Adoption of E-learning Technologies in Lesson Delivering among Vocational and Technology Educators in Tertiary Institutions in Lagos State

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Abstract

The study investigated the adoption of e-learning technologies in lesson delivering among vocational and technology educators in tertiary institutions in Lagos State. The study investigated the extent of technology educators on utilization of e-learning medium in lesson delivery, factors affecting the adoption of e-learning as well as examine the strategies for improving technical educators on adoption of e-learning medium in lesson delivery in tertiary institutions in Nigeria. The descriptive survey design was adopted for the study. The population for the study consisted of one hundred and thirty-four (134) technical educators. No sample was taken since the population of the study was of manageable size. The instrument was designed on a 5-point Likert scale. To ensure the validity of the instrument, three (3) experts validated the instrument. Cronbach Alpha method was used to determine the reliability of the instrument which yielded .72 coefficient. Data collected were analyzed using descriptive statistics of mean and standard deviation whereas the hypotheses were tested using t-test. The study used real limit of numbers and the criterions mean of 3.50 as yard-stick for decision making. The findings found a low extent in utilization of e-learning instructional strategies; which means that e-learning media are under-utilized by vocational and technology educators in tertiary institutions in Lagos State. Finally, the study recommended amongst others that the ICT department of the institutions must as a matter urgency launch a website that incorporates the various e-learning strategies as identified in this study for effective instruction via the internet.

Keywords: Education, Tertiary Institutions, Technology Education, ICT, E-Learning and Instructional Strategies

Introduction

In Nigeria, tertiary education is the education given after secondary education in the universities, colleges of education, polytechnics, monotechnic including those institutions offering correspondence courses. The concept of tertiary education is usually used to identify the apex level of education in any country (Saue, 2024: & Ashafa, 202).They are center for excellence, dedicated to research and embody all organized research, learning and training activities (Ogbor et al, 2026). The institutions produce the human capital necessary for economic growth and national development thus, solving societal challenges (Akinwande, 2021). One of the goals of Nigerian tertiary education is to; contribute to national development through high level relevant manpower training among others (NPE, 2014.28). It is therefor, not an understatement to insist that the future of any nation depends quite considerably on the quality of the products of its educational

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system. In this digital age, effective lesson delivery would depend on educators and institutions that have adopted e-learning strategies for effective curriculum implementation. It also improves teacher and students classroom interactions. It is imperative that Nigeria tertiary institutions adopt such a system so that they do not lag behind (Coopasami, et al., 2017 cited in Andan, et al 2025).

In the context of this research, Technical and Vocational Education and Training (TVET) emerges as a critical pathway for strengthening and equipping learners with practical skills and experiential or hands-on learning to enhance competences. Consequently, TVET is a veritable for producing the various levels and kinds of manpower required for the industrial, economic and social development of a nation. Ogundu and Saue (2019) stressed technical and vocational education and training (TVET) as the wheel that drives an economy towards progression and transmit knowledge, information and skills from one generation to another. TVET is an educational framework that equips learners with the skills, information, and attitudes necessary for successful employment across diverse occupations. (Saue & Anumnu, 2025). In the same vein, Yusop et al., (2023) posited that Technical, vocational education and training (TVET) supports lifelong learning across secondary, postsecondary, and tertiary education levels, integrating work-based learning, career development and ongoing educational opportunities. TVET is a field of study that provides opportunities for all students/ learners from primary through higher education to develop an understanding about consumer, occupational, recreational, organizational, managerial, social, historical and cultural aspect of industry and technology as well as technical education, adoption of E-learning for lesson delivery by educators is key to lesson delivery (Saue, et al., 2021). Similarly, Studies by Sahade and Ngampo (2021), Hanif et al. (2023) investigated the relevance of courses studied in tertiary education institutions to the world of work, focusing on curriculum relevance with the World of Work. Their findings revealed that courses studied are, in most cases, relevant to the type of employment secured by graduates, especially where there is a strong correlation between the field of study and the employment sector.

Information and Communication Technologies (ICTs) have improved the understanding of education's role in the society, development of novel communication models, creation of new venues for instruction, information delivery, debate, reflection and breaking down traditional classroom barriers in many counties of the world like Peru (Hernand,2017, cited in Andan, et al (2025). The introduction of Information and Communications Technology in the teaching and learning processes have brought transformational changes in the pedagogical facilities and delivery system in the education sector. For example, Ratheeswari (2018) noted that the advent of information and communications technology has given rise to the formulation of new educational objectives which requires innovation and modification in the content, pedagogical method and evaluation strategies. The modification comes with the introduction and utilization of information and communications technology (ICT) gadgets in the teaching and learning processes. Sajeev and Mohapatra (2022) identified such ICT gadgets to include; computers, videoconferencing, electronic mail, audio-visual aids, cyber space, internet and teleconferencing. To buttressed the above, Bassey and Saue, (2024) posited that with invasion of the educational system, the methods or approaches to instructional delivery in the system has improved through blended, virtual, flip and electronic learning (e-learning) among others.

Electronic learning (e-learning) modes of instructional delivery has emerged as a crucial component of higher education institutions, enabling institutions to expand their offerings and reach a broader demographic of learners (Gupta & Gupta, 2020). E-learning is defined as the delivery of information electronically with

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the increased value of maintaining quality and standard throughout the process without hindrances to particular locations or zones (Fiokedi 2019, cited in Emehi and Nwosu, 2023). Similarly, Iyamu and Chiedu (2020) stated that electronic learning technologies are becoming increasingly popular in tertiary institutions, especially universities as they are used for teaching, managing courses, providing simulations, enriching existing courses, programming and problem-solving. In the same vein, Ja'ashan (2020) described e-learning as the use of information and communication technologies to enable the access to online learning/teaching resource. Instructional delivery will be result-oriented in tertiary institutions if technical educators are able to favorably choose and effectively use the appropriate instructional strategy in the teaching and learning process. E-learning is planned to ease and improve the teaching processes at the lowest cost feasible (Osadcha et al., 2021). Ezema (2019) noted that e-learning is the application of modern technologies to improve skills and knowledge. E-learning allows students to be in charge of the pace of study, sequence of learning, content, time, and access management of materials.

Most higher education institutions have recently insisted on the ICT appropriate use in the teaching process to offset the scarcity of resources and satisfy a demand for education (Khaldi et al., 2023). As a result, the best way for students and instructors to advance their professional development and knowledge is for higher education institutions to adopt an e-learning system (Milićević et al., 2021). Anumnu (2025) noted that most tertiary institutions use E- learning as an instructional mode to teach faculty wide general courses of about 1000 students and above thereby improving classroom instruction and overcrowded classrooms. Emehi et al, (2023) noted that the catalyst for growth in e-learning is its suitability for simulation and experiential learning through the internet and computer applications. And in their study on the influence of the use of E- learning technologies on the learning of business education courses in public universities in South-South, Nigeria, Emehi et,al 2023) result revealed that the use of digital library, video conference and Google search engine have positive influence on the learning of Business Education in Public Universities in South-South Nigeria. Similarly, Akuegwu, et,al (2024) study reveal that some technologies required for implementing e-learning modes of instruction were mostly unavailable and that the few available ones were inaccessible due to their disproportionate ratio to the students population and poor maintenance of the available e-learning facilities.

According to Akuegwu, et al. (2024) teaching staff proficiency in e-learning related activities and institutional provision for their e-learning needs is significantly low signaling that tertiary institutions are unprepared for e-learning modes of instruction. Andan et al. (2025) study found out that pre-service teachers were willing to integrate technology into their lesson for lifelong learning. Their result also showed that there was personal desire in using technological tools in classroom instruction to enrich discussion and classroom interaction which led to academic achievement. While Chongya et al, (2025) study result showed that a lack of ICT infrastructure and technical support combined with a lack of e-learning knowledge among educators, were significant barriers to the effective implementation of e-learning in the higher education system of china. They also found that social influence, perceived usefulness and ease of use play crucial roles in shaping intent towards e-learning adoption. Akayuure, et al (2026) listed platforms that educators could adopt for E-learning in lesson delivery,such as Moodle and Google Classroom allow teachers to organize course materials, conduct live sessions and provide instant feedback to students, making education more accessible and flexible. In addition, interactive tools such as Kahoot, Nearpod and Flip incorporate multimedia quizzes and polls to promote engaging learning experience. They also noted that the rise in the use of virtual

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classrooms such as Zoom, and Microsoft Teams and Google Meet enables synchronous and asynchronous interactions that transcend the limitations of the traditional classroom.

Instructional delivery encompasses teaching methodologies that significantly influence a student's intellectual, economic, and social development. Diery, et al., (2020) emphasized that instructional strategies employed by teachers probably covers the entire range between direct instruction, teacher-centered approaches, and students centered approaches in which the students take an active role in learning activities and may exercise some control over the nature and decision of the activities. This aspect of education is vital for shaping a student's cognitive growth, as the effectiveness of teaching techniques directly impacts knowledge acquisition and retention (Diery, et al., 2020). Engaging and well-organized pedagogical approaches can foster critical thinking, problem solving abilities, and creativity, equipping students with essential cognitive skills for lifelong learning (Mallillin, 2024). Hoter, et al. (2024) noted that instructional methods influence student interactions by nurturing collaboration, communication, and empathy through group work and discussions. Thus, the modes of instruction not only influence academic performance but also shape students' future opportunities and their capacity to make meaningful contributions to society.

Statement of Problem

The use of e-learning approach in curriculum delivery has increased exponentially in the 21st century due to innovations in ICT. And the assessment of curriculum delivery strategy of educational programs in Nigerian tertiary institutions today is very paramount in the face of contemporary e-learning strategies that could better students' activeness and enhances their performance across subjects; especially in technical education courses. This has translated into an effective means of self-development and the capability to facilitate academic performance at all levels of tertiary institutions as well as in secondary and primary schools (Fayomi, et al., (2015).Chadha and Kumail, (2003) cited in Priyangika and Jayasundara (2012) maintained that the adoption and utilization of e-learning strategies are of importance in academic especially at the tertiary level of education to prepare knowledge workers for the knowledge economy. However, the digital transformation of education is relatively new and slow in Nigerian educational system, most teachers experience some difficulties while trying to adopt e-learning or online classes. They still concentrate on the traditional mode of instruction. There are challenges like; lack of functional internet system, energy issue in the institutions and homes among others. For example, Okiki (2011) noted that many of the tertiary institutions in Nigeria acclaimed that e-learning is already transforming their teaching-learning process while e-learning strategies have not been seriously embarked upon as expected. To this end, the present study "investigates the adoption of e-learning technologies in lesson delivering among vocational and technology educators in tertiary institutions in Lagos State.

Aim and Objectives of the Study

The aim of the study was to investigate the adoption of e-learning technologies in lesson delivering among vocational and technology educators in tertiary institutions in Lagos State. Specifically, the study sought to:

1. Determine the extent of adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State.

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2. Investigate into the factors affecting the adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State
3. Examine the strategies for enhancing the adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State

Research Questions

Two (2) research questions guided the study.

1. What is the extent of adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State?
2. What factors affect the adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State?
3. What are the strategies for enhancing the adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State?

Hypotheses

The following null hypotheses were formulated to guide the study at .05 level of significance.

Ho_1: There is no significant difference between the mean and standard deviation responses of vocational and technology educators on the adoption of e-learning technologies in lesson delivery in tertiary institutions in Lagos State.

Ho_2: There is no significant difference between the mean and standard deviation responses of vocational and technology educators on the strategies for enhancing the adoption of e-learning technologies in lesson delivery in tertiary institutions in Lagos State

Methodology

The descriptive survey research design was adopted for the study. The researchers considered this design appropriate for this study since it intended to collect data from practicing technical educators regarding the adoption of e-learning instructional strategies by vocational and technology educators in tertiary institutions in Nigeria. The population for the study consisted of one hundred and thirty-four (134)vocational and technical educators of Adeniran Ogunsanya College of Education, Oto Ijaninkin; Federal College of Education (Technical), Akoka, Yaba College of Technology, Lagos and University of Lagos, Akoka.No sample was taken for the study because the population size was manageable for the researcher to handle. The instrument for data collection was a structured questionnaire titled "tagged "E-learning Instructional Strategies *Questionnaire (EISQ)*". The instrument was designed on a 5-point Likert scale. To ensure the validity of the instrument, three (3) experts validated the instrument. Furthermore, to ascertain the internal consistency of the instrument, and the researchers conducted a pilot-test on 10 technical educators who were not part of the population. The data were analyzed using Cronbach Alpha method to determine its reliability which yielded.72 coefficient. The administration of the instrument was carried out personally by

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the researchers with the help of research assistants who are technical educators in the respective institutions. A total of one hundred and thirty-for (134) questionnaire was distributed to respondents in the afore-mention institutions out of which one hundred and eighteen (118) were retrieved after a space of two (2) weeks and used for this study. Data collected were analyzed using descriptive statistics of mean, standard deviation and bar chart, whereas the hypotheses were tested using t-test. The researchers adopted "Extent" for research question 1 and "Agree" for research question 2 respectively. Ordinal scale was assigned from 5, 4, 4, 3, 2 and 1. Hence, accept the null hypothesis where the calculated t-value was less than the table t-value; otherwise reject the null hypothesis.

Research Question 1: What is the extent of adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State?

Table 1 shows that the mean values of vocational and technology educators ranges between 1.75 and 3.63 and standard deviation .53 and .89 with an average mean and standard deviation value of 2.40 and .83 respectively. From Table 1, the grand mean and standard deviation above indicated a low extent which implies that virtual classroom, self-instructional application, mobile learning application, micro-learning, video modules, personal learning network, web-learning, adaptive learning, blended and flipped classroom medium are under-utilized by vocational and technology educators in lesson delivery in tertiary institutions in Lagos State. Furthermore, the closeness in standard deviation of both respondents shows the homogeneity.

Research Question 2: What factors affect the adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State?

Table 1 Mean and Standard Deviation of Male and Female Vocational and Technology Educators on Adoption of E-learning Technologies in Lesson Delivery

		$\bar{X}_1$	SD	Remark
1.	Virtual Classroom	3.63	.98	High Extent
2.	Self-Instructional Application	1.79	.69	Low Extent
3.	Mobile Learning Application	2.32	.87	Low Extent
4.	Micro-Learning	1.79	.53	Low Extent
5.	Video Modules	2.1	.80	Low Extent
6.	Personal Learning Network (PLN)	2.38	.96	Low Extent
7.	Web-Learning	2.19	.94	Low Extent
8.	Adaptive Learning	3.18	.73	Moderate Extent
9.	Blended Learning	2.36	.95	Low Extent
10.	Flipped Classroom	2.35	.91	Low Extent
	Grand Mean/SD	**2.40**	**.83**	**Low Extent**

Source: *Authors (2026)*

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Table 2	Mean and Standard Deviation Response of Vocational and Technology Educators on Adoption of E-learning Technologies in Lesson Delivery			
S/N	**Questionnaire Items**	$\bar{X}_1$	SD_1	**Remark**
1	Lack of ICT Infrastructure	4.27	1.12	High Extent
2	Lack of technical and managerial support	4.16	1.08	High Extent
3	Lack of Computer Knowledge	4.23	1.03	High Extent
4	Social influence	4.14	1.11	High Extent
5	Perceived usefulness	4.76	1.02	High Extent
6	Perceived Ease of Use	4.37	1.01	High Extent
	Grand Mean/SD	**4.32**	**1.06**	**High Extent**

Source: *Authors (2026)*

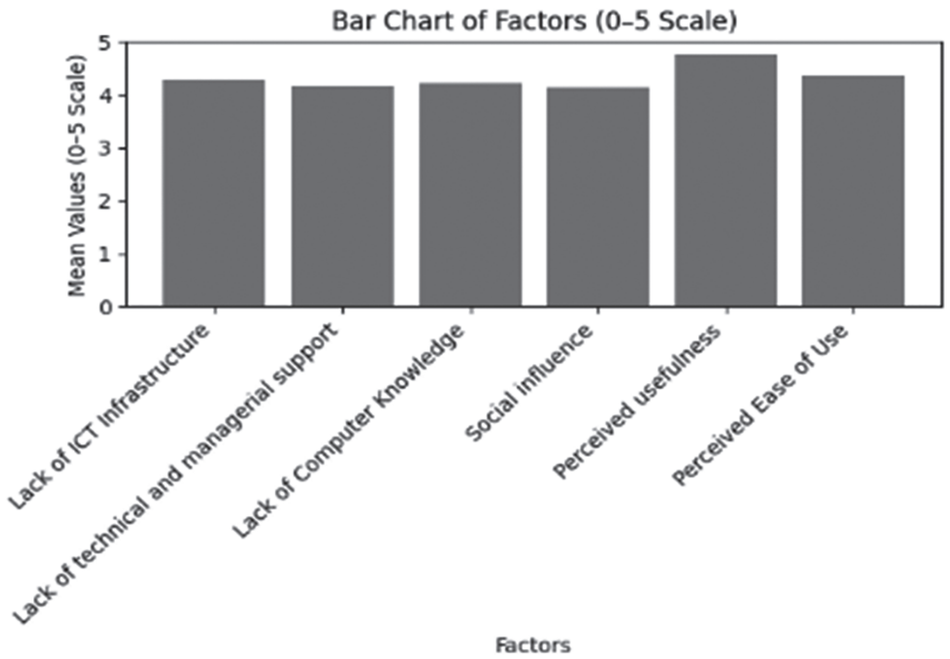


Fig. 1. Factors Affecting the Adoption of E-learning

Table 2 and Figure 1 show that the grand mean values of vocational and technology educators' range between 4.14 and 4.76 and standard deviation 1.02 and 1.12 respectively. The relatively low standard deviation values (around 1.0) suggest a moderate level of agreement among respondents. Overall, the findings imply that both enabling factors (usefulness and ease of use) and inhibiting factors (infrastructure, skills, and support) play significant roles. The grand mean of 4.32 (SD = 1.06) further confirms that, the identified factors such as lack of infrastructure, lack of technical and managerial support, lack of computer knowledge, social influence, perceived usefulness as well as perceived ease of use affect he adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State.

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Research Question 3: What are the strategies for enhancing the adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State?

Table 3 Mean and Standard Deviation of Male and Female Vocational and Technology Educators on Strategies for Enhancing Adoption of E-learning Technologies in Lesson Delivery

S/N	Questionnaire Items	$\bar{X}_1$	SD_1	Remark
1.	Availability of computer system in classrooms	3.7	.90	Agree
2.	Reliable telecommunication service network	3.6	.99	Agree
3.	Availability of multimedia board	3.63	.99	Agree
4.	Availability of Satellite	3.5	1.01	Agree
5.	Attitude of students to ICT	3.68	.78	Agree
6.	Broadband links	3.98	.91	Agree
7.	Recruitment of technical officers in ICT	3.97	.60	Agree
8.	Reducing the workload of lecturers	3.82	.93	Agree
9.	Availability of appropriate technologies	3.75	.86	Agree
10.	Adequate electricity supply.	3.73	.98	Agree
11.	Training of staff and students	3.78	.6	Agree
12.	Regular check and maintenance of facilities	3.7	.77	Agree
13.	Staff motivation	3.77	.65	Agree
14.	Synchronous online learning for students	3.93	.90	Agree
	Grand Mean/SD	**3.75**	**.84**	**Agree**

Source: *Authors (2026)*

Table 3 shows that the mean values of vocational and technology educators ranges between 3.5 and 3.98 and standard deviation .6 and 1.01 with an average mean and standard deviation value of 3.75 and .84 respectively. This implies that availability of computer system in classrooms, recruitment of technical officers, reliable telecommunication service network, reducing the workload of lecturers, regular check and maintenance of facilities, motivation of staff, synchronous online learning for students among otherswouldenhance the adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State. Furthermore, the closeness in standard deviation of both respondents shows the homogeneity.

Testing Hypotheses

Ho_1: There is no significant difference between the mean and standard deviation responses of male and female vocational and technology educators on the adoption of e-learning technologies in lesson delivery in tertiary institutions in Lagos State.

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Table 4	t-test Analysis of Vocational and Technology Educators on the Extent of Adoption of E-Learning Technologies in Lesson Delivery							
Respondents	**N**	$\bar{X}_1$	**SD**	**df**	**P**	**t-cal**	**t-crit**	**Decision**
Male Female	96 22	2.44 2.37	.90 .77	116	.05	.371	.96	**Accept**

Source: *Authors (2026)*

Table 3 indicates that male vocational and technical educators had a mean of 2.44 and a standard deviation of .90, while female vocational and technical educators had a mean of 2.37 and a standard deviation of .77. The table further shows that the calculated t-value of 0.37 is less than the critical value of 1.96 at .05 level of significance. The null hypothesis was hereby accepted. This means that there is no significant difference between the mean and standard deviation responses of male and female vocational and technology educators on the adoption of e-learning technologies in lesson delivery in tertiary institutions in Lagos State.

Ho_2: There is no significant difference between the mean and standard deviation responses of male and female vocational and technology educators on the strategies for enhancing the adoption of e-learning technologies in lesson delivery in tertiary institutions in Lagos State

Table 4	t-test Analysis of Vocational and Technology Educators on the Strategies for Enhancing the Adoption of E-Learning Technologies in Lesson Delivery							
Respondents	**N**	$\bar{X}_1$	**SD**	**df**	**P**	**t-cal**	**t-crit**	**Decision**
Male Female	96 22	2.44 2.37	.90 .77	116	.05	.70	1.96	**Accept**

Source: *Authors (2026)*

Table 4 indicates that male technical educators had a mean of 3.82 and a standard deviation of .84, while female technical educators had a mean of 3.68 and a standard deviation of .85. The table further shows that the calculated t-value of .70 is less than the critical value of 1.96 at .05 level of significance. The stated null hypothesis is hereby accepted. This means that there is no significant difference between the mean and standard deviation responses of male and female vocational and technology educators on the strategies for enhancing the adoption of e-learning technologies in lesson delivery in tertiary institutions in Lagos State.

Discussion of Results

Table 1 above shows that the mean values of vocational and technology educators range between 1.75 and 3.63 and standard deviation .53 and .89 with an average mean and standard deviation value of 2.40 and .83 respectively. From Table 1, the grand mean and standard deviation above indicated a low extent which implies that virtual classroom, self-instructional application, mobile learning application, micro-learning, video modules, personal learning network, web-learning, adaptive learning, blended and flipped classroom medium are under-utilized by vocational and technology educators in lesson delivery in tertiary institutions in Lagos State. Table 4 indicates that male vocational and technical educators had a mean of 2.44 and a

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standard deviation of .90, while vocational and technical female educators had a mean of 2.37 and a standard deviation of .77. The table further shows that the calculated t-value of 0.37 is less than the critical value of 1.96 at .05 level of significance. The stated null hypothesis is hereby accepted. The finding supports the study of Al Rawashdeh et al., (2021); Salamat et al., (2018), Sandars, (2021) and Serrano et al., (2019) whose studies have examined the benefits of e-learning in higher education, including flexibility in learning, cost-effectiveness, and enhanced student engagement. The findings also corroborate with that of Al-Fraihat et al., (2020) and Andan et al, (2025) who noted that e-learning systems allow institutions to overcome geographical barriers, making education more accessible to a diverse range of learners

Table 2, Figure 1 above shows that the grand mean values of vocational and technology educators' range between 4.14 and 4.76 and standard deviation 1.02 and 1.12 respectively. The relatively low standard deviation values (around 1.0) suggest a moderate level of agreement among respondents. Overall, the findings imply that both enabling factors (usefulness and ease of use) and inhibiting factors (infrastructure, skills, and support) play significant roles. The grand mean of 4.32 (SD = 1.06) further confirms that, the identified factors such as lack of infrastructure, lack of technical and managerial support, lack of computer knowledge, social influence, perceived usefulness as well as perceived ease of use affect he adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State. The findings is consistent with Ahmad et al., 2023; Qazi et al., 2023; Carvajal-Morales et al., 2024; Ohanu et al., 2024) which indicate that perceived usefulness, ease of use, social influence, and facilitating conditions such as infrastructure, skills, and institutional support significantly influence the adoption of e-learning technologies.

Table 3 above shows that the mean values of vocational and technology educators range between 3.5 and 3.98 and standard deviation .6 and 1.01 with an average mean and standard deviation value of 3.75 and .84 respectively. This implies that availability of computer system in classrooms, recruitment of technical officers, reliable telecommunication service network, reducing the workload of lecturers, regular check and maintenance of facilities, motivation of staff, synchronous online learning for students among others would enhance the adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State. Table 5 indicates that male technical educators had a mean of 3.82 and a standard deviation of .84, while female technical educators had a mean of 3.68 and a standard deviation of .85. The table further shows that the calculated t-value of .70 is less than the critical value of 1.96 at .05 level of significance. The stated null hypothesis is hereby accepted. The finding above is similar to the finding of Krasodomska and Godawska (2021) who maintained that e-learning utilization has to be enhanced through effective strategies which could be obtained from research studies. There are several studies on problems and prospect of e-learning in tertiary institutions but ascertaining strategies for enhancing its utilization in the teaching and learning in tertiary institutions.

Conclusion

The study examined the adoption of e-learning technologies in lesson delivery among vocational and technology educators in tertiary institutions in Lagos State. The findings clearly demonstrate that while e-learning is widely acknowledged as an effective instructional approach capable of enhancing teaching and learning outcomes, its actual utilization among educators' remains at a low level. This low level of adoption suggests a gap between the perceived benefits of e-learning and its practical implementation in

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instructional delivery. The study further revealed that several critical factors influence the adoption of e-learning technologies to include both enabling factors such as perceived usefulness and ease of use, and inhibiting factors such as inadequate ICT infrastructure, lack of technical and managerial support, limited computer knowledge, and social influence. In addition, the study identified practical strategies that can enhance the adoption of e-learning technologies which include among others the provision of adequate ICT facilities, reliable internet connectivity, and recruitment of technical support staff. The findings also showed that there is no significant difference between male and female educators in their perceptions, suggesting a homogenous understanding of the challenges and strategies for e-learning adoption in lesson delivery in tertiary institutions in Lagos State.

Recommendations

The following recommendations were made in line with the findings:

1. The leadership of Nigerian tertiary institutions should provide E-learning technology environment through enhanced energy supply , internet and other facilities
2. The ICT department of the institutions must as a matter urgency launch a website that incorporates the various e-learning strategies as identified in this study for effective instruction via the internet.
3. The government through TET fund, ITF among others should furnish Nigerian tertiary institutions with ICT gadgets and facilities to enhance a hinge-free kick-off of e-learning in tertiary institution in the nation.
4. Institutional collaboration with telecommunication service providers for effective and reliable internet services in various institutions. Energy improvement is also key.
5. The teaches should be provided with the opportunities to improve on adopting e-learning in lesson delivery through workshops, conferences and other training programs.

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