ASSESSING THE UTILIZATION OF LEARNING MANAGEMENT SYSTEMS FOR THE DELIVERY OF BUSINESS EDUCATION CURRICULUM IN UNIVERSITIES IN EDO AND DELTA STATES

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Abstract

This study was conducted to assess the utilization of learning management systems for the delivery of Business Education curriculum. The study employed a descriptive survey research design. Three research questions were raised and three hypotheses were formulated to guide the study. The population of the study comprised 69 Business Education lecturers from public universities in Edo and Delta States, Nigeria that offer Business Education programme. Census sampling was adopted for the study because the population is of a manageable size. The instrument for data collection was a structured questionnaire on four-point Likert rating scale. The instrument was validated by three experts. The reliability of the instrument was established using Cronbach method, and reliability coefficient of 0.81 was obtained. The instrument was administered by the researchers and research assistants. A total of 65 copies of the questionnaire were returned (94%) and used for the study. Mean and standard deviation were used to answer the research question. The null hypotheses were tested using independent t-test at a 0.05 level of significance. Findings from the study revealed that Learning Management Systems play an important role in enhancing curriculum delivery in Business Education programmes but their utilization remains low. The study concluded that Learning Management Systems have significant potential to improve the implementation of Business Education curricula in universities. However, their utilization remains low due to inadequate ICT infrastructure, poor internet connectivity, insufficient training, limited technical support, and unreliable electricity supply. It was recommended amongst others that Nigerian tertiary institutions should invest in modern ICT facilities, reliable servers, and affordable high-speed internet to support effective deployment of Learning Management Systems.

Keywords: Learning Management Systems, Utilization, Business Education, Curriculum

Introduction

The integration of digital technologies into higher education has transformed teaching, learning, assessment, and academic communication across the world. Among the most significant innovations in this transformation is the adoption of Learning Management Systems (LMS), which provide institutions with digital platforms for course administration, instructional delivery, communication, assessment, and monitoring of students' learning activities. Learning Management Systems facilitate the organization and management of educational content while

enabling interaction between lecturers and students in both synchronous and asynchronous learning environments (Habila & Nachandiya, 2018; Aliyu et al., 2021).

Learning Management Systems (LMS) are web-based software applications designed to support the planning, delivery, management, documentation, assessment, and evaluation of teaching and learning activities. They provide a centralized digital environment where lecturers can create and organize course content, administer assignments and quizzes, monitor students' progress, facilitate discussions, and communicate with learners regardless of geographical location (Habila & Nachandiya, 2018). Beyond serving as repositories for instructional materials, modern LMS platforms promote learner-centred pedagogy by enabling collaborative learning, timely feedback, personalized instruction, and continuous assessment, thereby enhancing the overall quality of teaching and learning (Aliyu et al., 2021).

Learning Management Systems can be broadly categorized into open-source, proprietary (commercial), and cloud-based platforms. Open-source LMS, such as Moodle, allow institutions to customize and modify the software to suit their instructional requirements without paying licensing fees. Proprietary LMS, including Blackboard and Canvas, are commercially developed platforms that provide comprehensive instructional management, technical support, advanced learning analytics, and seamless integration with institutional information systems. Cloud-based platforms, such as Google Classroom, operate entirely online and integrate effectively with cloud productivity applications, making them suitable for blended and remote learning environments. Furthermore, although Zoom was originally designed as a video conferencing platform rather than a conventional Learning Management System, its integration with major LMS platforms has made it an essential component of digital learning by supporting synchronous lectures, webinars, tutorials, virtual classrooms, and collaborative learning activities (Mayowa-Adebara & Ekwueme, 2020; Adeoye et al., 2020).

Among these platforms, Moodle, Google Classroom, Blackboard, Canvas, and Zoom have become some of the most widely adopted digital learning technologies in higher education because of their diverse instructional capabilities. Moodle provides flexible course management, online assessments, discussion forums, and extensive customization options. Alameri et al. (2020) demonstrated that Microsoft Teams and Moodle significantly improve students' academic achievement, such benefits can only be realized where enabling conditions exist. Google Classroom facilitates assignment management, collaborative learning, and seamless integration with Google Workspace applications. Blackboard offers comprehensive tools for course administration, assessment, communication, and learning analytics, while Canvas provides an intuitive interface that supports multimedia instruction, competency-based learning, and mobile accessibility. Zoom complements these platforms by enabling real-time virtual instruction, breakout sessions, online meetings, and interactive classroom engagement. However, the educational benefits of these platforms depend not merely on their availability but on the extent to which lecturers and students utilize their features effectively in instructional practice, a phenomenon explained by the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Davis, 1989; Venkatesh et al., 2003).

Learning Management Systems have become increasingly important in contemporary higher education because they promote flexibility, accessibility, learner engagement, and collaborative learning. Through LMS platforms, lecturers can upload course materials, administer assessments, provide feedback, monitor students' progress, and facilitate communication beyond the traditional classroom environment (Mayowa-Adebara & Ekwueme, 2020). The adoption of these systems has expanded globally as universities seek innovative approaches to improve instructional effectiveness and respond to the increasing demand for digital learning. The acceptance and continued use of Learning Management Systems are influenced by users' perceptions of their usefulness and ease of use, as explained by the Technology Acceptance Model (TAM) developed by Davis (1986, 1989). Subsequent extensions of the model further established that social influence, facilitating conditions, experience, and behavioural intentions

significantly determine technology adoption in educational and organizational settings (Venkatesh & Davis, 2000; Venkatesh et al., 2003; Venkatesh & Bala, 2008). Similarly, Rogers' (2003) Diffusion of Innovations Theory posits that the adoption of innovations such as Learning Management Systems depends on users' perceptions of the innovation's relative advantage, compatibility, complexity, trialability, and observability.

The significance of LMS adoption became particularly evident during the COVID-19 pandemic when educational institutions across the world experienced widespread disruption of face-to-face instruction. Universities were compelled to adopt remote teaching approaches in order to ensure continuity of learning. Consequently, many institutions accelerated the implementation of various e-learning technologies and virtual learning environments to sustain academic activities (Adeoye et al., 2020). In Nigeria, the pandemic exposed the vulnerability of traditional instructional methods and highlighted the importance of digital learning infrastructures capable of supporting uninterrupted teaching and learning. At the policy level, the promotion of digital learning has received considerable attention in Nigeria. The National Universities Commission (NUC) issued revised Guidelines for e-Learning in Nigerian Universities in 2023, emphasizing quality assurance, institutional readiness, instructional design, and technology integration in higher education. Similarly, the Federal Ministry of Education introduced the National Digital Learning Policy in 2023 to promote equitable access to digital education and strengthen the use of technology in teaching and learning. These policy initiatives recognize e-learning and Learning Management Systems as essential components of sustainable and resilient higher education systems capable of meeting the demands of the digital economy.

Within the Nigerian university system, the adoption of Learning Management Systems has gradually shifted from emergency remote teaching during the pandemic to deliberate integration into regular instructional practices. Universities increasingly utilize LMS platforms to facilitate online discussions, deliver instructional materials, conduct assessments, and support blended learning approaches. This transition reflects the growing recognition that digital learning technologies can enhance educational quality, increase access to learning resources, and improve students' academic experiences. According to Rogers (2003), innovations become institutionalized when they move beyond initial adoption to routine utilization within organizations, suggesting that universities must progress from merely acquiring LMS platforms to ensuring their effective integration into instructional practice.

Business Education is one of the academic programmes that can particularly benefit from the integration of Learning Management Systems. Business Education is concerned with the acquisition of knowledge, skills, attitudes, and competencies required for effective participation in business occupations and entrepreneurial activities (Nwabufo et al., 2015). The programme combines theoretical instruction with practical experiences in areas such as accounting, marketing, management, entrepreneurship, office technology, and business communication. Similarly, Egajivwie (2024) referred to Business Education as an integral component of vocational and technical learning, aims to produce graduates that are proficient in both technical skills and soft skills. According to Azih and Wagbara (2018), Business Education equips learners with competencies necessary for employment, self-reliance, and national economic development. Similarly, Val-Ossai and Akpomi (2017) described Business Education as a programme designed to prepare students for entry into and advancement within business occupations. The programme emphasizes the development of practical, managerial, entrepreneurial, and technological competencies required in contemporary workplaces.

The skill-oriented nature of Business Education requires instructional approaches that promote interaction, collaboration, practical application, and continuous assessment. Learning Management Systems provide opportunities for lecturers to incorporate case studies, simulations, collaborative projects, online discussions, and other interactive learning activities into instruction. Such technologies can enhance students' engagement, facilitate independent learning, and

expose learners to digital business practices that are increasingly relevant in modern workplaces. From the perspective of the Technology Acceptance Model, lecturers are more likely to integrate LMS into instruction when they perceive the systems as useful for improving teaching effectiveness and easy to operate (Davis, 1989). Furthermore, the Technology Acceptance Model 3 suggests that adequate training, institutional support, and user experience strengthen lecturers' confidence and increase their willingness to utilize digital learning technologies effectively (Venkatesh & Bala, 2008).Furthermore, Learning Management Systems can help address some of the challenges facing Business Education in Nigeria, including inadequate instructional resources, limited access to current learning materials, and insufficient opportunities for practical learning experiences. Through digital platforms, students can access learning resources beyond the classroom, engage in collaborative activities, and develop information and communication technology competencies that are essential in contemporary business environments (Okoye & Igwe, 2019).

Despite these potential benefits, evidence suggests that the utilization of Learning Management Systems in Business Education remains relatively low in many Nigerian universities. Olawoyin and Adeniji (2025) reported low utilization of LMS tools such as Moodle and Zoom in the teaching and learning of Business Education. Similarly, Ohiwerei and Nden (2022) found that undergraduate students in a Nigerian university utilized Zoom-based instructional technologies to a relatively low extent. These findings indicate that the availability of digital technologies may not necessarily translate into effective utilization in instructional practice. This observation is consistent with the Technology Acceptance Model, which argues that the mere availability of technology does not guarantee its utilization unless users perceive it as useful and easy to use (Davis, 1989). Likewise, the Unified Theory of Acceptance and Use of Technology (UTAUT) explains that actual technology use is influenced by performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003).

Several factors have been identified as barriers to the effective use of Learning Management Systems in Nigeria. These include inadequate technological infrastructure, unstable electricity supply, high cost of internet services, limited access to digital devices, and insufficient technological competencies among both lecturers and students (Adeoye et al., 2020; Adedigba, 2020). In addition, some educators may lack the technical expertise required to effectively integrate digital technologies into teaching activities, thereby limiting the pedagogical benefits of LMS adoption. These barriers align with the propositions of UTAUT and TAM3, which emphasize that facilitating conditions, organizational support, and users' technological competence significantly influence the successful implementation and sustained utilization of information systems (Venkatesh et al., 2003; Venkatesh & Bala, 2008).

Although previous studies have examined e-learning adoption and technology integration in Nigerian higher education, limited empirical evidence exists regarding the comparative use of different Learning Management Systems within Business Education programmes. Existing studies have largely focused on general e-learning adoption or specific technological tools without examining the extent to which various LMS platforms are utilized in Business Education instruction. Furthermore, variations in institutional contexts and technological capacities suggest the need for additional evidence from different universities and geographical locations. Therefore, there is a need to investigate the extent to which Learning Management Systems are utilized in the teaching and learning of Business Education in Nigerian universities. Such investigation is important because effective utilization of LMS platforms can enhance instructional delivery, improve students' learning experiences, and strengthen the development of digital competencies required in the modern business environment. The findings of this study are expected to contribute to existing literature on educational technology adoption and provide evidence that can guide institutional policies, capacity-building initiatives, and technology integration strategies within Business Education programmes.

Statement of the Problem

The increasing adoption of Learning Management Systems (LMS) in higher education has transformed teaching and learning practices by promoting flexible learning, improved communication, and enhanced access to instructional resources (Al-Okaily et al., 2022). In Business Education, where curriculum implementation requires the integration of theoretical concepts with practical and technology-driven skills, LMS are expected to support effective instructional delivery and improve students' learning experiences. Despite these expectations, evidence suggests that the utilization of LMS among lecturers in Nigerian tertiary institutions remains inconsistent and often limited to basic functions such as uploading lecture notes and distributing assignments, while more advanced pedagogical features remain underutilized (Okoli & Ogbodo, 2019; Eze et al., 2021).

Existing studies have largely focused on the availability, awareness, or general adoption of LMS in higher education without adequately examining how these systems are integrated into the implementation of Business Education curricula. For instance, while Okoli and Ogbodo (2019) reported the presence of digital learning platforms in tertiary institutions, their findings revealed limited pedagogical utilization. Similarly, Eze et al. (2021) emphasized challenges relating to infrastructure and digital competence but did not specifically assess how LMS contribute to curriculum implementation in Business Education. Consequently, the available evidence provides only a partial understanding of LMS usage and does not clearly explain the extent to which these platforms support teaching, assessment, interaction, and curriculum delivery in Business Education programmes.

This gap in empirical evidence creates uncertainty regarding the actual role of LMS in achieving the objectives of Business Education curricula. Specifically, little is known about the extent of LMS utilization by Business Education lecturers and the dimensions of curriculum implementation that are supported through these technologies. Therefore, there is a need for a focused assessment of LMS utilization in the implementation of Business Education curricula in tertiary institutions. This study addresses this gap by examining the extent to which LMS are utilized in curriculum implementation within Business Education programmes, thereby providing evidence that can inform policy decisions, instructional practices, and technology integration strategies in Nigerian higher education.

Research Questions

The following research questions were raised to guide the study**.**

1. To what extent do Learning Management Systems tools (moodle, Google Classroom, blackboard, canvas and Zoom) are utilized in the implementation of Business Education curricula in universities in Edo and Delta Statess?
2. To what extent does the utilization of LMS contributes to effective curriculum delivery in Business Education programmes in universities in Edo and Delta Statess?
3. What are the challenges affecting the effective utilization of LMS in the delivery of Business Education curricula in universities in Edo and Delta Statess?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance.

1. There is no significant difference in the mean responses of Business Education lecturers in Edo and Delta States universities on the extent Learning Management System tools (moodle, Google Classroom, blackboard, canvas and zoom) are utilized in the implementation of Business Education curricula

2. Business Education lecturers in Edo and Delta State universities do not differ significantly in their mean responses on the extent the utilization of LMS contributes to effective curriculum delivery in Business Education programmes.

3. There is no significant difference in the mean responses of Business Education lecturers in Edo and Delta States universities on the challenges affecting the effective utilization of LMS in the delivery of Business Education curricula.

Method

The study adopted a descriptive survey research design. This design was considered appropriate because it enabled the researchers to collect data systematically from respondents in order to describe existing conditions, practices, and perceptions regarding the utilization of Learning Management Systems (LMS) in Business Education curriculum implementation without manipulating any variables.

The study was conducted in universities in Edo and Delta States, Nigeria, that offer Business Education programmes. The population of the study comprised 69 lecturers in Business Education programmes in federal and state universities within the two states. Since the population size was relatively small and manageable, the entire population was studied using the census sampling technique. The use of census sampling ensured that all members of the population participated in the study, thereby eliminating sampling error and providing comprehensive coverage of the target population (Nworgu, 2015).

The instrument for data collection was a structured questionnaire developed by the researchers. The questionnaire was designed using a four-point modified Likert rating scale of Very High Extent (4), High Extent (3), Low Extent (2), and Very Low Extent (1). The instrument was subjected to face and content validation by three experts: one specialist in Business Education, one expert in Educational Technology, and one specialist in Measurement and Evaluation in university of Delta, Agbor, Delta State. Their observations and suggestions were used to improve the quality and clarity of the instrument. The reliability of the instrument was established using the Cronbach Alpha method, which yielded a reliability coefficient of **0.81**. This coefficient indicated that the instrument possessed adequate internal consistency for data collection.

The instrument was administered electronically with the assistance of trained research assistants. Respondents were informed about the purpose of the study, and their participation was voluntary. Confidentiality and anonymity of responses were assured, and informed consent was obtained from all participants before data collection. A total of 65 copies of the questionnaire were successfully retrieved, representing a response rate of 94%, and these were used for data analysis. Mean and standard deviation were used to answer the research questions. The null hypotheses were tested using the independent samples t-test at the 0.05 level of significance. The null hypothesis was rejected where the p-value was less than or equal to 0.05 ($p \leq 0.05$) and retained where the p-value was greater than 0.05 ($p > 0.05$).

Results and Discussion

Research Question 1: To what extent Learning Management System tools (moodle, Google Classroom, blackboard, canvas and zoom) are utilized in the implementation of Business Education curricula in universities in Edo and Delta States?

Table 1: Mean and Standard Deviation Responses of Business Education Lecturers on the Extent Learning Management System tools (moodle, Google Classroom, blackboard, canvas and zoom) are utilized in the Implementation of Business Education Curricula in universities in Edo and Delta States

S/N	Item Statement	Mean	SD	Decision
1	Moodle is used for teaching and learning of Business Education	2.31	0.53	Low Extent
2	Google Classroom is employed for course delivery in Business Education.	2.29	0.62	Low Extent
3	Zoom is used for virtual lectures and meetings in Business Education.	2.35	0.51	Low Extent
4	Canvas is integrated into Business Education course management.	2.25	0.52	Low Extent
5	Blackboard is adopted for teaching and learning in Business Education.	2.34	0.58	Low Extent
6	LMS platforms are used for uploading lecture notes and instructional materials.	2.31	0.56	Low Extent
7	LMS are utilized for administering assignments and examinations.	2.34	0.58	Low Extent
8	LMS platforms are used for lecturer–student communication.	2.24	0.50	Low Extent
9	LMS are used for student–student collaboration (group tasks, discussions).	2.30	0.62	Low Extent
10	LMS platforms are employed for overall management of Business Education curriculum.	2.31	0.43	Low Extent
	Average Mean and Standard Deviation	**2.33**	**0.59**	**Low Extent**

Source: Field Survey 2025

The data on table 1 above shows the mean responses of Business Education lecturers on extent different types of learning management systems are utilized in the implementation of Business Education curricula in universities in Edo and Delta States. The mean scores ranged from 2.24-35 showing that all the items listed were answered in low extent. The average mean score of 2.33 showed that the respondents agreed that the different types of Learning Management Systems such as Moodle, Google Classroom, and Zoom. blackboard, and canvas are utilized in a low extent in delivery of Business Education programme.

Research Question 2: To what extent does the utilization of LMS contributes to effective curriculum delivery in Business Education programmes in universities in Edo and Delta Statess?

Table 2: Mean and Standard Deviation Responses of Business Education Lecturers on the Extent the Utilization of LMS Contributes to Effective Curriculum Delivery Business Education Programmes in Universities in Edo and Delta Statess.

S/N	Item Statement	Mean	SD	Decision
1	LMS improves knowledge acquisition in Business Education	3.15	0.73	High Extent
2	LMS enhances the development of practical business skills.	2.99	0.77	High Extent
3	LMS contributes to better academic performance of students.	3.24	0.75	High Extent
4	LMS promotes active student engagement in learning activities.	3.22	0.70	High Extent
5	LMS encourages collaborative learning and teamwork.	3.17	0.67	High Extent
6	LMS makes teaching more effective than traditional methods.	2.91	0.82	High Extent
7	LMS supports independent and self-directed learning.	2.97	0.98	High Extent
8	LMS provides opportunities for continuous assessment and timely feedback.	3.27	0.86	High Extent
9	LMS improves digital literacy and technological competence of students.	3.18	0.62	High Extent
10	LMS utilization contributes to achievement of overall programme objectives in Business Education.	2.97	0.83	High Extent
	Average Mean and Standard Deviation	**3.10**	**0.78**	**High Extent**

Source: Field Survey 2025

The data on table 2 above shows the mean responses of Business Education lecturers on the extent the utilization of Learning Management Systems contributes to effective curriculum delivery of Business Education programmes in universities in Edo and Delta States. The mean scores ranged from 2.91- 3.27 showing that all the items listed were answered in agreement. The average mean score of 3.10 shows that the respondents agreed that the utilization of Learning Management Systems contributes to effective curriculum delivery in Business Education programmes.

Research Question 3: What are the challenges affecting the effective utilization of LMS in the delivery of Business Education curricula in universities in Edo and Delta States.

Table 3: Mean and Standard Deviation responses of Business Education lecturers on the challenges affecting the effective utilization of LMS in the delivery of Business Education curricula in universities in Edo and Delta States

S/N	Item Statement	Mean	SD	Decision
1	Limited ICT infrastructure (hardware, labs, servers) affects LMS use.	2.95	0.83	Agreed
2	Poor internet connectivity limits LMS adoption.	2.97	0.53	Agreed
3	Inadequate training of lecturers hinders effective LMS use.	3.28	0.75	Agreed
4	Inadequate training of students reduces LMS effectiveness.	3.26	0.70	Agreed
5	Resistance to change from traditional teaching methods limits LMS adoption.	2.97	0.73	Agreed
6	Lack of institutional support and enabling policies hinders LMS integration.	3.31	0.86	Agreed
7	High cost of LMS subscription and maintenance discourages adoption.	3.15	0.68	Agreed
8	Limited technical support from the institution affects LMS sustainability.	2.99	0.74	Agreed
9	Inconsistent electricity supply affects effective use of LMS.	3.25	0.82	Agreed
10	Lack of ICT skill among lecturers and students hinders effective deployment of LMS in teaching and learning.	3.21	0.71	Agreed
	Average Mean and Standard Deviation	**3.13**	**0.78**	**Agreed**

Source: field survey 2025

The data on table 3 above shows the mean responses of Business Education lecturers on the challenges affecting the effective utilization of Learning Management System in the delivery of Business Education curricula in universities in Edo and Delta Statess. The mean scores ranged from 2.95- 3.31 showing that all the items listed were answered in agreement. The average mean score of 3.13 shows that the respondents agreed that limited ICT infrastructure (hardware, labs, servers), poor internet, inadequate training of lecturers, lack of institutional support, limited technical support, inconsistent electricity supply are some of the challenges affecting effective utilization of Learning Management System in the delivery of Business Education curricula.

Testing of hypotheses

HO[1]: There is no significant difference in the mean responses of Business Education lecturers in universities of Edo and Delta Statess on the extent Learning Management System tools (moodle, Google Classroom, blackboard, canvas and zoom) are utilized in the implementation of Business Education curricula.

Table 4: Independent t-test Analysis of Business Education lecturers' mean responses on the extent Learning Management System tools (moodle, Google Classroom, blackboard, canvas and zoom) are utilized in the implementation of Business Education curricula in universities of Edo and Delta States.

Respondents	N	$\overline{X}$	SD	DF	Level of Sig.	P-value	Decision
Universities in Edo	26	2.64	0.57	67	0.05	0.16	Not Rejected
Universities in Delta	43	2.81	0.70				

Source: Field survey, 2025

Data presented in Table 4 shows the independent-samples t-test analysis comparing the mean responses of Business Education lecturers in universities in Edo and Delta States on the extent to which different types of Learning Management Systems are utilized in the implementation of the Business Education curriculum. The analysis yielded a p-value of 0.16, which is greater than the 0.05 level of significance. Therefore, the null hypothesis was not rejected, indicating that there is no statistically significant difference in the opinions of Business Education lecturers in universities in Edo and Delta States regarding the utilization of different types of Learning Management Systems in implementing the Business Education curriculum.

HO^2: Business Education lecturers in Edo and Delta State universities do not differ significantly in their mean responses on the extent the utilization of LMS contributes to effective curriculum delivery in Business Education programmes.

Table 5: Independent t-test Analysis of Business Education lecturers' mean responses on the extent the utilization of LMS contributes to effective curriculum delivery in Business Education programmes in universities in Edo and Delta States

Respondents	N	$\overline{X}$	SD	DF	Level of Sig.	p-value	Decision
Universities in Edo	26	2.58	0.47	67	0.05	0.11	Not Rejected
Universities in Delta	43	2.87	0.71				

Source: Field survey, 2025

Data in table 5 above shows the t-test analysis of difference in the mean response of Business Education lecturers on the extent the utilization of LMS contributes to effective curriculum delivery in Business Education programmes in universities in Edo and Delta States. The table showed that the p-value of 0.11 is greater than 0.05 level of significance, thus, the null hypothesis was not rejected, implying that there is no significant difference in the opinions of Business Education lecturers on the extent the utilization of LMS contributes to effective curriculum delivery in Business Education programmes in universities in Edo and Delta Statess.

HO^3: There is no significant difference in the mean responses of Business Education lecturers in Edo and Delta States universities on the challenges affecting the effective utilization of LMS in the delivery of Business Education curricula.

Table 6 Independent t-test Analysis of Business Education lecturers' mean responses on the challenges affecting the effective utilization of LMS in the delivery of Business Education curricula in universities Edo and Delta States?

Respondents	N	$\overline{X}$	SD	DF	Level of Sig.	p-value	Decision
Universities in Edo	26	2.61	0.53	67	0.05	0.21	Not Rejected
Universities in Delta	43	2.79	0.76				

Source: Field survey, 2025.

Data in table 6 above shows the t-test analysis of difference in the mean response of Business Education lecturers in universities in Edo and Delta States on the challenges affecting the effective utilization of LMS in the delivery of Business Education curricula. The table showed that the p-value of 0.21 is greater than 0.05 level of significance, thus, the null hypothesis was not

rejected, implying that there is no significant difference in the opinions of Business Education lecturers on the challenges affecting the effective utilization of LMS in the delivery of Business Education curricula in universities Edo and Delta States?

Discussion of Results

The findings from Research Question 1 revealed that Learning Management System (LMS) tools such as Moodle, Google Classroom, Blackboard, Canvas, and Zoom are utilized to a low extent in the implementation of Business Education curricula in universities in Edo and Delta States. This finding agrees with Olawoyin and Adeniji (2025), who reported low utilization of Zoom and Moodle in Business Education, and with Ohiwerei and Nden (2022), who found limited use of Zoom for instructional delivery among undergraduates. The present study, however, extends these findings by explaining why utilization remains low despite increasing awareness of digital learning. From the perspective of the Technology Acceptance Model (TAM), developed by Davis (1986, 1989), actual technology use is influenced not only by perceived usefulness but also by perceived ease of use and external facilitating conditions. Davis (1989) argued that users are more likely to adopt a technology when they perceive it as useful, easy to use, and supported by favourable organizational conditions. Similarly, Venkatesh and Davis (2000), through the Extended Technology Acceptance Model (TAM2), emphasized that organizational support, experience, and facilitating conditions significantly influence technology adoption. In the same vein, Venkatesh et al. (2003), in the Unified Theory of Acceptance and Use of Technology (UTAUT), identified facilitating conditions as one of the strongest predictors of actual technology use.

Accordingly, lecturers may recognize the educational value of LMS platforms but remain constrained by inadequate ICT infrastructure, unstable internet connectivity, insufficient institutional support, limited technical assistance, inconsistent electricity supply, and inadequate professional training. Although Alameri et al. (2020) demonstrated that Microsoft Teams and Moodle significantly improve students' academic achievement, such benefits can only be realized where enabling conditions exist. The researchers therefore view the low utilization of LMS not as evidence of lecturers' resistance to innovation but as a consequence of institutional deficiencies that limit their capacity to integrate digital technologies into teaching. The finding suggests that improving utilization requires strengthening institutional readiness through sustained investment in digital infrastructure, technical support, and capacity building.

The findings from Research Question 2 showed that lecturers perceived LMS utilization as contributing to curriculum delivery to a high extent. At first glance, this appears inconsistent with the low utilization reported in Research Question 1. However, this apparent contradiction provides one of the most significant insights of this study by revealing the existence of an implementation gap. According to Davis (1989), perceived usefulness positively influences an individual's behavioural intention to use technology, even though actual usage depends on external constraints. Likewise, Venkatesh and Bala (2008) explained that favourable perceptions of technology do not always translate into sustained usage where facilitating conditions are inadequate.

Consequently, lecturers may value LMS for enhancing communication, facilitating access to learning materials, supporting assessment, encouraging collaborative learning, promoting flexible learning, and improving curriculum delivery, yet still fail to adopt the platforms regularly because the conditions necessary for effective implementation are lacking. This interpretation supports the views of Okechukwu (2018), who emphasized the importance of LMS in developing instructional materials, monitoring students' participation, and evaluating learning outcomes. The findings are equally consistent with Akgün and Akkoyunlu (2013) and Al-Okaily et al. (2022), who argued that LMS has become indispensable for promoting flexible learning, improving curriculum delivery, and strengthening lecturer-student interaction. The researchers believe that lecturers already appreciate the pedagogical value of LMS and possess a positive disposition toward its use;

therefore, the challenge is not one of attitude but of implementation**.** This finding reinforces the proposition of TAM that favourable perceptions alone are insufficient to guarantee technology adoption in the absence of adequate organizational support and enabling infrastructure.

The findings from Research Question 3 identified limited ICT infrastructure, inadequate internet connectivity, insufficient training of lecturers, and lack of institutional support, limited technical assistance, and inconsistent electricity supply as the major challenges affecting effective LMS utilization in Business Education. These findings demonstrate that the barriers are largely systemic rather than individual, indicating that effective LMS implementation depends on institutional readiness and sustained investment in digital education. The findings corroborate those of Okoye and Igwe (2019), who identified inadequate instructional resources, poor funding, and limited access to qualified personnel as persistent challenges confronting Business Education in Nigeria. Likewise, Adeoye et al. (2020) highlighted unreliable electricity supply, the high cost of internet services, and inadequate access to digital devices as major obstacles to e-learning implementation, while Adedigba (2020) reported that many Nigerian students lacked the digital devices necessary for effective participation in online learning. Furthermore, Olawoyin and Adeniji (2025) observed that many Business Education lecturers lack the technological competencies required to effectively develop and manage online instructional platforms. In addition, Venkatesh et al. (2003) maintained that facilitating conditions—including technical infrastructure, institutional support, and users' access to technological resources—directly influence actual technology use. The researcher therefore contends that the successful integration of LMS into Business Education requires a holistic institutional strategy that combines infrastructure development, continuous professional development, reliable internet connectivity, technical support services, and supportive educational policies. Addressing only one of these constraints is unlikely to produce sustainable improvements in LMS utilization.

Furthermore, the study found no statistically significant difference between the opinions of Business Education lecturers in universities located in Edo and Delta States regarding LMS utilization, its contribution to curriculum delivery, and the challenges affecting its implementation. This suggests that lecturers in both states experience similar institutional realities and operate within comparable higher education environments characterized by shared infrastructural, technological, and policy constraints. The finding aligns with Rogers (2003), whose Diffusion of Innovations Theory explains that the adoption of innovation is strongly influenced by characteristics of the social system and organizational environment. It is also consistent with Venkatesh et al. (2003), who argued that institutional conditions often exert greater influence on technology adoption than individual demographic characteristics. The researcher therefore believes that the similarities observed between lecturers in Edo and Delta States reflect common structural and policy environments across public universities in the region rather than differences in lecturers' competence or willingness to use LMS. Consequently, interventions aimed at improving LMS utilization should adopt system-wide rather than institution-specific approaches. National and state governments, university managements, and regulatory agencies should prioritize coordinated investments in ICT infrastructure, stable internet services, electricity supply, technical support systems, institutional digital policies, and continuous digital capacity-building programmes for lecturers. Addressing these common barriers would significantly enhance the effective integration of LMS into Business Education curriculum implementation.

Conclusion

The study concludes that Learning Management Systems have considerable potential to enhance the implementation of Business Education curricula in universities in Edo and Delta States. Although lecturers recognize the value of LMS in improving curriculum delivery, their actual utilization remains low due to inadequate ICT infrastructure, poor internet connectivity, insufficient training, limited technical support, and inconsistent electricity supply. This indicates that the major obstacle to effective LMS integration is not lecturers' perception of the technology but the

absence of enabling institutional conditions. The study further established that these challenges are common across universities in both states, suggesting the need for coordinated efforts to strengthen digital infrastructure, build lecturers' capacity, and provide sustained institutional support for effective LMS adoption in Business Education.

Recommendations

Consequent upon the findings, the following recommendations were made:

1. Nigerian tertiary institutions should invest in modern ICT facilities, reliable servers, and affordable high-speed internet to support effective deployment of Learning Management Systems. Partnerships with internet service providers and technology firms can also help address infrastructural gaps.
2. Regular training programmes should be organized to enhance lecturers' digital literacy and competence in using LMS tools. In addition, institutions should provide dedicated technical support units to assist both staff and students in overcoming usage challenges.
3. Management of tertiary institutions should establish clear policies that mandate and encourage the use of LMS in curriculum delivery, backed by adequate funding, incentives, and provision of alternative power sources to mitigate electricity challenges.

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