

THE ROLE OF INCLUSIVE TVET AS LEVERAGE FOR SUSTAINABLE DEVELOPMENT IN EDO STATE

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Abstract

This study investigated the role of inclusive TVET as a leverage for sustainable development in Edo State. Two research questions guided the study and one hypothesis was tested at 0.05 level of significance. The study adopted a descriptive survey research design with a population of 525. This was made up of 400 registered members of the Joint National Association of Persons With Disabilities (JONAPWD), Edo State chapter and 125 registered members of National Council of Women's Societies (NCWS), Edo State chapter. The sample size for the study was 80 respondents, made up of 62 registered persons with disabilities and 18 registered members of women societies in Edo State. The sample size was obtained through purposive sampling technique. A structured questionnaire with 11 items arranged in clusters was used as instrument for data collection. The instrument was validated by three experts from the Department of Vocational and Technical Education, Faculty of Education, Ambrose Alli University, Ekpoma. Cronbach Alpha statistical formula was used to test the reliability of the instrument and it yielded a coefficient of 0.75. The findings of the study revealed that inclusive TVET, with vocational skills such as shoe-making, leather works, vulcanizing, painting, amongst others, serves as a leverage for sustainable development in Edo State. Based on the findings, it was recommended, amongst others, that all tiers of Government and Private Sector should establish well equipped inclusive TVET facilities for skills acquisition

Keywords: TVET, PWDs, Inclusive and Sustainable Development

Introduction

Technical and Vocational Education and Training (TVET) is used to refer to those “aspects of 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 economy and social life” (FRN, 2014, p.26). The technical and vocational education and training (TVET) landscape in Nigeria is divided into formal and non-formal.. Formal TVET is provided from the upper basic education level (Junior Secondary School 1-3) onwards.

After graduating from basic education, learners can choose between attending

furthering secondary education or attending a technical college for a vocational training for a National Technical Certificate (NTC) or National Business Certificate (NBC). Hence, the basic means envisaged by the National Policy on Education to acquire skills for the implementation of the TVET policy is through the technical colleges. (FRN, 2014, p. 24) However, in the Non-formal TVET system young learners who may not have enrolled in or not finish secondary education can choose training in form of short-courses or seminars in the non-formal sector. The National Commission for Mass Literacy, Adult and Non-Formal Education (NMEC), and National Directorate of Employment (NDE) offer non-formal TVET programmes (Osuyi & Ogbebor, 2024). In addition, TVET

can also be acquired through community-based organizations, nongovernmental organizations and apprenticeship whose programmes can be accredited, assessed and certification of skills acquired through the National Vocational Qualification Framework (NVQF).

Inclusive TVET is a situation where all persons, irrespective of gender, physical appearance, should be able to participate in the same TVET activities and interact on an equal basis. (UNESCO, 2016) However, experts have found out that persons with disabilities (PWDs) and the female gender are often faced with subtle or outright rejection if they attempt to enrol for technical and vocational training in a male dominated trade (Emah, et al., 2025).

Persons living with disabilities refer to persons with physical impairment to sensory and locomotion, intellectual impairment and mental health condition. Those living with disabilities constitute a significant demographic group in the Nigerian population. Worldometer (2023) elaboration of United Nations data puts Nigeria's current population at 227,882,945. Meanwhile, Osuyi and Ogbebor (2025) explained that a 2023 World Health Organization (WHO) report puts the number of persons with disability in Nigeria at about 35,100,000. That implies that over fifteen percent (approximately 15.4%) of Nigeria's population lives with one form of disability or the other. Furthermore, statista research department (2026) reports that in 2023 Nigeria's female population amounts to approximately 112,680,000. when compared against the total population, it implies that nearly fifty percent (approximately 49.5%) of the population are female. Experts have reported that neglecting these demography will negatively impact sustainable development.

Sustainable development refers to development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (Mensah, 2019). Furthermore, Abubakar (cited in Ogbebor and Osuyi, 2025) sees sustainable development as a global

development concept that provides the mechanism through which society can interact with the environment while not risking damaging the resource for the future. Thus, 'sustainable development' is a developmental concept that brings about the improvement in the living standards of people without causing environmental challenges such air and water pollution, deforestation, climate change amongst others (Browning & Rigolon, 2019). This implies that sustainable development is an effort at guaranteeing a balance among economic growth, environmental integrity and social well-being (Ogbebor & Osuyi, 2025)

Statement of the Problem

Nigeria as a whole, and Edo State in particular, is presently experiencing a challenging period marked by uncertainty in the future economic landscape. Studies by various scholars indicate that an education system focused on equipping individuals with practical skills is a reliable means of promoting economic stability and sustainable development. One key approach to achieving this is through Inclusive Technical, Vocational Education and Training (TVET) (UNESCO, 2016). TVET encompasses a wide range of skill areas, including shoe making, leatherwork, vulcanizing, painting, hairdressing, barbering, cake production, generator and motor vehicle maintenance, fabric weaving, woodworking, electronics repair, electrical installation, plumbing, garment production, jewelry making, and pottery, among others. (Apkan et al., 2020, p. 111)

However, studies conducted by Emah et al (2025) and Adelakun et al (2015) revealed that over sixty-four percent (64%) of the TVET space in Nigeria are occupied by males. Furthermore, an International Labour Organization (ILO) 2025 report stated that only 2.7% of Africa's labour force are persons with disabilities. The report further revealed that persons with disabilities are heavily underrepresented in technical and vocational education and training (TVET), and that they often face systemic barriers to participating in TVET (ILO, 2025, p. 1).

Hence, the researchers are worried that sustainable development cannot be achieved if TVET implementation is not inclusive. Therefore, there is the need to conduct this research to ascertain the role of inclusive TVET in leveraging sustainable development in Edo State.

Purpose of the Study

The main purpose of the study was to determine the role of inclusive TVET as a leverage for sustainable development. Specifically, the study determined:

1. the ways inclusive TVET leverage sustainable development in Edo State.
2. the vocational skills needed in an inclusive TVET system in Edo State.

Research Questions

The following research questions guided the study:

1. In what ways does inclusive TVET leverage sustainable development in Edo State?
2. Which vocational skills can be acquired in an inclusive TVET system in Edo State?

Hypothesis

One null hypothesis was tested at a significant level of 0.05

1. There is no significant difference between the mean responses of persons with disabilities and female TVET professionals on the ways Inclusive TVET leverage sustainable development in Edo State.

Method

The descriptive survey research design was used to carry out the study on Inclusive TVET as a leverage for sustainable development in Edo State. Descriptive survey is a research design that uses a representative sample of the population to describe the opinions, beliefs, attitude of the people about a particular phenomenon. The result obtained from the sample could be used to generalize for the entire population. This design was found to be suitable for this study because a representative sample of persons living with disabilities and female TVET professionals were used to generalize for the entire persons with disabilities and women in Edo State. Sustainable development was the dependent variable, while inclusive TVET was the independent variable.

The population of the study consisted 550 persons, of which 400 were persons living with disabilities composed of five disabled groups, namely, the blind, the physically disabled, the deaf, those with spinal cord injuries and leprosy victims and are registered with the Joint National Association of Persons With Disabilities, Edo State (JONAPWD, 2024). Whereas, the remaining 150 persons were registered female TVET professionals in Edo State. The sample size of the study was 80 persons, representing 60 persons living with disabilities and 20 registered female TVET professionals. Stratified random sampling technique was used to determine the sample size for persons with disabilities with each stratum representing each disabled group and random sampling method was used to obtain the female TVET professionals. Table 1 showed the sampled persons with disabilities

Table 1: Sample Size of Persons With Disabilities

SN	Disabled Group	PWDs
1.	The Blind	12
2.	The Physically Disabled	12
3.	The Deaf	12
4.	Those with Spinal Cord Injuries	12
5.	Leprosy Victims	12
Total		60

Instrument titled "Persons With Questionnaire" (PWDFTVETPQ) was used Disabilities and Female TVET Professional to collect data from persons living with

disabilities and female TVET professionals. The instrument was made up of two sections, A and B. Section A elicited respondents bio data while section B contained 11 item statements arranged in clusters according to the number of research questions. The response categories are Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) rated 4, 3, 2 and 1 respectively. The instrument was validated by three experts in the department of Vocational and Technical Education, Faculty of Education, Ambrose Alli University, Ekpoma.

In order to ascertain the stability of the instrument, Cronbach alpha coefficient formula was used. The instrument was administered to 20 respondents once, comprising 10 registered members of Joint National Association of Persons With Disabilities and 10 registered female TVET professionals, all from Delta State. The test yielded an overall reliability coefficient of 0.75. The questionnaire was subsequently administered to persons living with disabilities and female TVET professionals in Edo State. The researchers were assisted by 8 research assistants. The research assistants

administered the instrument to the respondents and all questionnaire administered were retrieved.

The data collected were analysed with the aid of Statistical Package for Social Sciences (SPSS). The research questions were answered with Mean ($\bar{X}$) and Standard Deviations (SD) statistics while Z-test statistics was used to test the hypothesis at 0.05 level of significance. The decision rule was based on the criterion mean of 2.50. Therefore, any calculated mean value equal or greater than 2.50 was regarded as agreed, whereas mean value less than 2.50 was considered as disagreed. Furthermore, a p-value equal or less than 0.05 alpha, obtained from the Z-test, means that the hypothesis was rejected whereas p-value greater than 0.05 alpha means that the hypothesis failed to be rejected.

Results

Research Question 1

In what ways does inclusive TVET leverage sustainable development in Edo State?

Table 2: Mean and Standard Deviation showing the Ways Inclusive TVET Leverages Sustainable Development in Edo State

S/N	Item	N	Mean ($\bar{X}$)	SD	Remarks
1	Provides opportunities for males, females, and Persons With Disabilities, reducing inequality	80	2.83	.961	Agree
2	Provides opportunities for all individuals to be quipped with employable skills, leading to income generation and improved livelihoods.	80	2.93	.930	Agree
3	Expands the skilled workforce, boosting productivity and national development.	80	2.88	.951	Agree
4	Improves the quality and diversity of the workforce thereby fostering new ideas and problem-solving approaches through diverse participation.	80	2.89	.940	Agree
5	Builds a skilled population capable of sustaining resources and opportunities for future generations.	80	2.90	.933	Agreed
Cluster Mean			2.87	0.10	Agreed

Note: SD (Standard Deviation), N (Sample Size)

Table 2 showed the impact of inclusive TVET on sustainable development. The respondents rated items one to five as Agree, with a mean rating ranging from 2.83 to 2.93 while the standard deviation also

ranges from .930 to .961. The cluster mean showed a mean of 2.87. With these results, the above mean scores shows that all the respondents agree that inclusive TVET leverages sustainable development through

reduced inequality, improved productivity and livelihood, sustained resources for future generations, among others.

Research Question 2

Table 3: Mean and Standard Deviation Showing the Vocational Skills that can be Acquired in an Inclusive TVET System in Edo State

S/N	Item	N	Mean (X)	SD	Remarks
6	Catering services such as cake baking	80	2.56	1.112	Agree
7	Hair plaiting, barbing, make-up artisan	80	2.63	1.129	Agree
8	Motor vehicle and generator maintenance, carpentry, electronics repair, electrical and plumbing works	80	2.69	1.001	Agree
9	Garment making(tailoring and fashion design), bead/jewellery making, pottery	80	2.74	.928	Agree
10	Mat, basket and fabrics weaving	80	2.65	1.137	Agree
11	Leather works such as shoe and bags making	80	2.80	.916	Agree
Cluster Mean			2.68	0.07	Agree

Note: SD (Standard Deviation), N (Sample Size)

Table 3 reveals the types of vocational skills that can be acquired in an inclusive TVET system in Edo State. The respondents rated items six to eleven as Agree with a mean rating ranging from 2.56 to 2.80. The standard deviation ranges from .916 to 1.180. The cluster mean indicated a mean of 2.68. The above mean scores shows that the respondents agreed that the skills listed are the types of vocational

Which vocational skills can be acquired in an inclusive TVET in Edo State?

Hypotheses 1

There is no significant difference between the mean responses of persons with disabilities and female TVET professionals on the ways Inclusive TVETleverage sustainable development in Edo State

Table 4: Z-test analysis showing mean difference between the mean responses of persons with disabilities and women on the ways Inclusive TVETleverage sustainable development

Respondents	N	Mean($\bar{X}$)	SD	df	z-value	p-value	Decision
Persons with Disabilities	60	2.65	0.44	78	1.090	.055	H ₀ Retained.
Women	20	2.68	0.30				

Value Significant at 0.05 level (Reject Hypothesis) SD: Standard Deviation. df: degree of freedom

The result in Table 4 reveals the mean score of the mean responses of persons with disabilities and female TVET professionals on the ways Inclusive TVETleverage sustainable development in Edo State. Persons with disabilities had a mean of 2.65 and female TVET professionals had a mean of 2.68 while their corresponding standard deviations were 0.44 and 0.30 respectively. The z-value of 1.090, testing at df of 78 and probability value of 0.05, the null hypothesis failed to be rejected since the p-value is greater than alpha value.

Discussion of Findings

Research question one findings indicated that the he ways Inclusive TVET leverages sustainable development are that it provides equal opportunities for males, females, and persons with disabilities to be quipped with employable skills, leading to income generation and improved livelihoods. The findings further revealed that inclusive TVET expands the skilled workforce, boosts productivity and national development, improves the quality and diversity of the workforce and engenders problem-solving

approaches through diverse participation that builds a skilled population capable of sustaining resources and opportunities for future generations. This finding is supported by Ogbebor and Osuyi (2025) who stated that This implies that sustainable development is an effort at guaranteeing a balance amongst economic growth, environmental integrity and social well-being without putting opportunities of future generation in jeopardy.

The result of research question two showed that various vocational skills can be acquired in an inclusive TVET system in Edo State includes motor vehicle and generator servicing, carpentry, electronics repair, electrical installation, plumbing, garment production (including tailoring and fashion design), bead and jewelry crafting, pottery, cake production, as well as shoe and bag making. This result is consistent with Akpan et al. (2020), who recognized mat weaving, basketry, and fabric weaving as important vocational competencies. In addition, the finding corresponds with the work of Osuyi and Uwaifo (2023), which showed that motor vehicle mechanics and generator repair services are in active demand.

The findings of hypothesis one revealed that there is no significant difference between the mean responses of persons with disabilities and female TVET professionals on the ways inclusive TVET leverage sustainable development in Edo State. The null hypothesis, therefore, failed to be rejected.

Conclusion

Based on the findings from the study, it was concluded that an inclusive TVET system leverages sustainable development in Edo State.

Recommendations

Based on the findings, the following recommendations are made.

1. The Federal Government of Nigeria, State Governments (sub-nationals) and Private Sector should urgently consider and implement an inclusive TVET system. This means that they should provide well equipped skill acquisition

facilities that can cater for the training needs of all, including females and persons with disabilities.

2. Owing to the overwhelming leverage of inclusive TVET on sustainable development, everyone should, as a matter of urgency and priority, acquire vocational skills that will serve as a means of livelihood for them.

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