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RE-POSITIONED TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) FOR SUSTAINABLE SOLUTION FOR NIGERIA ECONOMIC GROWTH IN THE ERA OF UNCERTAINTY IN PUBLIC UNIVERSITIES IN EDO STATE.

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Abstract

Descriptive survey research design was adopted for the study with three research questions The study was carried out in public Universities in Edo State. The population comprised of fifty-six (56) TVET respondents Educators. in public Universities in Edo State. The author used the entire population of TVET Educators. The author developed a structured questionnaire for data collection, titled Re-positioned TVET for sustainable economic growth in uncertainty, validated by three experts. In TVET department one from measurement and evaluation department. Chronbach alpha method was used to determine the reliability of the instrument and yielded a 0.86 coefficients index. The author administered questionnaires to respondents with the assistance from three assistants, resulting in a 100% retrieval rate of return, with 56 retries. Mean and standard deviation (SD) were used to answer the research questions. The ranging scale was as follows:Very Great Extent (VGE) 4, Great Extent (GE) 3, Low Extent (LE) 2 , Very Low Extent (VLE)1. On criterion mean value of 2.50 and above were regarded as very Great Extent, but when is less than 2.50, is regarded low Extent. The recommendation is to incorporate digital literacy programmes into TVET programmes, tailoring them to meet specific industry needs in order not to be offering subsidized training sessions. Institutions should develop TVET curriculum for SMEs, strengthen Industry Partnerships, and involve industry experts in curriculum design to ensure real-world needs are met.

Introduction

Technical and Vocational Education and Training (TVET) also known as Career and Technical Education focuses on equipping students with practical skills and knowledge specific to particular trades, occupations, or vocations. This type of education aims to prepare individuals for direct entry into the workforce in skilled trades or technical fields. Its includes combination of theoretical instruction and hands-on training which covers a wide range of areas such as Office Technology and Management (OTM), Automotive technology, Healthcare, construction Trades Manufacturing and other industrial processes. TVET can be offered at various levels, including high schools, community colleges, technical institutes, universities or through apprenticeship programmes. It is the education that is designed to provide students with the competencies needed to succeed in specific careers, often leading to certification, diplomas, or associate degrees that validate their skills and readiness for employment. The primary objectives of education include developing job-specific skills, preparing individuals for gainful employment, and contributing to sustainable economic growth. It emphasizes hands-on experience inclusive access to education, and promotes lifelong learning to adapt to technological and market changes.

TVET in the Era of Uncertainty

The current position of TVET in Nigeria faces several significant challenges that hinder its effectiveness and impact on national development. Some of which include: Poor funding and Infrastructure. May TVET institutions suffer from inadequate funding, leading to poor facilities and outdated equipment limited access to modern technology thereby reduces the quality of training and leaves graduate ill-prepared for the workforce. TVET Curricula often fail to align

with the current demands of industries and the labor market. These results in a skills mismatch were students are trained in outdated techniques or trades that lack job opportunities. In addition, many institutions lacks qualified and experienced instructors who can deliver practical and industry-relevant training, further compromising the quality of education.

TVET significantly contributing to the economy of Nigeria by developing a skilled workforce, promoting entrepreneurship in supports of industrial growth, rural development, technological advancement to reducing unemployment and poverty. Additionally, TVET fosters economic diversification by increases productivity that attracts education for those whose job are affected by economic shifts, offers opportunities to transition to new careers advancement in their current fields for personal development and development of their personal capacities to realizing one's full potential with regards to paid or self-employment, occupational interests, and life goals outside of work. The world Economic Forum (EEF) Report on the Future of Jobs (2023) reported that, vocational training programmes are essential for equipping workers with the technical skills needed for emerging industries such as artificial intelligence, renewable energy, and advanced manufacturing.

Technical and Vocational Education and Teaching offered practical experience programmes on hands-on training, apprenticeships, giving students practical experience that can be immediately applicable in the job market and promotes lifelong learning. Through the provision of certifications and continuing education programmes, individuals can remain up to date in their domain.

McGrath & Powell (2022) opined that, countries with robust vocational training systems had lower youth unemployment rates and higher rate of youth participation in the labor-force, even during economic downturns. Some strategies have been identified in this study which includes Industrial growth, Economic Instability, economic resilience, and Technological Advancement. TVET supports the industrial economic growth of the nation by providing its graduate with the specific skills and knowledge required by various industries in a more competent and job-ready workforce to drive productivity and innovating skills, as a veritable tool for developing youngsters for gainful employment and self-reliance. The UNESCO (2021) affirmed that, TVET provides youths with practical skills, enhancing employment and boosts economic stability through Human Capacity Building for effective funding of industrial economic growth to amidst global pandemic and security challenges. Again, Edeh, et al. (2021) added that, TVET fosters a culture of innovation and problem-solving in encouraging students to develop and promote creative business ideas for individuals to develop new products and innovation that are crucial for business growth, competitiveness in establish business relationships. These contributions are crucial for promoting economic growth and development in the era of uncertainty.

TVET Repositioning for Sustainable Economic Stability and economic resilience in an Era of Uncertainty continues to pose significant challenges to growth and development, particularly in the context of global uncertainties such as pandemics, political shifts, and technological disruptions. TVET systems have the potential to be r-repositioned as a pivotal tool in building economic resilience and providing sustainable solutions for economic growth. Research shows that TVET can enhance the economic resilience of nations by equipping individuals with practical's demand-driven skills that align with market needs. Empirical studies confirm the importance of TVET in stabilizing economies during uncertain times. For instance, Bashir et al. (2020) studied TVET in Pakistan and highlighted how economic resilience can be achieved by equipping the workforce with diverse skill sets. The author found that regions with a strong TVET sector were less vulnerable to economic shocks, especially during the global economic slowdown. In addition, Bennell (2018) emphasized the importance of TVET systems in promoting social inclusion and reducing unemployment, especially in Sub-Saharan Africa.

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The author reported that economic instability could be mitigated by robust TVET programmes, which offer practical skills to youth entering a volatile labour market.

Economic Growth on the other hand, amid rapid technological advancements and uncertain economic landscapes which foster economic recovery and growth. Zinyama and Mashumba (2021) affirmed that, TVET sector, revealing how focused investments in vocational education can stimulate economic growth even in crisis periods. Their study indicated that economic recovery during the COVID-19 pandemic was more rapid in regions where TVET programmes had been strengthened. Majumdar (2019) noted that countries with robust TVET systems were better equipped to withstand global economic uncertainties due to their adaptable workforce.

Sustainable Solutions Through TVET Sustainability in economic growth requires a focus on long-term adaptability, which TVET supports by fostering innovation and continuous learning. McGrath and Powell (2022) analyzed the role of TVET in driving sustainable development in African economies, particularly in the context of green technologies. Their findings showed that investing in TVET programmes focusing on renewable energy and sustainable practices can drive not only economic growth but also environmental sustainability. However, TVET has proven to offer a vital safeguard by equipping it graduates with skills that remain relevant or adaptable in times of crisis. Fasih and Patrinos (2020) revealed that countries with strong TVET systems experienced lower rates of unemployment and faster recovery in the labour markets. TVET programmes were better suited to transition workers to growing sectors skills such as (OTM) Home economics skills, agriculture skills, and manufacturing skills. By aligning education programmes with market-relevant skill development. Schmid and Fischer (2019) findings showed that TVET programmes adapted quickly to teach skills related to operating advanced machinery, robotics, and artificial intelligence. Oketch (2017) found that countries investing in TVET for sustainable industries, such as agriculture and green energy, have shown significant economic growth and resilience. The study highlights the importance of creating skilled workers for sustainable industries for long-term economic stability. Technological advancements can revolutionize education, bridging access gaps, and providing global knowledge. E-learning platforms, Massive Open Online Courses, and global academic databases can improve education quality and align Nigeria's best practices. Technology also enhances teacher training and professional development, allowing educators to stay updated and integrate technology into their classrooms.

Adesins and Bello (2022) believed that, students exposed to these digital tools showed a 30% improvement in literacy and numeracy compared to those in traditional learning settings. Technologies such as virtual classrooms, video conferencing and learning management systems (LMS) and Arterial intelligence (AI) has the potential to improved learning outcome through personalized education. These technological advancements can play a crucial role in building a skilled and innovative workforce, essential for economic can overcome some of its developmental challenges and build a more resilient and prosperous nation in the era of uncertainty The study conducted by Edeh et al (2021) found that, while platform's like Zoom, Google classroom, and Module saw idle spread use, significant challenges related to internet accessibility, electricity, and digital skill persisted. In addition, Walsh and Harris (2021) opined that, TVET graduate are increasingly involved in startups and innovation hubs, contributing to technological advancements and economic diversification. TVET programmes support the digital transformation of various sectors. This ensures that both new existing workers are proficient using digital tools which are crucial in the modern economy. Agrawal and Saluja (2019) pointed out that, digital skills in TVET has led to increased adoption of technology in traditionally low-tech sectors such as Textiles and garments, agriculture and farming, printing, food processing even in the era of uncertainty. Adeyemi and Oseni (2023) agreed that, partnership between TVET institutions and technology firms have help to tailored training

programmes directly to meet industry needs and enhancing the employability of graduates especially during the era of uncertainty.

Statement of the Problem

In the face of increasing economic uncertainties, Nigeria's economic growth is facing significant challenges, includes unemployment, under-employment, skill mismatch, industrial growth, economics instability and technological advancement in economies downturns. (TVET) has long been identified as a crucial driver for economic development due to its focus on practical skills and competencies required in the labor market. However, despite numerous efforts to integrate TVET into Nigeria's educational system, the potential of TVET to drive economic growth remains underutilized. The challenges are multifaceted which includes inadequate funding, outdated curricula, limited industry collaboration, and the stigmatization of vocational training has stunted the effectiveness of TVET programmes in our institutions of learning. This study investigates how TVET can be repositioned as a strong pillar in a period of economic uncertainty, identifying gaps between TVET offerings and industry needs. The aim is to optimize TVET's impact on economic growth, providing sustainable solutions in public universities in Edo State.

Purpose of the Study

The purpose of this study was to examine the need to repositioned TVET for sustainable solution and economic growth in the era of uncertainty. The study seeks to specifically to determine:

1. The need to repositioned TVET for industrial growth for sustainable solution and economic growth in the era of uncertainty.
2. The need to repositioned TVET for Technological Advancements for sustainable solution and economic growth in the era of uncertainty.
3. The need to repositioned TVET for Economics Instability and economic resilience for sustainable solution in the era of uncertainty.

Research Questions: The following research questions were raised for the study

1. To what extent are TVET programme repositioned for industrial growth for sustainable solution economic growth in the era of uncertainty?
2. To what extent are TVET programme repositioned for Technological Advancements in for sustainable solution economic growth in the era?
3. To what extent are TVET programme repositioned for Economics Instability and economic resilience for sustainable solution in economic growth in the era of uncertainty?

Significance of the Study

The findings of this study will be beneficial to the governments, students, researchers and the general public. The findings of this study will give students practical insights, Economics Instability in era of uncertainty which is invaluable for those studying Business education or Home economics. Additionally, this research will contribute to the existing body of knowledge, helping to fill gaps in understanding and informing future studies in this area in contributing to the existing body of knowledge.

Methodology

A descriptive survey research design was adopted to achieve the aims for this study. The study was carried out in public Universities in Edo State. The targeted population comprises Fifty six (56) TVET lecturer in public Universities in Edo State. The author used the entire population of Business education. The instrument for data collection was a structured questionnaire developed

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by the author titled Re-positioning TVET for sustainable solution for Nigeria economic growth in the era of uncertainty. The instrument was content validated by three experts two form TVET and one form measurement and evaluation department. Cronbachs alpha method was used to determine the reliability of the instrument and yielded a 0.86 coefficient index. The author personally administered with the help of three research assistants. The instrument was administered to (56) lecturers and retrieved on the spot. Using this methods, (56) copies was retrieved representing a 100% return. Mean and standard deviation (SD) were used to answer the research questions. The ranging scale is as follow: Very Great Extent, (VGE) 4 Great Extent (GE) 3. Low Extent (LE) 2, Very Low Extent (VLE). On criterion mean value of 2.50 and above were regarded as very Great Extent.

Research Question 1. In what ways can TVET programmms be repositioned industrial growth for sustainable solution and economic growth in the era of uncertainty?

Table 1: Mean and standard deviation in ways in which TVET can repositioned industrial growth for sustainable solution in the era of uncertainty.

S/N	Items	Mean	SD	Remarks
1	Enhanced industry collaboration.	3.10	.909	High Extent
2	Internships and apprenticeships for students?	2.90	.814	High Extent
3	Regular curriculum updates.	2.94	.867	High Extent
4	Improved industry linkages true sponsorship and funding from private companies.	3.12	.773	High Extent
5	Direct recruitment of TVET graduates by companies.	2.80	.904	High Extent
	Cluster Mean	**2.97**	**0.06**	**High Extent**

Note: SD= Standard Deviation

Table1 shows the extent TVET programmes repositioned industrial growth for sustainable solution and economic growth in the era of uncertainty has five descriptive items in different ways in which TEVT programmes can be repositioned for sustainable solutions in the era of uncertainty. All the five items yielded Great extent. Thus, the Grand Mean of 2.97 indicated the different ways in which TVET can be repositioned for sustainable solutions in the era of uncertainty of the view that these different ways in which TVET programmes can be repositioned for sustainable solution in the era of uncertainty are implemented

Question Two: To what extent TVET programmes repositioned Technological Advancements for sustainable solution for economic growth in the era of uncertainty?

Table 2: Mean and standard deviation in ways in which TVET can repositioned Technological Advancements for sustainable solution in the era of uncertainty.

S/N	Items	Mean	SD	Remarks
6	Update the TVET curriculum to include skills related technologies such as artificial intelligence.	3.10	.909	High Extent
7	Establish innovation hub and business incubators with TVET institutions where students can develop and test their ideas.	2.90	.814	High Extent
8	Capacity building for educators by training in Modern Technologies.	2.94	.867	High Extent
9	Collaborate with industries to co-develop curricula that reflect current and future industry needs.	3.12	.773	High Extent
10	Develop and implement a national strategy for skills development that prioritizes in technology –driven-sectors.	2.80	.904	High Extent
	Cluster Mean	3.08	**0.04**	**High Extent**

Note: SD =Standard Deviation

Table2 shows the shows the extent TVET programmes can be repositioned for Technological Advancements and sustainable solution and economic growth in the era of uncertainty has five descriptive items for different ways in which TEVT programmes can be repositioned for sustainable solutions in the era of uncertainty. All the five items yielded Great extent. Thus, the Grand Mean of 3.08 indicated the different ways in which TVET can be repositioned for sustainable solutions in the era of uncertainty are implemented.

Question 3: The extent TVET repositioned Economics Instability and economic resilience for sustainable solution and economic growth in the era of uncertainty?

Table 3 Mean and standard deviation of TVET possibilities of addressing economics instability and economic resilience for sustainable solutions in The Era of uncertainty.

S/N	Items	Mean	SD	Remarks
11	Supporting Small and Medium Enterprises (SMEs).	3.10	.909	High Extent
12	Bridging skill gaps in industries?	2.90	.814	High Extent
13	Improved training facilities and resources.	2.94	.867	High Extent
14	Incorporating soft skills and Digital literacy in TVET curriculum.	3.12	.773	High Extent
15	Enhancing workforce skills.	2.80	.904	High Extent
	Cluster Mean	**2.97**	**0.06**	**High Extent**

Note: SD=Standard Deviation

Table 3 shows the result of the extent of TVET repositioned economic growth and Economics Instability for sustainable solution in the era of uncertainty has five descriptive items. All the five items yielded great extent possibilities of addressing the economic instability and economic resilience for sustainable solutions in the era of uncertainty The Grand Mean of 2.97 indicate that, TVET can significantly contributes to economic resilience in the face of future uncertainties. Respondents are of the view the possibilities of addressing economic instability and economic resilience determines sustainable solution in the era of uncertainties.

Discussion of Findings

The findings of research question one revealed that, TVET repositioned industrial growth for sustainable solution and economic growth in the era of uncertainty to a high extent. TVET provide its graduate with the specific skills and knowledge required by various industries in a more competent and job-ready workforce, which can drive productivity and innovation in key sectors for Youth gainful employment and self-reliance. This findings is in line with Adesina, and Bello (2023), when they asserted that, TVET provides youths with practical skills, enhancing employment and boosts economic stability through Human Capacity Building for effective funding of industrial economic growth specifically, in office technology and management (OTM) to amidst global pandemic and security challenges. In addition, Ogundele, and Amusa, (2023)opined that, TVET fosters a culture of innovation and problem-solving, encouraging students to develop and creative business ideas, that fostering a culture of innovation and problem-solving in individuals to develop new products and innovation crucial for business growth and competitiveness in establish business relationships. Olusola (2023) claimed that, improving human capacity through TVET, enabling workers to continually update their skill as industries evolve. This adaptability is crucial during economic uncertainty.

TVET programmes in Nigeria are leveraging technological advancements to promote sustainable economic growth and bridge access to education, particularly in rural and underserved areas, through e-learning platforms. The result in agreement with Adesina, S.A.,

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and Bello, (2022) found that, students exposed to these digitals tools showed a 30% improvement in literacy and numeracy compared to those in traditional learning settings. Edeh, et al (20 21) affirmed that, platform's like Zoom, Google classroom, and Moodle saw ide spread use, significant challenges related to internet accessibility, electricity, and digital skill Persisted. However, Adegboyega (2023) affirmed that, TVET graduate are increasingly involved in startups and innovation hubs, contributing to technological advancements and economic diversification. TVET programmes support the digital transformation of various sectors ensuring both new existing workers are proficient using digital tools which are crucial in the modern economy.

The findings in table three indicate that, (TVET) systems have the potential to be repositioned as pivotal tools in building economic resilience and providing sustainable solutions for economic growth in the era of uncertainty. A growing body of empirical research emphasizes that TVET is a cornerstone in building economic resilience, ensuring sustainability, and fostering long-term growth, equipping it graduates with skills that remain relevant or adaptable in times of crisis. However, Fasih and Patrinos (2020) revealed that, TVET systems experienced lower rates of unemployment and faster recovery in labor markets. TVET programs were better suited to transition students to growing sectors skills like, Office information and technology (OTM) skills, Home economics skills, information Technology skills, agriculture skills, and manufacturing skills, by aligning education programs with market-relevant skill development. The findings suggested that, creating skilled workers for emerging sustainable industries was essential for long-term economic stability in an era of economic uncertainty.

Conclusion

Re positioned (TVET) programme for sustainable solution for Nigeria economic growth in the era of uncertainty requires a holistic approach that integrates modern technology into all aspects of education and training by focusing on curriculum modernization through technological advancement, industrial growth, economic stability and economics Resilience, adaptable to contribute to sustainable economic growth in the era of uncertainties

Recommendation

1. Government should realigned digital literacy programmes as a core part of all TVET programmes ensure that students are proficient in using digital tools to tailor the programmes to meet the needs of industries or offering training at subsidized rates.
2. Management should formulate policy and governance support that align TVET polices with national development and technical agendas.
3. Management should align TVET curriculum with Emerging labor market needs by regularly update curricula to skills for green economy, digital economy and core economy.

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