



(RESEARCH ARTICLE)



Utilization of learning management system in teaching and learning of business education in tertiary institutions in Imo State

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World Journal of Advanced Research and Reviews, 2025, 27(01), 323-330

Publication history: Received on 19 May 2025; revised on 29 June 2025; accepted on 01 July 2025

Article DOI: <https://doi.org/10.30574/wjarr.2025.27.1.2494>

Abstract

The study examined the utilization of learning management system in teaching and learning of business education in tertiary institutions in Imo State. It specifically centered on the extent to which lecturers and students use open-source learning management, commercial learning management, and cloud-based learning management system platforms in teaching and learning business education courses. Three research questions guided the study. The study employed a descriptive survey research design. The population of the study was the 592 lecturers and students of the 2 tertiary institutions running Business Education programme in Imo State. A sample of 271 lecturers and students were taken using stratified random sampling technique. A structured questionnaire designed by the researchers was used for data collection. The 271 copies of questionnaire were administered, and 232 copies were retrieved. Data collected was analyzed with mean. Analysis of the data collected revealed that learning management systems (open-source learning management, commercial learning management, and cloud-based learning management systems) as a technological platform is under-utilized in Nigerian tertiary institutions. Based on the findings, it was recommended that: management of tertiary institutions in Nigeria should create the enabling environment for learning management system to thrive; lecturers and students should be trained on the utilization of all learning management platforms to ensure comfortability when using it; and management of tertiary institutions should regularly solicit feedback from users to identify areas for improvement and ensure the learning management system is meeting their needs.

Keywords: Learning Management System; Teaching and Learning; Open-Source Learning Management System; Commercial Learning Management System; Cloud-Based Learning Management System

1. Introduction

The job of an educator or a teacher is to teach students to see vitality in themselves. To accomplish this, both parties (teachers and learners) need to come together in a conducive atmosphere. Prior to this era of information and communication technology, teaching was done through physical contact between the teacher and the learners. Today, teaching and learning are made easy with the aid of technological platforms. One of the most popular of these technological platforms is learning management system. Learning management system is a software application used to plan, implement, and assess learning processes, including educational courses, training programmes, and materials. Deku et al (2024) see learning management system as an online software which is used to plan, execute, and assess a specific learning process. It is software used in e-Learning programmes and which helps in administration, documentation, tracking, and recording. Learning Management Systems are used to maintain online collaboration over the internet. It is executed through different platforms which include but are not limited to open-source learning management, commercial learning management, and cloud-based learning management system platforms.

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An open-source Learning Management System platform is a platform for managing and delivering educational content online, with the source code freely available for customization and modification, offering flexibility and cost-effectiveness. Kimmons et al (2019) postulated that open-source systems use a free license at no cost where users have the freedom to access and use the system. Examples of open-source systems include Moodle, WordPress, and Drupal. According to Quinn and Gray (2020) Educational entrepreneurs are promoting open-source systems to drive online learning environments that use a variety of media and communication tools and support learner choice in the selection and use of tools for online learning.

A commercial learning management system platform is a software application or web-based technology used to manage, deliver, and track online learning and training programs, often used by businesses, educational institutions, and government agencies. It typically includes features for user management, course creation, content delivery, assessment tools, progress tracking, and communication. Kimmons et al (2019) described commercial learning management system as a platform that uses an exclusive code where school organizations purchase a subscription or license to access and use the learning management system platform features. Some examples of proprietary systems include Blackboard, PowerSchool, School Wires, Edline, eSchool View, and School Pointe. Turnbull, Chugh, and Luck (2019) state that school organizations who select commercial learning management system platform receive advantages of working with a company that practices in the construction and distribution of online solutions to support learning.

Cloud-based learning management system platform is a web-hosted platform that allows users to access learning materials, courses, and resources remotely from any internet-connected device, without the need for software installation or local server management. Examples of cloud-based learning management system platform are Google classroom, Microsoft teams, Edmodo etc. Jung and Huh (2019) opined that cloud-based learning management system solutions allow users to maintain the physical infrastructure for running an on-site learning management system. It has numerous benefits as it has the qualities of accessibility, scalability, cost-effectiveness, ease of use, data security, content variety, progress tracking, and centralized learning hub. According to Turnbull et al (2019), school organizations with proprietary systems are starting to integrate cloud-based learning management system solutions where the learning management system merchant maintains the client's data online.

Learning Management System is crucial for effective curriculum implementation as it centralizes learning resources, streamlines administrative tasks, and fosters engagement, ultimately improving the learning experience and outcomes for both students and educators. Business education as one of the products of curriculum development also stands a chance of benefiting from learning management system in its implementations as it can significantly enhance the teaching and learning of business courses by providing a centralized platform for course delivery, resource management, and student engagement, ultimately improving learning outcomes. According to Center for Educational Innovation (2017), learning management system has helped both lecturers and students to access learning content at anytime, anywhere, and to share courseware with friends and colleagues. It also helps in creating a centralized source of learning; supports tracking and reporting of students' engagement and progress made; increases students' seriousness particularly in turning-in their assignments; it also increases communication and interaction between lecturers and students, and students-to-students; and enhances learning analytics.

Business education as a field of study focuses on teaching the skills, knowledge, and processes needed for success in the business world, encompassing various levels from secondary to higher education, and covering areas like accounting, finance, marketing, and management. Deborah (2015) describes business education as education that enriches basic education for teaching career, entrepreneurship, business understanding, office understanding, office environment and vocational practices. In the view of Onajite (2016), business education encompasses education programmed for business, office occupation, economic understanding, entrepreneurship, and it seeks to develop in the learners' basic skills for personal use in the future. Business education plays significant role in enriching the recipients with the necessary knowledge and skills needed to be self-reliant and self-sufficient. According to Nwadike and Okoli (2015), business education at all levels is aimed at providing training that will equip the recipients with business skills that will enable them function optimally in their working environment.

The positive role of learning management system in the implementation of curriculum in institutions of higher learning has been proved by numerous studies conducted by scholars worldwide. According Peria et al (2021), the use of learning management system is currently dominating the academic scene in higher educational institutions. Oguguo et al (2021), maintained that the learning management system is an instructional strategy that makes learning easier and faster when compared with traditional classroom learning, promotes interactive and collaborative learning experiences, encourages one to learn at his/her own pace, enhances flexible learning system and gives opportunities to

learners to access the latest materials. Ahmed and Manovich (2019) revealed that learning management system has positive impact on students' interaction, motivation, skills, performance, and achievement.

Though numerous studies have been conducted on the role of learning management system platforms in the implementation of educational curriculum as well as its utilization globally. However, very few studies have been conducted on the utilization of learning management system platform in the implementation of educational curriculum in Nigeria, and the few studies so far conducted in Nigeria are based on general perspectives. None of the studies has been specifically conducted on its uses in teaching and learning of business education in Imo State. Thus, the need to examine the utilization of learning management system in teaching and learning of business education in tertiary institutions in Imo State.

1.1. Statement of the Problem

Teaching and learning are some of the major activities carried out by teachers and students as stakeholders in educational institutions towards curriculum implementation. These activities are executed through different strategies. Prior to the advent of information and communication technology, teaching and learning activities were done through face-to-face contact between teachers and learners. In our contemporary education, teaching and learning activities have taken a new shape as information and communication technology is complementing the conventional face-to-face contact. Teaching and learning activities are now majorly conducted without physical contact of teachers and the learners with the aid of some information and communication technologies such as zoom, google classroom, Microsoft teams, Edmodo, to mention a few. The utilization of these information and communication technologies' platforms in teaching and learning in our higher institutions of learning is doubtful as most lecturers and students in our tertiary institutions in Nigeria, lack the knowledge and skills to use the various platforms. Consequently, academic staff of our institutions of higher learning have resistance to pedagogical shifts. Thus, the paper seeks to examine the utilization of learning management system in teaching and learning of business education in tertiary institutions in Imo State.

1.2. Purpose of the Study

The main purpose of the study was to examine the utilization of learning management system in teaching and learning of business education in tertiary institutions in Imo State. Specifically, the study aimed at

- Examining the extent to which lecturers and students use open-source learning management system platforms in teaching and learning of business education courses in tertiary institutions in Imo State.
- Examining the extent to which lecturers and students use commercial learning management system platforms in teaching and learning of business education courses in tertiary institutions in Imo State.
- Examining the extent to which lecturers and students use cloud-based learning management system platforms in teaching and learning of business education courses in tertiary institutions in Imo State.

1.3. Research Questions

The following questions were raised to guide the study.

- To what extent do lecturers and students use open-source learning management system platforms in teaching and learning of business education courses in tertiary institutions in Imo State?
- To what extent do lecturers and students use commercial learning management system platforms in teaching and learning of business education courses in tertiary institutions in Imo State?
- To what extent do lecturers and students use cloud-based learning management system platforms in teaching and learning of business education courses in tertiary institutions in Imo State?

1.4. Scope of the Study

The scope of the study was divided into three, which are content scope, geographical scope and the unit scope. The content scope of the study was limited to the extent to which lecturers and students use open-source learning management, commercial learning management, and cloud-based learning management system platforms in teaching and learning of business education courses in tertiary institutions. The geographical scope of the study was limited to all tertiary institutions in Imo State. The unit scope of the study was limited to lecturers and students of the tertiary institutions in Imo State, Nigeria.

2. Methodology

2.1. Design of the Study

The study employed a descriptive survey research design. According to Singh (2023), descriptive research is an exploratory research method that helps a researcher describe a population, circumstance, or phenomenon. The design is suitable for the study as the study explored the facts pertaining the utilization of learning management system in teaching and learning of business education in tertiary institutions in Imo State.

2.2. Population of the Study

The population of the study is made up of 592 (five hundred and ninety-two) lecturers and students of the 2 (two) tertiary institutions currently running Business Education programme in Imo State. The population distribution of respondents is presented in table 1 below.

Table 1 Population Distribution of Respondents

S/N	Name of Institution	Population of Lecturers	Population of Students	Total Population
1.	Alvan Ikoku Federal University of Education Owerri	31	412	443
2.	Imo State College of Education Ihitte/Uboma	13	136	149
	Total	44	548	592

Source: Department of Business Education of the two Institutions (2025)

2.3. Sample and Sampling Technique

The sample of the study was 271 (two hundred and seven-one). It comprised 40 (forty) lecturers and 231 (two hundred and thirty-one) students of the two tertiary institutions. The sample size was determined with Taro Yamane formula of sample size determination, and the size was taken with stratified random sampling technique. The sample distribution of respondents is presented in table 2 below.

Table 2 Sample Distribution of Respondents

S/N	Name of Institution	Sample of Lecturers	Sample of Students	Total Sample
1.	Alvan Ikoku Federal University of Education Owerri	28	174	202
2.	Imo State College of Education Ihitte/Uboma	12	57	69
	Total	40	231	271

Source: Department of Business Education of the two Institutions, Computed by the Researchers (2025)

2.4. Instrument of Data Collection

The instrument used for data collection was a structured questionnaire designed by the researchers. The instrument contained a cover letter and two sections. The cover letter was used to appealed for maximum cooperation of the respondents. Section A contained the personal data of the respondents. Section B contained 11 (eleven) items with response options of four Likert rating scale of VHE (Very High Extent), HE (High Extent), LE (Low Extent), and VLE (Very Low Extent).

2.4.1. Validity and Reliability of the Instrument

The instrument was validated by two experts in the field of Measurement and Evaluation of Alvan Ikoku Federal University of Education Owerri, Imo State. Their comments and corrections were considered in the final draft of the instrument, to ensure its face, construct, and content validity. The reliability of the instrument was determined with test re-test method of reliability. It was performed by administering 20 (twenty) copies of the instrument to 20 (twenty) respondents. Two weeks later, same instrument was re-administered to same respondents. Thereafter, the results of

the two tests were compared using Pearson's product moment correlation coefficient formulae. A coefficient of 0.86 was obtained which made the instrument to be highly reliable.

2.4.2. Method of Data Collection

Data was collected in the study through physical contact with the respondents. The respondents were properly guided by the researchers on how to complete the questionnaire administered. 271 copies of questionnaires were administered, and 232 copies were properly completed while 39 copies were wrongly completed. Thus the 232 copies properly completed were used for analysis.

2.5. Method of Data Analysis

Data collected was analysed with mean. Decision was made by comparing the calculated mean scores with criteria mean score which was obtained by dividing the sum of the rating scale by the number of scales $\{4+3+2+1/4 = 2.50\}$. All the Calculated mean scores in the analysis were less than the criteria mean score of 2.50, and they were rejected.

3. Results

3.1. Research question one: To what extent do lecturers and students use open-source learning management system platform in teaching and learning of business education courses in tertiary institutions in Imo State?

In response to the above research question, items 1 to 3 of the questionnaire administered to the respondents were subjected to analysis. The summary of the analysis is presented in table 3 below.

Table 3 Mean Analysis of the Extent Lecturers and Students use Open-Source Learning Management System Platform in Teaching and Learning

S/N	Item	VHE 04	HE 03	LE 02	VLE 01	Total 10	Mean 2.50	Decision
1.	Lecturers and students use Moodle in teaching and learning	02 08	05 15	105 210	120 120	232 353	1.52	Rejected
2.	Lecturers and students use WordPress in teaching and learning	01 04	03 09	098 196	130 130	232 339	1.46	Rejected
3.	Lecturers and students use Drupal in teaching and learning	03 12	02 06	123 246	104 104	232 368	1.59	Rejected
	Total Mean	02 08	03 09	109 218	118 118	232 353	1.52	Rejected

Source: field survey 2025

Table 3 above revealed a calculated total mean of 1.52 which is less than the criteria mean of 2.50. Since the calculated total mean is less than the criteria mean ($1.52 < 2.50$), it is concluded that the extent to which lecturers and students use Open-Source Learning Management System (Moodle, WordPress, Drupal, etc.) in teaching and learning of Business Education courses in tertiary institutions in Imo State is extremely low.

3.2. Research question two: To what extent do lecturers and students use commercial learning management system platform in teaching and learning of business education courses in tertiary institutions in Imo State?

In response to the above research question, items 4 to 8 of the questionnaire administered to the respondents were subjected to analysis. The summary of the analysis is presented in table 4 below.

Table 4 Mean Analysis of the Extent Lecturers and Students use Commercial Learning Management System Platform in Teaching and Learning

S/N	Item	VHE 04	HE 03	LE 02	VLE 01	Total 10	Mean 2.50	Decision
4.	Lecturers and students use Blackboard in teaching and learning.	10 40	17 51	063 126	142 142	232 359	1.55	Rejected
5.	Lecturers and students use School Wires in teaching and learning	02 08	05 15	111 222	114 114	232 359	1.55	Rejected
6.	Lecturers and students use Edline in teaching and learning	09 36	11 33	101 202	111 111	232 382	1.65	Rejected
7.	Lecturers and students use e School View in teaching and learning	02 08	07 21	132 264	091 091	232 384	1.66	Rejected
8.	Lecturers and students use School Pointe in teaching and learning	04 16	13 39	097 194	118 118	232 367	1.58	Rejected
	Total Mean	05 20	11 33	101 202	115 115	232 370	1.59	Rejected

Source: field survey 2025

Table 4 above revealed a calculated total mean of 1.59 which is less than the criteria mean of 2.50. Since the calculated total mean is less than the criteria mean ($1.59 < 2.50$), it is concluded that the extent to which lecturers and students use commercial learning management system platform (Blackboard, PowerSchool, SchoolWires, Edline, eSchoolView, and SchoolPointe, etc.) in teaching and learning of Business Education courses in tertiary institutions in Imo State is extremely low.

3.3. Research question three: To what extent do lecturers and students use cloud-based learning management system platform in teaching and learning of business education courses in tertiary institutions in Imo State?

In response to the above research question, items 9 to 11 of the questionnaire administered to the respondents were analysed. The summary of the analysis is presented in table 5 below.

Table 5 Mean Analysis of the Extent Lecturers and Students use Cloud-based Learning Management System Platform in Teaching and Learning

S/N	Item	VHE 04	HE 03	LE 02	VLE 01	Total 10	Mean 2.50	Decision
9.	Lecturers and students use google classroom in teaching and learning.	22 88	32 96	47 094	131 131	232 409	1.76	Rejected
10.	Lecturers and students use Microsoft teams in teaching and learning	07 28	13 39	119 238	93 93	232 398	1.72	Rejected
11.	Lecturers and students use Edmodo in teaching and learning	17 68	12 36	87 174	116 116	232 394	1.70	Rejected
	Total Mean	15 60	19 57	84 168	114 114	232 399	1.72	Rejected

Source: field survey 2025

Table 5 above revealed a calculated total mean of 1.72 which is less than the criteria mean of 2.50. Since the calculated total mean is less than the criteria mean ($1.72 < 2.50$), it is concluded that the extent to which lecturers and students use Cloud-Based Learning Management System platform (Google classroom, Microsoft teams, Edmodo, etc.) in teaching and learning of Business Education courses in tertiary institutions in Imo State is extremely low.

4. Conclusion

In the words of John Kennedy, 'change is the law of life. And those who look only to the past or present are certain to miss the future.' The future of Nigerian education system needs to be worked on technologically to avoid missing it in the future. The resistance to pedagogical shift by most teaching staff because of their inability to utilize modern teaching and learning technological platforms in most tertiary institutions in Nigeria needs to be discouraged. Hence,

The study examines the utilization of learning management system in teaching and learning of business education in tertiary institutions in Imo State. The study specifically examined the extent to which lecturers and students use open-source learning management, commercial learning management, and cloud-based learning management system platforms in teaching and learning of business education courses. A descriptive analysis of the primary data collected in the study revealed that the extent to which lecturers and students use open-source learning management, commercial learning management, and cloud-based learning management system platforms in teaching and learning of business education courses is extremely low. This implies that learning management systems as teaching and learning technological platform is under-utilized in Nigerian tertiary institutions.

Recommendations

Based on the findings of the study, the following were recommended.

- Management of tertiary institutions in Nigeria should create the enabling environment for learning management system to thrive.
- Lecturers and students should be trained on the utilization of all learning management platforms to ensure comfortability when using it.
- Management of tertiary institutions should regularly solicit feedback from users to identify areas for improvement and ensure the learning management system is meeting their needs.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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