

## INNOVATIVE APPROACHES TO DEVELOPING ENTREPRENEURIAL SKILLS IN VOCATIONAL AND TECHNICAL EDUCATION IN UNIVERSITIES IN SOUTH EAST NIGERIA.

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### Abstract

The study was conducted to examine innovative approaches to developing entrepreneurial skills through vocational and technical education (VTE) in universities in South East Nigeria. Four specific purposes of the study, four research questions and one null hypothesis guided the study. The descriptive survey research design was employed. The study covered a population of 281 VTE lecturers from three federal universities in South East Nigeria: University of Nigeria Nsukka (UNN), Nnamdi Azikiwe University Awka (UNIZIK), and Alex Ekwueme Federal University Ndufu-Alike Ikwo (FUNAI). Due to the manageable size of the population, total sampling was used. A 42-item questionnaire titled "Innovative Approaches to Developing Entrepreneurial Skills in Vocational and Technical Education in Universities in South East Nigeria" was developed and validated by experts in the field. Data were analyzed using mean and standard deviation for the research questions, and Analysis of Variance (ANOVA) was used to test the hypothesis at a 0.05 level of significance. The results indicated that lecturers agreed on the relevance and impact of innovative teaching approaches such as project-based learning, digital tools, mentorship, and industry collaboration in enhancing entrepreneurial skills among VTE students. However, challenges such as outdated curriculum, limited funding, and lack of teacher training in new methods were identified. It was concluded that integrating innovative strategies into VTE is essential for fostering entrepreneurial competence among graduates. It was recommended amongst others that lecturers be regularly trained in innovative teaching methods.

**Keywords:** Innovative Approaches, Entrepreneurial skills, Vocational and Technical Education

### Introduction

The rising level of youth unemployment in Nigeria, especially among university graduates, has continued to pose a significant challenge to national development. Vocational and technical education (VTE) is increasingly being recognized as a viable strategy for equipping students with job-ready and entrepreneurial skills, laying a strong foundation for innovation by bridging the gap between theoretical knowledge and real-world application in evolving industries. (Okolie et al., 2020). VTE plays a crucial role in fostering entrepreneurial mindsets among students by offering hands-on training, exposure to business environments, and practical knowledge (Okolie et al., 2020). Onyema et al. (2020) noted that the incorporation

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of digital technologies, such as online business platforms, use of ICT and digital tools in teaching, collaborative and cooperative learning, gamification of learning content, mobile apps, use of simulation and virtual labs supports entrepreneurial education in VTE.

These tools offer flexibility and broaden students' access to global entrepreneurial ecosystems. Ezeani (2019) stated that experiential learning techniques, such as business simulations, entrepreneurship-based instruction, experiential and work-based learning, competency-based training (CBT), flipped classroom approach, startup projects, and internships, help students acquire hands-on experience. Lanubile et al. (2023) opined that Project-based learning (PBL), problem-based learning (PrBL), blended learning (face 2 face + online), also promotes critical thinking, innovation, and business acumen. Obunadike and Eze (2022) stated that lack of modern equipment and limited financial support hinder effective entrepreneurial training. Ezeani, N. S. (2022) stated that many universities in South East Nigeria lack the resources to implement innovative programs. Furthermore, Ede and Eme (2021) mentioned that some VTE instructors lack up-to-date knowledge of entrepreneurial practices. Thus, continuous professional development is necessary to enhance their teaching effectiveness. Also, theoretical and inflexible curricula fail to accommodate dynamic entrepreneurial training. This means that there is a need for regular curriculum reviews and alignment with industry needs (Ofoha, 2020). More so, collaboration with local industries and business incubation centers helps students gain exposure to real-life business operations (Chukwuedo & Omofonmwan, 2019). These partnerships provide mentorship, funding opportunities, and access to business networks. To make innovation come to reality in the teaching and learning of Vocational and Technical Education, it is the innovative approaches used that will bring these ideas to life.

Innovation, according to Okpalaoka (2022), is the creation of up-to-date concepts and the application of modern goods, methods, and services, resulting in the constant change of a country's growth and companies' profit-making. Contextually, innovation refers to the introduction and application of new or creative ideas, tools, or methods that enhance teaching, learning, and business creation in vocational and technical education. Innovative approaches are novel, creative, and forward-thinking methods, strategies, or practices that aim to enhance and revolutionize processes across various fields. These approaches often involve the integration of new technologies, pedagogical techniques, curriculum designs, or learning environments to improve engagement, understanding, and outcomes (Gampala, 2023). Gampala (2023) maintained that innovative approaches such as project-based learning, flipped

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classrooms, gamification, personalized learning, and collaborative techniques have a profound impact on students' engagement, comprehension, and overall learning outcomes. Gampala (2023) emphasizes the necessity for educators, institutions, and policymakers to embrace these innovative practices to meet the evolving needs of learners in the digital age. Innovative approaches in this study refer to modern teaching strategies, technologies, partnerships, and curriculum reforms used in vocational and technical education to enhance the development of entrepreneurial skills among university students. These include project-based learning, digital platforms, industry collaboration, mentorship, and startup incubation. In the context of universities, innovative approaches to teaching and learning are essential for preparing students to become self-reliant entrepreneurs capable of creating employment opportunities rather than relying solely on formal sector jobs. Chakuzira, et al. (2024) define an entrepreneur as an innovator who creates value in varying environments using available resources, often developing new, valuable products or businesses, requiring risk-taking, resourcefulness, creativity, and persistence. Operationally, an entrepreneur can be seen as a university student or graduate who can identify opportunities, apply practical knowledge, and initiate a business venture or income-generating activity, either during or after completing a vocational and technical education programme. Being an entrepreneur is not just about starting a business, it also means having the right skills to make it work. Skills like creativity, problem-solving, and the ability to take smart risks help entrepreneurs turn their ideas into real successful ventures. Entrepreneurial Skills are the capabilities that enable individuals to identify business opportunities, take initiative, innovate, and manage enterprises successfully (Ndinechi, 2020). In the context of this study, entrepreneurial skills are the specific abilities such as creativity, innovation, problem-solving, risk-taking, decision-making, and business planning, that students acquire through vocational and technical education to successfully start, manage, and sustain a business venture. These entrepreneurial skills cannot develop in isolation, they need the right training environment. That is where vocational and technical education (VTE) comes in, as it provides hands-on learning and practical experiences that help students build the skills needed to start and manage successful businesses. Vocational and Technical Education (VTE), according to Oviawe et al. (2018), refers to organized educational programs that are designed to provide individuals with the knowledge, skills, and competencies needed for employment or self-employment in various technical and vocational fields. Operationally, VTE refers to university-based educational programs that combine theoretical instruction with hands-on

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practical training to prepare students for employment, self-employment, or entrepreneurial ventures in technical and vocational fields.

Youth unemployment in Nigeria, especially among university graduates, remains a major obstacle to the country's development. For instance, Agora policy (2023) reported that South-East Region had the highest unemployment rate among Nigeria's geopolitical zones at 9.03%, followed by the South. South at 7.24% and the South-West at 5.07%. Similarly, National Bureau of Statistic (NBS) Labour Force Survey (2023) provides an analysis of unemployment statistics across the State of Nigeria. This survey shows top states with high unemployment rate. Abia state recorded the highest unemployment rate at 18.7%, followed by the Federal Capital Territory (14.1%), Rivers States (13.4%), Gombe state (11.2%), Imo State (10.9%). The data shows clear differences in unemployment rates across Nigeria. One promising solution is vocational and technical education (VTE), which helps students gain practical skills and prepare for self-employment. However, simply offering VTE isn't enough. To truly make an impact, innovation must be embedded in how these programs are delivered. This is where innovative approaches come in, teaching methods like project-based learning, digital tools, mentorship, and partnerships with industry that help students actively apply what they learn. These approaches don't just improve classroom engagement, they also play a vital role in shaping students into entrepreneurs who can create jobs for themselves and others. With the right support, students can develop the creativity, confidence, and problem-solving skills needed to turn ideas into real businesses. VTE provides the environment for this transformation by combining hands-on experience with practical knowledge. Some studies have shown the effectiveness of using innovative approaches in teaching and learning both internationally and locally.

Internationally, the study of Alvarado (2025) conducted a systematic review revealing that design thinking fosters creativity, critical thinking, and interdisciplinary collaboration helps in enriching the learning experience in higher education. Also, the study of Yao, et al. (2024) explored the experiences of nursing students with design thinking, noting increased creativity and deeper engagement in learning. Yi-Lin et al. (2023) demonstrated that digital visual collaboration tools in design thinking courses boost students' creative confidence and motivation. Similarly, Gampala (2023) emphasized that innovative approaches such as project-based learning and gamification significantly enhance student engagement and learning outcomes. Gómez-Tejedor, et al. (2020) found that flipped teaching in physics labs led to better academic performance, as students produced higher-quality lab reports due to more in-depth

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engagement. Similarly, the study of Gren (2019) implemented a flipped classroom model in software engineering courses and reported increased student participation and improved understanding of complex concepts. Taneja, et al. (2018) found that adopting innovative teaching methods such as active learning and technology integration enhances student engagement and learning outcomes in higher education.

Locally, Agbo, et al (2024) highlighted the positive impact of 21st-century ICT tools in teaching technology-based courses, emphasizing how digital integration improves student engagement and learning outcomes. The study of Nweke and Osakwe (2024) found a strong correlation between entrepreneurial skills and technical education, showing that graduates of well-structured VTE programs are better equipped for self-employment. Similarly, Njoku et al. (2024) echoed this by stressing that VTE remains vital in preparing individuals for today's entrepreneurial economy. Likewise, Ugwu et al. (2024) emphasized that embedding entrepreneurship culture in VTE curricula can boost students' innovation and business readiness. Furthermore, Usman (2024) investigated the entrepreneurial preparedness of business education students, concluding that more hands-on financial and technical training is needed to foster real-world business skills. Meanwhile, George and Chukwuka (2023) developed a smart education system for tertiary institutions in Nigeria, recommending the adoption of adaptive learning platforms to modernize teaching delivery. The study Obayi, et al (2023) emphasized aligning technology and vocational programs with labour market demands, arguing that doing so increases student employability. Nwakanma et al. (2021) identified key entrepreneurial skills needed by VTE graduates to thrive in Nigeria's struggling economy, particularly during periods of recession. Olelewe et al. (2020) compared traditional and innovative teaching strategies and found that students taught using modern methods performed significantly better in computer craft practice. These findings were built upon earlier insights such as those of Oviawe et al. (2018), who emphasized the importance of blending theory with practical skills in VTE programs to prepare students for employment and entrepreneurship. These studies have proven that tackling graduate unemployment in Nigeria requires more than just skill acquisition, which calls for a shift in how Vocational and Technical Education (VTE) is delivered. This means there is a need to adopt innovative approaches that can effectively develop entrepreneurial skills within the VTE framework in universities. However, it is important to note that **many of the existing studies on entrepreneurial skills development were not conducted within the South-East region of Nigeria**. This creates a

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contextual gap in the literature, particularly in understanding region-specific challenges and opportunities. Therefore, there is a compelling need to explore innovative approaches tailored to developing entrepreneurial skills in VTE specifically within universities in South-East Nigeria.

### **Statement of the Problem**

Universities are supposed to prepare students in Vocational and Technical Education (VTE) with the skills they need to start their businesses and succeed in the world of work. Using new and creative teaching methods like hands-on projects, technology, and working with real businesses, should help students become more confident and ready to create jobs for themselves and others. These fresh ways of teaching are important because they help students think creatively and solve problems, which are key for success in today's fast-changing economy.

In many universities across South East Nigeria, modern teaching methods are not widely adopted. Instead, educators often rely on traditional, outdated instructional approaches. These methods typically fail to provide students with adequate practical experience or meaningful opportunities to engage with industry partners. Consequently, many graduates lack the entrepreneurial skills and self-confidence required to start their own businesses. This educational gap is believed to contribute significantly to the high rates of youth unemployment and underemployment in the region. For instance, according to recent statistics, Abia State recorded an unemployment rate of 18.7%, Imo State 10.9%, while the overall rate for the South East region stood at 9.03%. These figures highlight the urgent need for a shift toward more innovative and experiential teaching practices that can better prepare students for the demands of the modern workforce.

To correct this, universities need to start using more innovative teaching approaches in their VTE programs. This means bringing in digital tools, encouraging project work, partnering with industries, and providing mentorship to help students build a strong entrepreneurial mindset. If universities do this, it is possible that they can better prepare students to become job creators and help boost the economy in South East Nigeria.

### **Purpose of the Study**

The main purpose of the study was to determine Innovative Approaches to Developing Entrepreneurial Skills in Vocational and Technical Education in Universities in South East Nigeria. Specifically, the study sought to:

1. identify the importance of innovative teaching approaches that can be used in Vocational and Technical Education (VTE) programme in universities in South East Nigeria.
2. identify the importance of innovative approaches in contributing to the development of entrepreneurial skills among university students in VTE.
3. assess the challenges faced by universities in integrating innovative teaching methods into VTE programs.

### **Research Questions**

The following research questions guided the study:

1. What are the innovative teaching approaches that can be used in Vocational and Technical Education (VTE) programs in universities in South East Nigeria?
2. What are the importance of innovative approaches in contributing to the development of entrepreneurial skills among university students in VTE?
3. What are the challenges faced by universities in integrating innovative teaching methods into VTE programme?

### **Hypothesis**

H<sub>1</sub> - There were no significant differences among the lecturers in University of Nigeria Nsukka, Nnamdi Azikiwe University and Alex Ekwueme Federal University Ndufu Alike Ikwo Ebonyi State on the Innovative Approaches to Developing Entrepreneurial Skills in Vocational and Technical Education in Universities in South East Nigeria.

### **Methodology**

The study adopted a descriptive survey research design. According to Domede and Dinkelman (2022), Survey research design is a systematic method that employs standardized questionnaires or interviews to collect quantitative (and sometimes qualitative) data about individuals' behaviors, thoughts, preferences, or opinions. **Survey research design** is appropriate for this study because it allows the researchers to collect data from educators which helps capture their views, experiences, and practices related to innovative teaching methods

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and entrepreneurship skills. The area of the study is South-East Nigeria. South East Nigeria was chosen because it has many universities offering Vocational and Technical Education, but still faces high youth unemployment. The region has a strong business culture, yet many graduates lack the skills to start their ventures. Studying this area helps understand how to improve teaching methods in VTE to better prepare students for entrepreneurship and job creation. The population of the study was 281 Vocational and Technical Education lecturers in federal universities in South-East Nigeria, which consisted of University of Nigeria Nsukka – 110, Nnamdi Azikiwe University Awka – 97 and Alex Ekwueme Federal University Ndufu Alike Ikwo Ebonyi State – 74. No sampling technique was used because of the small population.

The Questionnaire titled “Innovative Approaches to Developing Entrepreneurial Skills in Vocational and Technical Education in Universities in South East Nigeria” was developed and utilized for collecting data for the study. The instrument was divided into 2 sections based on the demographic section and another section for the specific purposes of the study. Each item in the questionnaire was assigned four response options of Strongly Agree (SA =4), Agree (A =3), Disagree (D =2), Strongly Disagree (SD =1). The instrument was validated using three experts from the Department of Business Education, Faculty of Vocational and Technical Education, University of Nigeria Nsukka. Items of the questionnaire was 56 but after the validation it was reduced to 42.

The researcher administered 281 copies of the questionnaire to the respondents through two research assistants. Efforts were made to retrieve the instrument in the same way it was distributed within one week and five days, but only 237 copies were recovered, indicating 84.3% return rate. Data collected were analyzed using mean and standard deviation; the null hypothesis was tested under 0.05 level of significance using Analysis of Variance (ANOVA). The study used the Statistical Package for Social Science (v20.0) for analysis. The mean of 2.50 was used as cut-off point. Any item where calculated p-value was greater than or equal to 0.05, the hypothesis was accepted, but if p-value was less than 0.05, then the hypothesis was rejected.

## **Results**

The results for this study are presented based on the research questions raised to guide the study.

### **Research Question 1**

What are the innovative teaching approaches that can be used in Vocational and Technical Education (VTE) programme in universities in South East Nigeria?

**Table 1: Mean Rating and Standard Deviation of the Responses of Lecturers on the innovative teaching approaches that can be used in Vocational and Technical Education (VTE) programme in universities**

S/N	Items	$\bar{X}$	SD	Remark
1	<b>Project-Based Learning (PBL)</b>	3.52	0.65	Agreed
2	<b>Problem-Based Learning (PrBL)</b>	3.03	0.53	Agreed
3	<b>Blended Learning (Face-to-face + Online)</b>	3.17	0.81	Agreed
4	<b>Use of Simulation and Virtual Labs</b>	2.50	0.72	Agreed
5	<b>Collaborative and Cooperative Learning (e.g., Jigsaw strategy)</b>	3.84	0.51	Agreed
6	<b>Flipped Classroom Approach</b>	2.93	0.45	Agreed
7	<b>Entrepreneurship-Based Instruction</b>	3.07	0.63	Agreed
8	<b>Experiential and Work-Based Learning (e.g., SIWES, internships)</b>	3.92	0.69	Agreed
9	<b>Competency-Based Training (CBT)</b>	3.85	0.59	Agreed
10	<b>Use of ICT and Digital Tools in Teaching</b>	3.78	0.48	Agreed
11	<b>Gamification of Learning Content</b>	2.57	0.74	Agreed

**Key:**  $\bar{X}$  = Mean of the lecturers SD = Standard Deviation

The data presented in Table 1 revealed that lecturers agreed that the above-mentioned items are innovative teaching approaches that can be used in Vocational and Technical Education (VTE) programme in universities. It has a mean ranging from 2.50 – 3.92, indicating that their mean values were above the cut-off point of 2.50. This implies that items 1-11 were accepted. The standard deviation values ranged from 0.45 – 0.74, which indicates that the respondents were close to one another in their responses.

## Research Question 2

What are the importance of innovative approaches in contributing to the development of entrepreneurial skills among university students in VTE?

**Table 2: Mean Rating and Standard Deviation of the Responses of Lecturers on the importance of innovative approaches in contributing to the development of entrepreneurial skills among university students in VTE**

S/N	Items	$\bar{X}$	SD	Remark
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12	<b>Enhances Creativity and Innovation</b>	3.20	0.55	Agreed
13	<b>Promotes Critical Thinking and Problem-Solving</b>	3.52	0.40	Agreed
14	<b>Encourages Initiative and Risk-Taking</b>	3.95	0.21	Agreed
15	<b>Improves Decision-Making and Planning Skills</b>	3.65	0.48	Agreed
16	<b>Provides Practical and Hands-On Experience</b>	3.58	0.82	Agreed
17	<b>Develops Communication and Teamwork Abilities</b>	3.42	0.69	Agreed
18	<b>Fostering Business Idea Generation</b>	3.94	0.67	Agreed
19	<b>Strengthening Financial and Resource Management Skills</b>	3.86	0.39	Agreed
20	<b>Increasing Confidence to Start a Business</b>	3.37	0.12	Agreed
21	<b>Linking Theory to Market-Driven Practice</b>	3.54	0.32	Agreed

**Key:**  $\bar{X}$  = Mean of the lecturers SD = Standard Deviation

Table 2 presents the mean ratings and standard deviations of lecturers' responses regarding the importance of innovative approaches in contributing to the development of entrepreneurial skills among university students in Vocational and Technical Education (VTE). The mean values of the items range from **3.20 to 3.94**, all of which are above the benchmark mean of **2.50**, indicating that the respondents **agreed** on the importance of each listed item. The standard deviation values range from **0.12 to 0.82**, which are relatively low. This indicates a **high level of consensus among the respondents**, suggesting that the lecturers shared similar views and were generally homogeneous in their opinions on the items.

### Research Question 3

What are the challenges faced by universities in integrating innovative teaching methods into VTE programs?

**Table 3: Mean Rating and Standard Deviation of the Responses of lecturers on the challenges faced by universities in integrating innovative teaching methods into VTE programs**

S/N	Items	$\bar{X}$	SD	Remark
22	Inadequate Infrastructure and Facilities	3.64	0.48	Agreed
23	Lack of Funding and Financial Support	3.88	0.77	Agreed
24	Limited ICT Tools and Digital Resources	3.25	0.75	Agreed
25	Shortage of Trained or Technologically Skilled Lecturers	2.98	0.76	Agreed
26	Resistance to Change from Traditional Methods	3.04	0.19	Agreed
27	Overcrowded Classrooms and High Student-Lecturer Ratio	3.73	0.61	Agreed
28	Limited Time for Practical/Project-Based Learning	3.84	0.33	Agreed
29	Poor Internet Connectivity and Power Supply	3.66	0.47	Agreed

30	Weak Industry-Academia Collaboration	3.39	0.54	Agreed
31	Curriculum Rigidity and Lack of Autonomy	3.43	0.51	Agreed
32	Lack of Professional Development Opportunities for Staff	3.11	0.66	Agreed
33	Insufficient Policy Support from Management and Government	3.17	0.76	Agreed

**Key:**  $\bar{X}$  = Mean of the lecturers SD = Standard Deviation

The data presented in Table 3 revealed that lecturers agreed that the above-mentioned items are the challenges faced by universities in integrating innovative teaching methods into VTE programs. It has mean ranging from 2.98 – 3.88, indicating that their mean values were above the cut-off point of 2.50. This implies that items 22-33 were accepted. The standard deviation values ranged from 0.19 – 0.76 which indicates that the respondents were similar to each other in their responses.

H<sub>01</sub> There was no significant differences among the responses of lecturers in University of Nigeria Nsukka, Nnamdi Azikiwe University and Alex Ekwueme Federal University Ndufu Alike Ikwo Ebonyi State on the Innovative Approaches to Developing Entrepreneurial Skills through Vocational and Technical Education in Universities in South East Nigeria.

**Table 4: Analysis of Variance on the Difference among the Mean Responses of lecturers on the Innovative Approaches to Developing Entrepreneurial Skills through Vocational and Technical Education in Universities in South East Nigeria**

Sources of Variations	Sum of Squares	of Df	Sig	Mean Square	F	P-value	Decision
Between Groups	2.412	2	0.05	.498	2.189	.091	NS
Within Groups	19.476	234		.246			
Total	21.888	236					

Table 4 shows that the calculated probability value (p-value) of 0.091 is greater than the alpha level of 0.05 with the degree of freedom of (2, 234) and F = 2.189. Based on this result, the null hypothesis which stated that there is no significant difference among the mean responses of lecturers on the Innovative Approaches to Developing Entrepreneurial Skills through Vocational and Technical Education in Universities in South East Nigeria, is upheld.

## Discussion of Findings

The findings in Table 1 revealed that project-based learning (PBL), problem-based learning (PrBL), blended learning (face-to-face + online), use of simulation and virtual labs, collaborative and cooperative learning (e.g., Jigsaw strategy), flipped classroom approach, entrepreneurship-based instruction, experiential and work-based learning (e.g., SIWES, internships), competency-based training (CBT), use of ICT and digital tools in teaching, and gamification of learning content are the innovative teaching approaches that can be used in Vocational and Technical Education (VTE) programme in universities in South East Nigeria. This could be because those innovative teaching approaches are student-centred and provide work-based learning that offer practical experience, which equips students with job-ready skills. This is in line with Gampala (2023) which stated that innovative approaches such as project-based learning, flipped classrooms, gamification, personalized learning, and collaborative techniques have a profound impact on student engagement, comprehension, and overall learning outcomes. Also, this supports the findings by Gómez-Tejedor, et al. (2020), which stated that flip teaching led to better academic performance, as students produced higher-quality achievement due to more in-depth engagement. Similarly, Taneja, et al. (2018) found that adopting innovative teaching methods such as active learning and technology integration enhances student engagement and learning outcomes in higher education.

Also, findings in Table 2 revealed the importance of innovative approaches in contributing to the development of entrepreneurial skills among university students in VTE. This might be attributed to the fact that entrepreneurial skills ensure that graduates acquire the latest, most relevant skills that match market demands. This finding is synonymous with Ndinechi (2020), which stated that entrepreneurial skills can bring about creativity, risk-taking, business planning, financial literacy, and problem-solving. This finding supports Okolie et al. (2020), which noted that VTE plays a crucial role in fostering entrepreneurial mindsets among students by offering hands-on training, exposure to business environments, and practical knowledge. It bridges the gap between theory and practice, enabling learners to apply knowledge in real-life business contexts. More so, this finding is in line with Onyema et al. (2020) which opined that incorporation of digital technologies, such as online business platforms, virtual incubators, and mobile apps, supports entrepreneurial education in VTE. These tools offer flexibility and broaden students' access to global entrepreneurial ecosystems.

The findings in Table 3 indicates that there are challenges faced by universities in integrating innovative teaching methods into VTE programs. This might be because inadequate infrastructure and facilities, lack of funding and financial support, limited ICT tools and digital

resources, shortage of trained or technologically skilled lecturers, resistance to change from traditional methods, amongst others, thus preventing lecturers from using innovative approaches effectively. These findings are consistent with Obunadike and Eze (2022), who noted that a lack of modern equipment and limited financial support hinder effective entrepreneurial training. The authors also maintained that many universities in South East Nigeria lack the resources to implement innovative programs. The finding also corroborates with Ede and Eme (2021) which noted that some VTE instructors lack up-to-date knowledge of entrepreneurial practices, emphasizing that continuous professional development is necessary to enhance their teaching effectiveness. Furthermore, the findings support Ofoha (2020) which found that theoretical and inflexible curricula fail to accommodate dynamic entrepreneurial training, emphasizing the need for regular curriculum reviews and alignment with industry needs.

### **Conclusion**

This study shows that using modern, student-friendly teaching methods like project-based learning, flipped classrooms, and digital tools can greatly improve entrepreneurial skills taught in Vocational and Technical Education (VTE) in South East Nigerian universities. These approaches help students gain practical, job-ready, and entrepreneurial skills. However, poor infrastructure, lack of funding, and untrained staff makes it hard to fully apply these methods. To truly prepare students for today's job market, universities need better support, updated curricula, and ongoing training for lecturers.

### **Recommendations**

1. Universities should provide modern teaching tools and improve infrastructure for VTE programs. This can be achieved by increasing government and institutional funding and partnering with private companies and NGOs to support the provision of digital tools and equipment.
2. Lecturers should be regularly trained in innovative teaching methods. This can be achieved through workshops, seminars, and hands-on training, as well as encouraging participation in online certification programs focused on modern teaching strategies.
3. VTE curricula should be updated and aligned with current industry needs. This can be achieved by involving industry experts in curriculum review processes and integrating more practical, entrepreneurship-related, and digital content into the programs.

4. Universities should promote the use of digital tools and online learning platforms in teaching. This can be achieved by providing internet access, ICT facilities, and training for both lecturers and students on using tools like virtual labs, simulations, and learning management systems.
5. Lecturers should be encouraged to embrace innovative teaching practices. This can be achieved by creating awareness of the benefits, organizing peer-learning sessions, and rewarding lecturers who apply modern and effective teaching strategies.

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