The Benefits of Learning Management Systems (LMS) in The Effectiveness of Administrative Planning and Learning Implementation

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ARTICLE INFO	ABSTRACT
	The development of information and communication technology has brought significant changes to the world of education. One of the most prominent forms of digital transformation is the use of Learning Management System (LMS) platforms, which are systems designed to plan, manage, and evaluate the learning process digitally. This study aims to explain the effectiveness of using a digital learning management system (LMS) platform in facilitating administrative tasks and the implementation of learning processes, particularly at the Sanggar Kegiatan Belajar (SKB) educational institution in East Lampung. A descriptive qualitative approach was used to explore the activities and utilization of the digital learning management system (LMS) platform in facilitating administrative planning and the implementation of learning at the Sanggar Kegiatan Belajar (SKB) educational institution in East Lampung. The research findings indicate that the utilization of the digital learning management system (LMS) platform contributes to the effectiveness of educational administrative planning and the implementation of learning. These findings support the theory that the utilization of digital platforms contributes to more effective educational administrative planning and more engaging learning implementation. The novelty of this study lies in the utilization of digital platforms to enhance the effectiveness of educational administration and the instillation of religious moderation values, thereby making the learning process more effective and enabling the achievement of religious moderation values. *This is an open access article under the CC BY SA license.*

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1. INTRODUCTION

The development of information and communication technology has brought significant changes to the world of education. One of the most prominent forms of digital transformation is the use of Learning Management System (LMS) platforms, which are systems designed to plan, manage, and evaluate the learning process digitally. In the context of educational institutions, LMS not only serves as a medium for online learning but also as a strategic tool to support the effectiveness of administrative and learning planning (2025, p. 1079).

Effective educational administration heavily relies on systems capable of storing, organizing, and managing data efficiently. With an LMS, teachers and administrative staff can design learning plans, schedule activities, document learning processes, and monitor student progress systematically and efficiently (Haidar et al., 2025). An LMS also enables learning to be conducted in a more interactive, flexible, and well-documented manner, including in the assignment of tasks, exams, and feedback to students. However, in practice, not all educational institutions are able to utilize LMS optimally. Some of the challenges often faced include limited digital literacy among educators, lack of training, and inadequate infrastructure. This results in the functions of LMS as a support for administration and learning not being fully realized to their maximum potential.

In the context of modern education, digitalization is a necessity. Digitalization is not only about shifting learning media from print to digital, but also touches the entire education system, from student data management, learning planning, material delivery, assessment, to reporting learning outcomes. LMS is one tangible manifestation of this digitalization, capable of integrating various functions into a single platform that is easily accessible and usable by teachers, students, and educational staff (Utubira & Pangeti, 2025). The importance of digitalization in the world of education can be seen from the various benefits it offers. First, digitalization enables flexible learning that can be accessed anytime and anywhere, especially for students in remote areas. Second, educational administration becomes more efficient as the use of technology helps reduce manual workloads, minimize errors, and improve service speed. Third, technology also enriches learning methods with interactive and multimedia content, which can enhance student engagement and understanding. Finally, digitalization promotes the strengthening of digital literacy as an important competency in the global era (Utubira & Pangeti, 2025).

A Learning Management System (LMS) is a digital platform designed to plan, implement, monitor, and evaluate the learning process in a structured and integrated manner. LMS allows teachers and students to access materials, manage assignments, conduct discussions, and document the entire learning process digitally. This platform supports learning that can be conducted synchronously (real-time) or asynchronously (flexible in terms of time and place), thereby providing flexibility in the teaching and learning process (Azwar, I., 2024). Unlike LMS, conventional learning systems rely on face-to-face methods in the classroom. In this system, learning media are limited to textbooks, blackboards, and other visual aids. Interaction between teachers and students only occurs in the same space and time, with documentation of the learning process, such as attendance and grades, done manually. This makes the educational administration process and learning implementation less efficient, especially in terms of time and data tracking.

In terms of effectiveness, LMS offers advantages in terms of documentation automation, learning accessibility, and real-time learning monitoring. Teachers can compile learning tools such as lesson plans, schedules, and assessments in one integrated system, and students can access materials whenever needed. In addition, LMS enables data-driven educational administration management, which supports faster and more accurate decision making. Conversely, conventional systems require direct physical involvement, which can limit the scope of learning and increase the likelihood of data or information loss. In today's digital age, such systems are considered less adaptive to the needs of 21st-century education, which emphasizes flexibility, collaboration, and digital literacy (Haidar, M., et al., 2025).

The current reality shows that after the COVID-19 pandemic, the use of LMS has not only become an emergency solution but has evolved into a permanent part of the education system. Many educational institutions have begun to use LMS as the primary tool for learning planning, communication between

teachers and students, document management, and reporting learning outcomes (Wiragunawan, 2022). However, challenges remain, particularly regarding infrastructure limitations, human resource readiness, and a work culture that is not yet fully accustomed to digital systems. Therefore, this research is important to explore the extent to which LMS is utilized in supporting the effectiveness of educational administrative planning and learning implementation in educational institutions. The results of this study are expected to provide a deeper understanding of the strategic role of LMS in driving digital education transformation, as well as serve as a basis for the development of more optimal policies and practices in the future.

With this background, this research is important to analyze the extent to which the use of LMS can improve the effectiveness of administrative planning and learning implementation in educational institutions. In addition, this research is also expected to provide an overview of the challenges faced and solutions that can be applied so that LMS implementation becomes more optimal and has a positive impact on the quality of education. In the context of educational administration, LMS can actually be a strategic solution in improving the efficiency and accountability of learning planning. Tools such as lesson plan development, class division, attendance tracking, learning outcome evaluation, and reporting can be managed more systematically through this platform. Therefore, it is important to evaluate the extent to which LMS has been effectively utilized in educational institutions, especially in supporting two crucial aspects: educational administrative planning and learning implementation (Wiragunawan, 2022).

Through this research, it is hoped that a comprehensive picture of the utilization of LMS in improving the effectiveness of the education system in the digital era can be obtained. This research will also identify the obstacles that are still faced and offer alternative solutions for the sustainable optimization of LMS use in various types of educational institutions.

2. METHODS

This research is descriptive qualitative in nature, as it aims to describe in depth how LMS is used in the context of administrative planning and learning implementation in educational institutions, as well as to explore its effectiveness from the perspective of educational actors (teachers, principals, administrators, and students). This study employs a descriptive qualitative approach using the case study method (Anggito, A., & Setiawan, J., 2018). This approach was chosen because the study aims to describe and understand in depth the process of LMS utilization in administrative planning and learning implementation at a specific educational institution. A case study was chosen to allow the researcher to gather contextual and comprehensive data from the Lampung Timur Learning Activity Center (SKB) educational institution.

Data collection techniques were conducted through in-depth interviews: These were conducted with teachers, administrators, school principals, and students to understand their perceptions, experiences, and utilization of the LMS. Participatory observation: The researcher directly observed how the LMS was used in administrative and learning activities, such as lesson plan development, assignment distribution, assessment, and documentation. Documentation study: Analyzing documents such as digital lesson plans, LMS activity logs, assignment results, and assessment reports. The primary instrument in this study was the researcher themselves, who served as both data collector and analyst. To ensure data validity, interview guides, observation sheets, and documentation formats were used as supplementary instruments (Huberman, A., 2019).

Data analysis was conducted interactively and continuously, following the stages outlined by Miles and Huberman (2014), namely: Data reduction: Sorting and selecting important data from interviews, observations, and documentation. Data presentation: Organizing data into narratives, matrices, or tables for easy understanding. Drawing conclusions: Interpreting the meaning of the data and addressing the research focus. The data analysis procedure in this study was conducted interactively and continuously following the Miles & Huberman approach, which consists of three main stages: data reduction, data presentation, and drawing conclusions (Sugiyono, 2019). Data reduction was carried out from the early stages of data collection by selecting, focusing, simplifying, and abstracting relevant information from

interviews, observations, and documentation. Presentation was done in narrative and visual formats so that patterns of relationships between analytical categories could be identified systematically.

Qualitative data was obtained through in-depth interviews, observations, and documentation. The analysis technique used was thematic analysis, with the following steps: Data reduction: Filtering relevant information from interview results and field notes. Data presentation: Organizing data into narratives, tables, or matrices to facilitate understanding of patterns and trends. Drawing conclusions: Interpreting the meaning of the findings to see the contribution of LMS to the effectiveness of administration and learning implementation (Miles, M. B., Huberman, A. M., 2014).

3.   FINDINGS AND DISCUSSION

3.1. Utilization of LMS in Educational Administration Planning

The results of the study indicate that LMS contributes significantly to facilitating educational administration planning. Teachers and educational staff at SKB Lampung Timur can develop lesson plans (RPP), upload syllabi, set learning schedules, and archive documents digitally. This process not only saves time and energy but also improves data accuracy and consistency. For example, in LMS such as Google Classroom or Moodle, teachers can easily set weekly schedules, design class agendas, and set learning targets (Al-Fraihat, D., Joy, M., 2020). School principals or administrators can monitor all these activities in real-time, making supervision and coordination more structured. This shows that LMS has a strategic role as a support system in the planning process, not just as a teaching medium.

Based on interviews and observations conducted with several teachers, school principals, and educational staff at SKB Lampung Timur, it was found that the use of Learning Management Systems (LMS) in educational administration planning has had a positive impact on work efficiency and quality. The LMS is utilized in various aspects of administrative planning, such as the development of Lesson Implementation Plans (RPP), class schedule management, storage of educational documents, and reporting on learning activities. One informant, a subject teacher at a secondary school, stated: "Since using the LMS, developing RPPs and scheduling lessons has become easier because all templates are already available and can be customized directly on the platform. I can also view my teaching schedule directly on the dashboard" (Roahanh, M.Pd, 2025). Field findings indicate that teachers are more assisted in compiling digital learning administration documents. LMS such as Moodle, Google Classroom, or Microsoft Teams provide document upload features, academic calendars, and automatic archiving systems, enabling all important documents to be stored neatly and accessed at any time. From the school principal's perspective, the use of LMS facilitates supervision and validation of teacher administration. School principals can monitor the completeness of teaching materials uploaded by teachers and view the progress of lesson plan implementation. This provides transparency and accountability in lesson planning at the institutional level.

Based on the data obtained, it can be concluded that the use of LMS significantly improves the effectiveness of lesson planning and implementation. LMS functions not only as a medium for delivering material but also as an educational administration tool that can support the efficiency of classroom and document management. This is in line with the opinion (Almobarraz, A., 2018) that LMS can improve the efficiency of teachers' time and administration and support collaboration between teachers, students, and school management. Research (Al-Fraihat, D., Joy, M., 2020) also shows that LMS has a positive impact on the quality of learning and educational management, especially in the context of online and hybrid learning.

Observations also show that the use of LMS can minimize paper usage, speed up document approval processes, and facilitate online document revisions. Some educational institutions have created standard operating procedures (SOPs) for LMS-based administrative planning so that all teachers follow the same format. However, several obstacles have been identified in the implementation of LMS for administrative planning. Some senior teachers have difficulty operating

digital features, particularly in terms of scheduling or creating teaching materials directly within the system. Additionally, unstable internet connections pose a challenge in some schools, especially in remote areas. Overall, this discussion shows that LMS serves as an effective tool in educational administrative planning. The system improves teachers' work efficiency and facilitates centralized document management, although further improvements in digital competencies and infrastructure support are still needed.

3.2. Effectiveness of LMS Utilization in Learning Implementation

The implementation of learning is an important stage that determines the achievement of educational goals. Based on research results, the use of a Learning Management System (LMS) has been proven to support the learning implementation process, making it more structured, flexible, and well-documented (Fakhruddin, A. M., 2022). Most teachers who participated in the study stated that LMS is very helpful in managing digital classrooms, such as sharing teaching materials, assigning tasks and quizzes, managing attendance, and providing feedback to students. One teacher shared: "With LMS, I can provide materials in the form of videos and documents, then immediately follow up with a quiz. The results are automatically recorded, and I can see who has completed them." The most frequently used features of LMS include: Uploading teaching materials in various formats (PDF, PPT, video, interactive links), Scheduling and reminders for assignments or learning activities. Online discussion forums as a replacement or supplement to face-to-face discussions. Automated quizzes and assessments that generate real-time scores. Tracking student attendance and engagement.

Observations also show that students are more independent and responsible in the learning process because the LMS allows them to access materials flexibly and complete assignments according to the specified time. This also reinforces the principle of student-centered learning, a hallmark of 21st-century education (Rizal, M., 2025). However, challenges remain. Some students face access difficulties due to limited devices or internet quotas. Teachers also noted that not all students are active in the LMS forum, especially if there is no direct supervision from parents or teachers. The school principal stated that the use of the LMS helps the school monitor the learning activities of teachers and students. For example, material uploads, student participation, and quiz results can be evaluated as part of monitoring and quality assurance in learning. Overall, the use of LMS in implementing learning enhances the effectiveness of the learning process, in terms of flexibility, speed, and documentation. However, to achieve optimal results, sustained support is needed in the form of teacher training, parental involvement, and the provision of supporting facilities.

3.3. Analysis of Findings and Interpretation

Based on the results of research through observation, interviews, and documentation in educational institutions that use LMS, it was found that this digital platform has a significant role in improving the effectiveness of two main aspects of education, namely administrative planning and learning implementation.

Analysis of Findings on the Administrative Planning Aspect: The findings indicate that LMS facilitates teachers and educational staff in developing and managing learning administration tools. LMS functions as a control center for storing lesson plans, syllabi, learning schedules, and documentation of educational activities. In this regard, LMS helps in: Standardizing administrative formats (lesson plan templates, daily journals, etc.), Simplifying the process of revising and updating documents, Providing quick and centralized access for school principals for monitoring (Al-Fraihat, D., Joy, M., 2020). Interpretation: The existence of LMS accelerates administrative work processes and reduces teachers' manual workload. This is in line with the principle of efficiency in modern educational management, where technology is used to improve the accuracy, transparency, and accessibility of administrative data.

Analysis of Findings on the Implementation of Learning, The use of LMS in the implementation of learning allows teachers to carry out the teaching process in a more interactive, flexible, and documented manner. Teachers can provide teaching materials, assignments, discussion forums, and learning evaluations digitally, with the results immediately documented in the system. Some of the main benefits found are: learning interaction is not limited by time and space, student evaluations can be done automatically, feedback to students is faster and more systematic, and students are more independent in accessing materials.

Interpretation: LMS supports the creation of 21st-century learning that is technology-based and emphasizes student independence in learning. Additionally, this system strengthens the role of teachers as facilitators and administrators of learning, not merely as content deliverers (Agripina Shafa, 2024).

Synchronization of Both Aspects: Efficiency of the Digital Education System. Findings from both aspects indicate a connection between administrative planning and the implementation of learning through LMS. Well systematized planning in LMS directly impacts the smoothness of the learning process, as accurate documents and schedules facilitate real-time implementation. Interpretation: LMS is not merely a technical tool but also a digital framework that integrates managerial and pedagogical functions within educational institutions. Optimal utilization of LMS can make educational institutions more adaptive, responsive, and sustainable in facing the challenges of the digital era.

The utilization of Learning Management Systems (LMS) in educational institutions not only impacts the effectiveness of learning implementation but is also directly related and integrated with educational administrative planning. These two aspects administrative planning and learning implementation cannot be separated but rather support and complement each other in the digital-based education process (Iriani et al., 2025). Challenges and Critical Interpretations: Although the results show positive impacts, technical and human resource challenges remain significant concerns. Among them: limitations in technological infrastructure (internet, devices), low digital literacy among some teachers, and insufficient training and technical support. Interpretation: Without support from managerial and educational policy aspects, LMS implementation will not run optimally. Therefore, strategies to enhance human resource capacity and strengthen infrastructure are needed so that LMS truly becomes a solution, not a new burden.

3.4 Barriers and solutions to the use of LMS in administrative planning and learning implementation

The use of Learning Management Systems (LMS) in education offers numerous advantages, but its implementation still faces a number of obstacles. To ensure optimal effectiveness, concrete strategies and solutions are needed to overcome each challenge that arises (Afnianda, H. (2025)., n.d.). The following are details of the obstacles and possible solutions:

Table 1. Barriers and solutions to the use of LMS

No	Obstacles	Solutions
1	Limited Infrastructure and Access to Technology	The government and educational institutions need to provide adequate ICT facilities, such as computer labs, free internet access in schools, and device support for teachers and students. Assistance programs such as digital school grants can also be encouraged.
2	Lack of Digital Competence Among Teachers and Educational Staff	Regular training and workshops should be held on LMS management, digital literacy, and best practices in online learning. Mentoring and peer-to-peer assistance programs can also encourage continuous improvement.

No	Obstacles	Solutions
3	Increased Administrative Burden	Integration between LMS and other academic information systems needs to be optimized to reduce duplication of work. The development of an automated dashboard for administrative reports is also very helpful.
4	Low Student Discipline and Participation	Teachers need to use gamification strategies, digital reminders, and blended learning approaches to motivate students. Parents should also be involved in monitoring their children's learning activities through monitoring accounts.
5	Lack of Integration of Education Management Systems	Educational institutions can adopt a centralized system that integrates LMS with financial, attendance, personnel, and academic systems, such as ERP (Enterprise Resource Planning) for schools.
6	Data Security and Privacy	It is important to implement data security policies, such as the use of official accounts, data encryption, backup systems, and training on digital security for teachers and students. Collaborating with professional LMS providers is also an appropriate step.

3.5 Strategic Recommendations

In order to truly optimize the effectiveness of LMS, educational institutions need to: Develop clear and measurable educational technology policies, Make LMS an integral part of school/madrasah strategic planning, and Conduct regular evaluations of LMS implementation for continuous improvement.

4. CONCLUSION

This study shows that the use of a Learning Management System (LMS) at SKB Lampung Timur significantly improves the effectiveness of educational administration planning and learning implementation. The LMS facilitates the systematic and centralized preparation of learning documents, enables real-time supervision, and supports flexible, interactive, and documented learning. The integration of managerial and pedagogical functions through the LMS aligns with the principles of good educational governance and the demands of 21st-century digital transformation. However, the success of implementation is still hindered by infrastructure limitations, low digital literacy, and insufficient technical training. Therefore, policy support, capacity building for human resources, and strengthening of infrastructure are needed to optimize the LMS as a strategic solution for improving educational quality.

REFERENCES

Afnianda, H. (2025). (t.t.). Analisis Hambatan Dalam Pengembangan Media Pembelajaran Learning Management Sistem (Lms) Dalam Pembelajaran Berbasis Internet Di Perguruan Al-Washliyah Pantai Labu. *Scientific Journal of Information Technology Education, 1(1),* 12-21.

Agripina Shafa, A. (2024). Implementasi Learning Management System dalam Meningkatkan Efektivitas Pembelajaran. *Jurnal Teknologi Pendidikan, 1*(4), 8. https://doi.org/10.47134/jtp.v1i4.658

Al-Fraihat, D., Joy, M., Masa'deh, R. ,. &. Sinclair, J. (2020). Evaluating E-learning systems success: An empirical study. *Computers in Human Behavior,* 102, 67-86.

Almobarraz, A. (2018). Factors affecting students' use of Learning Management Systems (LMS): A case study of King Saud University. *Education and Information Technologies, 23(6),* 2225-2241.

Anggito, A., & Setiawan, J. (2018). Metodologi penelitian kualitatif. *CV Jejak (Jejak Publisher).*

Azwar, I., nayah, S. ,. Nurlela, L. ,. Kania, N. ,. Kusumaningrum, B. ,. Prasetyaningrum, D. I. , &. Permana, R. (2024). *Pendidikan di era digital.*

Fakhruddin, A. M., P., L. O. ,. Sudirman, P. R. A. T. ,. Annisa, R. N. ,. &. As, R. K. B. (2022). Efektivitas LMS (Learning Management System) untuk mengelola pembelajaran jarak jauh pada satuan pendidikan. *Jurnal Pendidikan Tambusai, 6(2),* 10026-10033.

Haidar, M., Murthosia, D., Sari, L. F., & Shaumantri, T. (2025). Peran Teknologi Komunikasi Dalam Meningkatkan Efektivitas Media Pembelajaran Pada Pendidikan Jarak Jauh (Studi Kasus: Lms Damel Pada Uin Siber Syekh Nurjati Cirebon). *Jurnal Riset Multidisiplin Edukasi*, 1079–1088.

Huberman, A. (2019). *Qualitative data analysis a methods sourcebook.*

Iriani, U., Hestivik, C., Fadila, Y., Sindo, P., & Afriza, A. (2025). Efektivitas Penggunaan LMS (Learning Management System) dalam Diklat Daring untuk Meningkatkan Pedagogik Guru. *ALACRITY : Journal of Education*, 908–921. https://doi.org/10.52121/alacrity.v5i2.784

Miles, M. B., Huberman, A. M., S., J. (2014). Qualitative Data Analysis: A Methods Sourcebook (3rd ed.). *Sage Publications.*

Rizal, M., N., R. ,. &. Kamal, R. (2025). Pendekatan Kognitif Optimalisasi Pembelajaran Berbasis Student Center Untuk Meningkatkan Dan Keaktifan Peserta Didik. Teaching:,. *Jurnal Inovasi Keguruan dan Ilmu Pendidikan, 5(2)*, 111-118.

Roahanh, M.Pd. (2025). *Hasil wawancara Kepala.*

Sugiyono. (2019). *Metode Penelitian Kualitatif, Kuantitatif, dan R&D*. Alfabeta.

Utubira, E. E. M., & Pangeti, J. (2025). Reformulasi Manajemen Pendidikan Era Digitalisasi: Kajian Implementasi Learning Management System Di Lingkungan Pendidikan. *Pedagogika: Jurnal Pedagogik Dan Dinamika Pendidikan*, *13*(1), 314–326. https://doi.org/10.30598/pedagogikavol13issue1page314-326

Wiragunawan, I. G. N. (2022). Pemanfaatan Learning Management System (Lms) Dalam Pengelolaan Pembelajaran Daring Pada Satuan Pendidikan. *Edutech : Jurnal Inovasi Pendidikan Berbantuan Teknologi*, *2*(1), 83–90. https://doi.org/10.51878/edutech.v2i1.981