

## DIGITALIZATION OF TECHNICAL AND VOCATIONAL EDUCATION PROGRAMMES IN COLLEGES OF EDUCATION FOR SUSTAINABLE WORKFORCE DEVELOPMENT

**Nebolisa Chinwe Mikella & Obinegbu Chinyere Tochukwu**

Department of Business Education,  
Nwafor Orizu College of Education,  
Nsugbe.

### **Abstract**

*The study investigated how digitalization of Technical and Vocational Education (TVE) programmes in Colleges of Education (COEs) would foster sustainable workforce development in Anambra State. Two research questions guided the study. Two hypotheses were tested at 0.05 level of significance. The study adopted the descriptive research design. The population of the study comprised 96 technical and vocational education lecturers in COEs in Anambra State. The instrument for data collection was a face validated 19 items rating scale. The test of reliability of the instrument was done through a pilot study. Cronbach Alpha reliability method was applied to determine the reliability co-efficient which yielded coefficient values of 0.80 and 0.86 with an overall reliability coefficient of 0.83. Mean, standard deviation and t-test were used to analyze data for the study. The findings of the study revealed that strong leadership commitment to change and funding were strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State. The findings of the study also revealed that TVE lecturers in federal owned COEs and State owned COEs did not differ in their mean ratings on the extent strong leadership commitment to change and funding were strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State. The researchers conclude that digitalization is an effective means of promoting sustainable workforce development in Anambra State, hence the following recommendations were made; that federal and state government in conjunction with administrators of COEs should show strong leadership commitment by mapping out policies and programmes targeted at fostering the digitalization of TVE programmes for sustainable workforce development, that funding should be adequately increased in both federal and state colleges of education to ensure the smooth transition to the digitalization of technical and vocational education programmes amongst others.*

**Keywords:** Digitalization, Technical and Vocational Education, Sustainable, Workforce Development, Colleges of Education

### **Introduction**

Education has a significant impact on people's lives and drives social growth. It is a critical instrument for personal growth, social mobility, and economic success. The importance of education in developing responsible citizens cannot be overemphasized, since it affects all parts of life. Education empowers people by providing them with information, skills, and critical thinking abilities. It allows for educated decision-making, problem-solving, and adaptability to changing situations. Individuals who are educated have better abilities required to negotiate the difficulties of contemporary life as well as contributing meaningfully to the society (Abdullahi & Tijani, 2017). Furthermore, education broadens career prospects, increases productivity, and promotes innovation and entrepreneurship. Nations with educated populations tend to have better economies because of their talented workforce, which promotes technological advancement. Achieving the vision of education is realized through the establishment of formal education institutions like Colleges of Education.

Colleges of Education (COEs) in Anambra State are institutions dedicated to training teachers in Anambra State. They hold the third position in the hierarchy of tertiary education in the country. These institutions are crucial centers of academic learning, with a primary focus on producing highly skilled, motivated, and effective classroom teachers for the Anambra State educational system. COEs offer various courses under the Nigeria Certificate in Education (NCE), including technical, science, special education, business, social sciences, and humanities, catering to the diverse needs and interests of individuals in society (Ezugoh et al., 2020) and was established with the aim of professionally training teachers. COEs' programmes are designed to equip educators with the necessary skills for effective teaching. Their objectives include producing dedicated teachers for all educational levels, fostering a spirit of inquiry and creativity among educators, facilitating their integration into society, providing them with the intellectual and professional background needed for their roles, and ensuring their adaptability to changing circumstances (Federal Republic of Nigeria (FRN), 2013). The FRN (2013) views COEs as critical education institutions for the development of Technical and Vocational Education (TVE) in Anambra State. The Federal Government's first endeavour to create permanent training facilities for vocational-technical teachers started in 1968, with the founding of the National Technical Teacher College (NTTC) in Lagos (Ikpe, 2010). Over time, the college was renamed the Federal College of Education (Technical), and its primary concentration is on preparing teachers for Technical Teachers Certificate (TTC) programmes and Nigeria Certificate in Education (NCE) programmes in Business Education as well as Technical and Vocational Education.

Technical and Vocational Education (TVE) is defined as an academic programme aimed at equipping learners with practical skills that can be translated into economic benefits (Olaleye, 2023). Korter (2023) defined TVE as an education programme that leads to the acquisition of skills along with basic scientific knowledge. It encompasses a structured programme of courses and learning experiences, starting from exploring career options, reinforcing foundational academic and life skills, and culminating in the development of leadership qualities, industry-specific skills, and opportunities for advanced and ongoing education (Aliyu, 2023). Technical and Vocational Education according to Korter (2023; 1) is an educational programme that focuses on providing students with practical skills, knowledge, and competencies specific to particular occupations or industries. It is an educational pathway aimed at preparing students for employment, self-employment, and entrepreneurship across various vocational fields (United Nations Educational, Scientific and Cultural Organization, 2013). TVE programmes are structured to equip individuals with the requisite skills needed to meet the demands of the labor market and contribute to economic development (United Nations Development Programme in Aliyu, 2023). In Anambra State, technical and vocational education is recognized as a potent catalyst for rapid and desirable transformations across the nations economic, political, sociological, and human resource sectors (Isaac & Ayodele, 2020). The Technical and Vocational Education (TVE) programmes in Colleges of Education (COEs) are expected to play a pivotal role in human capital development, empowering individuals, and fostering economic prosperity for the nation (Tyowuah & Chen, 2019). However, the TVE programmes in Colleges of Education in Anambra State appear to have fallen short in realizing these objectives, as evidenced by the escalating unemployment rate in the state. COEs have not effectively fulfilled their responsibilities in equipping today's youth with the necessary teaching skills required for effective instructional delivery in the 21st century (Dauda et al., 2018). Failure to integrate recent digital technologies into instructional delivery may place Colleges of Education at a global competitive disadvantage, potentially resulting in the production of low-quality teachers at higher costs. The risk is that if outdated and inadequate facilities persist in instructional delivery at Colleges of Education, the goals of TVE in COEs in Anambra State may remain elusive (Dauda et al.). This scenario could eventually impede the functioning of Colleges of

Education and significantly restrict student learning opportunities. This failure highlights the need for the digitalization of TVE programmes in COEs.

Digitalization refers to the process of integrating digital technologies into various aspects of an organization or system to enhance efficiency, accessibility, and effectiveness. Machekhina (2017) defines digitalization as the process of translating various forms of information, such as text, audio, images, videos, and other data from diverse sources, into digital language. Bejinaru, (2019) stated that digitalization in education involves the process of transforming text, images, videos, and music into digital formats using technologies for students training.

Digitalization in COEs involves incorporating digital technologies such as computers, software applications, internet connectivity, and digital learning platforms into the curriculum, teaching methods and administrative processes. Ogunode and Ndayebom (2023) noted that Digitalization has the potential to improve efficiency and speed in COEs, including teaching, research, and community service. Ogunode and Ndayebom asserted that digitalization has the potential to improve access to teaching and learning, flexibility, and quality in Anambra State. The primary advantage of digitalization in education is its ability to accommodate students' individual learning pace. In digital learning, students progress at their own speed, preventing disengagement that may occur when they struggle to keep up with the class (McNulty, 2021). Teachers in digital education can customize the curriculum to match students' learning speeds and abilities, fostering greater engagement and interest (Jain International Residential School, 2021). Digital learning encourages active participation and better retention compared to traditional methods, as students can develop a stronger connection with the material (Ajay, 2020). Digitalization also offers expanded learning opportunities beyond the classroom, allowing students of all abilities to extend their knowledge or reinforce existing skills through additional materials and practice activities (McNulty, 2021). Summarily, Akinyemi et al. (2022) stated that digitalization in education allows for personalized learning, increased engagement, and expanded educational options, ultimately leading to better comprehension and retention of material. This modern approach to education addresses the shortcomings of traditional methods, ensuring that all students can learn at their own pace and achieve their full potential. However, successful digitalization of education in Anambra State seems to be faced by certain challenges.

Ogunode and Ndayebom (2023) asserted that insufficient funding for digital education, lack of proper digital infrastructure, unreliable power supply, inadequate internet connectivity, high expenses associated with digital equipment, expensive maintenance costs, shortage of qualified digital personnel, insufficient digital skills and knowledge among lecturers and students, resistance to change and lack of self-discipline were identified challenges of digitalization in higher education. In order to correct these challenges, Obidile (2023) stated administrators of tertiary institutions should actively pursue additional funding for the procurement of ICT gadgets from non-governmental organizations and philanthropists. Dauda et al. (2018) recommended that the strategies for improving digitalization in COEs include that government should prioritize the digitalization of educational technology centers in COE in Anambra State by ensuring the provision of both digital hardware and software facilities. Additionally, Dauda et al. suggested that there should be an increase in the procurement of digital hardware and software facilities specifically tailored for teaching TVE courses in Colleges of Education in Anambra State. Furthermore, the ownership of institutions could be seen as another issue to consider when considering the benefits and challenges of digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State. This is because colleges of education in Anambra State are owned by the federal government, State government and private individual or group. These COEs depending on their ownership could determine the level of funds appropriated to allow for the digitalization process. However, this has not been

empirically ascertained as the present study focused on COEs owned by federal and state governments. It is against this background that the researchers investigated digitalization of technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State.

### **Statement of the Problem**

Colleges of Education (COEs) in Anambra State are important training institutions for the development of teachers. COEs play critical roles in preparing individuals to become competent and effective educators in various educational settings across the country. COEs offer specialized programmes and training in pedagogy, curriculum development, classroom management, and other essential skills necessary for teaching. They provide aspiring teachers with theoretical knowledge and practical experiences, including teaching practice and internships, to equip them with the expertise needed to excel in their profession. Furthermore, COEs are instrumental in the development of technical and vocational education (TVE) in Anambra State. As key institutions responsible for training teachers, they design and implement curricula tailored to the needs of technical and vocational learners, ensuring that students receive comprehensive instruction in practical skills and knowledge relevant to various industries and professions. However, despite the pivotal role of COEs in TVE, there have been notable failures in meeting the desired objectives of equipping students with practical technical and vocational skills. This failure is reflected in the rising rate of unemployment among TVE graduates from COEs. Some graduates seem to struggle to secure employment due to their lack of competitiveness in the job market. This lack of competitiveness stems from their inability to leverage technologies and capitalize on the opportunities presented by technological innovations.

The failure of TVE programmes in COEs to integrate technology into their curricula exacerbates the problem. Observation by the researchers seems to show that some TVE graduates seem to lack the skills and competences in using technology for teaching and learning. This limits their ability to adapt to modern educational and work practices required to meet the demands of the digital age. On the other hand, lack of expertise among TVE lecturers with using technology further compounds the issue. Some lecturers appear to struggle to effectively incorporate digital tools and resources into their instructional practices. This could affect the preparation of TVE students in COEs for sustainable workforce development in Anambra State.

### **Purpose of the Study**

The main purpose of the study was to investigate digitalization of technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State. Specifically, the study:

1. Examined the roles of Digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State.
2. Determined strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State.

### **Research Questions**

The following research questions guided the study:

1. What are the roles of digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State?
2. What are the strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State?

## **Hypotheses**

The following hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the mean ratings of lecturers in federal colleges of education and state colleges of education on the roles of digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State.
2. There is no significant difference in the mean ratings of lecturers in federal colleges of education and state colleges of education on the strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State.

## **Methods**

The descriptive survey research design was adopted for the study. The study was carried out in Anambra State. The population of the study comprised 96 TVE lecturers in COEs in the State. The instrument for data collection were a two rating scale developed by the researcher. The instrument was titled “Digitalization of Technical Vocational Education in Colleges of Education for Sustainable Workforce Development Questionnaire (DTVECOESWDQ)”. The instrument contains 20 items spread in two sections; A and B. Section A contains information relating to ownership of the respondents institutions (federal and state). Section B was broken down into two clusters; B1 and B2. Cluster B1 contains 10 items on the role of digitalization in promoting TVE in COEs for ensuring sustainable development. Section B2 contains 10 items on the strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development. The instrument was structured on a 4- point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The instruments were validated by three experts in the Department of Technology and Vocational Education, Nnamdi Azikiwe University, Awka. Further the instruments were subject to a pilot test on 10 TVE lecturers Federal College of Education (Technical), Asaba, Delta State.

The application of the Cronbach Alpha reliability test on the returned data yielded coefficient values of 0.87 and 0.79 for clusters B1 and B2 respectively with an overall reliability coefficient of 0.83. The researcher administered the questionnaire by sending copies of the questionnaires to the e-mails and Whatsapp messages of TVE lecturers. In cases where it was difficult administering the instrument electronically. An appointment was made and the instrument was administered on the spot and retrieved. Out of the 96 copies of questionnaire administered, 77 copies were returned in good condition. Amounting to 80% return rate and 20% lose rate. The data collected from the respondents were analyzed using mean, standard deviation and t-test. The mean values were employed to address the research questions, while the standard deviation was used to determine the level of homogeneity among the respondents' ratings. Any item with a mean score of 2.50 or higher was considered as agree, while any item with a mean score below 2.50 was regarded disagree. The hypotheses were tested using t-test. T-test was employed to test the null hypotheses at .05 level of significance. Where the p value is greater than the significant level of .05, it means that there is no significant difference and the hypothesis was accepted. Conversely, where the p value is equal to or less than the significant level of .05, it means that there is a significant difference and the hypothesis was not accepted.

## **Results**

**Research Question 1:** What are the roles of digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State?

**Table 1: Respondents Mean Ratings on the Roles of Digitalization in Promoting Technical and Vocational Education Programmes in Colleges of Education for Sustainable Workforce Development in Anambra State (N=77)**

S/No.	Item Statements	Mean	SD	Remarks
1.	Facilitates quick information sharing between TVE lecturers and students	3.48	0.83	Agree
2.	Avail students with access to a wide range of digital course materials like textbooks, handbooks.	3.30	0.77	Agree
3.	Facilitates the implementation of innovative assessment methods like computer-based testing, online quizzes	3.21	0.85	Agree
4.	Provides immersive learning experiences like the virtual laboratories for learning TVE courses	3.18	0.73	Agree
5.	Facilitates personalised learning experiences aimed at improving specific needs of students	3.44	0.78	Agree
6.	Fosters the development of technical skills necessary for today's job needs.	3.43	0.84	Agree
7.	Fosters the development of digital skills necessary for today's job needs.	3.56	0.70	Agree
8.	Allows Colleges of Education to align their TVE programmes with industry standards	3.67	0.92	Agree
9.	Facilitates the implementation of blended learning models that combine traditional face-to-face instruction with online learning activities.	3.74	0.74	Agree
<b>Cluster Mean</b>		<b>3.45</b>		<b>High Extent</b>

Source: Field Study (2024)

Data in Table 1 reveal that the respondents agree on item, 1-9 as the roles of digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State with mean ratings ranging between ranging between 3.30 and 3.74. The cluster mean of 3.45 indicate that the roles of digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State include facilitating the implementation of blended learning models that combine traditional face-to-face instruction with online learning activities, allowing colleges of education to align their TVE programmes with industry standards, fostering the development of digital skills necessary for today's job needs and facilitating quick information sharing between TVE lecturers and students. The standard deviation scores ranging between 0.70 and 0.92 showed that the respondents' opinions were related.

**Research Question 2:** What are the strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State?

**Table 2: Respondents Mean Ratings on the Strategies for Ensuring Digitalization of Technical and Vocational Education Programmes in Colleges of Education for Sustainable Workforce Development in Anambra State (N=77)**

S/No.	Item Statements	Mean	SD	Remarks
10.	Enhance the infrastructure of COEs by providing reliable internet connectivity	3.59	0.74	Agree
11.	Offer professional development programmes for educators to enhance their digital literacy skills.	3.43	0.80	Agree
12.	Foster partnerships with industry stakeholders for funding support for digitalization initiatives in COEs.	3.68	0.75	Agree
13.	Foster partnerships with technology companies for expertise support for digitalization initiatives in COEs.	3.55	0.82	Agree
14.	Establish support services like digital literacy workshop for TVE lecturers	3.46	0.85	Agree
15.	Strong institutional leadership aimed at encouraging TVE lecturers to use technology for instructional purposes.	3.70	0.73	Agree
16.	Develop policies at the governmental levels to prioritize the digitalization of TVE programmes in COEs	3.66	0.81	Agree
17.	Enforce the implementation of policies at the institutional levels to support the digitalization of TVE programmes in COEs	3.54	0.87	Agree
<b>Cluster Mean</b>		<b>3.57</b>		<b>High Extent</b>

Source: Field Study (2024)

Data in Table 2 shows that the respondents agree that items 10-17 are strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State with mean ratings ranging between 3.43 and 3.70. The cluster mean of 3.57 showed that ensuring strong institutional leadership aimed at encouraging TVE lecturers to use technology for instructional purposes, fostering partnerships with industry stakeholders for funding support for digitalization initiatives in COEs and developing policies at the governmental levels to prioritize the digitalization of TVE programmes in COEs among others were some of the strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State. The standard deviation scores ranging between 0.74 and 0.87 showed that the respondents' opinions were close.

**Hypothesis 1:** There is no significant difference in the mean ratings of lecturers in federal and state colleges of education on the roles of digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State.

**Table 3: Summary of t-test Analysis on the Roles of Digitalization in Promoting Technical and Vocational Education Programmes in Colleges of Education for Sustainable Workforce Development in Anambra State Based on Ownership**

Variable	N	$\bar{X}$	SD	df	$\alpha$	p-value	Decision
Federal COE	55	3.40	0.87	75	.05	.68	Not Significant

---

State COE	22	3.49	0.84
-----------	----	------	------

---

Source: Field Study (2024)

Data in Table 3 showed that the p-value of .68 is greater than the .05 alpha level of significance. This means that there is no statistically significant difference in the mean ratings of federal and state colleges of education on the roles of digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State. The hypothesis was therefore accepted.

**Hypothesis 2:** There is no significant difference in the mean ratings of lecturers in federal and state colleges of education on the strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State.

**Table 4:** Summary of t-test Analysis on the Strategies for Ensuring Digitalization of Technical and Vocational Education Programmes in Colleges of Education for Sustainable Workforce Development in Anambra State Based on Ownership

Variable	N	$\bar{X}$	SD	df	$\alpha$	p-value	Decision
Federal COE	55	3.56	0.86	75	.05	.82	Not Significant
State COE	22	3.61	0.88				

---

Source: Field Study (2024)

Data in Table 4 showed that the p-value of .82 is greater than the .05 alpha level of significance. This means that there is no statistically significant difference in the mean ratings of federal and state colleges of education on the strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State. The hypothesis was therefore accepted.

## Discussion

The finding of the study revealed that the roles of digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State include facilitating the implementation of blended learning models that combine traditional face-to-face instruction with online learning activities, allowing colleges of education to align their TVE programmes with industry standards, fostering the development of digital skills necessary for today's job needs and facilitating quick information sharing between TVE lecturers and students. This finding is in agreement with Akinyemi et al. (2022) who revealed that digitalization in education allows for personalized learning, increased engagement, and expanded educational options, ultimately leading to better comprehension and retention of material. According to Dauda et al. (2018), digitalization in education promotes active engagement and enhances retention rates in comparison to traditional methods. This is because students can establish a deeper connection with the learning material. Furthermore, finding of the study revealed that no statistically significant difference in the mean ratings of federal and state colleges of education on the roles of digitalization in promoting technical and vocational education programmes in colleges of education for sustainable workforce development in Anambra State. This suggests that both federal and state-owned colleges of education in Anambra State recognize the importance of digitalization in enhancing technical and vocational education programmes to develop a skilled workforce. Digitalization can enable colleges to modernize their curricula, teaching methods, and assessment practices to better prepare students for the demands of the 21st-century job market. This is in line with Obidile (2023) asserted that digitalization in education provides opportunities for extended learning

beyond the confines of the classroom. Students of varying abilities can expand their knowledge and strengthen existing skills through access to supplementary materials and interactive practice activities.

The finding of the study revealed that ensuring strong institutional leadership aimed at encouraging TVE lecturers to use technology for instructional purposes, fostering partnerships with industry stakeholders for funding support for digitalization initiatives in COEs and developing policies at the governmental levels to prioritize the digitalization of TVE programmes in COEs among others were some of the strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State. This finding is in consonance with Obidile (2023) who proposed that administrators of tertiary institutions should actively seek additional funding to acquire ICT gadgets from non-governmental organizations and philanthropists. Dauda et al. (2018) recommended strategies to enhance digitalization in Colleges of Education (COEs), including prioritizing the digitalization of educational technology centers in COEs across Anambra State. This involves ensuring the provision of both digital hardware and software facilities. Additionally, Dauda et al. suggested increasing the procurement of digital hardware and software specifically designed for teaching electrical and electronics technology in COEs throughout Anambra State. Furthermore, finding of the study revealed that no statistically significant difference in the mean ratings of federal and state colleges of education on the strategies for ensuring digitalization of TVE programmes in COEs for sustainable workforce development in Anambra State. This suggests that both federal and state-owned COEs in Anambra State recognize the importance of digitalization in enhancing their TVE programmes to develop a skilled workforce for sustainable development. The lack of significant difference indicates that the colleges, regardless of their ownership, are aligned in their understanding and approach to leveraging digitalization to improve the delivery and outcomes of their TVE programmes. This is in line with Akinyemi et al. (2022) who stated that investing in digital infrastructure, such as high-speed internet, modern computer labs, and educational software to support technology-enabled teaching and learning, providing training and professional development opportunities for faculty to enhance their digital literacy and pedagogical skills in integrating technology into TVE curricula and collaboration between COEs and industry partners to align TVE curricula with the evolving needs of the job market and provide students with hands-on, technology-driven learning.

## **Conclusion**

Based on the findings of the study, the researcher concludes that digitalization of technical and vocational education programmes in colleges of education is imperative for sustainable workforce development in Anambra State. The findings of the study revealed that both federal and state colleges of education in Anambra State recognize the important roles of digitalization in promoting technical and vocational education (TVE) programmes for sustainable workforce development. Some of these roles include: facilitating the implementation of blended learning models that combine face-to-face instruction with online learning activities, aligning TVE programmes with industry standards and the evolving needs of the job market, fostering the development of digital skills necessary for today's workforce and facilitating quick information sharing between TVE lecturers and students. The study shows that both types of institutions recognize the importance of digitalization and are aligned in their approaches. Some key strategies identified for ensuring the digitalization of TVE programmes in colleges of education include encouraging strong institutional leadership to promote the use of technology by TVE lecturers, fostering partnerships with industry stakeholders for funding support for digitalization initiatives and developing policies at the governmental level to prioritize the digitalization of TVE programmes. Collectively embracing these roles and strategies in colleges of education in Anambra State regardless of their ownership could drive the digitalization of TVE programmes.

This could result in the production of skilled, adaptable and future-ready workforce to support the Anambra State government's sustainable development goals.

### Recommendations

The following recommendations were made based on the findings of the study:

1. Federal and state government in conjunction with administrators of COEs should show strong leadership commitment by mapping out policies and programmes targeted at fostering the digitalization of TVE programmes for sustainable workforce development.
2. Federal and state government in conjunction with administrators of COEs should go into collaborative initiatives with industry stakeholders and technology companies in for the provision of financial resources, infrastructural resources and expertise in TVE programmes.
3. Administrators of COEs should organize in-service training programmes like conferences and workshops targeted at providing training and exposure to TVE lecturers in COEs on the use of digital technologies in education and current trends in instructional practices.

### References

- Abdullahi, N. J. K. & Tijani, A. A. (2019). Digitalization in education system and management of early childhood care education in Nigeria. *Southeast Asia Early Childhood Journal*, 8(2), 28-42.
- Ajay, S. (2020). *What is the digital education system and its advantages for students?* <https://www.theasianschool.net/blog/what-is-the-digital-education-system-andits-advantages-for-students/>
- Akinyemi, I. A., Amaechi, L. I., & Etoh, L. C. (2022). Digitalization of education in Nigerian secondary schools: Benefits and challenges. *Journal of Education & Humanities Research (JEHR)*, 13 (1), 34-44.
- Aliyu, I.L. (2023). Enhancing national development by advancing technical and vocational education in Nigeria to foster human capital development. *International Journal of Education, Culture, and Society*, 1(1), 87-99.
- Bejinaru, R. (2019). Impact of digitalization on education in the knowledge economy. *Management Dynamics in the Knowledge Economy*, 7(3), 367-380.
- Dauda, M. Nasiru, B. M., Amos, D. A. & Lumo, A. G. (2023). Digitization of educational technology centres for teaching electrical and electronics technology in colleges of education in North Eastern Nigeria. *Academic Journal of Interdisciplinary Studies*, 7(3), 199-207.
- Ezugoh, T. C., Adesina, O. A. & Yakubu, S. (2020). Management of the Nigerian colleges of education in delta state for sustainability Ofa better today and tomorrow. *Journal of Humanities and Social Science*, 6(3), 63-83.
- Federal Republic of Nigeria (2013). National policy on education (6<sup>th</sup> ed.). National Education Research Development Council.
- Isaac, A. B., & Ayodele, B. O. (2020). *Impact of technical and vocational education and training (tvete) on national development (A study of selected SMEs Operators In Lagos, Nigeria)*. Proceedings of the 2nd International Conference, the Federal Polytechnic, Ilaro, 10th –11th Nov., 2020 (pp. 1118-1125). The Federal Polytechnic, Ilaro.
- Korter, G.O. (2023). Quality assurance in Nigerian technical and vocational education and training institutions: Strategies for improvement. *Journal of Health, Applied Sciences and Management*, 6(3),109-120.
- Machekhina, O. N. (2017). Digitalisation of education as a trend of its modernization and reforming. *Revista Espacios*, 38(40), 26-32.
- McNulty, N. (2021). *What are the benefits of digital education? And why is it better?*

- <https://www.niallmcnulty.com/2017/05/ what-are-the-be>
- Obidile, J.I. (2023). Strategies for improving the utilization of e-learning in the teaching and learning of accounting in tertiary institutions in Anambra State. *Journal of Vocational Education Studies*, 6(1), 111-124.
- Ogunode, N.J. & Ndayebom, A.J. (2023). Digitalization of higher education in Nigeria: Benefits, problems and solutions. *Electronic Research Journal of Social Sciences and Humanities*, 5(II), 31-47.
- Olaleye, A. A. (2023). Vocational technical education as a tool for sustainable development in Nigeria. *Engineering Research Journal*, 3(5), 13-26.
- Tyowuah, M. N. & Chen, J. O. (2019). The importance of vocational and technical education in Nigeria's development. *International Journal of Vocational and Technical Education Research*, 5(5), 34-41.
- United Nations Educational, Scientific and Cultural Organization (2013). *Technical and vocational education and training*. UNESCO