

## The Effect of Implementing A Learning Management System on Student Motivation and Satisfaction Levels

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**Abstract:** This study aims to determine the influence of the Learning Management System (LMS) on students' motivation and satisfaction levels. The research method used is quantitative with an associative approach. The study involves 60 students as subjects. The research technique employs simple random sampling with data collection conducted through questionnaires. Data analysis is performed using SPSS version 16. The results of the study indicate a positive and significant influence of LMS on students' learning motivation. Based on the significance test, the calculated t-value (4.382) > t-table (1.67155) for Y1 (learning motivation), which means Ho1 is rejected and Ha1 is accepted. The study also shows a positive and significant influence of LMS on students' satisfaction levels, with a calculated t-value (5.406) > t-table (1.67155), which means Ho1 is rejected and Ha1 is accepted. The conclusion of this study is that learning using LMS has a significant impact on students' motivation and satisfaction levels.

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## Introduction

Online learning is one of the technological concepts in the 4.0 era, where educators and students are required to maximize their mastery of technology. Currently, almost all regions in Indonesia are implementing online learning methods aimed at enhancing learning activities and facilitating the learning process (Dewi & Sadjarto, 2021; Ismayanti & Wahyuddin, 2021; Maddukelleng et al., 2023; Murcahyanto, 2023a; Yudhira, 2021).

Online learning with a Learning Management System (LMS) is one of the types of education implemented across most regions of Indonesia (Agustina & Murcahyanto, 2023; Einggi Gusti Pratama & Andhyka Kusuma, 2021; Firman et al., 2021). Currently, almost all levels of education are utilizing online-based learning, including through Learning Management Systems (LMS) (Bradley, 2020; Murcahyanto, 2023c; Rahman et al., 2019). LMS (Learning Management System) is a software application used for administration, documentation, tracking, reporting, and delivery of educational materials and training programs in an online learning environment connected via the internet (Anggriawan, 2019; Rahman et al., 2019). LMS is used to create web-based online learning materials and manage learning activities and their outcomes. With the LMS system, it is expected to facilitate students

in accessing the learning process anytime and anywhere, which will subsequently boost students' enthusiasm and motivation for learning during the ongoing pandemic, despite the learning process not taking place at school but rather at home (Firman et al., 2021; Murcahyanto, 2023b; Yauma et al., 2020).

Based on the initial survey conducted by the researcher among students at a private campus in East Lombok implementing LMS, it was found that approximately 86% of students used e-learning for their studies, while the remaining 14% used other forms of learning. However, a portion of the students still did not know which e-learning system the campus used. From the initial data obtained, about 57% of students knew the system used, while 43% were unaware of it. This poses a problem for both students and the campus, especially if students from other campuses inquire about it and our students are not familiar with the details. The initial survey also revealed that some students have reservations about e-learning. This finding presents a challenge for students who are less enthusiastic about e-learning.

With the existence of this e-learning, it is hoped to facilitate students in the learning process during the ongoing pandemic, as well as the same expectation from other schools and campuses. This is one of the significant challenges faced by students. This issue can affect students' motivation in learning, thus resulting in decreased interest in studying, which will eventually impact their education.

Similar relevant studies have been conducted, such as research by Swastika & Lukita, (2020), which examined learning motivation in online learning based on the Schoology Learning Management System (LMS) in the Probability course. The Indonesian Journal of Instructional Technology reported that the research found 88.89% of students had high learning motivation, 1.85% had moderate learning motivation, and 9.26% had low learning motivation.

Research by Sur et al., (2020), study analyzed student learning motivation with online learning systems. Their findings indicated that the implementation of online learning systems positively influences students' learning motivation. Research by Saputra & Susiana, (2021), research focused on students' perceptions of the Learning Management System (LMS): the impact of location, devices, and analysis of student satisfaction. The study revealed that after conducting significant tests, there was no significant influence of gender, location, or devices used on the level of satisfaction and absorption of course materials.

Research by Prasetyo et al., (2021), on trust and satisfaction in using LMS among students during online learning. The analysis results concluded that trust in LMS usage influences satisfaction with LMS learning. Trust in LMS usage affecting satisfaction with LMS learning is based on aspects of content quality, learning success, ease of use, and behavior. Based on this description, the researchers were motivated to conduct this study with the aim of determining the impact of e-learning using a learning management system (LMS) on student learning motivation, and the impact of e-learning using a learning management system (LMS) on student satisfaction levels.

Based on this reasoning, the hypotheses proposed are as follows: Ha1: There is a positive and significant influence of e-learning using the LMS system on students' learning motivation. Ha2: There is a positive and significant influence of e-learning using the LMS system on students' satisfaction level. Ho1: There is no positive and significant influence of e-learning

using the LMS system on students' satisfaction level. Ho2: There is no positive and significant influence of e-learning using the LMS system on students' satisfaction level.

### Research Method

This research was conducted in the second semester of 2023 at a private university in East Lombok. The method used in this research is quantitative with an associative approach. The population size used in this study consisted of 150 students who were engaged in e-learning. For sampling, random sampling technique was employed due to the total population being more than 100 individuals. The sample size was determined using the Slovin's formula, resulting in a sample of 60 individuals.

In this study, the independent variable utilized was e-learning utilizing the Learning Management System (LMS). This variable was measured using indicators such as accessibility, availability of supportive facilities, quality of learning materials, presentation adequacy, simplicity of interface, and adherence to standardized session durations.

Meanwhile, the dependent variables in this study were learning motivation and satisfaction levels. Learning motivation was measured through indicators such as perseverance in learning, desire and drive for success, encouragement and educational needs, recognition in learning, engaging learning activities, as well as the inherent curiosity, hopes, and aspirations for the future. On the other hand, satisfaction levels were gauged using indicators including overall user satisfaction, enjoyable experiences, overall success, likelihood to recommend to others, timely and accurate information acquisition, as well as enhanced learning performance and efficiency.

In this research, a closed-ended checklist questionnaire was utilized to facilitate the measurement of data obtained from respondents. To simplify data measurement, a Likert scale was employed. The data collected in this study were original and will be utilized for analysis and conclusions. These data pertain to e-learning-related documents, specifically those involving students who have utilized e-learning platforms.

The instrument used to gather data in this study is a questionnaire. The questionnaire is structured in the form of questions that cover relevant indicators for this research. To ensure the validity of the instrument, a validity test was conducted by correlating the score of each indicator with the total score of the variable indicators. The correlation results were then compared to the critical value at a significance level of 0.05. If the correlation value ( $r$  calculated) is greater than the critical value ( $r$  table) in a one-sided test at a significance level of 0.05, then the instrument is considered valid. Conversely, if the correlation value ( $r$  calculated) is smaller than the critical value ( $r$  table), then the instrument is considered not valid.

In addition to the validity test, a reliability test was also conducted using the Cronbach's Alpha technique. An instrument is considered reliable if it has a reliability coefficient or alpha of 0.6 or higher. In this study, the reliability of the instrument was tested using the Alpha Cronbach formula with the assistance of SPSS version 16.

Data analysis in this study involved tests for normality, linearity, multiple linear regression analysis, hypothesis testing, and determination analysis ( $R^2$ ). Normality tests were conducted using SPSS version 16, while linearity tests used the SPSS application module "Test for Linearity." The analysis was performed using a significance level of 95% ( $\alpha = 0.05$ ).

Multiple linear regression analysis was used to determine the influence of online learning on students' motivation and learning styles. In hypothesis testing, hypotheses were tested both partially and simultaneously. Partial testing used decision-making rules, where if the calculated t-value is greater than the tabulated t-value at a 95% confidence level ( $\alpha = 0.05$ ), it can be said that the independent variable significantly influences the dependent variable. Conversely, if the calculated t-value is smaller than the tabulated t-value at a 95% confidence level ( $\alpha = 0.05$ ), it can be said that the independent variable does not significantly influence the dependent variable.

## Result and Discussion

### Result

From the simple linear regression analysis using SPSS for Windows, the output obtained the following results of the simple linear regression equation: Learning Management System (LMS) Towards Learning Motivation.

**Table 1. Results of simple linear regression analysis X-Y<sub>1</sub>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.432	3.311		.432	.667
LMS	.986	.177	.590	5.568	.000

a. Dependent Variable: Motivation

Based on Table 1, the coefficients from the regression equation used in this study indicate the use of a simple regression equation. This change represents an increase when bbb is positive and a decrease when bbb is negative. From the simple regression equation, it is known that the constant value of 1.432 indicates that if there are no Learning Management System (LMS) variables, the constant value of learning motivation is 1.432. Meanwhile, the regression coefficient value of 0.986 indicates that for every 1% increase in Learning Management System (LMS) learning, student learning motivation will increase by 0.986. Because the regression coefficient value is positive (+), it can be stated that Learning Management System (LMS) learning positively influences student learning motivation.

**Table 2. The result of simple linear regression analysis X-Y<sub>2</sub>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.788	3.748		.744	.460
LMS	1.083	.200	.570	5.406	.000

a. Dependent Variable: Satisfaction Levels

In Table 2, the coefficients of the regression equation used in this study are shown, employing a simple regression equation. These changes represent an increase when b is

positive and a decrease when b is negative. From the simple regression equation, it is known that the constant value of 2.788 indicates that in the absence of Learning Management System (LMS) learning, the constant satisfaction level of users is 2.788. Meanwhile, the regression coefficient of 1.083 indicates that for every 1% increase in LMS learning, the satisfaction level of students in using the LMS will increase by 1.083. Since the regression coefficient value is positive (+), it can be stated that Learning Management System (LMS) learning positively influences student learning motivation.

**Table 3. Coefficient of Determination Test X-Y<sub>1</sub>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.590 <sup>a</sup>	.348	.337	2.901

Based on Table 3, it is known that the correlation coefficient (R) is 0.590 and the coefficient of determination (R<sup>2</sup>) is 0.348, indicating that the influence of the independent variable (LMS) on the dependent variable (learning motivation) is 34.8%. This shows that the dependent variable Learning Management System (LMS) has an influence on the independent variable learning motivation, while the remaining percentage is influenced by other variables not examined in this study.

**Table 4. Coefficient of Determination Test X-Y<sub>2</sub>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.579 <sup>a</sup>	.335	.324	3.284

Based on Table 4, it is known that the correlation coefficient (R) is 0.579a, and the coefficient of determination (R<sup>2</sup>) is obtained as 0.335, indicating that the influence of the independent variable Learning Management System (LMS) on the dependent variable (satisfaction level) is 33.5%. This shows that the dependent variable Learning Management System (LMS) has an influence on the independent variable satisfaction level, while the remainder is influenced by other variables not examined in this study.

**Table 5. The t-test of Learning Management System (LMS) on Learning Motivation**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	1.432	3.311		.432	.667
LMS	.986	.177	.590	5.568	.000

In Table 5, it is noted that the calculated t-value is 5.568, with degrees of freedom (df) = N-2 = 60-2 = 58. The critical t-value (t-table) is found to be 1.672. Therefore, the decision can be made that the calculated t-value (4.382) > the critical t-value (1.672). Since the

calculated t-value is greater than the critical t-value,  $H_0$  is rejected and  $H_a$  is accepted. This means that there is a significant influence of learning management system (LMS) on student learning motivation. Additionally, from the t-test results, a significance value of  $0.000 < 0.005$  is found, indicating a strong association between the use of learning management system (LMS) and student learning motivation.

**Table 6. The t-test of Learning Management System (LMS) on Satisfaction Levels**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	2.788	3.748		.744	.460
LMS	1.083	.200	.579	5.406	.000

In Table 6, the simple linear regression equation indicates that the calculated t-value is 5.406, with degrees of freedom ( $df = N - 2 = 60 - 2 = 58$ ). The tabulated t-value is found to be 1.672. Therefore, it can be concluded that the calculated t-value ( $5.406 > 1.672$ ). Since the calculated t-value is greater than the tabulated t-value,  $H_0$  is rejected and  $H_a$  is accepted. This means that there is a significant effect of the Learning Management System (LMS) on student satisfaction. From the t-test results, the significance value of  $0.000 < 0.005$  indicates a strong relationship between the LMS and student satisfaction level.

## Discussion

### *The Influence of Learning Management System (LMS) on Student Learning Motivation*

Based on data obtained from a questionnaire regarding the variable of learning motivation (Y1), there are six indicators used: curiosity, perseverance in learning, desire for success, encouragement and learning needs, engaging learning activities, and recognition in learning.

The curiosity indicator is categorized as a significant factor in learning motivation, with 55% of respondents answering "sometimes" to this indicator. This indicates that students' curiosity is sufficiently stimulated through LMS, despite the pandemic situation necessitating online learning. The perseverance in learning indicator is also considered significant, with 53.3% of respondents answering "sometimes", indicating that students' perseverance remains intact despite learning being conducted online. However, the desire for success indicator was answered with "agree" by 46.7% of respondents, indicating that this motivation is still lacking. Furthermore, encouragement and learning needs are also perceived as lacking, with 45% of respondents answering "sometimes". Engaging learning activities and recognition in learning received percentages of 41.7% and 51.7% respectively for "agree" and "sometimes", indicating that both indicators still need improvement in the use of LMS.

The Learning Management System (LMS) is crucial in facilitating student learning processes anytime and anywhere. This research finding aligns with previous studies by Yusi Aysa (2019), which also identified a positive and significant relationship between LMS and student learning motivation. Therefore, it can be concluded that LMS has a positive and significant influence on student learning motivation, as evidenced by each motivation indicator such as perseverance, desire to succeed, learning encouragement, recognition, engaging

activities, and curiosity. The hypothesis testing results, along with support from previous theories and research, confirm the importance of LMS in facilitating student learning.

### ***The Influence of Learning Management System (LMS) on Student Satisfaction***

Based on data obtained from questionnaires filled out by respondents, the learning motivation variable (Y2) comprises seven indicators: overall user satisfaction, enjoyable experience, overall success, recommendation to others, timely information delivery, obtaining more accurate and relevant information, and improvement in learning performance and efficiency. Overall user satisfaction is considered significant in the satisfaction variable, as evidenced by 46.7% of respondents answering "sometimes" for this indicator. This indicates that student satisfaction levels with LMS during the pandemic are still inadequate. The enjoyable experience indicator also shows similar results, with 40% of respondents answering "sometimes", suggesting that the enjoyable experience in using LMS is still not adequately felt by students.

Overall success as an indicator also shows insufficient satisfaction, with 43.3% of respondents answering "sometimes". This indicates that the success expected by students from LMS has not been fully achieved. Meanwhile, the recommendation to others indicator is more positive, with 51.7% of respondents answering "agree", indicating that students sufficiently recommend LMS to others. The timely information delivery indicator shows that 45% of respondents answered "sometimes", indicating that the information provided by LMS is often not timely. The more accurate and relevant information indicator shows that 60% of respondents answered "sometimes", indicating that students still feel the accuracy and relevance of information from LMS.

Lastly, the indicator of improvement in learning performance and efficiency received a "sometimes" response from 53.3% of respondents, indicating that the improvement in performance and efficiency through LMS is sufficiently felt by students. LMS is crucial in facilitating student learning processes anytime and anywhere. This research aligns with previous studies by Syarif Sumantri (2021), which also found a positive and significant relationship between LMS usage and student satisfaction. From these findings, it can be concluded that LMS has a positive and significant influence on student satisfaction. Indicators such as overall user satisfaction, enjoyable experience, success, recommendation, timely information delivery, accurate and relevant information, and improvement in learning performance and efficiency serve as crucial benchmarks demonstrating the impact of LMS on student satisfaction.

### **Conclusion**

Based on the research findings, the use of Learning Management Systems (LMS) demonstrates a significant influence on students' learning motivation. This influence is evident across various indicators of learning motivation such as curiosity, perseverance, desire to succeed, learning drive, engaging activities, and recognition in learning. Survey results indicate that these indicators are sufficiently perceived by students, albeit not fully optimal. For instance, indicators like curiosity and perseverance show considerable achievement, whereas the desire to succeed and engaging learning activities are perceived as less satisfactory. These findings suggest that LMS is capable of sustaining some aspects of learning motivation despite limitations imposed by the pandemic situation.

Moreover, the study also reveals a positive and significant influence of LMS on student satisfaction levels. Indicators such as overall user satisfaction, enjoyable experiences, and overall success show varied but generally suboptimal achievements. Nevertheless, there are indicators that are reasonably accepted, such as recommendations to others, accurate and relevant information, and improvements in learning efficiency and performance. This research aligns with previous studies that have found a positive relationship between LMS usage and student satisfaction. Therefore, it can be concluded that LMS plays a crucial role in enhancing student learning motivation and satisfaction, although there is room for improvement, especially in providing more engaging and motivating learning experiences.

### References

- Agustina, Y., & Murcahyanto, H. (2023). Optimalisasi Penerapan Literasi Digital pada Pendidikan Sepanjang Hayat. *Journal of Elementary School (JOES)*, 6(2). <https://doi.org/10.31539/joes.v6i2.6128>
- Anggriawan, F. S. (2019). Pengembangan Learning Management System (LMS) Sebagai Media Pembelajaran Untuk Sekolah Menengah Sederajat. *Jurnal Tata Rias*, 9(2), 1–10.
- Bradley, V. M. (2020). Learning Management System (LMS) Use with Online Instruction. *International Journal of Technology in Education*, 4(1). <https://doi.org/10.46328/ijte.36>
- Dewi, T. A. P., & Sadjarto, A. (2021). Pelaksanaan Pembelajaran Daring Pada Masa Pandemi Covid-19. *Jurnal Basicedu*, 5(4). <https://doi.org/10.31004/basicedu.v5i4.1094>
- Einggi Gusti Pratama, M., & Andhyka Kusuma, W. (2021). Penggunaan Learning Management System (LMS) Untuk Pembelajaran Dimasa Pandemi. *Jurnal Health Sains*, 2(8). <https://doi.org/10.46799/jsa.v2i8.288>
- Firman, F., Muhsin, M. A., & Goestina, G. (2021). Online Based Learning Management System (LMS) on Student Academic Performance. *AL-ISHLAH: Jurnal Pendidikan*, 13(1). <https://doi.org/10.35445/alishlah.v13i1.415>
- Ismayanti, M., & Wahyuddin. (2021). Preferensi dan Pengalaman Mahasiswa Dalam Menggunakan Media Pembelajaran Online Di Masa Pandemi. *Jurnal Pendidikan*, 22(2). <https://doi.org/10.33830/jp.v22i2.1823.2021>
- Maddukelleng, M., Jihan, J., Gunawan, H., Murcahyanto, H., & Pasaribu, W. (2023). Hybrid Learning Innovation: Challenges for Developing Teachers Skills in Indonesia. *Al Qalam: Jurnal Ilmiah Keagamaan Dan Kemasyarakatan*, 17(2), 100–112.
- Murcahyanto, H. (2023a). Penerapan Media Chat GPT pada Pembelajaran Manajemen Pendidikan terhadap Kemandirian Mahasiswa. *Edumatic: Jurnal Pendidikan Informatika*, 7(1), 115–122. <https://doi.org/https://doi.org/10.29408/edumatic.v7i1.14073>
- Murcahyanto, H. (2023b). Pengaruh Learning Management Sistem terhadap Motivasi dan Tingkat Kepuasan Mahasiswa pada Masa Pandemi Covid-19. *Journal of Education and Instruction (JOEAI)*, 6(1), 112–127.
- Murcahyanto, H. (2023c). Penggunaan Media Whatsapp pada Pembelajaran serta Pengaruhnya terhadap Motivasi dan Gaya Belajar Siswa Selama Pandemi Covid-19. *Journal of Elementary School (JOES)*, 6(1), 13–30.

- Prasetyo, T., Marini, A., & Sumantri, M. S. (2021). Kepercayaan Dan Kepuasan Penggunaan LMS Mahasiswa Selama Pembelajaran Daring. *Jurnal Penjaminan Mutu*, 7(2).
- Rahman, M., Daud, M. Y., & Ensima, N. K. (2019). Learning Management System (LMS) in Teaching and Learning. *International Journal of Academic Research in Business and Social Sciences*, 9(11). <https://doi.org/10.6007/ijarbss/v9-i11/6717>
- Saputra, A., & Susiana, S. (2021). Persepsi Mahasiswa terhadap Learning Management System (LMS): Pengaruh Lokasi, Perangkat dan Analisis Kepuasan Mahasiswa. *Jurnal Studi Komunikasi Dan Media*, 25(1), 81–92.
- Sur, W. A. A., Hasanah, M., & Mustofa, M. R. (2020). Analisis motivasi belajar mahasiswa dengan sistem pembelajaran daring selama masa pandemi covid-19. *Jurnal Equation: Teori Dan Penelitian Pendidikan Matematika*, 3(2), 157–171.
- Swastika, A., & Lukita, G. (2020). Motivasi belajar dalam pembelajaran daring berbasis learning management system (lms) schoology pada mata kuliah probabilitas. *Indonesian Journal of Instructional Technology*, 1(2).
- Yauma, A., Fitri, I., & Ningsih, S. (2020). Learning Management System (LMS) pada E-Learning Menggunakan Metode Agile dan Waterfall berbasis Website. *Jurnal JTIK (Jurnal Teknologi Informasi Dan Komunikasi)*, 5(3). <https://doi.org/10.35870/jtik.v5i3.190>
- Yudhira, A. (2021). Efektivitas Pembelajaran Daring Pada Masa Pandemi Covid-19. *VALUE*, 2(1). <https://doi.org/10.36490/value.v2i1.177>