

THE UTILIZATION OF LEARNING MANAGEMENT SYSTEMS IN IMPROVING ACCESS TO AND QUALITY OF LEARNING IN ISLAMIC HIGHER EDUCATION INSTITUTIONS

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Abstract

This study aims to evaluate the utilization of Learning Management Systems (LMS) in improving access to and quality of learning in Islamic Higher Education Institutions in North Sumatra. The study is grounded in the increasing demand for digital transformation in higher education, where LMS is expected to support flexible learning, facilitate academic communication, provide structured learning materials, and strengthen learning evaluation. This research employed a qualitative field research approach involving Islamic higher education institutions in North Sumatra, including state and private Islamic higher education institutions. Data were collected through document studies, interviews, and in-depth semi-structured interviews with relevant institutional actors, lecturers, and students. The data were analyzed using inductive and interim analysis, while data validity was strengthened through prolonged engagement, triangulation, and member checking. The findings indicate that LMS utilization provides significant opportunities to expand learning access and improve the organization of academic activities. However, its implementation still faces several challenges, including uneven institutional readiness, limited infrastructure, varying levels of digital competence among lecturers and students, and inconsistent use of the platform. The study concludes that LMS should be developed not merely as a technological tool but as an integrated academic system for improving learning quality in Islamic higher education.

Keywords: Learning Management System; e-learning; Islamic higher education; digital learning; learning quality

INTRODUCTION

The development of digital technology has driven significant changes in higher education learning systems, including Islamic Higher Education Institutions. This transformation is not only related to the use of technological devices but also involves changes in the way lecturers design, manage, deliver, and evaluate the learning process. In the context of higher education, the Learning Management System (LMS) has become an important instrument because it can integrate teaching materials, discussion activities, assignments, assessment, and academic communication into a single digital learning platform. UNESCO (2023) emphasizes that educational technology should be directed toward expanding access, improving quality, and strengthening learning efficiency rather than merely replacing face-to-face instruction. Therefore, LMS utilization has become a strategic issue in the development of modern learning,

particularly for higher education institutions that are required to adapt to technological change and students' learning needs.

Conceptually, an LMS functions as a learning management system that facilitates academic administration, material distribution, lecturer-student interaction, learning activity monitoring, and learning outcome assessment. These functions make the LMS not merely a medium for storing teaching materials but also a pedagogical space that enables learning to take place in a more flexible, structured, and well-documented manner. Asrul and Mesiono (2017) explain that the utilization of LMS in learning at Islamic Higher Education Institutions needs to be evaluated because it is directly related to the extent to which higher education institutions are able to implement information technology-based learning. This view is in line with Mulvia's (2025) study, which shows that e-learning platforms can strengthen student engagement, learning personalization, and the effectiveness of learning experiences when supported by appropriate pedagogical design. Thus, the LMS can be understood as an academic tool that contributes to both expanded access and improved learning quality.

The urgency of LMS utilization becomes even stronger when higher education institutions are faced with the need for learning that no longer depends entirely on conventional classrooms. Today's students tend to access information and learning resources through the internet, requiring higher education institutions to provide learning systems that allow more open, rapid, and continuous access to learning materials. Suharyanto and Mailangkay (2016) state that e-learning can expand educational access and improve learning quality when it is used appropriately in the learning process. In this context, the LMS can help students study materials outside lecture hours, review learning content, participate in online discussions, and submit assignments more efficiently. However, increased access does not automatically result in improved quality if the system is not supported by lecturer readiness, infrastructure availability, content quality, and students' ability to use learning technology.

In Islamic Higher Education Institutions, LMS utilization has a more complex dimension because these institutions do not only carry out general academic functions but also develop Islamic studies and strengthen students' religious character formation. Susanto et al. (2025) show that Islamic higher education institutions in Indonesia have begun to adopt smart learning, including LMS, but still face challenges related to limited infrastructure and lecturer readiness. Similar challenges are also reflected in the report by Asrul and Mesiono (2017), which places obstacles to LMS utilization and the responses of lecturers and students as important parts of the research problem. This indicates that the success of LMS implementation in Islamic Higher Education Institutions cannot be measured merely by the availability of a platform, but also by the institutional capacity to build an effective, inclusive, and contextually appropriate digital learning ecosystem aligned with the character of Islamic education.

Studies on LMS in higher education have widely discussed aspects of effectiveness, user satisfaction, technology acceptance, and student engagement. Rusman et al. (2024) emphasize that LMS acceptance is influenced by performance expectancy, ease of use, social influence, facilitating conditions, behavioral intention, and actual use behavior. Prabowo et al. (2022) also demonstrate that service quality in online learning plays an important role in shaping student engagement within LMS-based systems. However, studies that specifically evaluate LMS utilization in Islamic Higher Education Institutions in North Sumatra still need to be strengthened, particularly in examining the relationship between LMS implementation, implementation constraints, and user responses. This gap is important because each higher

education institution has different levels of technological readiness, academic culture, human resources, and institutional support.

Based on this background, this article aims to evaluate the utilization of the Learning Management System in improving access to and quality of learning in Islamic Higher Education Institutions. The study focuses on three main aspects: the level of LMS implementation, the obstacles encountered in its utilization, and the responses of lecturers and students to the use of LMS in learning. This study is important because LMS evaluation can provide an empirical picture of the readiness of Islamic Higher Education Institutions to develop more effective and sustainable digital learning. In addition, the findings are expected to serve as a basis for university leaders, lecturers, and Islamic education policymakers in designing strategies to strengthen LMS implementation. Thus, LMS utilization is positioned not only as a technological innovation but also as part of broader efforts to improve the quality of learning within Islamic Higher Education Institutions.

RESEARCH METHOD

This study employed a qualitative field research design to evaluate the utilization of Learning Management Systems (LMS) in learning practices at Islamic Higher Education Institutions in North Sumatra. A qualitative approach was considered appropriate because the study focused on understanding institutional practices, implementation constraints, and user responses within their natural academic settings. Qualitative inquiry enables researchers to explore social and educational phenomena in depth by emphasizing meaning, context, process, and participants' experiences (Creswell & Poth, 2018). In line with this orientation, the study did not merely measure LMS availability but examined how LMS was implemented, how lecturers and students responded to it, and what obstacles emerged during its use in the learning process. The research was therefore evaluative in nature, as it sought to provide a contextual understanding of LMS utilization as part of digital learning development in Islamic higher education (Asrul & Mesiono, 2017).

The research sites consisted of Islamic higher education institutions in North Sumatra, including two state Islamic higher education institutions and eight private Islamic higher education institutions. The two state institutions were Universitas Islam Negeri Sumatera Utara and IAIN Padangsidimpuan, while the eight private institutions included STAIS Al-Ikhlas Sidikalang, STAI Nias, STIT Al Washliyah Binjai, STAI Madina Panyabungan, STAI Bahriyatul Ulum Pandan, STAI Hasiba, STIT Gunung Tua, and STAI Sumatera. The subjects of the study were institutional actors involved in or affected by LMS-based learning, particularly lecturers, students, and relevant academic stakeholders. Data collection was conducted through three stages: document study in the planning phase, document study and interviews during the main data collection phase, and in-depth semi-structured interviews during the data completion phase. Semi-structured interviews were used because they allow researchers to maintain focus on the research questions while still providing flexibility for participants to explain their experiences and perceptions in greater depth (Creswell & Creswell, 2022; Asrul & Mesiono, 2017).

Data were analyzed using qualitative procedures adapted from inductive analysis and interim analysis. Inductive analysis was used to identify patterns, themes, and categories emerging from the data, particularly those related to LMS implementation, institutional constraints, and lecturer-student responses. Interim analysis was conducted throughout the

research process so that preliminary findings could guide further data collection and deepen the interpretation of emerging issues. This analytical strategy is consistent with qualitative research principles that view data collection and analysis as interconnected and iterative processes (Miles et al., 2014; McMillan & Schumacher, 2014). To ensure data validity and objectivity, the study applied three strategies: prolonged engagement in the field, triangulation of data collection and analysis, and member checking by returning data and interpretations to participants for confirmation. These strategies strengthened the credibility of the findings and ensured that the interpretation of LMS utilization reflected the empirical realities of Islamic Higher Education Institutions in North Sumatra (Asrul & Mesiono, 2017).

RESULT AND DISCUSSION

The findings indicate that the utilization of Learning Management Systems (LMS) in Islamic Higher Education Institutions in North Sumatra represents an important stage in the transition from conventional classroom-based instruction to technology-supported learning. The research report shows that LMS adoption is positioned as a strategic response to the growing need for e-learning in higher education, particularly in institutions that are expected to expand access to learning resources and improve instructional quality (Asrul & Mesiono, 2017). In this context, LMS is not merely understood as a technological platform but as an academic infrastructure that supports the management of teaching materials, assignments, communication, and evaluation. This finding is consistent with the view that digital learning platforms can strengthen the flexibility, continuity, and documentation of learning activities when they are integrated into institutional teaching practices (Suharyanto & Mailangkay, 2016). Thus, LMS utilization in Islamic higher education should be seen as part of broader educational transformation rather than a temporary technological trend.

The evaluation also suggests that LMS contributes to improving student access to learning materials beyond the limitations of classroom time and physical space. Through LMS, students can access lecture materials, review instructional content, participate in online discussions, and complete academic tasks more flexibly. This function is particularly relevant for Islamic Higher Education Institutions whose students may have diverse geographic, economic, and academic backgrounds. Asrul and Mesiono (2017) emphasize that e-learning is important because students increasingly obtain information through the internet rather than solely through lectures, seminars, or printed books. This condition reflects a broader shift in higher education, where learning access is no longer limited to formal classroom interaction but is extended through digital platforms. Akpen et al. (2024) also explain that online learning platforms have the potential to support student engagement and learning performance when they are designed and implemented effectively.

In terms of learning quality, LMS utilization provides opportunities for lecturers to organize learning content more systematically and monitor student learning activities more efficiently. An LMS enables lecturers to upload structured materials, provide assignments, conduct assessments, and communicate with students within a single platform. These features support more transparent and accountable learning management because learning processes can be documented and reviewed. Yazdi (2012) explains that e-learning allows educators and students to communicate more easily, use digital teaching materials, access academic information, and support independent learning. However, the improvement of learning quality does not depend solely on the availability of the LMS platform. It also depends on lecturers'

pedagogical readiness, the relevance of digital content, the consistency of platform use, and the ability of institutions to ensure that LMS-based learning remains aligned with instructional objectives.

The findings further reveal that the implementation of LMS in Islamic Higher Education Institutions is still influenced by uneven institutional readiness. The research report identifies the need to examine the extent to which Islamic higher education institutions in North Sumatra have implemented LMS and what obstacles they face in using it for learning (Asrul & Mesiono, 2017). This indicates that LMS adoption is not uniform across institutions. Some institutions may have better infrastructure, stronger leadership support, and more digitally competent lecturers, while others may still face limitations in internet access, hardware availability, technical assistance, and digital learning culture. Rusman et al. (2024) argue that the acceptance and use of LMS are influenced by performance expectancy, effort expectancy, social influence, facilitating conditions, behavioral intention, and actual usage behavior. Therefore, institutional readiness becomes a determining factor in whether LMS can function effectively as a learning system.

One of the major challenges in LMS utilization is the capacity of lecturers and students to use digital learning technology effectively. The research report highlights that e-learning requires human resources who are competent in using information technology and able to transform conventional learning into digital learning practices (Asrul & Mesiono, 2017). This challenge is not only technical but also pedagogical. Lecturers are required to redesign teaching strategies, prepare digital materials, manage online interaction, and evaluate student learning through digital tools. Students are also expected to develop self-regulated learning skills, digital literacy, and discipline in accessing and completing online learning activities. Prabowo et al. (2022) show that service quality in LMS-based online learning affects student engagement, which means that technical reliability, responsiveness, and user support are important for maintaining meaningful participation in digital learning environments.

The responses of lecturers and students toward LMS utilization appear to be shaped by their perceived usefulness, ease of use, and learning experience. When LMS helps lecturers distribute materials efficiently and allows students to access learning resources more easily, users are more likely to perceive the system positively. However, when the system is difficult to access, lacks technical support, or is not consistently used by lecturers, users may view LMS as an additional burden rather than a learning solution. This interpretation is consistent with technology acceptance perspectives, which explain that users' intention to adopt digital systems is influenced by the perceived benefits and the effort required to use them (Rusman et al., 2024). In Islamic higher education, positive responses to LMS should therefore be developed through training, mentoring, institutional policies, and continuous improvement of digital learning services.

The discussion also shows that LMS utilization in Islamic Higher Education Institutions should not be reduced to administrative digitalization. Although LMS can support attendance records, assignment submission, and learning documentation, its broader function lies in strengthening the quality of academic interaction and independent learning. A well-designed LMS can facilitate student-centered learning, provide learning analytics, and help lecturers identify students' progress and difficulties. Zhang et al. (2024) argue that effective LMS design can help educators use learning data to understand student performance and improve pedagogical decision-making. In this regard, LMS should be integrated with instructional design, assessment strategy, and academic quality assurance. For Islamic higher education, this

integration is important because digital learning must support not only academic achievement but also the values, ethics, and intellectual traditions of Islamic education.

Overall, the utilization of LMS in Islamic Higher Education Institutions in North Sumatra reflects both opportunity and challenge. On the one hand, LMS can expand access to learning, improve the organization of teaching materials, support communication, and strengthen learning evaluation. On the other hand, its effectiveness is constrained by infrastructure limitations, uneven digital competence, institutional readiness, and variations in user acceptance. These findings affirm that LMS implementation requires systematic planning, continuous training, technical support, and institutional commitment. Asrul and Mesiono (2017) place LMS evaluation as an important basis for understanding how Islamic higher education institutions respond to digital learning demands. Therefore, the success of LMS utilization should be measured not only by platform availability but also by its contribution to meaningful, accessible, and quality learning in Islamic higher education.

CONCLUSION

This study concludes that the utilization of Learning Management Systems in Islamic Higher Education Institutions is a strategic effort to expand access to learning and improve the quality of academic processes in response to the demands of digital transformation in higher education. LMS provides opportunities for lecturers and students to engage in more flexible, structured, and continuous learning through the integration of teaching materials, assignments, communication, discussions, and evaluation within a digital platform. However, the effectiveness of LMS implementation does not depend solely on the availability of technology, but also on institutional readiness, adequate infrastructure, lecturers' digital-pedagogical competence, students' digital literacy, and consistent policy support from higher education leaders. The study also indicates that user responses are closely related to the perceived usefulness, accessibility, and ease of use of the system in daily learning activities. Therefore, LMS should not be treated merely as an administrative or technological tool, but as an integral part of instructional innovation and quality assurance in Islamic higher education. Strengthening LMS implementation requires continuous training, technical support, content development, and institutional commitment so that digital learning can contribute meaningfully to accessible, effective, and high-quality learning.

SUGGESTION

Based on the findings, Islamic Higher Education Institutions should strengthen the implementation of Learning Management Systems through a more systematic and sustainable institutional strategy. University leaders need to ensure that LMS development is supported by adequate digital infrastructure, stable internet access, technical assistance, and clear academic policies that encourage consistent use by lecturers and students. Lecturers should be provided with continuous training not only in technical LMS operation but also in digital pedagogy, instructional design, online assessment, and interactive learning management. Students also need digital literacy support so that they can use LMS independently, responsibly, and productively. In addition, institutions should regularly evaluate LMS utilization by collecting feedback from users, monitoring learning activities, improving digital content quality, and integrating LMS performance into academic quality assurance. Through these efforts, LMS can function not merely as a digital administrative platform but as a strategic instrument for

improving access, participation, effectiveness, and overall learning quality in Islamic higher education.

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