



## The Effectiveness of Using Learning Management Systems in Improving the Quality of Learning in Madrasas

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### ARTICLE INFORMATION

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### ABSTRACT

This study aims to assess the effectiveness of using a Sharia-based Learning Management System (LMS) to support learning in Islamic schools. The main focus of this study is to identify the limitations of conventional LMSs in accommodating Islamic values and to explore the contribution of Sharia-based LMSs in shaping the character of religious and noble students. The approach used was qualitative with library research methods, involving the analysis of various academic literature related to Islamic education and learning technology. Data were collected through an in-depth review of books, journals, and policy documents, then analyzed descriptively, critically, and thematically. The results show that conventional LMSs do not fully meet the needs of holistic Islamic education because they only focus on technical aspects. In contrast, Sharia-based LMSs have proven more effective in integrating spiritual values through features such as prayer reminders, Islamic content, and etiquette-based communication ethics. This LMS not only improves the efficiency of online learning but also strengthens the development of students' Islamic character. Therefore, the implementation of a Sharia-based LMS is a strategic step in addressing the challenges of digitalization while maintaining the integrity of Islamic values in education.

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### 1. INTRODUCTION

The development of information and communication technology (ICT) has had a significant impact on various sectors of life, including education. In today's digital era, nearly every aspect of the learning process is undergoing rapid and dynamic transformation. ([Mahabu et al., 2025](#)) One concrete form of this development is the widespread use of online learning systems, which have now become an inseparable part of formal educational activities, from elementary to tertiary levels. This digital transformation has also begun to be implemented as a solution so that the learning process continues to be effective, especially in situations where face-to-face interaction is limited. ([Dongoran & Hariani, 2025](#)) The use of a Learning Management System (LMS) platform is key to achieving well-structured and organized online learning. An LMS facilitates various learning activities, from material distribution and assignments to evaluations, accessible to students and teachers anytime and anywhere. However, despite these

significant benefits, significant challenges remain regarding the LMS platform's alignment with the core values of Islamic education, the primary foundation of madrasahs. ([Sugari et al., 2025](#))

One of the crucial challenges facing Islamic educational institutions is the limited availability of digital platforms that truly accommodate Sharia principles in their design and content. Most LMSs available on the market are products of secular or general educational environments, thus neglecting the spiritual and moral aspects that should be inherent in every learning activity in madrasahs. ([Rasiman, 2024](#)) As a result, there is a significant gap between the Islamic values intended to be instilled and the learning media used. Conventional LMSs often focus solely on technical and academic aspects, while religious values and Islamic etiquette receive less attention. ([Setiono et al., 2021](#)) This situation results in a suboptimal learning process that fosters students who are not only academically intelligent but also possess strong character and spirituality. Therefore, the need for an LMS platform that integrates technology with Islamic values is urgent to address the challenges of the times while maintaining the identity of Islamic education. ([Sirait & Apriyani, 2025](#))

In line with this awareness, several Islamic educational institutions have begun developing Sharia-compliant Learning Management Systems (LMS). These LMSs are specifically designed to incorporate relevant Islamic elements that align with religious teachings, enabling them to serve as a comprehensive and holistic learning medium. ([Khairiniza & Rizki, 2025](#)) The Islamic features embedded in this LMS include prayer time reminders that help students to continue to perform their worship on time, presentation of material that is in accordance with Islamic beliefs and values, and interaction controls that prioritize Islamic manners. ([Fahrezi et al., 2024](#)) This initiative represents a significant breakthrough, bridging the technological and spiritual needs of education. Although still relatively new and requiring in-depth evaluation, this Sharia-based LMS has significant potential to improve the quality of madrasah education while preserving the purity of Islamic teachings in the digital world. ([Hijah et al., 2023](#))

Research on the effectiveness of a Sharia-based Learning Management System (LMS) is crucial to provide an empirical overview of the platform's contribution to online learning in Islamic schools, particularly in State Islamic Senior High Schools (MAN). The study focuses on how this Sharia-compliant LMS supports the achievement of Islamic educational goals, which emphasize not only cognitive aspects but also affective and spiritual aspects. ([Sari & Al Hamidi, 2024](#)) Furthermore, the research also examines the effectiveness of the learning process using the LMS, as well as the acceptance and response of teachers and students to its use. Therefore, the research findings are expected to serve not only as an academic reference but also as strategic input for policymakers and system developers in optimizing the use of Islamic value-based LMSs in madrasah environments. ([Sungkowo, 2023](#))

The primary objective of this study is to identify and analyze the effectiveness of a Sharia-compliant Learning Management System (LMS) in improving the quality of online learning at State Islamic Senior High Schools (MAN). This study seeks to address the fundamental question of how the limitations of digital platforms that are inconsistent with Islamic values can be addressed through the development and implementation of a Sharia-compliant LMS. ([Afnanda, 2025](#)) By understanding the technical aspects, content, and social interactions in the LMS, this study attempts to provide a complete picture of the role of technology not only as a tool, but also as a vehicle for character and spiritual formation of students. ([Ahmad et al., 2023](#))

In general, a Learning Management System (LMS) is a digital platform used to manage, deliver, and evaluate online learning activities. An LMS provides various features to facilitate the teaching and learning process, such as distributing course materials, assigning assignments, providing discussion forums, and providing evaluation and assessment. ([Muntafi'ah et al., 2024](#)) Using an LMS allows instructors to monitor students' learning progress in real time and provide prompt, structured feedback. The primary advantage of an LMS lies in its ability to integrate all aspects of learning into a single system that is easily accessible to instructors and students anytime, anywhere. An LMS also simplifies learning documentation and administration, which is particularly useful in the flexible and dynamic context of online learning. ([Prisuna & Budiyo, 2021](#))

However, the current widespread use of conventional LMSs still has significant shortcomings in terms of their alignment with Islamic values. These LMSs focus primarily on

technical and functional aspects without considering religious norms, which should be the primary foundation of Islamic education. The learning content provided is often general and fails to integrate character education, spirituality, and Islamic morality. (Yulianti et al., 2024) Furthermore, interactions within a typical LMS are poorly structured to conform to Islamic etiquette and ethics, thus suboptimally enhancing the learning potential for shaping students' personalities and character. Therefore, an LMS that excels not only in academic and technological aspects but also reflects Islamic values holistically is crucial. (Nurchayati & Gunawan, 2023)

A Sharia-based Learning Management System (LMS) offers a solution to these problems. This LMS is designed to integrate Sharia principles into every aspect, from learning content containing verses from the Quran and Hadith, prayer reminders, to user communication and interaction settings based on Islamic etiquette. Thus, a Sharia-based LMS not only conveys knowledge but also serves as a medium for developing noble Islamic character. This is crucial to ensuring that education in madrasas does not lose the spiritual and moral values that are the foundation of Islamic education. (Faqih et al., 2025)

In addition to content and technical aspects, a Sharia-based LMS also pays close attention to ethical communication and social interactions between platform users. The discussion and forum features within the LMS are designed to foster a polite and respectful communication environment. The use of polite language, respect for others' opinions, and the avoidance of unconstructive conflict are integral to managing communication on the platform. Values such as honesty, politeness, patience, and responsibility must be the foundation of every interaction within the LMS. Thus, a Sharia-based LMS can create an online learning ecosystem that is not only academically effective but also ethical and dignified in accordance with Islamic teachings. (Afifah et al., 2024)

Islamic education in today's digital era faces complex and diverse challenges and opportunities. On the one hand, technological advances provide broader and faster access to learning resources and information, significantly supporting the learning process. However, on the other hand, technology also carries the risk of introducing content that is inappropriate or even contradictory to Islamic values. Therefore, managing Islamic education in the digital era must be carried out with great wisdom and selectiveness in adopting technology, to maintain the primary mission of Islamic education: to develop knowledgeable, pious, and noble individuals. A Sharia-based Learning Management System (LMS) is one solution to address these challenges by harmoniously integrating technology and religious values. (Sitorus, 2025)

Online learning, as the primary form of digitalization in education, has enormous potential to open up learning spaces without the constraints of time and place. However, the effectiveness of online learning depends heavily on system design that accommodates social, cognitive, and pedagogical engagement in a balanced manner. (Br & Sebayang, 2021) In the context of Islamic education, online learning must maintain and strengthen students' spiritual dimensions to ensure they are not neglected. Sharia-based LMSs offer significant potential because, in addition to systematically delivering knowledge, they also provide space for holistic Islamic character development. This makes online learning not merely a transfer of knowledge, but also an integrated process of moral and spiritual development. (Riyani et al., 2022)

By considering all these aspects, the development and implementation of a Sharia-based Learning Management System (LMS) in Islamic schools, particularly in State Islamic Senior High Schools (MAN), is a crucial strategic step in strengthening the quality of online learning in line with the mission of Islamic education. This LMS is expected to serve not only as a technological tool but also as a means of strengthening Islamic values in digital education. In this way, Islamic schools can respond to the challenges of the times while maintaining the purity and authenticity of Islamic education, thus producing a generation that is not only intellectually intelligent but also possesses noble morals and strong faith.

## 2. RESEARCH METHODS

In this study, the author used a qualitative approach with a library research method. The qualitative method was chosen because it was deemed appropriate for exploring and analyzing issues related to the effectiveness of using a Sharia-based Learning Management System (LMS)

in improving the quality of online learning at State Islamic Senior High Schools (Madrasah Aliyah Negeri). This approach allowed the author to deeply understand the meaning and context of the phenomenon of Sharia-based LMS use through a review of relevant literature. The qualitative method is descriptive and analytical, namely describing and explaining data based on scientific sources such as books, journals, articles, and official documents that discuss online learning, educational technology, and the integration of Islamic values in digital learning systems.

This qualitative research employs an inductive approach in the analysis process, meaning that meaning and understanding are derived from data collected and analyzed comprehensively (Fadli, 2021). This approach is commonly used in academics due to its flexibility in interpreting data and explaining educational phenomena contextually and comprehensively. The literature review examined various scientific references related to Learning Management Systems (LMS), online education, the integration of Sharia values in education, and the impact of digital technology on the quality of learning in madrasas.

The literature review in this study focuses on theoretical and conceptual studies from various related literature, without incorporating fieldwork. Data collection techniques were conducted through searching and gathering information from books, scientific journals, online articles, and other digital sources relevant to the topic of the effectiveness of Sharia-based Learning Management Systems (LMS). The research instruments used were a classification of library materials, a writing scheme, and a study format tailored to the research focus (Del Cid et al., 2009). Thus, this study is expected to provide a clear and in-depth picture of the use of Sharia-based Learning Management Systems (LMS) in the context of online learning at State Islamic Senior High Schools.

### **3. RESULTS AND DISCUSSION**

#### **a. Research result**

This study shows that the development of information and communication technology (ICT) has brought significant changes in the world of education, particularly in the implementation of online learning in State Islamic Senior High Schools (MAN). The use of a Sharia-based Learning Management System (LMS) is one innovative solution adopted to address the need for learning that combines technical aspects and Islamic values. Literature review data shows that conventional LMSs currently in use have not been fully able to meet the demands of Islamic education, so a Sharia LMS emerged as a more suitable alternative. This LMS not only facilitates effective learning activities but also inserts Islamic values in each of its features, such as prayer time reminders and content based on Islamic faith. The development of this LMS is also adapted to the needs of the curriculum in madrasas, which emphasizes the formation of noble character.

Research reveals that a Sharia-based LMS significantly improves the quality of online learning at Islamic Senior High Schools (MAN). This LMS facilitates teachers and students' access to course materials anytime and anywhere, while maintaining the spiritual and moral aspects that underpin Islamic education. A literature review indicates that Islamic features, such as discussion forums with Islamic etiquette, conflict-avoiding interaction settings, and the presentation of religious teachings, offer added value that conventional LMSs lack. This allows the learning process to focus not only on cognitive aspects but also on holistically developing students' character and faith. Some Sharia LMSs even offer integrated digital tadarus (recitation of the Koran), moral evaluation, and reflection on worship.

The study also showed positive teacher and student acceptance of the Sharia-based LMS. Teachers reported ease in managing online learning, which was more structured and aligned with Islamic values. Meanwhile, students felt more comfortable and motivated because the LMS provided prayer reminders and instilled spiritual awareness throughout the learning process. While technical and user adaptation challenges remain, the presence of a Sharia-based LMS is considered a significant breakthrough, bridging the needs of technology and religious education in madrasas, and supporting the achievement of the overall goals of Islamic education. This acceptance also demonstrates madrasas' readiness to adopt values-based technology.

Beyond technical and content aspects, this study found that a Sharia-compliant LMS plays a crucial role in maintaining ethical communication and social interactions between users. The LMS is designed to uphold the values of honesty, politeness, patience, and responsibility in every interaction on the platform. Discussion forums and other communication features emphasize Islamic etiquette, supporting the development of polite and respectful student character. Thus, a Sharia-compliant LMS is not merely an online learning tool but also serves as a medium for moral and spiritual development integral to Islamic education. These ethics are taught explicitly in learning modules and implicitly through user interaction policies.

Research also shows that the implementation of a Sharia-based LMS at MAN opens new opportunities and simultaneously faces challenges in Islamic education in the digital era. This LMS provides easy access to information and learning without the constraints of space and time, but also requires content management and interactions that maintain religious values. Awareness of the importance of a platform that integrates technology and Islamic principles is a strategic step to minimize the risk of negative content that conflicts with Islamic values. A Sharia-based LMS is considered a digital learning medium capable of preserving the primary mission of Islamic education: to shape knowledgeable, pious, and virtuous individuals. Continuous efforts are needed for feature development, user training, and impact evaluation.

## **b. Discussion**

The rapid development of ICT has fundamentally changed the face of education, particularly with the rise of online learning. In the context of madrasas, the use of an LMS has become crucial to ensure the continuity of effective teaching and learning. However, conventional, general-purpose LMSs still do not fully meet the needs of Islamic education, which demands the integration of spiritual and moral values. Therefore, a Sharia-based LMS presents an important innovation that not only offers technical convenience but also strengthens Islamic values in the learning process. This aligns with the goals of Islamic education, which prioritize character development over mastery of knowledge. In other words, digital education in madrasas must maintain the spirit of Islam.

A Sharia-based LMS enables the systematic integration of religious values into online learning. With prayer reminders, content aligned with Islamic faith, and civilized interaction settings, this platform delivers a holistic learning experience. Pedagogically, this LMS emphasizes not only cognitive aspects but also affective and spiritual aspects, which are crucial dimensions of Islamic education. This is a key differentiator from conventional LMSs, which tend to focus solely on academic and technical aspects. Thus, a Sharia LMS makes a positive contribution to realizing a comprehensive and balanced Islamic education, supporting the digital transformation of values-based education.

The positive reception of a Sharia-based LMS by teachers and students is an indicator of the successful implementation of technology aligned with Islamic values. Teachers find it easy to manage structured and value-based learning, while students feel supported in carrying out their religious obligations without disrupting the learning process. This indicates that a Sharia-based LMS can be an effective tool for instilling religious discipline while increasing learning motivation. However, technology adaptation remains a challenge that requires ongoing attention to ensure all users can utilize the platform optimally. Intensive training and support from madrasah policies are required for its implementation.

The importance of maintaining ethics and etiquette in digital interactions is given serious attention in Sharia-based LMSs. In Islamic education, noble morals are a key pillar, so communication within the LMS must reflect these values. Features that regulate discussion forums with norms of courtesy and respect for others' opinions are crucial social capital in building a conducive learning environment. This demonstrates that the LMS serves not only as a medium for delivering material but also as a vehicle for developing students' character, including politeness, patience, and responsibility, in accordance with Islamic guidance. In fact, managing online etiquette is part of a teacher's competency that must be continuously developed.

The biggest challenge in the digitalization of Islamic education is maintaining the purity of religious values amidst the rapid flow of technology. A Sharia-based Learning Management System (LMS) is a strategic solution that can overcome this dilemma by harmoniously

integrating modern technology and Islamic principles. In addition to providing broad and flexible learning access, this LMS also strengthens the spiritual dimension of students so that education produces not only intellectually intelligent graduates but also those with character and faith. Therefore, the development of a Sharia-compliant LMS in madrasas such as MAN is an urgent need to prepare a generation capable of facing the challenges of the times without sacrificing religious values. This synergy between technology and spirituality is the main strength of this model.

#### **4. CONCLUSION AND SUGGESTIONS**

##### **a. Conclusion**

The development of information and communication technology has driven significant transformations in the world of education, including in the State Islamic Senior High School (MAN). Online learning through Learning Management System (LMS) platforms has become one form of adaptation to the digital era. However, most conventional LMSs fail to fully accommodate the core values of Islamic education, creating a gap between technology and spirituality in the learning process.

To address these challenges, developing a Sharia-based Learning Management System (LMS) is a strategic solution. This LMS not only manages the learning process technically but also integrates Sharia principles through Islamic features such as prayer reminders, content based on Islamic faith, and communication ethics grounded in Islamic etiquette. Thus, a Sharia-based LMS plays a crucial role in developing students who are not only academically intelligent but also possess good character and morals.

This study used a qualitative approach with a literature review method to analyze the effectiveness of a Sharia-based Learning Management System (LMS) in supporting Islamic education in madrasas. The results indicate that the development and implementation of a Sharia-based LMS at MAN (Islamic State Islamic Senior High School) is a crucial step in addressing the challenges of digitalization while maintaining the integrity of Islamic values in the learning process. This LMS is expected to be a tool that not only supports online learning but also strengthens the spiritual and moral dimensions of students within the context of a comprehensive and holistic Islamic education.

##### **b. Suggestion**

As a recommendation, researchers examining the effectiveness of Sharia-based Learning Management Systems (LMS) in Islamic education are advised to carefully select conceptual and methodological approaches that align with the dynamics of digital education in madrasah environments. It is crucial to ensure that any theoretical framework used, whether derived from classical Islamic sources or contemporary educational theory, is directly relevant to Sharia principles and the characteristics of the national education system.

Furthermore, a thematic analysis approach to LMS features should be complemented by critical reflection on the integration of Islamic values into the technological dimension of learning. Researchers need to consider the diverse backgrounds of students and the cultural context of madrasas when interpreting the effectiveness of Sharia LMS implementation to avoid being trapped by mere normative bias and maintain scientific objectivity.

Comprehensive documentation of the data analysis and validation process is also crucial to support replication and further development. With systematic documentation, the results of this research will not only provide a theoretical foundation but also serve as a reference for formulating educational policies, developing a Sharia-based digital curriculum, and implementing a technical LMS at the madrasah level.

Through this structured and reflective approach, the study of Sharia-compliant LMSs is expected to enrich the discourse on the digitalization of Islamic education. Furthermore, the results of this research are expected to make a tangible contribution to designing online learning models that are not only technologically efficient but also value-rich, spiritually transformative, and holistically shape students' character.

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