fertility if the cleared land is not managed properly, (Costanza & Bernard, 1995).

Poverty and the Environment

Since the industrial revolution in Europe in the 19th century, human economic activity has consumed resources at a faster rate than the earth can replenish them, causing damage to ecosystems, decreased biodiversity, and climate change, (Ekpo & Onweh, 20120. The ongoing desire to become wealthier and consume more has meant that people have used the environment for their own benefit without considering the negative effects. Ekpo & Onweh gave the following examples:

i. Land is being farmed too intensively, which can result in lower crop yields, loss of soil nutrients and increased desertification.
ii. High demand for water is drying up many rivers and lakes.
iii. Industry is causing pollution. This includes liquid waste (often disposed untreated into rivers and oceans, affecting marine life), solid waste (often dumped or buried in the ground, affecting human health through pollution and diseases spread by insect pests and vermin attracted by the waste), and air pollution (which can change climates locally and globally).

According to the United Nations Development Programme (UNDP) cited in UNESCO (2009), the richest two per cent of the world's adults own more than half of global household wealth, while the poorest 50 per cent of adults own only one per cent of global household wealth. The rich have benefited the most from global economic growth while the poor have generally benefited much less. Much of the environmental damage that has been caused by humans has been to serve the consumption of wealthy people. They usually have an indirect relationship with the environment, and so rarely see the damage they are causing. They are therefore likely to continue with their high consumption. As observed by Callicott & Kareem (1997) long time ago, many poor people in the southern part of the country have a direct relationship with the environment. They often rely directly on natural resources to meet their basic needs through agricultural production, fishing and the gathering of resources such as water, firewood, and wild plants for consumption and medicine. Poor people's health suffers most when the environment is degraded, such as through water, air or land pollution. Callicott & Kareem stressed that many poor people are forced to live in areas that are environmentally fragile, such as on steep slopes or flood plains, making them more vulnerable to climatic hazards. Poor people are also particularly vulnerable to the losses that result from environmental damage (such as crop failure due to drought or flooding) and may not have the resources to adapt to a changing environment. Poor people may be forced to exploit the environment, not usually through ignorance but in order for their families to survive. Although they may be aware of the damage they are doing, their immediate need for survival takes priority over

long-term environmental sustainability. They usually lack access to information and technology to help them to reduce that damage. Climate change is an urgent and global issue, but environmental degradation also has an impact locally and globally, including changing rainfall patterns and reducing the ability of the soil to hold water. Understanding these pressures is key to helping people to conserve and, where possible, enhance environmental resources and restore environmental damage.

Sustainable Development

Our dependence on a sustainable environment has been the focus of a number of international gatherings. According to Moreli (2011), in 1982 the World Commission on Environment and Development was established to look at the links between economic development and the environment. The report that was produced defined 'sustainable development' as, 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The 1992 Rio Earth Summit, as it became known, was the largest ever gathering of heads of government to discuss environmental issues. Moreli stressed that the summit resulted in historic agreements about a number of key principles related to sustainable development that have helped shape policies and practice over the last two decades:

i. economic development and environmental protection should be integrated
ii. there should be more equity within countries and between rich and poor countries
iii. scientific and technical knowledge related to sustainable development should be improved
iv. governments should protect citizens from environmental problems
v. the polluter should pay to restore damage caused to the environment
vi. environmental impact studies should be carried out before undertaking projects that are likely to have negative environmental consequences
vii. recognise the particular roles of:
    a. women, who often play a vital role in environmental management and development
    b. young people, so that the needs of future generations can be met
    c. indigenous people, due to their knowledge and traditional practices related to environmental management. Since the Rio Earth Summit, a number of agreements and plans related to sustainable development have been made at international level. For instance the:
    a. Agenda 21 is a plan of action to take forward the commitment to the Rio principles.
    b. Millennium Development Goal 7, Target 9 is to ensure that principles of sustainable development are integrated into country policies and programmes to reverse the loss of environmental resources.
    c. United Nations Framework Convention on Climate Change aims to prevent dangerous climate change. The above agreements indicate good progress in many areas on paper and in discussion, including a greater understanding of the importance of sustainable development. However, despite these international agreements, exploitation of the world's resources continues, mostly due to the demands of consumers in the North, increasingly at the expense of people in the South. (Moreli, 2011 & Benyioku, 2016)

Our Environmental Footprint

Stewart (2005) lamented that the stewardship of God's earth should be considered within all areas of our work and life. We all have an influence on our environment. Often this is a negative influence, using up resources or causing pollution, but we can also take actions to ensure that our way of life has a positive impact on the environment. Most things we do in life involve inter action with the environment, whether directly or indirectly. For example, providing a meal requires energy to grow the food and cook it. Catching a bus or driving a vehicle results in air pollution. When we walk through mud, we leave footprints behind. As we walk through life, we leave behind a mark on the environment, and environmental footprint. Some of us are like elephants, trampling down the vegetation and leaving a trail of damage behind in terms of our consumption, pollution and use of energy. Others are like antelopes, walking delicately and lightly, leaving behind a trail that can hardly be seen. This footprint can cause environmental degradation. It has consequences for other people. Climate change is a key example. Our use of fossil fuels and deforestation is causing climate change which has negative consequences for people all around the world, but it is poor people who are suffering the most.

Human lives are directly linked to the climate. Therefore, there is no gainsaying that human activities are changing the climate. Climate change of course has great impact on the ecosystems. There has been a continuous rise in global temperature in the last 130 years, which has huge consequences on a wide-range of climate related factors. It is evident that carbon dioxide (CO2) and Methane are being dumped in the atmosphere at an alarming rate as a result of the advent of industrial revolution. There are oil spillages and gas flaring all over the environment. Fossil fuels burning and deforestation which produce greenhouse gases are on the increase. This phenomenon is called greenhouse effect. Greenhouse gases act like blanket around the earth, wrapping energy into the atmosphere. This is the cause of the earth warming. As such our earth's average temperature has risen by 1.4^0f over the past century, and is projected to riseto another 2 to 11.5^0f over the next hundred years, (UNESCO, 2009). This rise in temperature of the planet can bring about ice caps melting, sea levels rising and other environmental challenges. The buildup of greenhouse gases can change earth's climate and result in dangerous effects to human health, safety, welfare and to the ecosystems. There are distortions and pollutions in our water supplies, agriculture, weather, seasons, power, transportation system, and so on. However, it is important to state that, some changes in the climate are unavoidable; carbon dioxide can stay in the atmosphere for nearly a century. As such, the earth will continue warming, and the warmer it becomes, the greater the risk for more adverse changes to the climate and the Earth's system. Even though it is difficult to predict or forecast the impact of climate change, yet, what is certain is that the climate we are used to is no longer a reliable guide for what to expect in future. In view of the adverse effects of certain human activities, that cause earth warming and climate change, it is important that we begin to make choices that will reduce greenhouse gas pollution, and the best way out of this is to get ourselves and the younger generations educated through technical and vocational education and training, TVET. The National Policy on education of the Federal Republic of Nigeria FRN, (2004), does not have any provision for the teaching of climate and environmental education. Nigeria is not the only country of the world that has this deficiency in her educational system. Several other countries in Africa have not made provision for this form of education. The western world is not left out. It is in the light of this, that this paper is billed to discuss the causes of climate and environmental changes and the need for environmental-friendly education policy in Nigeria through the following sub-headings.

i. The concepts of climate, environment, climate and environmental changes;
ii. Causes of climate and environmental changes;
iii. The need for education policy on climate and environmental education;
iv. Problems of teaching climate and environmental education;
v. Suggested policy statements on climate and environmental education

The Concepts of Climate and Environmental Changes

According to Idowu, Ayoola & Ikenweiwe 2011), climate is the average weather condition of a place over a long period of time, usually about or even over 30 years. Climate is the average weather usually taken over a 30-years period for a particular region and time. It is a large-scale, long-term shift in the planet's weather patterns or average weather condition. Idowu, et al stressed that to ascertain the climatic condition of a place, there is always a systematic observation, recording and processing of the climatic elements such as temperature, rainfall, atmosphere, pressure, humidity, wind, sunshine and clouds. Climate differs from weather in that, weather reflects short-term condition of the atmosphere while climate is the average daily weather for an extended period of time. The climatic elements are normally observed and measured over a period of time by weather instruments. Based on the data collected, maps and charts are prepared. Through these charts and maps, one can easily observe certain changes that may have occurred over a period of time. Environment in the view of Ajayi (1998) is the total surrounding of an organism in a given area including the physical and non-physical surroundings. Kwan, Lam and Ofoefuna (2011) see environments as the conditions of an organism's surroundings. Onuoha (2012) defined an environment as a set of conditions and forces which surround and have direct influence on the organization/organism. The Oxford Advanced Learners Dictionary defines environment as the conditions that affect the behaviour of somebody or something and/or the physical conditions that somebody or something exists in the natural world in which animals and plants live. It therefore implies that environment is made up of all the physical visible and microscopic matters that affect the existence of organisms positively or negatively and an organism does not exist in isolation. It must co-exist with other matters.

There are five divisions of the sphere of an environment according to Ajayi (1988). These are:

1. The atmosphere; made up of the troposphere and stratosphere. The atmosphere consists of 78% nitrogen, 21% oxygen and 0.003% carbon dioxide and water vapour as the most valuable component. This sphere is seen as very important because it aids biotic activities.
2. The stratosphere; which also is known as the ozone layer absorbs ultra-violet radiation. So, when suchradiation is prevented by the ozone layer from reaching the earth's surface in high intensity, many organisms (plants and animals) are relieved.
3. The Hydrosphere; this is the world of water existing in form of water, lakes and oceans.
4. The Biosphere; is the part of environment which is known as the active part of the earth where plants and animals inhabit. It is made up of Aquatic and terrestrial bicycles. The aquatic bicycles contain fresh and salt water, while the terrestrial bicycle is zone where certain life forms can exist outside water.
5. The lithosphere; is the solid part of the environment which contains rocks, sediments and soil minerals. Supporting this view (www. the guardian.com/environment) while describing internal mechanism argued that scientists generally define the five components of earth's climate system to include – atmosphere, hydrosphere, cry sphere, lithosphere (restricted to the surface soils, rocks and sediments) and biosphere. Natural changes in the climate system (internal forcing) result in internal climate variation e.g. include the typical distribution of species and changes as ocean currents.

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Climate and Environmental Changes

Climate change refers to a long change in the average weather pattern over a specific region/and a significant period of time. It is also seen as a change in the statistical distribution of weather patterns when that change lasts for an extended period of time (i.e. decades to millions of years). The most general definition of climate change is a change in the statistical properties of the climate system when considered over long period of time (Ekpo & Onweh, 2012). As such, fluctuations over periods shorter than few decades, such as El Nino do not represent climate change. The term sometimes is used to refer to climate change caused by human activity as opposed to change in climate that may have resulted as part of Earth's natural processes (Idowu et al). In this sense especially in the context of environmental policy the term climate change has become synonymous with anthropogenic global warming'' (McKenzie, 2004). Some scientific journals are of the opinion that global warming refers to surface temperature increases while climate change includes global warming and everything else that increasing greenhouse gas levels will affect'' climate change is also seen as a change in global or regional climate patterns, in particular, a change apparently from the mid to late 20th century onwards and attributed largely to the increased level of atmospheric carbon dioxide (CO2) (McKenzie, 2012). Environmental changes have to do with changes caused by the variation in the occurrences of some climatic factors; rainfall, temperature, light wind: biotic factors; predators, parasites, soil micro-organism, pest and diseases: and edaphic factors; soil pH, soil texture, soil structure etc. when environmental changes occur as a result of the actions of man and other natural phenomena, lives and properties are adversely affected.

Causes and Effect of Climate and Environmental Changes

In a broad sense, climate and environmental changes is the after mat of so many human activities and some natural occurrences. Some natural causes of climate change are referred to as 'climate forcing' or 'forcing mechanisms'. According to Ekpo &Idowu (2012) changes in the state of this system can occur externally (from extraterrestrial systems) or internally (from ocean, atmosphere and land systems), through any one of the described components. For example, an external change may involve a variation in the Sun's output which would externally vary the amount of solar radiation received by the Earth's atmosphere and surface. Internal variations in the Earth's climate system may be caused by changes in the concentrations of atmospheric gases, mountain building, volcanic

activity, and changes in the surface or atmospheric albedo. However, some climatologists such as Benyioku (2016) are of the opinion that only a limited number of factors are primarily responsible for most of the past episodes of climate change on the Earth. These factors include;

- Variations in the Earth's orbital characteristics
- Atmospheric carbon dioxide variations
- Volcanic eruptions
- Variation in solar output
- Plate Tectonics Thermohaline Circulation.

The Need for Sustainability

There is no question regarding the need for sustainability. In "The Concept of Environmental Sustainability," Robert Goodland cited in Moreli (2011) substantiates a history documenting this need, presenting proponents ranging from Mill and Malthus to Meadows. Thus, Brundtland et al puts forth a definition of "environmental sustainability as the maintenance of natural capital" and as a concept apart from, but connected to, both social sustainability and economic sustainability. These arguments are not repeated here but rather accepted as valid, supported, and used as a basis from which to proceed to further develop this concept. While the concept of sustainability is increasingly discredited as a useful concept by itself, it appears to be serving some purpose when preceded by a delineating modifier like "ecological" or "agricultural" or "economic." Efforts have been made by members of various professions to give meaning to the term within the context of those respective professions. Callicott and Kareem (1997), for example, developed the meaning of the term "ecological sustainability" as a useful concept for conservation biologists; In "Ecological Sustainability as a Conservation Concept," these authors advance an ecological definition of sustainability that connects human needs and ecosystem services: "meeting human needs without compromising the health of ecosystems." They propose this concept as a guiding principle for areas where human activities take place.

In "Economic Sustainability and the Preservation of Environmental Assets," Ogbuabor & Eguchukwu (2012) explains that from an economic standpoint, sustainability requires that current economic activity not disproportionately burden future generations. Economists will allocate environmental assets as only part of the value of natural and manmade capital, and their preservation becomes a function of an overall financial analysis. In contrast, the ecologist will seek to preserve minimum levels of environmental assets in physical terms. He suggests that since an ecological approach will better characterize the present situation, it should serve to limit conventional economic reasoning to ensure sustainability. Economic sustainability should involve analysis to minimize the social costs of meeting standards for protecting environmental assets but not for determining what those standards should be.

In "Social Sustainability" (McKenzie, 2004) identifies several attempts to define social sustainability and concludes it generally to be, "a positive condition within communities, and a process within communities that can achieve that condition." This definition is supplemented with a list of corresponding principles, including:

i. equity of access to key services
ii. equity between generations
iii. a system of relations valuing disparate cultures
iv. political participation of citizens, particularly at a local level
v. a sense of community ownership
vi. a system for transmitting awareness of social sustainability from one
vii. mechanisms for a community to fulfill its own needs where possible
viii. political advocacy to meet needs that cannot be met by community action

A sustainable environment is a necessary prerequisite to a sustainable socio-economic system, therefore the actions we take to remove threats to and foster environmental sustainability should contribute to such a system. While ecosystems range "from those that are relatively undisturbed, such as natural forests, to landscapes with mixed patterns of human use, to ecosystems intensively managed and modified by humans, such as agricultural land and urban areas," the "environmental" focus proposed here delineates the portion of that range where there exists significant patterns of human use ("Ecosystems and Human Well-Being").

A general definition of "environmental sustainability" can now be crafted in recognition of these linkages between human well-being and ecosystems and, in particular, "ecosystem services. Amadi & Johnwest (2016) connects the linkages through the development of technical and vocational skills as vital tool for economic development for two important reasons. First, technical and vocational skills are needed for enterprise productivity and profitability, as well as for national productivity and wealth creation. Without the necessary technical skills, enterprise and national growth can be seriously hobbled. Technological innovation and economic growth fuel the demand for skilled workers. The needfor technical and vocational skills is increasing because of a convergence offactor: technologicalchange, changes in work organization, growing economic openness and competitiveness, and capital deepening (increasing capital per worker).The second reason development of technical and vocational skills is of vital importance is because it is essential for individual prosperity. Skills enable the individual to increase productivity and income. This is especially important for those who are seeking out a living in the informal sector of the economy.

Technical Vocational Education and Training (TVET) is globally recognized for its role in preparing people for dynamic engagement in occupations of functional value and effective source of skilled workforce. The United Nations Educational Scientific and Cultural Organization (UNESCO, 2009) and the International Labour Organization (ILO, 2000) recommendation of 2000 on TVET for the 21st century define TVET as:

i. an integral part of general education;
ii. a means of preparing for occupational fields and effective participation in the world of work;
iii. an aspect of lifelong learning and a preparation for responsible citizenship;
iv. an instrument for promoting environmentally sound sustainable development;
v. a method of facilitating poverty alleviation (Oviawe, Uwameiye&Uddin, 2017).

Similarly, UNESCO (2009) defined TVET as all forms and aspects of education that are technical and vocational in nature, provided either in educational institutions or under their authority, by public authorities, the private sector or through other forms of organized education, formal or non-formal, aiming to ensure that all members of the community have access to the pathways of lifelong learning. The above definitions of TVET implies that its goal is to fight ignorance and literacy, provide knowledge, develop skills and inculcate the attitudes that are required for entry and progressing in any occupation. To Kukoyi (2009), TVET is a planned programme of courses and learning experiences that begin with exploration of career options, support basic academic and life skills, and enable achievement of high academic standards, leadership and preparation for industry-defined work. This implies that TVET prepares learners for career that are based on manual or practical activities, traditionally non-academic and totally related to a specific trade, occupation or vocation. Unlike general education, learning in TVET is centred on 'applied' as opposed to 'academic', practical as opposed to theory, and skills as opposed to knowledge. Accordingly, TVET today face huge demands globally due to high level of unemployment characterized by rapid population growth with no corresponding growth in infrastructures and job opportunities. For TVET to achieve its envisaged objectives, it must be properly strengthened.

Attitude towards Implementing TVET Policies

TVET programmes need to play a pivotal role in developing a new generation of people who will face the challenges of achieving sustainable socio-economic development throughout the globe (UNESCO, 2001). The major issue facing TVET implementation is the lack or unsatisfactory policy framework. Good policy framework will help promote TVET and its curriculum design and delivery to meet the needs of the labour market. There is need to revise the school's curriculum to reflect multiple intelligent from the industrial sector. To ensure that the issue of policy framework in TVET is addressed, publicity and advocacy for new TVET policy can serve as a means for proper implementation of TVET programmes. Since policy framework is the driving force to the planning, implementation and attainment of any programme or organizational objectives, therefore a good TVET policy framework can help to monitor and control manpower development for the workplace.

Relating TVET to Priority Areas of the Country

It is important to identify priorities of a nation before coming out with innovation areas that would contribute to the rapid development of the nation. TVET institutions should fashion its training in

harmony with identified priorities of the country. A study by the African Union on the state of TVET in 18 African nations has shown the priority areas for vocational training in Africa in the following order: agriculture, public health, water resources, energy, environmental management, information and communication technology, construction and maintenance. The general recommendation from the states include the development of appropriate competency-based curriculum in these areas, and compulsory implementation of TVET programmes for students in strategic fields such as entrepreneurship, computer literacy, agriculture and building construction. Training without consideration to priority areas will certainly result in flooding the workplace with unwanted skills thereby raising the level of unemployment and under-employment.

Linking TVET with Traditional Skills

Traditional skills have served tremendously in providing a source of livelihood. Some of these have been abandoned in quest for foreign skills. Where foreign skills can no long suffice due to lack of raw materials and where there is plenty of raw materials, TVET programmes can inject innovation into local skills for the production of traditional artifacts and related crafts to safeguard them from being extinct and to provide sustainable living.

Funding of TVET

Funding is an absolutely crucial input of any educational system. It provides the essential purchasing power with which education acquires its human and material resources. It is difficult to talk of the relevance and quality of education without considering the issue of funding and indeed, the funding process. Oviawe (2018) stated that TVET has suffered in the hands of general education administrators who in many nations have control over funds especially when such funds are centrally controlled, and where TVET is jointly managed with general education. In the situation where the two are jointly managed the likely personnel in control, for obvious reasons, is the general educator who hardly understands that TVET is much more capital intensive and more financially demanding than general education. A way out is to separate the management of TVET from that of general education. In Nigeria, the establishment of the National Board for Technical Education (NBTE) and TVET boards at the State level has to an extent addressed the management issues. However, a lot still need to be done by ensuring that only professional TVET managers and policy makers with adequate expertise and insight be placed in control of TVET.

Education is an expensive social venture that requires adequate financial provision from all tiers of government for successful implementation of the educational programme (FRN, 2004). Technical and Vocational education and training (TVET) today has shifted towards skill acquisition courses capable of making youths and adult self-reliant hence there is a clear need for the Nigerian Government to invest in it. According to Michael (2002) other countries, such as France, have taken a giant step to making it work. French National Assembly approved the law on social modernization which contains important measures concerning TVET and the right to employment. Okolocha (2012) noted that Nigeria today has joined other world counterparts in revamping and repositioning TVET programme which is geared towards ensuring a national system of education will enable young people see TVET as challenging and worthwhile. Nigeria, knowing the importance of TVET has taken a new direction. According to Osamin Oviawe (2018) one of the main defects of the Nigeria education system in the colonial era was its strong bias towards academic and literacy studies and its underdevelopment and underfunding of technical education.

Financing of education in Nigeria has principally been through government grants which continued till the 1970's before the establishment of the "Industrial Training Fund" (ITF) in October 1971. It is an agency of the government established to be part of the collaboration for the sharing of funding burden between the private and public sectors on recognition of the importance of Vocational Technical Education in Nigeria. This agency provides a link between academic institutions and the world of work through the Students Industrial Work Experience Scheme (SIWES). They are also involved in the management of funds attracted from organizations. The establishment of the ITF initiated wider participation in the financing of vocational and technical education in addition to government direct funding. According to OsamOviawe(2018), vocational and technical education must be adequately funded to revamp our economy for environmental sustainability. To achieve this, the Federal Government of Nigeria came up with a strategy of using the "Education Trust Fund" (ETF)

which was set up by law in 1993 to fund and upgrade the quality of vocational technical education in Nigeria (Olakunri, 2006). Furthermore, the Federal Government mapped out a three-year action plan to revamp technical and vocational education programmes through ETF, five billion naira (N5b) was mapped out as annual allocation for fiscal year action plan for 2005, 2006 and 2007 respectively.

Sources of Finance for Vocational Education

There are two major sources of finance to TVET otherwise referred to as revenue. These sources include: internal and external sources of finance. Finance from either source is used for capital expenditure or recurrent expenditure. The internal sources of school finance include; school fees, income from investments or educational entertainment activities, sales and services among others (Ebong, 2004). While the external sources include government grants, subventions, loans, non-governmental donations, endowment fund and appeal funds. The sourced finance is utilized in the execution of TVET in aspect of capital and recurrent expenditure. For clarity, the sources of finance for vocational education are:

i. Budgetary allocation by Government:This is basically the major source of finance for vocational education. It is the finance that is often used for the running of the programme and all other expenses. FRN (2004) stated that the financing of education is a joint responsibility of the federal, state and local governments and the private sector. This fund is used for the payment of workers' salaries which makes up part of the recurrent expenditure (Borode, 2010).
ii. Students' school fees: Technically, education is free in Nigeria as to allow every citizen the right to attend. FRN (2004) stated that the government ultimate goal is to make education free at all level. However, tuition fees are paid in some schools, developmental levies, purchase of uniforms and books (Obasi&Asodike, 2007). These funds when generated are used for the running of TVET programme in Nigeria.
iii. Endowment fund/Donations:These are funds provided through donation for the execution of institution projects and provision of facilities for the running of vocational education. Schools hold functions like prize giving day, inter-house sports competitions etc. Appeals can be made by schools to government agencies, non-governmental agencies (NGO's), wealthy individuals and to organizations to donate funds for the execution of some specific projects that assist vocational and technical education to achieve its mission for Nigeria (Offiong et al, 2013). This is backed by the FRN (2004) which states thus: in the quest to finance education, government welcomes and encourages the participation of local communities, individuals and other organization who may donate funds for the running of the educationalsector.
iv. Companies and non-governmental organizations:Borode (2010) stated that there are some multi-national companies that partly sponsor vocational education by awarding scholarship to learners. Some other non-governmental organization like banks, UNESCO and UNICEF also support vocational education. FRN (2004) asserted that relevant sectorial bodies such as Nigerian Education bank and the Education Tax Fund are established to respond to the funding needs of education.
v. Industrial Training Fund:This was established in October, 1971 by the federal government with the aim to donate funds and equipment in support of vocational and technical education (Okeke, 2006). This establishment has been a source of finance of vocational education. It equally helpsto train men and women to have skills leading to the production of craftsmen, technicians and other skilled personnel for self-reliance. Other sources of fund to ease the burden on the government are; the Petroleum Trust Fund (PTF), National Science and Technology Fund (NSTF).
vi. Sales and Services:These are funds generated from the sale of school produce. Vocational and Technical Education Department with the effort of the students' practical work produces materials and other products to be used by the public. These things are sold out to individuals, or companies and the fund being put back into the development of the school. For instance, a poultry farm is established at the end of every three months the birds are sold, the money goes back into the school account which will be used at subsequent time for the expansion of the farm.
vii. Alumni Association and Aids:This is an old students association which assists the school through cash donations, provision of equipment, building of infrastructure such as classroom blocks, libraries, hostels etc. This is a major contribution to the development of the school.

viii. The host community:The community where the school is located also provides funds to the school directly or indirectly. Fund is provided directly in a situation where wealthy individuals in the community donate school facilities for the running of the school like chairs, books, cash, writing materials among others whereas indirectly the community funds the school through the area of land provided for the sitting of the school which when valued could be more than any other source through which funds come to the school.

ix. International Aids:Funds are gotten for the running of Vocational Technical Education through the help of international organizations such as the UNESCO, UNCEF, Ford Foundation, World Bank and the rest of them. These organizations have been helping out to see that Vocational Technical Education in Nigeria succeed as to cut down the level of unskilled workers being produced in the formal educations as it has been evident that graduates of the universities or higher institutions often do not have saleable skills to fit into the world of work.

x. Parents-Teachers Association (PTA):This is an association that is made up by students' parents who come together to discuss the affairs and well-being of the school. Their main goal is to promote development in the school by supporting the school through fund raising and could as well seek external financial assistance from wealthy individual in a critical situation where funds are urgently needed. The funds raised by this organization are majorly used for building infrastructure for the school and for providing facilities/equipment.

For Nigerian citizens to benefit maximally from TVET as experienced by many of the developed nations, other sources of funding have to be exploited in addition to the ones stated in this study. Some of these are:

i. Government should improve more and ensure that financing of TVET programmes is adequate enough to meet the staffing, facilities and equipment needs of the sector so as to meet international standard.

ii. Multi-national companies should live up to their responsibilities in terms of their agreement with their host communities. This will generally enhance the performance of the sector.

iii. International aids should be sourced by the Federal Government Nigeria to boost the implementation of action plans for the sector.

Training for Skills, Job-Creation and Linking TVET Institutions to theWorkplace

Oviawe (2018) stressed that developing relevant skills and matching training with job for sustainable living is fundamental to effective TVET. This objective can be achieved if TVET know the needs the workplace requires from TVET products or graduates. These needs may include: practical capacity (capacity for skill acquisition); theoretical and technical knowledge (capacity to show knowledge of operating principles and relate to practice); creativity and entrepreneurship, social capacity, and information and communication technology (ICT) skills (Madungwa, 2012). Other skills required by the workplace include communicative skills; critical thinking and problem Solving skills; team work; long learning and information management skills; entrepreneurship skills; ethics, moral and professional; and leadership skills.TVET institutions cannot successfully play this role of providing high quality manpower with advanced skills if it operates in isolation of the operating industries that require skilled workers. TVET institutions must establish collaborative linkages with these industries that require their graduates. Such linkages on a well fashioned partnership terms will guarantee quality skill and smooth transition from school to work. In meeting, the skill needs of the teeming youths and addressing ever-increasing trend of unemployment and underemployment, government globally have been compelled to strengthen the link between institutions and workplace. This in most cases takes the form of closely involving the industry and, developing occupational standards and, work-based verification and continuous assessment of trainees. The world needs a production-oriented TVET which must incorporate functional skill development and knowledge driven programmes with sufficient motivational and reward mechanism. For TVET to produce people with powerful skills and high quality innovative minds to build the world and make it a better place, some fundamental mechanisms such as TVET institution-workplace collaboration should be considered.

Conclusion

This study covers current developments in financing vocational education, sources of finance for vocational education and utilization of revenue in vocational education. The study also noted that Vocational Education should be made more affordable and accessible to Nigerians. Unskilled professionals in the workforce and making funds available to retrain unemployed Nigerian graduates in the labor market were also focused. Funds should be made available by stake holders to boost the

sector. Sources of finance for vocational education programme include budgetary allocation by Government, Student's school fees, endowment fees/donations, Alumni Association and Aids, sales and services by host communities. Finance allocated to vocational education are been utilized for the payment of workers' salaries, purchase of equipment, facilities and the maintenance of existing equipment as well as training of personnel.

The Way forward

Technology and vocational education and training cannot be overlooked or underfunded considering its impact on national development in general and economic emancipation of the individual. Therefore, this paper suggested the way forward to include:

i. Government should improve more on the financing of vocational education to meet the staffing, facilities and equipment of the sector so as to meet international standard.
ii. Multi-national companies should live up to their responsibilities in terms of their agreement with their host communities. This will generally enhance the performance of the sector.
iii. International aids should be sourced by tertiary institutions in Nigeria to boost the implementation of action plans for the sector.4.Vocational education should be practical oriented in order to provide goods and services to boost the sector.

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