

Policy reforms in Technical Vocational Education and Training (TVET) for sustainable development in Abia State, Nigeria

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Received 15th February 2023; Accepted 12th April 2023

ABSTRACT: The study determined the relevance of policy reforms in Technical Vocational Education and Training for sustainable development in Abia State, Nigeria. The survey research design was used. The population of the study consisted of 4,302 persons made up of 300 officers of Vocational Technical Education Boards and 4,002 teachers of vocational subjects in all the Vocational Technical schools in Abia State in the 2020/2021 academic year. The sample comprised 356 respondents made up of 32 Vocational Technical Education Boards staff and 324 vocational teachers. The sample was selected using stratified random sampling technique. A questionnaire titled “TVET Policy Reforms for Sustainable Development in Abia State Questionnaire” was used for data collection. The questionnaire which contained 31 items structured on a four-point scale was validated by three experts and its internal consistency reliability index was 0.88 determined using Cronbach alpha statistics. The mean with standard deviation was used to answer the research questions while independent t-test was used to test the null hypotheses at 0.05 level of significance. The findings showed that reforms are needed in 10 areas of the TVET policy; and that TVET policy reforms are useful for sustainable development in 10 ways. Also, 10 challenges against achievement of TVET policy objectives were found. The researchers concluded that there is dire need for reforms in Nigeria’s TVET policy in the ten areas identified in this study in order to facilitate sustainable development in Abia State and the entire country. It was recommended among others, that the Federal Ministry of Education should initiate moves for significant reforms in Technical Vocational Education and Training policy in Nigeria as soon as is practicable.

Keywords: Challenges, policy, reforms, sustainable development, Technical Vocational Education and Training.

INTRODUCTION

Nigeria is richly endowed with numerous human and natural resources but it is still groping to solve myriads of her socio-economic and political problems particularly the rising level of youth’s unemployment and the attendant social vices and insecurity challenges. Obviously, without job-related skills, youths and adults cannot benefit properly from the employment opportunities that offer a decent income. This realization has generated renewed interest in Technical Vocational Education and Training (TVET) as the only panacea for skills development and employment generation. Consequently, the growing recognition of TVET in international agendas such as Sustainable

Development Goals 4 and 8 has stimulated the debate about how national TVET policy reforms and practices should lead to the realization of these agendas. This study focused on policy reforms in Technical Vocational Education and Training (TVET) for sustainable development in Abia State, Nigeria

The concept of education policy

A policy can be considered as a broad statement that sets out the government’s main goals and priorities which are

in line with the country's constitution (United Nations Educational, Scientific and Cultural Organisation, UNESCO, 2013). It can also be viewed as a course of government action or inaction in response to public problems (Kraft and Furlong, 2013). A policy is a written formal tool, empowering and guiding management and subordinates' decisions and actions towards strategy implementation (Chaurasiya, 2009 cited in Anene-Okeakwa *et al.*, 2020). In a nutshell, a policy is a plan or course of action or a set of basic principles and associated guidelines, formulated and adopted by an individual, group of people, organisation or government to direct its actions in pursuit of long-term goals (Udoudo and Essien, 2021).

A policy is of utmost importance to officials in any organization in the public or private sector as it guides them in their decision making and also ensures consistency of their decisions /actions. Without a policy, anybody in an organization can just on his/her own take action on any issue relating to the organization based on subjective judgment which could be prone to bias and prejudice. As Egonmwan (2000) pointed out, "A government or organization without a policy is like a traveler without a destination. He/she may cover many kilometres and yet may not be able to tell where he is going or how far he has gone. A policy usually proposes a vision to be achieved, set goals to be met, and also spell out the means of reaching the goals in that particular sector of the economy, including education.

Educational policy can be described as the general statements which contain the guiding principles and rules that govern many of the decisions that guide the management of education. They are those statements that are made for the purpose of transmitting what is worthwhile to those involved in the educational system (Ogbonaya, 2010). A nation's policy on education is simply government's ways of realizing that part of the national goals which can be achieved using education as a tool (Udoudo and Essien, 2021). Education policies can be sector-wide covering the whole education system or it can be specific to a sub-sector such as primary education policy or TVET policy.

The concept of Technical Vocational Education and Training (TVET) policy

Technical Vocational Education and Training (TVET) is a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life (Federal Republic of Nigeria, FRN, 2013). It comprises a range of learning experiences relevant to the world of work and occurring in a variety of learning contexts, including educational institutions, and is workplace-related (Oketch,

2007 cited in Anene-Okeakwa *et al.*, 2020). Technical Vocational Education and Training is meant to impart knowledge and skills for increased efficiency in the world of work, sustainable livelihoods, personal empowerment and socio-economic development, which enhances proper adjustment in knowledge economies and rapidly changing work environment (Okorafor and Nnajofofor, 2017). Thus, TVET is an all embracing, comprehensive education and training programme, involving lifelong learning for responsible citizenship, and the promotion of environmentally sound development and social transformation. In Nigeria, TVET consist of, but not limited to, Agricultural Education, Business Education, Computer Education, Home Economics Education, Industrial Technical Education and Health Occupations, among several others. For easy achievement of the laudable goals of TVET, there must be a well developed and effectively implemented TVET policy.

Technical Vocational Education and Training (TVET) policy refers to a written formal tool of thought through which formalized practices in TVET are made for decisions and actions towards strategy implementation in TVET, by management and subordinates (Anene-Okeakwa *et al.*, 2020). Nigeria's TVET policy is enshrined in the document titled National Policy on Education which was first published in 1977 and revised in 1981, 1998, 2004, 2009 and 2013. Okorafor and Nnajofofor (2017) stated that the major educational reforms and policies in Africa and Nigeria in particular have been to restructure the inherited colonial education system with more emphasis on vocationalization. Over the years, Nigeria's TVET policy has evolved from one stage to another. It was initially designated as "Technical Education" in the 1981 edition of the policy, later changed to Vocational Education in the 1998 policy, renamed Technical and Vocational Education (TVE) in the 2004 edition which later metamorphosed into Technical Vocational Education and Training (TVET) in the 2013 edition. Consequent upon the attainment of independence in 1960, it was discovered that the colonial education system did not meet the needs and aspirations of Nigerians. This led to the introduction of the erstwhile 6-3-3-4 education policy in 1982 as contained in the 1981 edition of the policy.

The 1998 TVET policy in Nigeria introduced six prevocational subjects into the junior secondary school curriculum. These were Introductory Technology, Practical Agriculture, Business Studies, Home Economics, Local Crafts and Computer Education. Following the introduction of the Universal Basic Education programme, the 6-3-3-4 education policy was changed to 9-3-4 system in 2006 as contained in the 2004 policy. The current policy stipulates that TVET shall cover Technical Colleges, Vocational Enterprise Institutions (VEIs), Innovative Enterprise Institutions (IEIs) and National Vocational Qualifications Framework (NVQF). In addition, the policy made provision for greater vocationalization of secondary school education with the inclusion of 35 trade/entrepreneurial

subjects in the senior secondary schools curriculum. These include, among several others, Animal Husbandry, Fishery, Marketing and Salesmanship, Auto Body Repair and Spraying, Auto Electrical Work, Auto Mechanical Work, Air Conditioning and Refrigeration, Data Processing, Store Keeping, Book Keeping and GSM Maintenance. Moreover, the government outlined six levels of National Vocational Qualifications Framework (NVQF) which is a system for the development, classification and recognition of skills, knowledge and competencies acquired by individuals, irrespective of where and how the training or skill was acquired (FRN, 2013). The framework indicates the comparability of different qualifications and how one can progress from one level to another. Indeed, the NVQF is a very important milestone in promoting TVET in Nigeria by aligning it with international best practices. However, in spite of all these laudable and lofty policy provisions for promoting Technical Vocational Education and Training in Nigeria, the outcomes and performance of learners seems to be beyond expectations. This triggers the need for policy reforms.

The need for reforms in Nigeria's Technical Vocational Education and Training (TVET) policy

Policy reforms refer to the process of making changes in the orientations, contents and provisions of policies, following analysis of existing policy documents (Zancajo and Valiente, 2018). Many education policies have evolved in Nigeria over the last six decades but with outcomes falling behind expectations. In view of these lapses, reforms in TVET policies in Nigeria is imperative. The need for policy reforms in TVET is anchored on the fact that policies are dynamic and not static; they keep changing to meet the yearnings of a country. Therefore, as the society is dynamic, policies should also be dynamic to facilitate adjustments in its contents and practices to suit contemporary aspirations of the citizens (Okorafor and Nnaji, 2017).

There is urgent need for reforms in TVET policy in Nigeria for many reasons. First, for many years, there have been complaints that the training in most TVET institutions in Nigeria is not in consonance with the skills need of the labour market as it is largely focused on acquisition of theoretical knowledge at the detriment of practical and employable skills development for self-reliance. Although the various policy documents emphasize the development of practical and employable skills in recognized occupations, the implementation strategies enshrined in the policy documents does not foster the achievement of this laudable objective of skills development. Huma *et al.* (2022) noted that a significant review of the existing curriculum is needed to provide the required set of knowledge, skills, values, and attitudes to the students.

The need for policy reforms in TVET is further buttressed

by the necessity for innovative practices in the teaching and learning of TVET. Boahin (2019) posited that the pressure for policy reforms in the TVET systems has become even more necessary due to reasons such as global economics, industry restructuring and emerging policy initiatives from other countries. Innovations in the TVET policy is needed to bring out new teaching methods that will lead to better outcomes and performance of learners. Such outcomes include relevant knowledge, skills and competencies that are marketable either for the organization and their staffing demands, or for individuals to secure greater employability in the wider world of work.

Justifying the need for policy change in Nigeria, Adewale (2022) reported that majority of teachers in most TVET institutions in Nigeria are ill-prepared and lack competence in the incorporation of Information and Communication Technologies (ICTs) in their instruction. Moreover, TVET institutions particularly in developing countries need to provide increasing number of students with specialized skills because specialists are increasingly in demand in all sectors of the world economy. Furthermore, it must provide the kind of education that encourages flexibility and innovation to allow the continual renewal of economic and social structures relevant to the fast changing world. Both technical and core competencies have become increasingly valuable in the rapidly changing labour market that requires employees to adapt to new developments in technology and working operations (Boahin, 2019).

The United States Agency for International Development (USAID, 2014) advocated that a good TVET policy reforms should cover six major components as follows:

1. Partnerships among education and training institutions and industry and private enterprises for building a relevant and highly skilled labour force that supports economic growth and development. This will ensure that the skills being taught are needed in the workplace.
2. National Qualifications Frameworks that set criteria for levels of learning and competencies attained through education and training should be developed in partnership with industry and the private sector.
3. Quality curricula and teaching coupled with on-site, practical hands-on experience, both linked to the needs of enterprises, are needed to produce an appropriately skilled, employable labor force.
4. TVET institutions should be linked with higher education institutions with clear procedures for how TVET students can continue to learn and progress in their careers or move on to higher education or continued learning.
5. Lifelong learning, adult, and continuing education policies and practices, combined with career guidance and counseling, are needed to continuously meet changing needs of the labour market and provide "second chances" for people to retrain to fit labour market demands.

6. Diversified sources of financing of TVET are needed with particular attention to alternative financing through user fees, along with both public and private sector support, to meet needs of both students and private industry.

While advocating for policy reforms in TVET, Adewale (2022) pointed out that a retrospective look at the establishment and operation of Technical Colleges in Nigeria suggests that a lot of changes in the form of reforms have taken place, especially after independence in 1960. The author posited that more reforms are necessary in order to meet up with what is obtainable in TVET worldwide. According to USAID (2014), there are three distinct TVET models worldwide. These are the liberal market economy model (as seen in Great Britain and Australia); the state-regulated bureaucratic model (practised in France, Italy, Sweden, and Finland) and the dual system model (seen in Germany, Austria, Switzerland, Denmark, and Norway). Adewale (2022) posited that it is the TVET sector that has been harnessed by the advanced countries in general and the so called Asian tigers (Hong Kong, Singapore, South Korea, and Taiwan) that experienced a season of exceptional growth from 1965 to 1995. Similarly, Ethiopia earned the title of African tiger like the Asian tigers, because of her ability to develop manpower in specialized skills areas, which is helping in building its economy. Adewale therefore advocated that Nigeria's economy can also get to a greater height like the Asian tigers if its TVET policies and investments in education are youth-centered. The author further added that there is need for restatement of policy guidelines for TVET by the government to reflect some notable changes among which are curriculum structuring, creation of entrepreneurship education and career counseling units in TVET institutions, improvement of ICT education components, the use of digital facilities, advocacy, and strengthening of educational agencies such as National Board for Technical Education (NBTE) and National Business and Technical Examination Board (NABTEB), among others.

The expected outcomes of the policy reforms, according to International Labour Office (ILO, 2015) are as follows:

1. New national TVET policy that will allow the TVET system to function more effectively at the central and decentralized levels.
2. New national qualifications framework for TVET.
3. New skill standards and curriculum in priority occupations.
4. New quality assurance arrangements for training organizations.
5. Enhanced links between industry and TVET.

In view of this, there is need for TVET policy reforms in Nigeria aimed at producing a market-oriented and flexible TVET system, which responds to the demand for

competitive skills of the modern sector as well as to the needs of youths and under-privileged groups. Considering the fact that TVET has important roles to play in preparing young people for the jobs of the future, hence, a good TVET policy is very indispensable for facilitating the acquisition of practical and applied skills by individuals which is an important contributor to national development. Thus, TVET policy reform could be achieved when the reforms create self-sufficiency and self-reliance for the young school learners by imparting relevant vocational or occupation skills necessary for the youths' socio-economic empowerment for sustainable national development.

The concept of sustainable development

The concept of sustainable development remains one of the modern parameters of measuring development because it puts into consideration the present conditions of people without compromising those that will come later. Sustainable development is the development which meets the needs of the present without compromising the ability of the future generations to meet their own needs (Uwaneze and Edith, 2013). Sustainable development is manifested in improvement in the range of opportunities that would enable individuals and communities to achieve their aspirations and full potentials over a sustained period of time while maintaining the resilience of economic, social and environmental systems. Sustainable development in a community leads to national development which refers to the capacity of a country to raise the standard of living of its citizens by providing individuals with basic livelihood requirements and supplying them with employment (Chukwurah, 2022). The components of national development include development of rural areas, enlargement of economic knowledge, eradication of poverty, environmental security and self-reliance. A country is classified as developed when it is able to provide qualitative life to her citizens which can be assessed through increase in Gross Domestic Product (GDP), literacy rates, availability of improved healthcare services, improvement in infrastructural facilities and considerable job opportunities, among others (Usono, 2022).

Challenges to achievement of TVET policy objectives in Nigeria

Several scholars have identified numerous challenges against effective implementation of educational policies, including TVET policies, in Nigeria. These challenges have adversely affected the achievement of TVET policy objectives. Okorafor and Nnajofofor (2017) identified faulty policy and institutional frameworks, political instability, lack of political will and corruption as other challenges or constraints against implementation of education policies generally. The authors noted that some policies are not

very expensive to implement if there are good people and the right structure is put in place but many educational administrators and other stakeholders divert institutional/faculty/departmental resources as their share of the national cake. Worst still is that the bodies set up to check this ugly situation usually end up in forming allies with the defaulters. Jacob and Samuel (2020) identified hindrances to educational policy implementation to include: inadequate funding of education; poor planning/ineffective implementation of educational plans and objectives; poor school mapping as students/pupils travel from far to school, poor supervision and monitoring, poor infrastructures (offices, tables and desks), inadequate number of qualified monitoring officers and bribery and corruption. Other challenges are inadequate quality manpower for effective implementation of educational policies; inequitable educational opportunities; excessive bureaucracy; inefficient resource allocation, inadequate funding of TVET (Udoudo and Essien, 2021) as well as lack of continuity in policies and corruption (Okoroma, 2006). The foregoing constitutes the rationale for this study.

Statement of the problem

Despite the numerous laudable and lofty educational policies formulated by the Federal Government of Nigeria coupled with the reforms already made for the improvement of the TVET sub-sector, the triadic goals of TVET in Nigeria are yet to be realized. Many scholars and stakeholders (parents, policymakers, teachers and employers of labour) have complained that its impacts are not much felt in the school system and the entire country. No significant improvements are observed in the learners at the end of their training programme. The result is inadequately and poorly trained (half baked) technical workforce that do not possess relevant skills for sustainable employment. This has increased the unemployment level in the country and at the same time posed security threats to the country which adversely affect sustainable development. Some studies such as Okorafor and Nnajofo (2017), Anene-Okeakwa *et al.* (2020) and Adewale (2022) have attributed this problem to inadequate or obsolete policy provisions. Hence, there is dire need for reforms in TVET policies in Nigeria to improve the teaching and learning as well as the learning outcomes of this sub-education system. Therefore, the problem which this study addressed was: What is the relevance of policy reforms in Technical Vocational Education and Training (TVET) for sustainable development in Abia State, Nigeria?

Purpose of the study

The main purpose of the study was to determine the

relevance of policy reforms in Technical Vocational Education and Training (TVET) for sustainable development in Abia State, Nigeria. Specifically, the study sought to determine:

1. The areas where reforms are needed in TVET policy for sustainable development in Abia State.
2. The relevance of TVET policy reforms for sustainable development in Abia State.
3. The challenges against achievement of TVET policy objectives in Abia State.

Research questions

The following research questions guided the study.

1. In what areas are reforms needed in TVET policy for sustainable development in Abia State?
2. In what ways can TVET policy reforms be useful for sustainable development in Abia State?
3. What are the challenges against achievement of TVET policy objectives in Abia State?

Hypotheses

H₀₁: There is no significant difference between the mean responses of officers of Vocational Technical Education Boards and vocational teachers on areas where reforms are needed in TVET policy for sustainable development in Abia State.

H₀₂: There is no significant difference between the mean responses of officers of Vocational Technical Education Boards and vocational teachers on ways that TVET policy reform can be useful for sustainable development in Abia State.

H₀₃: There is no significant difference between the mean responses of officers of Vocational Technical Education Boards and vocational teachers on the challenges against achievement of TVET policy objectives in Abia State.

METHODOLOGY

The study adopted survey research design. This design was considered appropriate since the researchers used a questionnaire to obtain information from a sample of the population so that the findings can be generalized to the entire population. The study was conducted in Abia State, Nigeria. Abia State comprises four education zones namely – Abia South, Aba North, Umuahia and Ohafia zones. The population of the study consisted of 4,302 persons made up of 300 officers of Vocational Technical Education Boards and 4,002 teachers of vocational subjects in all the Vocational Technical schools in Abia State in the 2020/2021 academic year. The sample

comprised 356 respondents made up of 32 officers of Vocational Technical Education Boards and 324 vocational teachers. The sample size was determined based on Research Advisors sampling model (2006). Stratified random sampling technique was used to select eight officers of Vocational Technical Education Boards and 81 vocational teachers from each of the four education zones.

A structured questionnaire titled “TVET Policy Reforms for Sustainable Development in Abia State Questionnaire” was used to collect data from the respondents. The questionnaire was made up of two sections, A and B. Section A contained the demographic data of respondents while section B contained 30 items structured on a four-point scale of Strongly Agreed (SA) = 4 points, Agreed (A) = 3 points, Disagreed (D) = 2 points and Strongly Disagreed (SD) = 1 point. The questionnaire was validated by three experts, two from University of Uyo and one from Abia State University, Uturu. The internal consistency reliability index of the instrument was 0.88 determined using Cronbach alpha statistics. Three hundred and fifty out of 356 copies of the questionnaire administered were correctly completed and returned representing 98.31% return rate. The mean with standard deviation was used to analyse the data collected for answering the research questions while independent t-test was used to test the null hypotheses at 0.05 level of significance. A mean criterion of 2.50 was used as a benchmark or cut-off point for acceptance.

RESULTS

Research question 1. In what areas are reforms needed in TVET policy for sustainable development in Abia State, Nigeria?

The result of data analysis presented in Table 1 shows that the mean responses on all the 10 listed items exceeded the cut-off point of 2.50. With a cluster mean of 3.20, this result implies that majority of the respondents used in the study agreed that reforms in TVET policy are needed in all the ten listed areas in order to facilitate sustainable development in Abia State, Nigeria.

Research question 2: In what ways can TVET policy reform be useful for sustainable development in Abia State, Nigeria?

The data analysis presented in Table 2 shows that the mean responses on all the 10 listed items exceeded the cut-off point of 2.50. With a cluster mean of 3.12, this result implies that majority of the respondents used in the study agreed on all the items as being ways through which TVET policy reforms can be useful for sustainable development in Abia State.

Research question 3: What are the challenges against achievement of TVET policy objectives in Abia State, Nigeria?

The data analysis presented in Table 3 shows that the mean responses on all the 10 listed items as well as the cluster mean exceeded the cut-off point of 2.50. This result implies that majority of the respondents used in the study agreed that the 10 listed items are challenges against achievement of TVET policy objectives in Abia State, Nigeria.

Hypothesis 1: There is no significant difference between the mean responses of officers of Vocational Technical Education Boards and vocational teachers on areas where reforms are needed in TVET policy for sustainable development in Abia State

The summary of the t-test analysis of the mean responses of Board staff and vocational teachers on areas of TVET policy reforms presented in Table 4 shows that the value of t-cal is -0.84 with p-value (level of significance) of 0.40. Based on the fact that the obtained p-value (level of significance) is greater than the stipulated level of significance (0.05), the null hypothesis is upheld meaning that there is no significant difference between the mean responses of officers of Vocational Technical Education Boards and vocational teachers on areas where reforms are needed in TVET policy for sustainable development in Abia State.

Hypothesis 2: There is no significant difference between the mean responses of officers of Vocational Technical Education Boards and vocational teachers on ways that TVET policy reform can be useful for sustainable development in Abia State

The summary of the t-test analysis presented in Table 5 shows that the value of t-cal is 0.04 with the p-value (level of significance) of 0.97. Based on the fact that the obtained p-value (level of significance) is greater than the stipulated level of significance (0.05), the null hypothesis is upheld meaning that there is no significant difference between the mean responses of officers of Vocational Technical Education Boards and vocational teachers on ways that TVET policy reforms can be useful for sustainable development in Abia State

Hypothesis 3: There is no significant difference between the mean responses of officers of Vocational Technical Education Boards and vocational teachers on challenges against achievement of TVET policy objectives in Abia State

The summary of the t-test analysis presented in Table 6

Table 1. Mean responses on the areas where reforms are needed in TVET policy for sustainable development in Abia State (n = 350).

S/n	Items	\bar{X}	SD	Remarks
1	Curriculum content and structure	2.98	0.85	Agreed
2	Funding	3.31	0.97	Agreed
3	Teacher production	3.36	0.90	Agreed
4	Teachers professional development	3.33	0.92	Agreed
5	Infrastructural facilities	3.17	1.11	Agreed
6	Certification	3.19	1.07	Agreed
7	Administration of TVET institutions	3.15	0.97	Agreed
8	Integration of technology	3.17	1.05	Agreed
9	Collaboration with industries	3.13	1.08	Agreed
10	Quality assurance mechanism	3.17	1.04	Agreed
	Cluster Mean	3.20	0.87	Agreed

Table 2. Mean responses on how TVET policy reforms can be useful for sustainable development in Abia state (n = 350).

S/n	Items	\bar{X}	SD	Remarks
1	It can lead to steady supply of high quality TVET teachers	3.15	1.02	Agreed
2	It can lead to significant reduction of youths unemployment	3.19	1.01	Agreed
3	It can lead to improvement in students' acquisition of practical skills	3.08	1.03	Agreed
4	The reforms can lead to improvement of students interest in TVET	3.05	1.02	Agreed
5	It can lead to eradication of poverty in Nigeria	3.21	1.02	Agreed
6	It can help to eradicate social vices in the society	3.19	1.04	Agreed
7	It can increase the employability of TVET graduates	3.12	1.06	Agreed
8	It can lead to greater collaboration with the industries	2.99	1.07	Agreed
9	It would give more credibility to the certificates issued to graduands in TVET institutions	3.13	1.05	Agreed
10	It can lead to adequate funding of TVET programmes	3.12	1.03	Agreed
	Cluster Mean	3.12	0.98	Agreed

Table 3. Mean responses on the challenges against achievement of TVET policy objectives in Abia State, Nigeria (n = 350).

S/n	Items	\bar{X}	SD	Remarks
1	Insufficient number of highly skilled and certificated teachers to implement the policy	3.21	1.03	Agreed
2	Most TVET institutions are not well equipped with relevant machines and workshop equipment	3.17	1.04	Agreed
3	ICT facilities are not adequate in most TVET schools	3.21	1.01	Agreed
4	Adequate funds are not made available by both federal and state government	3.18	1.05	Agreed
5	Inadequate number of classrooms hinder achievement of the policy objectives	3.06	1.10	Agreed
6	Absence of basic infrastructural facilities in most TVET Institutions	3.18	1.11	Agreed
7	Some machines and equipment are left to rust away in the open field	3.08	1.06	Agreed
8	Embezzlement and misappropriation of funds hinder achievement of policy objectives	3.18	1.05	Agreed
9	Inadequate number of specialist TVET staff in the Boards constitute a problem on policy implementation	3.09	1.07	Agreed
10	The vocational technical schools are not well supervised by officers of the Vocational Schools Board	3.03	1.04	Agreed
	Cluster Mean	3.14	0.97	Agreed

Table 4. Summary of t-test analysis of the mean responses of Board staff and vocational teachers on areas of TVET policy reforms.

S/n	Group	N	\bar{X}	SD	SE	T	Df	P	Decision
1	Board staff	30	3.07	1.14	0.21	-0.84	348	0.40	NS
2	Vocational teachers	320	3.21	0.84	0.05				

NS = Not significant at 0.05 level of significance.

Table 5. Summary of t-test analysis of the mean responses of Board staff and vocational teachers on Ways that TVET policy reforms can be useful for sustainable development in Abia State.

S/n	Group	N	\bar{X}	SD	SE	T	Df	P	Decision
1	Board staff	30	3.13	1.26	0.23	0.04	348	0.97	NS
2	Vocational teachers	320	3.12	0.95	0.05				

NS = Not significant at 0.05 level of significance.

Table 6. Summary of t-test analysis of the mean responses of Board staff and vocational teachers on challenges against achievement of TVET policy objectives in Abia State.

S/n	Group	N	\bar{X}	SD	SE	T	Df	P	Decision
1	Board staff	30	3.12	1.27	0.23	-0.08	348	0.93	NS
2	Vocational teachers	320	3.14	0.94	0.05				

NS = Not significant at 0.05 level of significance.

shows that the value of t-cal is -0.08 with p-value (level of significance) of 0.93. Based on the fact that the obtained p-value (level of significance) is greater than the stipulated level of significance (0.05), the null hypothesis is upheld meaning that there is no significant difference between the mean responses of officers of Vocational Technical Education Boards and vocational teachers on challenges against achievement of TVET policy objectives in Abia State.

Results summary

With respect to the research questions and hypotheses of the study, the following findings were made:

1. Reforms are needed in Nigeria's TVET policy in 10 areas for sustainable development in Abia State, Nigeria. These areas include curriculum content and structure; funding; teacher production; teachers' professional development; infrastructural facilities and certification. Others are administration; integration of technology; collaboration with industries and quality assurance mechanism.
2. TVET policy reforms can be useful for sustainable development in Abia State in the following ten ways: (i) It can lead to steady supply of high quality TVET teachers (ii) It can lead to significant reduction of youths unemployment (iii) It can lead to improvement in students' acquisition of practical skills (iv) The

reforms can lead to improvement of students interest in TVET (v) It can lead to eradication of poverty in Nigeria (vi) It can help to eradicate social vices in the society (vii) It can increase the employability of TVET graduates (viii) It can lead to greater collaboration with the industries (ix) It would give more credibility to the certificates issued to graduands in TVET institutions (x) It can lead to adequate funding of TVET programmes.

3. The following are challenges against achievement of TVET policy objectives in Abia State, Nigeria. (i) Insufficient number of highly skilled and certificated teachers to implement the policy (ii) Most TVET institutions are not well equipped with relevant machines and workshop equipment (iii) ICT facilities are not adequate in most TVET schools (iv) Adequate funds are not made available by both federal and state government (v) Inadequate number of classrooms for achievement of the policy objectives (vi) Absence of basic infrastructural facilities in most TVET Institutions (vii) Some machines and equipment are left to rust away in the open field (viii) Embezzlement and misappropriation of funds hinder achievement of policy objectives (ix) Inadequate number of specialist TVET staff in the Boards constitute a problem on policy implementation and (x) The vocational technical schools are not well supervised by officers of the Vocational Schools Board.
4. Testing of the three null hypotheses revealed that they were accepted or retained implying that there was no

significant difference in the mean responses of officers of Vocational Technical Education Boards and vocational teachers on the issues at stake.

DISCUSSION

The study found that reforms are needed in Nigeria's TVET policy in 10 areas for sustainable development in Abia State, Nigeria. These include curriculum content and structure; funding; teacher production; teachers professional development; infrastructural facilities and certification, among others. This finding agrees with that of Adewale (2022) who reported that notable changes in Nigeria's TVET policy are needed in some areas such as curriculum structuring, creation of entrepreneurship education unit, ICT education components, the use of digital facilities, creation of career counseling unit, advocacy, and strengthening of educational agencies such as National Board for Technical Education (NBTE), National Business and Technical Examination Board (NABTEB), among others. The finding also agrees with that of Huma *et al.* (2022) who noted that a significant review of the existing curriculum is needed to provide the required set of knowledge, skills, values, and attitudes to the students.

It was also found in the study that TVET policy reforms can be useful for sustainable development in Abia State in ten ways. These include: It can lead to steady supply of high quality TVET teachers; significant reduction of youths unemployment and improvement in students' acquisition of practical skills, among others. This finding agrees with that of Boahin (2019) who reported that policy reforms could lead to acquisition of relevant knowledge, skills and competencies that are marketable either for the organization and their staffing demands, or for individuals to secure greater employability in the wider world of work. The findings also lend credence to the opinion of ILO (2015) which stated that the expected outcomes of TVET policy reforms would include the following: (a) a new national TVET policy that will allow the TVET system to function more effectively at the central and decentralized levels. (b) New national qualifications framework for TVET. (c) New skill standards and curriculum in priority occupations. (d) New quality assurance arrangements for training organizations and (e). Enhanced links between industry and TVET. The present finding also supports the views of Nuru (2007) who posited that a good TVET policy can be a very useful mechanism for facilitating the acquisition of practical and applied skills by individuals which is an important contributor to national development.

The study found the following as challenges against achievement of TVET policy objectives in Abia State, Nigeria: Insufficient number of highly skilled and certificated teachers to implement the policy; Most TVET institutions are not well equipped with relevant machines and workshop equipment and ICT facilities are not adequate in most TVET schools, among others. These

findings agree with those of Okoroma (2006), Okorafor and Nnajofofor (2017), Jacob and Samuel (2020) as well as Udoudo and Essien (2021) who in their separate studies identified similar issues as challenges against effective implementation of TVET policies in Nigeria.

Conclusion

The study focused on policy reforms in Technical Vocational Education and Training (TVET) for sustainable development in Abia state, Nigeria. Based on the findings of the study, it was concluded that there is dire need for reforms in Nigeria's TVET policy in order to facilitate sustainable development in Abia State and the entire country at large. The policy reforms should be focused on the ten areas identified in this study. Also, the challenges identified in the study should be properly addressed by relevant authorities and stakeholders so that the reforms can be very useful for sustainable development by imparting relevant vocational or occupation skills necessary for creating self-sufficiency and self-reliance for the young school learners for their socio-economic empowerment and sustainable development.

Recommendations

Based on the findings of the study, the following recommendations were made;

1. The Federal Ministry of Education should initiate moves for significant reforms in Technical Vocational Education and Training policy in Nigeria as soon as is practicable.
2. The Federal Ministry of Education and other stakeholders in the TVET sub sector should endeavour to embark on reforms of Nigeria's TVET policy so as to gain its benefits to sustainable national development.
3. All the challenges against achievement of TVET policy objectives should be adequately addressed by relevant agencies so as to facilitate sustainable national development in the country.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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