

Redesigning Technical Vocational Education and Training for Sustainable Economic Development in Nigeria

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ABSTRACT

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Nigeria adopted TVET programs in her education strategy to educate and train qualified workers and develop middle-level personnel who will be self-sufficient to grow the economy and national stability. Nigeria's economy and national cohesion are threatened by various concerns. The country's problems include high unemployment, deep poverty, and increased insecurity. Nigeria's TVET program must be redesigned to develop 21st-century workers to stabilize and build the economy to avoid these challenges. This study aimed at redesigning TVET for sustainable economic development through the provision of skilled and competent work force for industries and for self-reliant. The study took a review method where secondary data were uncovered through reviewing of variety of literatures, newspapers, National reports, policy documents, national data etc. A possible explanation for the country's part of continued economic instability and low levels of productivity, unstable GDP growth, and high rate of unemployment can be traced to poor quality of TVET. Findings from the review of empirical literature discovered lack of employable skills, inadequate technical skills, and the incapacity of TVET graduates to compete in the global workplace. All these findings necessitated the redesigning of TVET in the following regards: updating the curriculum, TVET institutions partnership with industries, adopting a new model of programme operation, adequate funding and teachers' training. Recommendations such as

government in collaboration with private sectors and Multinational companies to invest more in human capital through education, mainly TVET, remains the key to sustainable economic development in Nigeria

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Introduction

The investment environment, economy, and chances for national cohesion, growth, and sustainable development in Nigeria are all in jeopardy due to several problems that the country is now facing (Salabson, 2018). Most Nigerians would agree that young unemployment is one of the key contributors to the rise of violent and criminal activities in the nation (Adamu & Olaniran-Akinyele, 2020). Human capital development in Nigeria rated 150 out of 157 nations in the world Human Capital Index (World Bank, 2022). This is on top of the country's high unemployment rate, increasing insecurity, and galloping inflation that are driving millions of young Nigerians into poverty (World Bank, 2022). Nigeria is endowed with both natural and human resources, but it lacks the human capital of a sufficiently trained labour force to fully exploit its potential (Owolabi, 2018; Obi & Jones, 2022). An engaged labour force drives a nation's economy, and a productive workforce enables it to thrive (Islam, 2021). According to Ibecheozor (2020), Terna (2021) without a robust effort in creating wealth, reducing poverty, and generating jobs, no country can make technical, industrial, or economic progress. India enjoyed a demographic dividend since its population is mostly young (Cabral & Dhar, 2019) and they made sure to provide them with a proper education. Nigeria requires education and training to acquire worldwide prominence, decrease poverty, and generate jobs (Cabral & Dhar, 2019; Salabson, 2018).

Although there are other means of reversing the high rate of unemployment in Nigeria such as attracting foreign investment, improving infrastructure, promoting agriculture etc. However, education of the correct kind such as Technical and Vocational Education and Training (TVET) is highly needed for a continuous reversal of rising unemployment in Nigeria (Adamu & Olaniran-Akinyele, 2020). Because of its positive effect on productivity and economic development, TVET has become an essential component of the National Development plan in many developed countries such as Germany, Switzerland etc. (Pinnow, 2019; Akpanobong et al., 2022; Mgeni, 2022). In the same development, many developing nations are increasingly counting on TVET to achieve sustainable economic growth (Mutebi & Kiplagat, 2022). Developing competent manpower, increasing industrial productivity, and bettering the quality of life are all ways in which TVET contributes to economic growth, poverty reduction, youth and women's empowerment, and social

inclusion (Islam, 2021).

TVET has been given a low status within educational discourse by educators and policymakers in Africa who incorrectly see it as path for people who are unable to pursue academic programmes sub-sector (Olayele, 2022). Through education policy, the government of Nigeria expresses its dedication to TVET by stating one of its aims as being the provision of skilled workforce for economic growth (FRN, 2014). However, TVET has not been given the sufficient attention it needs by our leaders and politicians to reach its aim, which is one of the causes for the nation's bad economic situation and instability (Akpanobong et al., 2022). This is even though TVET has contributed to economic and national development of most advanced world. Against this background, the TVET programme in Nigeria needs be redesigned so that it can generate workers who can keep the country stable, reducing unemployment, and growing the economy.

Concept of Technical Vocational Education and Training

The National Policy on Education of the Federal Republic of Nigeria defines Technical and Vocational Education and Training (TVET) as "an all-encompassing term referring to those aspects of the educational process that involve, in addition to general education, the study of technologies and related sciences and the acquisition of practical skill and knowledge relating to occupations in a wide range of economic and social contexts" (FRN, 2014 p.24). Terna (2021) explains that it is a means to enable individuals, and particularly young people, to achieve self-sufficiency and promote social and sustainable economic development. The TVET system provides a foundation for economic reform and development of the nation by introducing students to higher learning in engineering and innovations and by producing technicians, craftsmen, and other trained individuals who will aid in the transformation of the economy and sustainable development (Tyowuah & Chen, 2019).

Ntegwung and Njoku (2022) list several parts that TVET plays, including helping with unemployment, lowering poverty and crime rates, fostering technical and industrial progress by creating skilled and trustworthy people, boosting the economy, and ensuring national stability. Institutions such as Universities, Polytechnics, Vocational Enterprise Institutions (VEIs), Colleges of Education (Technical), Colleges of Technology, Monotechnics, Technical Colleges, and Pre-vocational Schools in Nigeria are all responsible for delivering TVET programme (FRN, 2014; Okolie et al., 2020; Adetola, 2021). Graduates of these institutions are envisaged to be employable and skillful to become self-employed as a job creator to employ others. Consequently, adding values that will lead to sustainable economic development.

Sustainable Economic Development

An essential part of sustainable development is ensuring that the economy can continue to expand rapidly to meet its development and economic goals (Ishola et al., 2020). According to Kairo

et al. (2022) sustainable development is "the process of gradual change in human quality of life that puts people at the centre and main subjects of development," and it achieves this goal by balancing growth in the economy with societal equality and development. Conversely, development refers to the process of enhancing a country's, regions, or community's economic prosperity and standard of living (Onwuama, 2019). Anyim (2021) offers a similar definition of economic development to be a relentless dedication to enhancing the quality of human existence via the advancement of economic, political, socio-cultural, and public welfare. According to Agarwal (2020), Ezejiolor and Ezekwesili (2022) a rise in the quality of life of the citizens of a country is often indicative of the nation's level of economic development, which is typically measured using the Human Development Index. The development of the economy is a crucial component of sustainable development (Ishola et al., 2020).

Sustainable economic development, on the other hand, is the ongoing improvement of a nation's, regions, as well as community's economic resources for the benefit of its residents to satisfy the demands of the present generation without compromising the capacity of future generations to do the same (Ezejiolor & Ezekwesili, 2022). According to (Ishola et al., 2020) sustainable economic development is defined as the preservation and sustaining of such a rising real rate of the economy's growth to meet the goals of economic development or development in general. Despite the country's abundant human and natural resources, Nigeria has struggled to foster sustained economic development (Omodero, 2018). Educational institutions must embrace a sustainable education programme so graduates may live sustainably, and this is vital for achieving sustainable economic development that meets current demands without compromising future generations' requirements (Ezejiolor & Ezekwesili, 2022). If TVET is redesigned and given additional focus, Nigeria would see lasting economic development.

Method

Contemporary Challenges in Nigeria

The data below summaries the Nigeria's labour force statistics on unemployment and under-employment, and Gross Domestic Products (GDP) according to National Bureau of Statistics (NBS) (2022). Figure one (1) and figure two (2) summarizes the unemployment rate and under-employment rate of Nigerians from first Quarter (Q1) of 2015 (2015Q1) to the third Quarter (Q3) of 2018 (2018Q3). From the data in graph number1 the rate of unemployment in 2018Q3 is 23.13%. If compared to 7.54% the rate in 2015Q1, it is a significant increase. Moreover, looking at the trend of the graph, it was discovered that unemployment rate has been on the increase in Nigeria since the 2015Q1 till the period under review. According to the Bureau, the rate of unemployment in Nigeria as at Q4 of 2020 which is what is current now stands at 33.3%. If also compared to 23.13% in Q3 of 2018, it will be discovered that there has been a very high increase in rate of unemployment

in Nigeria.

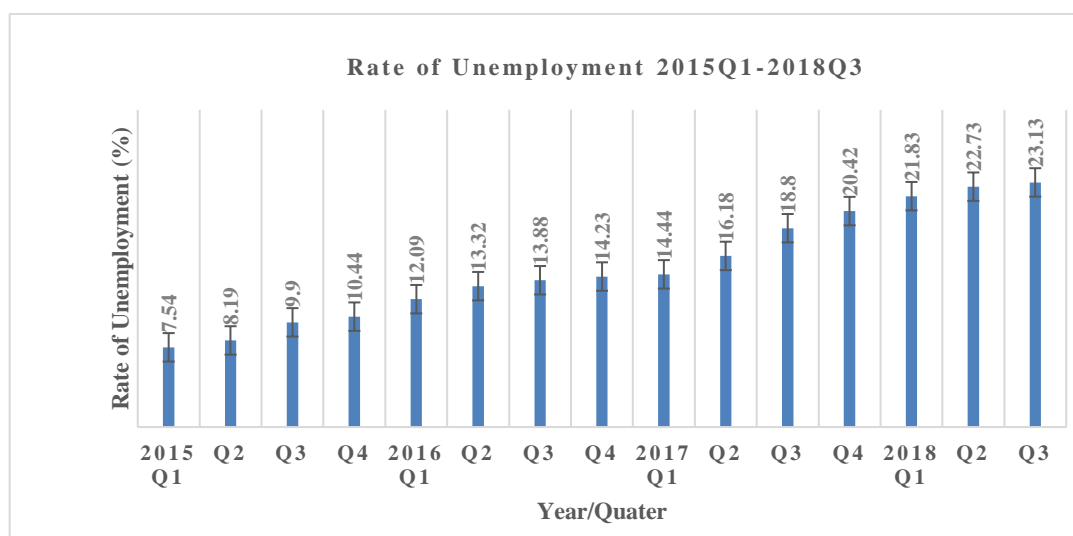


Fig 1: Rate of Unemployment 2015Q1-2018Q2 (Source of data: NBS, 2022)

Similarly, from the information in figure 2, from the Q1 of 2015 – the Q4 of 2016, there consistent increase in under-employment rate. However, there was a little percentage of decline in Q1 of 2017 after which there was sharp increase in the Q2 and Q3 of 2017. Then there were declines from the q4 of 2017 to Q3 of 2018. However, when compare the rate of under-employment 16.6% in the Q1 of 2015 to the rate 20.1% in the Q3 of 2018, it indicates a significant increase. Moreover, the rate of under-employment in Nigeria as at Q4 of 2020 which is still the current stands at 22.8%. When compared to the rate 20.1% in the Q3 of 2018 it implies that there has been consistent increase.

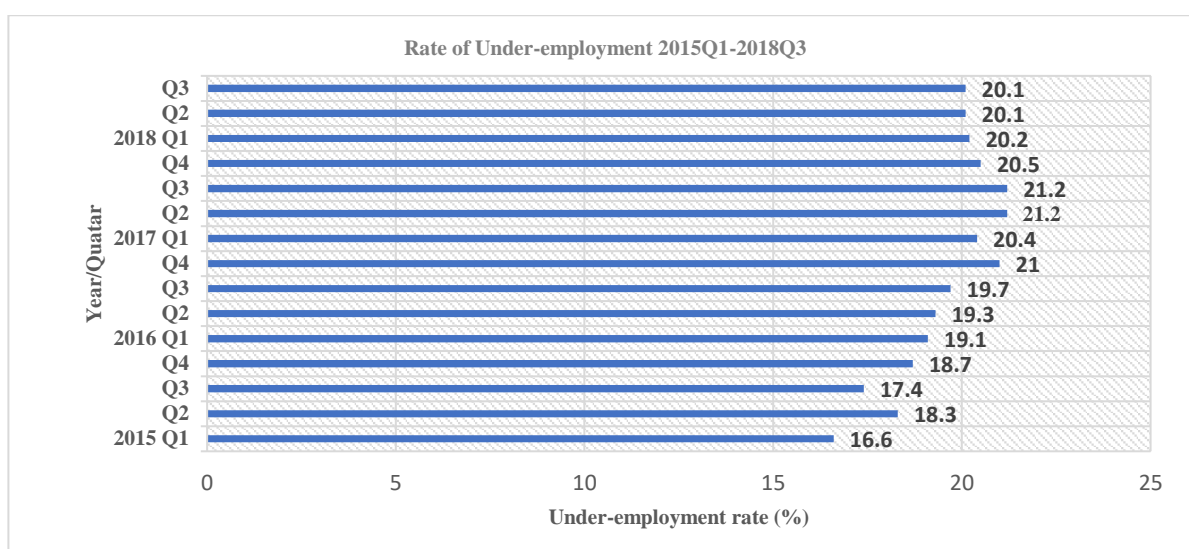


Fig 2: Rate of Under-employment 2015Q1-2018Q3 (Source of data: NBS, 2022)

The figure 3 and 5 represent the summary data from NBS (2022) on rate of unemployment and under-employment between the ages of 15-34 and 35-44 from the Q4 Of 2017 – Q3 of 2018. The

information in figure 3 shows that there was steady increase in unemployment rate first between the age 15-34 from 26.6% in Q4 of 2017 to 30.5% in Q2 of 2018 which is significantly high and then declined to 29.7% at Q3 of 2018. While there was steady increase from 14.8% in the Q4 of 2017 to 16.1% in Q3 of 2018 between the ages of 35-44. Moreover, the youth unemployment as of 2020 which is still current till date is 42.5%. This implies that a good number of Nigerian youths are unemployed. Similarly, the figure 4 summaries the under-employment rate between age 15-34 and 35-44 from the period of Q4 of 2017 to Q3 of 2018. From the data, there was a continuous decline on the under-employment between the ages 15-34 from Q4 of 2017 (26.4%) till the Q2 of 2018 (25.6) and then a slight increase to 25.7% in Q3 of 2018. While there was steady increase from 16.1% in Q4 of 2017 to 17.00% in Q3 of 2018 between the age of 35-44. However, youth under-employment as at Q4 of 2020 which is still current is at 21.0% showing a significant decline compared to what it was in Q3 of 2018 between the age of 15-34 which is the age group classified as active youth.

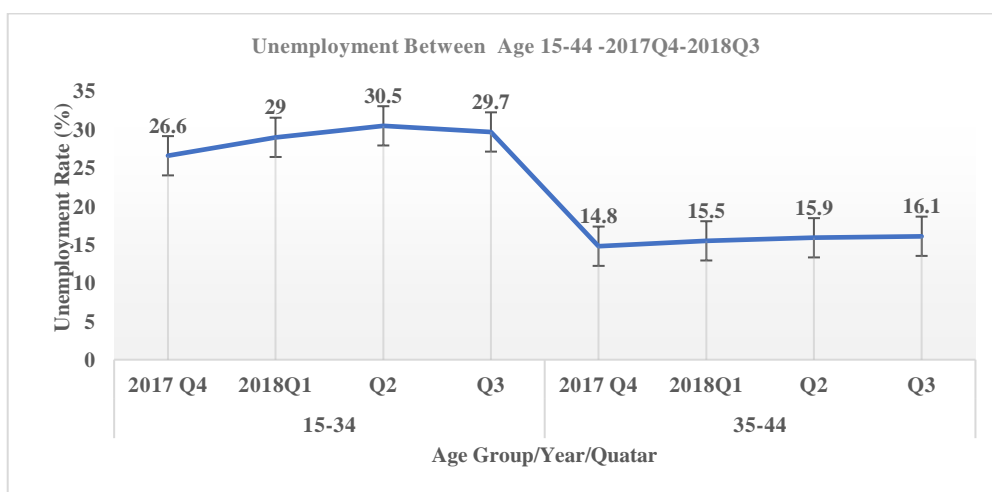


Fig 3: (Source of data: NBS, 2022)

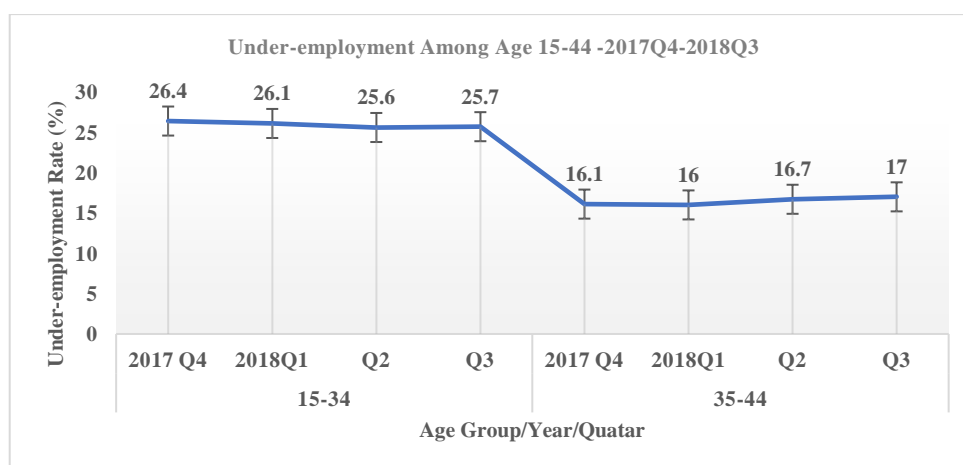


Fig 4: (Source of data: NBS, 2022)

The Nigeria Gross Domestic Product (GDP) from the data presented below in figure 5 according to NBS (2022) experienced its lowest -6.1% during the Q2 of 2020 and rose to its highest 5.01% in the Q2 of 2021. From 5.01% in Q2 of 2021 it declined to 3.11% in the Q1 of 2022. However, there was a slight in Q2 of 2022 to 3.54.

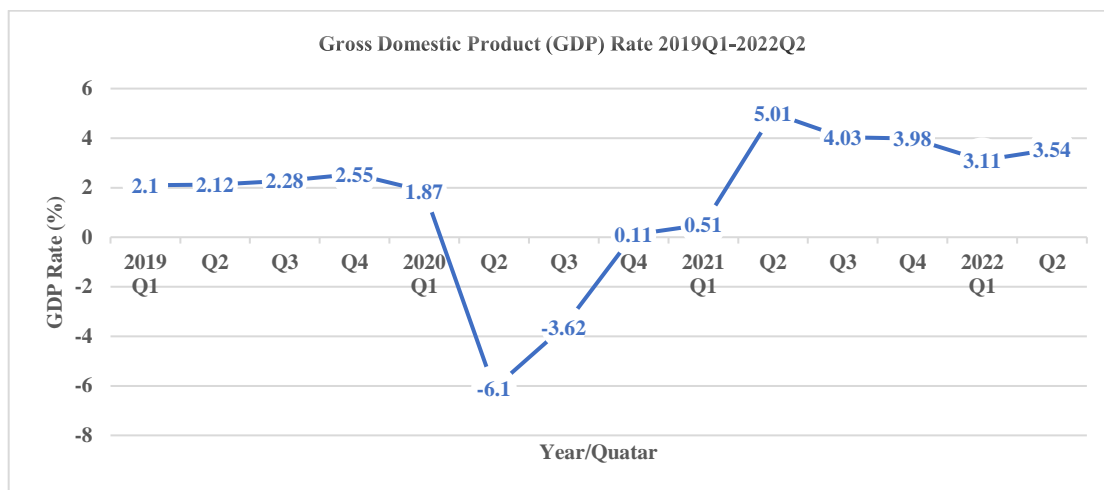


Fig 5: Gross Domestic Product (GDP) Rate 2019Q1-2022Q2 (Source of data: NBS, 2022)

In analysis of the above data the Nigeria GDP growth rate from Q1 of 2019 to Q2 of 2022 has not been stable. This is because most of the youth in their productive age are not employed and many more are also under-employed (NBS, 2022). Consequently, making the country unproductive resulting to economic instability and unsustainable economic development.

Further supporting the figures, 63% of Nigerians (133 million) are multidimensional poor, according to data from the NBS's 2022 Multidimensional Poverty Index study, a figure that exceeds world bank projections to increase by 7.7 million between 2019 and 2024 (NBS, 2022; Tunji, 2022; World Bank, 2022)

According to the World Bank (2022) unemployment is a major cause of global social and political upheaval, regional inequality, and poverty. Household well-being has also taken a hit from rising inflation, and high prices in 2020-2022 are expected to have driven another 8 million Nigerians into poverty. The nation still has a long way to go in terms of growth, and it must do things like wean itself off oil and diversify its economy.

According to African Development Bank (ADB) (2022) unemployment and poverty in Nigeria continued high, roughly unchanged from 40% and 33.3%. The ADB found that reduced oil output, increased insecurity, and rising food, fuel, and petrol costs would cause GDP to slow to an average of 3.2% in 2022 and 2023. It is planned that state debt would increase to 40% of GDP by 2024 because of new borrowing, and inflation will stay high at 16.9% in 2022.

According to the International Monetary Fund (IMF) (2022) the economic outlook for Nigeria is challenging due to high price of food, which have raised concerns regarding food security; inflation had also attained 17.7 percent, which has been inspired by a revived surge in food prices; and security concerns have been raised since over forty percent of population lives below the poverty line. According to the IMF, inflation may continue to be rather high in 2022.

According to an article that was published in the Vanguard newspaper on March 1, 2022, by Ochayi (2022) the rate of unemployment among youthful Nigerians (15–34 years old) is the highest in the country. There are 21.72 million young Nigerians who are not employed, which accounts for 42.5% of the 29.94 young Nigerians who are in the labour force. In comparison, the national unemployment rate has been 33.3%. That as of the fourth quarter of 2020, the unemployment rates amongst young people ages 15 to 34 was 42.5%, which was an increase from the previous rate of 34.9%, while the percentage of underemployment among the same ages dropped to 21.0% from 28.2% in the previous quarter.

The United State Agency for International Development (USAID) (2022) has expressed concern about Nigeria's economic potential and sustainability. As Ochayi (2022) sees it, Nigeria's future is tied to the choices it makes now regarding its young, energetic people, and this demographic strength must be channeled into a high-quality and well-trained workforce, both for Nigeria and the rest of the globe. Therefore, for this to be achieved, TVET needs to be redesigned to unleash its potential in development of competent workforce that can be self-reliant, create jobs and be employed.

Result and Discussion

Review of Empirical literature on TVET issues in Nigeria

Research by Ezeani (2018), Olabiyi and Chinedu (2018) found that employers were dissatisfied with TVET graduates' competence levels since the graduates were unprepared for the challenges of the working world and independent living. Similarly, According to Oviawe and Uwameiye (2018) research on the "Work Skills Needs and Job Performance of Graduate," it was found that recent graduates from technical colleges lack the necessary expertise in their fields. In the same development, Ehimen and Ezeora (2018), Ibeneme and Ebubechi (2021), Opeyemi and Chibueze (2022) discovered that graduates from technical institutions lacked employable abilities, and that more training is required to help them obtain such skills. According to research conducted by Adewale et al. (2018) Nigerians place little value on technical and vocational education (TVET), preferring instead to send their children to universities.

Moreover, research by Adeosun et al. (2022), Olusola (2020) shows that there is a competence gap between recent graduates of TVET programmes and the needs of companies in the formal economy. Similarly, Okolie et al. (2020) discover that TVET instructors do not make attempts to

transmit employable skills to their students, which raises questions about the quality of TVET education. Furthermore, research by Igwe et al., (2017), Idris and Francis (2019) found that technical college curricula are both insufficient and out of date in terms of providing students with the appropriate, up-to-date skills necessary to deal with Nigeria's current technological issues. Similarly, Ayonmike (2014), Okolie et al. (2019) draw the conclusion from their research: low academic performance among technical college students is a direct outcome of the government's neglect of these institutions and their financing, equipment, and support needs.

Redesigning TVET for Sustainable Economic Development

According to the examination of the statistics, unemployment is the primary problem that is primarily responsible for rendering young people unproductive when they should be at their most productive age leading to a high rate of insecurity and unsteady GDP (Adamu & Olaniran-Akinyele, 2020). Consequently, unstable economic development in Nigeria. TVET is a kind of education that focuses on the creation of employment to keep the economy going. It creates employment through production competent workforce that will drive the economy. Therefore, for it to meet its aims, it requires a new design. Ayoade et al. (2020), Oviawe and Uwameiye (2018) argue that unless TVET is redesigned and made operational, the preconditions such as skill, attitude and knowledge that ensure employment of individuals in a particular job may continuously elude the society. Consequently, the rate of unemployment in Nigeria would continue to rise to crisis proportions. In line with the results of the reviewed literatures in this study, TVET needs to be redesigned and the following factors should be considered when redesigning TVET programmes with the goal of achieving sustainable economic development.

Curriculum

For TVET programmes to meet the needs of contemporary society, the needs of the industry and to produce functional and employable workforce that will be able to cut across all facets of nascent technological the curriculum has to be redesigned. Redesigning the curriculum means to incorporate the learning of technologies, ideas, ICT, and methods into TVET programme that will match what are desired in the 21st century. At same streamline some educational/general courses attached to TVET course. Consequently, TVET programme will be able to produce workforce that is capable to compete globally at the same curb unemployment in Nigeria.

Industrial Partnership

There is an urgent need to redesign TVET to reflect the skills desired by the industries to the employability of the programmers' graduate. To achieve this, TVET institutions need to partner with industries in every special area of the programme. Partnering with industries could be in inclusion in curriculum planning, provision of technical skills to both students and instructors, and in area of

funding.

Model of TVET Programme

The learning facilities should be designed to represent what the students are expected to see and manipulate in the industry and world of work. The equipment and the learning environment should be made replica of the ones in the labour market. This will make the students more compete and employable at same time add value to the economy.

Funding

The funding of TVET and education in general in Nigeria should be redesigned in such a way that the state governments will have a stalk and private sector get involved. This will lessen the border on federal government and make the programme more attractive and effective in achieving its goals.

Teachers' Training

The competence of the teacher play a critical role to influencing the attitude of students in acquiring the relevant skill they require for employment and for self-sustainability. Therefore it is necessary that a scheme is put in place in partnership with industries and relation to the teacher's area of specialization that will take care of training and retraining of TVET teachers in order to keep them abreast of emerging technology and to always improve in their professional practices.

Conclusion

To promote middle-level manpower who will contribute to the growth of the economy and national stability while also keeping up with technological advancements, the government of Nigeria included a TVET programme in her education policy (FRN, 2014) to educate and train workers to meet the needs of various businesses and industries. However, considering Nigeria's unstable economic development and the country's ongoing struggles with unemployment and underemployment as well as a high prevalence of criminality, terrorism, banditry, and other forms of violence and poverty, etc. In addition to the findings from the literatures reviewed in this study, there is no doubt that TVET is failing in accomplishing its purpose. Therefore, there is need to redesign TVET to address these challenges especially graduate related unemployment. Redesigning TVET in Nigeria requires updating the curriculum, TVET institutions partnership with industries, adopting a new model of programme operation, and adequate funding. Moreover, government should invest in Human capital development through education particularly TVET. Further research is also needed in this topic using either quantitative or qualitative approach.

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