

PERCEIVED EASE OF USE AND PERCEIVED BENEFITS OF LEARNING MANAGEMENT SYSTEMS (LMS) FOR LIBRARY INSTRUCTION IN UNIVERSITIES IN NORTHEAST, NIGERIA

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Abstract

This research study investigated the Perceived Ease of Use and Perceived Benefits of Learning Management Systems (LMS) for Library Instruction in Universities in Northeast Nigeria. Two (2) research questions form the basis of the study. A survey research design was adopted for the study. The population of this study consists of all library personnel in universities in Northeast, Nigeria. A total enumeration technique was adopted with a sample size of 294 library personnel but only 231 (78.6%) of the respondents were used for the study while Self-design structured questionnaire was the instrument used for data collection. Descriptive statistics of frequency count and percentages, mean and standard deviation were used to analyze the collected data. The findings of the study revealed that perceived ease of use and perceived benefits of learning management systems (LMS) for library instructions are moderately positive and the study concluded that, despite the high level of adoption, awareness and use of learning management systems (LMS) in many Universities across the country, the research study concluded that perceived ease of use and perceived benefits of learning management systems (LMS) for library instructions are

moderately positive as reflected in the findings. The study recommended that The Universities should develop and implement extensive training programs that go beyond basic functionality of LMS for library instruction and emphasize LMS's long-term benefits and potential cost savings to justify initial investments. Additionally, Universities should provide basic infrastructure to support effective LMS use.

Keywords: Learning Management Systems, Library Instruction, Librarian, Perceive Ease of Use and Perceive Benefits

Introduction

The rapid advancement of information and communication technology (ICT) has disrupted the traditional model of library operations, forcing libraries to adapt and evolve to meet users' changing needs and expectations in the digital age. The proliferation of digital content, online databases, and virtual resources has reshaped the information landscape, necessitating a paradigm shift in how libraries acquire, organise, and provide access to information (Kaur, 2015). Traditionally, library services and instruction were largely centered on in-person assistance and facilitating access to these physical collections within the library premises. However, the integration of ICT has opened up new avenues for delivering library instruction in more dynamic, interactive, and accessible in many ways.

Library instruction refers to the programs and strategies librarians use to teach users how to effectively locate, evaluate, and use information resources and services effectively. Library instruction is one area that has undergone a seismic transformation due

to this technological revolution. Matteson and Gersch (2020) defined library instructions as the teaching and learning activities designed to help individuals develop the skills and competencies necessary to effectively locate, evaluate, use, and communicate information from various sources. Consequently, the effectiveness of these instructional methods was hindered by limitations in terms of scalability, personalisation, and accessibility, potentially leaving some learners behind or disengaged (Karimov *et al.*, 2023). Digital technologies have enabled the creation of online tutorials, virtual learning environments, and multimedia resources that can supplement or even replace traditional face-to-face instruction (Beryl *et al.*, 2023).

A learning management system (LMS) is a cloud-based software application that facilitates learning. LMS facilitate the integration of multimedia content, interactive quizzes, and collaborative activities, thereby enhancing engagement and promoting active learning (Bradley, 2021). They also foster communication and collaboration, fostering real-time and asynchronous interactions among instructors and learners through discussion forums, chat rooms, and messaging systems (Ouariach *et al.*, 2024). Through comprehensive progress tracking and reporting capabilities, LMS platforms empower instructors and administrators to monitor learner engagement and performance, facilitating data-driven decision-making and intervention strategies (Lee, 2021).

Perceived ease of use of LMS refers to the degree to which librarians and stakeholders believe using LMS will be free of effort. If LMS platforms are perceived as user-friendly and intuitive, librarians are likely to adopt them for their library instructional activities (Talukder *et al.*, 2018). The complexity of the system and the amount of effort required to learn and use it can significantly influence the decision to adopt LMS. Training programs and user support can be crucial in improving the perceived ease of use by making librarians more comfortable and proficient with the technology for library instructions. Similarly, Khatser and Khatser (2022) affirmed that LMS platforms that offer user-friendly interfaces and well-designed tools for teaching library instruction foster higher levels of adoption. For instance, LMSs such as Moodle and Canvas, which provide features like drag-and-drop content creation, easy student tracking, and intuitive dashboards, are often preferred by educators because they reduce the cognitive load and eliminate the need for extensive technical skills.

The perceived benefits of LMS in library instruction offer significant benefits for both students and librarians, primarily by enhancing library instruction, accessibility to resources, improving communication, and streamlining administrative tasks. Mtani and Mbelwa (2022) found that there is a close relationship between perceived benefits and LMS Utilization. The study further maintained that when librarians believe an LMS will improve their teaching efficiency, streamline their workload, or enhance student learning

experiences, they are more likely to adopt it. Librarians and institutions must clearly understand the advantages and value that LMS can bring to their information literacy programs. These perceived benefits of LMS includes improved accessibility and flexibility for learners, enhanced engagement through interactive and multimedia content, streamlined assessment and tracking of learners progress, and personalized learning experiences (Alumona & Akinseinde, 2023). Thus, if librarians perceive LMS as a tool that offers tangible benefits, they are more likely to advocate for its adoption for library instruction. However, if the perceived benefits are outweighed by the perceived costs or efforts, then the likelihood of adoption decreases.

Statement of the problem

In spite of the widespread adoption, use, and benefit of LMS in academic institutions to centralize educational content and enhance the teaching-learning process, the effective integration and utilization of library instruction and resources within these platforms remain inconsistent. Even if a system is potentially useful, users might not see its immediate or practical value for their specific academic tasks or instructional needs. For instance, instructors may prefer traditional methods due to a lack of awareness of how the LMS can support effective library instruction or a perception that preparing content for the LMS is too time-consuming. Students may be unaware of the available integrated library resources or doubt their effectiveness in improving learning outcomes.

Furthermore, inadequate digital infrastructure, such as poor internet connectivity, insufficient access to digital devices, and lack of comprehensive training programs, aggregates the negative perceptions of ease of use and benefit. The absence of dedicated technical support for specific library integrations within the LMS leaves users frustrated when they encounter technical difficulties.

Research Questions

1. What is the perceived ease of use of LMS for library instructions among librarians in universities in Northeast Nigeria?
2. What are the perceived benefits of LMS for library instruction among librarians in universities in Northeast Nigeria?

Review of Related Literature

Ugwoke et al. (2019) examined business education lecturers' perceptions of Learning Management Systems (LMS) for effective teaching and learning of accounting in universities within Southeast Nigeria. Employing a structured questionnaire, data were collected from 232 lecturers across nine universities in the region. Analysis of the data utilized percentages and means to address the research questions, with null hypotheses tested using ANOVA at a significance level of 0.05. Results indicate that business education lecturers perceive LMS as an effective learning environment, with a majority (79%) asserting that consistent use of LMS enhances their professional practice, and 83%

agreeing that LMS usage boosts students' ICT skills. However, the study identifies a low mean score of skills among business education lecturers for effectively utilizing LMS for teaching and learning. Barriers such as inadequate ICT training, unreliable power supply, and poor internet connectivity are highlighted. The underutilization of LMS in instructional delivery poses the risk of graduating students without essential 21st-century skills for employment. Similarly, Riyath and Rijah (2022) examined the factors affecting the adoption of Learning Management Systems (LMSs) among educators in the context of open and distance learning (ODL) environments within advanced technological institutes (ATIs). The synthesis of empirical evidence revealed that perceived self-efficacy and job relevance are identified as significant factors influencing educators' perceptions of the usefulness (PU) and ease of use (PEU) of LMSs. Secondly, PU, PEU, and service quality are found to have a significant impact on educators' attitudes towards LMSs, which subsequently influence their behavioral intention and actual use of LMSs. Joo et al. ((2014) investigated the factors that influence college instructors' use of LMS. The authors found that perceived usefulness, perceived ease of use, and personal innovativeness were significant predictors of LMS use.

Perceived benefits are often based on previous experiences with similar technologies, observations of peers using the system, or exposure to success stories of LMS implementation in similar educational contexts. Perceived benefits refer to the extent to

which librarians believe that using the LMS will enhance their teaching effectiveness or provide other advantages, such as efficiency in content delivery, ease of communication with students, and improved student outcomes (Bansah & Agyei, 2022). Furthermore, Mtani and Mbelwa (2022) found that there is a close relationship between perceived benefits and LMS utilization. Thus, when librarians believe an LMS will improve their teaching efficiency, streamline their workload, or enhance student learning experiences, they are more likely to adopt it. In the same vein, (Alumona & Akinseide, 2023) adopted a descriptive survey method and an ex-post factor research design to explore the perceptions of students and academic staff regarding LMS benefits. The study encompassed a significant sample size of 323 academic staff and 380 students from various tertiary institutions in Delta State. Proportionate stratified and convenience sampling techniques were utilized to select the participants, ensuring a representative and diverse sample. Data was collected using a questionnaire, which was both face and content validated by experts. The reliability of the instrument was established using Cronbach's alpha reliability coefficient. The analysis of the data involved descriptive statistics, including mean and standard deviation, as well as inferential statistics through independent samples t-tests.

The study revealed that both academic staff and students perceive the benefits of LMS as high. This indicates a strong recognition of the advantages that LMS platforms offer in terms of enhancing the teaching and learning experience. A significant difference was

found between the perceptions of staff and students regarding the benefits of LMS. This suggests that while both groups acknowledge the benefits, their experiences and priorities may differ, reflecting the diverse ways in which LMS impacts their roles within the educational environment.

Research methodology

The study utilizes a survey research design, and this is because it is concerned with sampling peoples's opinions, beliefs, feelings, attitudes, behaviour, and ideas. A self-design structured questionnaire was used to collect data. Descriptive statistics of frequency count and percentages were used to analyze the collected data.

The university of Maiduguri Library has the highest number of library professionals, with 66 employees. Gombe State University Library employs 25 professionals, while Bauchi State University Library has 30. Federal University Kasheri employs 26 library professionals, and Taraba State University has 24. Abubakar Tafawa Balewa University employs 37 professionals. Federal University Gashua has 25 library professionals. Adamawa State University employs 36, and Modibbo Adama university of Technology has 25. This implies that the total study population is 294.

No sample were chosen for this study. This is because the total population of library professionals in the selected Universities is small. Hence, the total enumeration technique was used. The total enumeration technique is the practice of choosing the entire study

population as respondents. This implies that all the library professionals was selected for this study. Accordingly, Canonizado (2021) affirmed that total enumeration sampling is used when the entire population is small and shares well-defined features, as using only a fraction of it may not measure what is desired, and it can eliminate any possible bias that can arise from the sampling technique.

Results and Discussion

Research question 1: What is the perceived ease of use of LMS for library instructions among librarians in universities in Northeast Nigeria?

Table 1: Perceived Ease of Use of LMS for Library Instructions among librarians in Universities in Northeast, Nigeria

Perceived Ease of Use	Level of Agreement (%)					(N=231)	
	SD	D	N	A	SA	\bar{x}	S.D
The LMS is user-friendly and easy to navigate.	16.5	33.8	6.5	19.9	23.4	3.00	1.46
I find it easy to learn how to use the LMS.	33.3	18.2	9.1	25.5	13.9	2.68	1.50
The LMS interface is intuitive and requires minimal effort to operate.	27.3	15.2	20.8	20.8	16.0	2.83	1.44
I can easily upload and manage instructional materials on the LMS.	33.8	13.0	19.0	22.5	11.7	2.65	1.44
The LMS provides straightforward tools for tracking student progress.	22.5	22.5	19.0	17.7	18.2	2.87	1.42
It is easy to integrate multimedia resources into the LMS for library instruction.	29.0	15.2	13.9	25.5	16.5	2.85	1.49
Technical issues with the LMS are easy to resolve.	22.5	19.5	20.8	19.5	17.7	2.90	1.41

I find it easy to communicate with students through the LMS.	29.4	12.6	21.2	20.8	16.0	2.81	1.46
The LMS offers clear and accessible documentation or help resources.	29.4	16.5	16.9	21.2	16.0	2.78	1.47
I can customize the LMS settings to meet my instructional needs with ease.	23.8	16.0	22.1	19.5	18.6	2.93	1.43

Weighted Mean = 2.83

Source: Field Survey 2024

Keys: SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree

Table 1 reveals the Perceived Ease of Use of LMS for Library Instructions is moderately positive, as reflected in the survey findings. In term of perceived ease of use, librarians generally agree that LMS platforms are user-friendly and easy to navigate ($\bar{x}=3.00$), indicating a high level of usability. They also find it as a straightforward tool for tracking student's progress ($\bar{x}= 2.87$), suggesting that the learning curve for adopting LMS is manageable. Technical issues with the LMS are easy to resolve ($\bar{x}= 2.90$). However, there are some challenges noted in tasks like uploading and managing instructional materials ($\bar{x}= 2.65$), indicating room for improvement in these specific functionalities. The perceived ease of use of LMS among librarians and stakeholders reveals a mix of optimism and skepticism. The data indicates moderate perceptions of ease of use highlighting both the recognized potential and the existing challenges. The moderate mean scores for perceived ease of use suggest that while there is some recognition of the potential advantages of LMS, significant concerns remain. With a mean score of 2.83, perceptions of ease of use are middling. Many

respondents find LMS challenging, likely due to inadequate training and support, as 57.6% agree that this is a barrier. This suggests a need for more user-friendly systems and comprehensive training programs. Addressing these issues could make LMS more accessible and improve user confidence. These findings align with the work of Al-Fraihat *et al.* (2020) who noted that accessibility, ease of use, and institutional support significantly influence LMS adoption in educational settings. Also, inadequate technical support and reluctance to cultural change were barriers to the university's efficient use of LMS (Chasubuta *et al.*, 2024).

Research question 2: What are the perceived benefits of LMS for library instruction among librarians in Universities in Northeast Nigeria?

Table 2: Perceived Benefits of Learning Management Systems (LMS) for Library Instruction among Librarians in Northeast Nigeria

Perceived Benefits	(N=231)						
	Level of Agreement (%)						
	SD	D	N	A	SA	X	S.D
LMS enhances the quality of library instruction.	25.1	19.0	13.9	20.3	21.6	2.94	1.51
Using LMS improves student engagement in library instruction.	27.7	13.4	19.0	23.8	16.0	2.87	1.45
LMS provides flexibility in delivering library instruction.	27.7	14.7	16.5	21.6	19.5	2.90	1.50
LMS allows for effective tracking and assessment of student progress.	26.0	15.2	20.3	22.5	16.0	2.87	1.43
The adoption of LMS aligns with modern educational trends.	29.0	12.1	17.3	20.3	21.2	2.93	1.53
LMS improves communication	24.7	16.9	19.0	24.2	15.2	2.88	1.41

between librarians and students.							
The benefits of using LMS outweigh any challenges it may present.	25.5	20.3	16.0	18.6	19.5	2.86	1.48
LMS enables continuous improvement of library instruction based on feedback.	23.4	16.0	19.9	24.2	16.5	2.94	1.41
The use of LMS enhances the accessibility of library resources and instruction for students.	27.7	15.6	16.5	21.6	18.6	2.88	1.49
LMS adoption is essential for staying current in the field of library instruction.	7.4	34.2	19.9	23.4	15.2	3.05	1.21

Weighted Mean = 2.91

Source: Field Survey 2024

Keys: SD= Strongly Disagree; D= Disagree; N= Neutral; A= Agree; SA= Strongly Agree

Table 2 reveals the perceived benefits of Learning Management Systems (LMS) for library instructions are moderately positive, as reflected in the survey findings. Furthermore, librarians moderately recognize the benefits of LMS in improving library instruction. They believe that LMS enhances the quality of instruction (\bar{x} = 2.94) and improves student engagement (\bar{x} = 2.87). LMS is also valued for its flexibility in delivering instruction (\bar{x} = 2.90) and its effectiveness in tracking and assessing student progress (\bar{x} = 2.87). Additionally, there is fair agreement that adopting LMS aligns with modern educational trends (\bar{x} = 2.93) and improves communication between librarians and students (\bar{x} =2.88). Librarians do not really perceive the benefits of using LMS to outweigh any challenges it may present (\bar{x} = 2.86).

Perceived benefits score an average of 2.91, showing a moderate recognition of LMS's advantages. While some see enhanced teaching and engagement potential, concerns

about data security and privacy (51.1% agreement) dampen enthusiasm. Clear communication about security measures and demonstrating the impact of LMS could shift perceptions positively. These findings paint a picture of a profession that is open to and optimistic about the potential of LMS in library instruction. This positive outlook could be a strong foundation for increased adoption and integration of these systems. This aligns with the findings from the study of Ugwoke, Edeh and Ezemma (2019) who found that business education lecturers perceived LMS as an effective learning environment. Furthermore, Ashrafzadeh and Sayadian (2015) also argued that effective use of LMS enriches the learning experience for all stakeholders involved. The finding is also in line with the assertion of Zaharias and Pappas (2016) that LMS can provide students with self-paced learning, offer unlimited access to e-learning materials, integrate social learning experiences, track learner progress, and increases cost-effectiveness.

Recommendations

The following recommendations were made:

1. Universities should develop and implement extensive training programs that go beyond basic functionality of LMS for library instruction.
2. Universities and other stake holders should emphasize LMS's long-term benefits and potential cost savings to justify initial investments.

3. Universities should ensure more comprehensive learning tools to implement all-inclusive learning portals.
4. Internet network accessibility should be addressed since without a strong and stable network, LMS cannot be used efficiently for teaching and learning.

Conclusion

The findings of the study revealed that, in spite of the high level of adoption, awareness, and use of learning management systems (LMS) in many Universities across the country, the perceived ease of use and perceived benefits of learning management systems (LMS) for library instructions remains moderately positive as reflected in the survey findings.

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