ANALYSIS OF ACCEPTANCE OF E-LEARNING USERS OF UNIVERSITAS BHINNEKA PGRI USING THE UTAUT METHOD

Renzy Praha Nandiva[1], Yayak Kartika Sari[2], Joko Iskandar[3]
Informatics, Faculty of Science and Technology, Bhinneka University PGRI
E-mail: nandivarenzy098@gmail.com[1], yayakkartikasari93132042@gmail.com[2] ,
arsip.indoscript@gmail.com[3]

Abstract *The development of educational technology encourages the application of digital learning systems to support learning activities to take place more optimally and save time. Universitas Bhinneka PGRI has implemented the Learning Management System (LMS) as a means of supporting the digital learning system. A study of the level of user acceptance needs to be carried out to identify various influential factors so that they can be used for development according to developments based on the UTAUT method. This study aims to analyze the factors that affect LMS acceptance in users at Bhinneka PGRI Tulungagung University using the UTAUT method. This study uses a quantitative approach with a survey research type involving 95 users as a sample selected by purposive sampling technique. Data were collected through questionnaires with a likert scale of 1-5 and analyzed using the SEM-PLS method which included outer model test, inner model, and hypothesis test. This research resulted in LMS acceptance at UBHI which was quite good. This is shown by Performance Expectancy having a positive and significant influence on Behavioral Intention of 0.235. Effort Expectancy was 0.298, and Social Influence was 0.445. In addition, Behavioral Intention had a positive and significant effect on Use Behavior with a value of 0.673. Meanwhile, Facilitating Conditions had a positive but insignificant effect on Use Behavior with a coefficient value of 0.134. This study concludes that the use of LMS is influenced by the perception of benefits, ease of use, and social environmental support, compared to supporting facilities. This research contributes theoretically to the development of the UTAUT model and practically as an evaluation of improving the quality of LMS in universities.*
Keywords: *LMS, SEM-PLS, UTAUT*

INTRODUCTION

Technology has become a part of daily life and provides convenience in various aspects of life (Ansor, 2022). Technological developments in the world of education require to always adapt to improve the quality of learning (Salsabila & Agustian, 2021). Through technological developments, teaching and learning activities can be carried out through internet access without space and time restrictions (Iskandar et al., 2024). The internet has also become an important necessity in modern life, not only as a means of communication but also as a support for productivity and educational activities (Prasetya et al,. 2025). Therefore, it is important to implement a digital-based learning system for educational institutions to support learning activities to take place more optimally and save time.

The world of education implements the Learning Management System (LMS) as a learning medium in following the development of digital technology. The use of LMS in lecture activities is expected to be able to encourage increased student understanding of lecture materials, increase student active participation, and expand the reach of the lecture process (Iskandar et al., 2024). In addition, the use of an easy and flexible LMS can make it easier for educators to apply learning tools, as well as help students achieve learning goals (Wisconsin, 2022). One of the universities that implements LMS as a means of supporting online lecture activities is Bhinneka PGRI Tulungagung University (UBHI). The implementation of LMS at UBHI is an effort to adapt to technological developments and improve the quality of learning in the university environment. However, the implementation is still not running optimally because LMS technology has not yet been fully accepted by all parties involved in the education process (Cahyono, 2024). This is due to the obstacles that students often experience in the process of collecting assignments, namely the appearance of an error page after submitting the assignment, even though after the page is refreshed, the assignment has actually been saved and sent to the system. This experience causes students to be less comfortable in using the LMS, so the aspect of ease of use of the system needs to be considered. Therefore, it is necessary to analyze the factors that affect user acceptance of the UBHI LMS so that the system can be used optimally according to user needs.

The research model regarding the level of user acceptance of technological systems has been used by researchers before. For example, the TAM model (Maita & Majid, 2022) assess the perception of usability and convenience. Model DOI (Wiratomo & Muslim, 2025) focus on the institutional

dissemination of innovation. The TPB model shows that subjective norms and perceptions of behavioral control have a significant effect on user intentions in using the system (Iskandar et al., 2022). Adapun model IS Success Model (Setiyani et al., 2021) assess the quality and results of system implementation. However, these models have limitations because they have not been able to integrate technological, social, and supporting conditions in a single analytical framework.

The limitations of the above methods show that a comprehensive approach is needed to understand user acceptance of digital learning systems. Thus, this study applies the Unified Theory of Acceptance and Use of Technology (UTAUT) integration model because it is able to explain the influence of performance expectations, business expectations, social influences, and conditions that facilitate the intention and behavior of technology use (Sukarya et al., 2020), so it is considered more appropriate to analyze the level of user acceptance of LMS at Bhinneka University PGRI Tulungagung.

UTAUT, which is a method developed by Venkatesh, has 4 main aspects, namely Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions which affect the behavioral intention (Behavioral Intention) and the actual use (Use Behavior) to use technology and utilize it (Priyatma, 2023).

Based on this description, this study aims to analyze the level of user acceptance of LMS at Bhinneka PGRI University, as well as analyze UTAUT factors that affect the use of the system. The results of this research are expected to contribute theoretically to the development of a study of technology acceptance in the field of information systems, as well as practically as an evaluation material in improving the quality, ease of use, and effectiveness of LMS implementation in the university environment.

RESEARCH METHOD

This study applies the UTAUT model with the main constructs, namely Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavioral Intention, and Use Behavior. This model is used to analyze the relationship between independent variables on behavioral intent and their influence on actual use behavior. Performance Expectancy, Effort Expectancy, and Social Influence are assumed to affect Behavioral Intention, while Facilitating Conditions and Behavioral Intention affect Use Behavior. The research model is as follows:

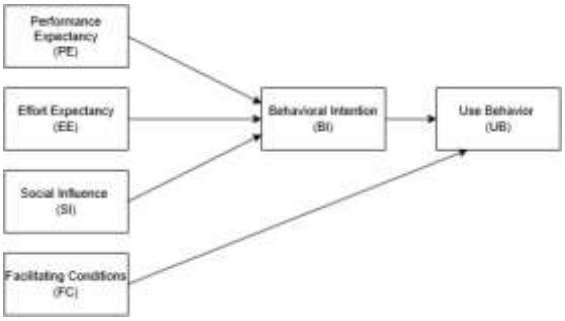

Image 1. Research Model

Based on the research model, hypotheses can be developed to test the influence between the following variables:

Table 1. Research Hypothesis

Hipotesis	Remarks
H1	Performance Expectancy (PE) has a positive and significant effect on Behavioral Intention (BI)
H2	Effort Expectancy (EE) has a positive and significant effect on Behavioral Intention (BI)
H3	Social Influence (SI) has a positive and significant effect on Behavioral Intention (BI)
H4	Facilitating Condition (FC) has a positive and significant effect on Use Behavior (BI)
H5	Behavioral Intention (BI) has a positive and significant effect on Use Behavior (UB)

This study applies a quantitative approach with a survey method presented in the form of numbers and analyzed using statistical techniques. Virgin collection was carried out by distributing a questionnaire to a sample of respondents as the main instrument compiled based on variable indicators in the UTAUT model and using a likert scale of 1-5. The population in this study is students of Bhinneka University PGRI with research sampling techniques using purposive sampling with non-probability sampling techniques, namely determining samples based on certain criteria. The purposive sampling criteria in this study are active students of Bhinneka PGRI University who have used LMS for at least one semester. This study uses the Slovin formula to determine the number of samples when the population size is known with a 10% error rate.

Slovin *Formula:*

$$n = \frac{N}{1+N(e)^2} \quad \text{..... (1)}$$

Description:

- n = number of samples
- N = total population
- e = error rate (10% or 0.1)

The research stages include problem identification, literature study, preparation of research instruments, data collection through the dissemination of questionnaires, and data analysis. Data analysis is carried out when all data from respondents have been

collected. Data analysis is carried out to test the research hypothesis, test the relationship between variables, and perform calculations to answer the formulation of the problem. This study uses the Structural Equation Modeling – Partial Least Square (SEM-PLS) approach with the SmartPLS 3 application in analyzing data. The selection of SEM-PLS was carried out because it was able to comprehensively analyze the relationship between latent variables. In addition, the assumption of strict data normality is not required by SEM-PLS, and the use of this method is in accordance with the limited number of research samples (Setiabudhi et al., 2024). The stages of analysis carried out based on SEM-PLS include the evaluation of the outer model to test the validity and reliability of the construct, the inner model to determine the strength of the relationship between variables, and the hypothesis test to determine the significance of the influence between variables in the research model.

RESULTS AND DISCUSSION

The data analysis process was obtained using the SEM-PLS method with the help of SMARTPLS 3 software. The SEM-PLS method was chosen because it is able to analyze the relationship between latent variables simultaneously, does not require normal data distribution, and is suitable for use in studies with a relatively limited number of samples. The analysis process is carried out gradually and systematically to ensure that the research model meets the statistical feasibility criteria. The results of the data analysis stages are as follows:

1. Evaluation of measurement models (outer model)

Evaluation of measurement models or commonly referred to as outer models is carried out to assess the indicators used in the research that are able to measure latent constructs validly and reliably. The purpose of this stage is to ensure that the research instruments carried out are appropriate and consistent before analyzing the relationship between variables. Testing of this outer model includes:

a) Convergent Validity Test

The analysis of convergent validity in the SEM-PLS approach is based on the outer loading and AVE values. The construct is declared valid if it has an outer loading value of ≥ 0.7 and an AVE value of ≥ 0.5.

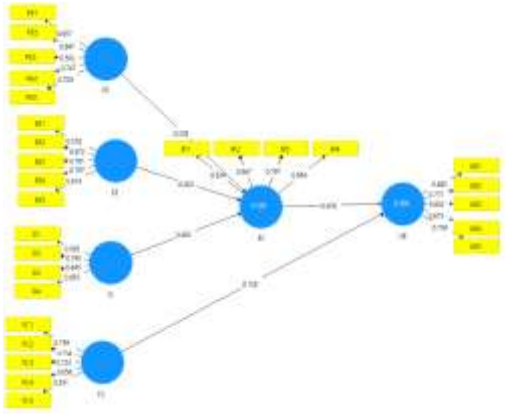

Image 2. SmartPLS model before valid

Table 2. Outer Loading before valid

Variabel	Indicator	Value
PE	PE1	0.657
	PE2	0.847
	PE3	0.592
	PE4	0.747
	PE5	0.709
EE	EE1	0.518
	EE2	0.672
	EE3	0.781
	EE4	0.787
	EE5	0.814
SI	SI1	0.595
	SI2	0.745
	SI3	0.845
	SI4	0.855
FC	FC1	0.759
	FC2	0.734
	FC3	0.733
	FC4	0.658
	FC5	0.551
BI	BI1	0.834
	BI2	0.867
	BI3	0.797
	BI4	0.664
UB	UB1	0.685
	UB2	0.777
	UB3	0.852
	UB4	0.675
	UB5	0.736

Figure 2 is the result of an analysis with invalid data. Based on Table 2, it is known that some indicators do not meet the assessment criteria of the SEM-PLS model criteria. This shows that the indicator has not been able to optimally describe latent constructs so that it can affect the accuracy level of the research model. Therefore, indicators with an outer loading value below 0.70 were removed so that the model had a better level of validity and was able to measure the research construct more consistently.

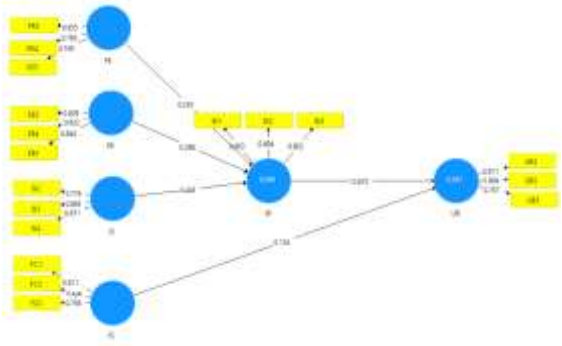

Image 3. SmartPLS model after valid

Table 3. Outer Loading after validity

Variabel	Indicator	Value
PE	PE2	0.847
	PE4	0.747
	PE5	0.709
EE	EE3	0.781
	EE4	0.787
	EE5	0.814
SI	SI2	0.745
	SI3	0.845
	SI4	0.855
FC	FC1	0.759
	FC2	0.734
	FC3	0.733
BI	BI1	0.834
	BI2	0.867
	BI3	0.797
UB	UB2	0.777
	UB3	0.852
	UB5	0.736

Figure 2 is a research model after re-analysis. The results of the reanalysis after the removal of indicators that do not meet the criteria are shown in Table 3. This aims to ensure that the model meets the criteria of validity and reliability. After re-analysis, the AVE value in each construct will change due to the removal of indicators with low outer loading. The AVE improvement shows that the validity of the model is getting better because it meets the recommended criteria.

Table 4. AVE Value

Variabel	AVE	Remarks
PE	0.630	Valid
EE	0.692	Valid
SI	0.686	Valid
FC	0.650	Valid
BI	0.729	Valid
UB	0.677	Valid

Based on the results of the analysis in Table 4, each variable obtained an AVE value above 0.50. The AVE value in the Performance Expectancy variable of 0.630 shows that 63% of the variance of the indicator can be explained by the construct. The Effort Expectancy variable has an AVE value of 0.692, indicating that 69.2% of the variance of the indicator can be explained by the construct. The AVE value on Social Influence of 0.686 shows that 68.8% of the variance of the indicator can be explained by the construct. The AVE value at Facilitating Conditions of 0.650 indicates that 65% of the variance of the indicator can be explained by the construct. Furthermore, the AVE value in the Behavioral Intention variable of 0.729 shows that 72.9% of the variance of the indicator can be explained by the construct. The Use Behavior variable has an AVE value of 0.677, indicating that 67.7% of the variance of the indicator can be explained by the construct. This shows that all variables in this study have a good ability to measure the constructs studied. So it can be concluded that the research variables meet the validity criteria and can be further analyzed at the inner model stage.

b) Discriminating Validity Test

The discriminant validity test in SEM-PLS was evaluated through Fornell-Lacker Criterion and Cross Loading analysis.

Table 5. Nilai Fornell-Lacker Criterion

	PE	EE	SI	FC	BI	UB
PE	**0.794**					
EE	0.575	**0.832**				
SI	0.340	0.360	**0.828**			
FC	0.442	0.335	0.450	**0.806**		
BI	0.558	0.594	0.632	0.419	**0.854**	
UB	0.651	0.566	0.694	0.416	0.729	**0.823**

Based on Table 5, the results of the Fornell-Lacker Criterion analysis show that the square root value of AVE in each construct is greater than the correlation value with other constructs. Thus, the level of discrimination of each construct in this study meets the criteria and can be distinguished from other constructs.

Table 6. Nilai Cross Loading

	PE	EE	SI	FC	BI	UB
PE2	0.855	0.552	0.187	0.270	0.446	0.484
PE4	0.763	0.397	0.202	0.376	0.397	0.512
PE5	0.759	0.414	0.404	0.403	0.477	0.551
EE3	0.520	0.829	0.274	0.258	0.540	0.534
EE4	0.430	0.822	0.334	0.292	0.432	0.473
EE5	0.476	0.844	0.298	0.290	0.498	0.401
SI2	0.387	0.283	0.719	0.433	0.367	0.483

	PE	EE	SI	FC	BI	UB
SI3	0.277	0.334	0.885	0.397	0.590	0.657
SI4	0.229	0.283	0.871	0.323	0.575	0.570
FC1	0.345	0.247	0.457	0.811	0.366	0.341
FC2	0.367	0.267	0.398	0.849	0.339	0.315
FC3	0.354	0.294	0.235	0.756	0.305	0.347
BI1	0.465	0.446	0.557	0.371	0.863	0.564
BI2	0.528	0.602	0.562	0.479	0.894	0.729
BI3	0.428	0.457	0.500	0.195	0.802	0.557
UB2	0.515	0.439	0.533	0.216	0.611	0.811
UB3	0.520	0.505	0.621	0.369	0.633	0.894
UB5	0.575	0.451	0.555	0.442	0.554	0.757

Based on Table 6, it is known that each indicator shows the highest loading value on the measured construct compared to the other constructs. This indicates that the indicators of this study are able to represent their respective constructs and meet the criteria for discriminant validity.

c) Construct Reliability Test

Table 7. Construct Reliability Test Results

	Cronbach's Alpha	Composite Reability
PE	0.705	0.836
EE	0.778	0.871
SI	0.773	0.867
FC	0.729	0.848
BI	0.814	0.890
UB	0.758	0.862

Based on Table 57, Cronbach's Alpha and Composite Reability values had results that matched the criteria. Thus, the measurement model of this study meets the criteria of validity and reliability so that it can be continued to the inner model stage and hypothesis test.

2. Evaluation of Structural Models (Inner Model)

Evaluation of the structural or inner model is carried out after the measurement model is declared to meet the criteria of validity and reliability. This evaluation aims to assess the causality relationship between latent constructs of the research model and test the model's ability to explain endogenous variables. The internal testing of this model includes:

a) Coefficient of Determination (R-Square)

The coefficient of determination (R-Square) aims to measure the ability of independent variables to explain dependent variables in a research model. The higher the R-Square value, the greater the model's ability to explain dependent variables. So the R-Square value can be used to assess the predictive power level of the research model. The following are the results of R-Square's analysis in this study:

Table 8. R-Square Value

	R-Square	R-Square Adjusted
BI	0.590	0.576
UB	0.547	0.537

Based on the results of the analysis in Table 8, it is known that the R-Square value on Behavioral Intention of 0.590 indicates that the model is able to explain the intention to use the LMS by 59%, while the rest is influenced by other factors outside the research model. Meanwhile, the R-Square value of Use Behavior of 0.547 indicates that LMS usage behavior is influenced not only by Behavioral Intention and Facilitating Conditions, but also possibly influenced by other factors such as usage habits, user satisfaction, and system user experience. These values show that the research model has predictive ability in the medium category and is quite good at explaining endogenous variables.

b) Path coefficient

The path coefficient analysis was carried out to find out whether the relationships between variables corresponded to the conceptual framework that had been formulated previously. In addition, the value of the path coefficient is also the basis for testing the research hypothesis. The results of the path coefficient analysis in this study are as follows:

Table 9. Nilai Path Coefficient

	BI	UB
PE	0.235	
EE	0.298	
SI	0.445	
FC		0.134
BI		0.673
UB		

From the test results in Table 9, it can be seen that:

1. The Performance Expectancy (PE) variable has a positive influence on Behavioral Intention (BI) with a path coefficient value of 0.235. This shows that the greater the benefits that users feel from a system, the higher the intention to use it. This finding is in line with UTAUT's theory which states that the perception of benefits is the main factor in shaping the intention to use technology. These findings are in line with (Trisnadi et al., 2025), that the use of LMS can simplify the learning process so that it can improve the quality of learning outcomes.
2. The Effort Expectancy (EE) variable had a positive influence on Behavioral Intention (BI) with a path coefficient value of 0.298.

This shows that the higher the perception of ease of use of a system, the higher the individual's intention to use the system. These findings are in line with UTAUT's theory which states that user convenience is a major factor in increasing the acceptance of technology by users. This is in line with the findings (Trisnadi et al., 2025) that the simple interface and navigation can make it easier to adapt to the use of the LMS.

3. The Social Influence (SI) variable has a positive influence on Behavioral Intention (BI) with a path coefficient value of 0.445. This shows that the influence of the social environment can increase a person's intention to use a technology. These findings are in line with the theory of the UTAUT model which shows that the influence of the academic environment is an important factor in shaping the intention to use the system. This finding is in line with research (Trisnadi et al., 2025) which states that LMS facilitates communication between lecturers and students as well as in task management so that the learning process can be carried out properly.
4. The Facilitating Conditions (FC) variable has a positive influence on Use Behavior (UB) with a path coefficient value of 0.134. This suggests that the availability of facilities and technical support can affect system usage behavior, although the effect is relatively small. These findings are in line with (Sekarini et al., 2021) which states that the use of LMS that tends to be mandatory makes users continue to access the system regardless of the condition of the existing facilities. In addition, user intent factors such as willingness to use the LMS, commitment to use, and desire to continue using the system determine usage behavior compared to facility factors.
5. The Behavioral Intention (BI) variable has a positive influence on Use Behavior (UB) with a path coefficient value of 0.673. This shows that the higher a person's intention to use a system, the higher the behavior of using the system. These findings are in line with the fact that *Behavioral Intention* is a major factor in technology usage behavior. Findings (Trisnadi et al., 2025) also states that good use of the system, the availability of access to use and the habits of lecturers in utilizing LMS have a direct impact on increasing the actual use of the system.

3. Uji Hypothesis

Hypothesis testing with SmartPLS is performed using a bootstrapping procedure. Based on the T-statistic and P-value values, the decision to accept or reject the hypothesis is produced. Hypotheses are accepted if they meet the set criteria. The results of the bootstrapping analysis are presented in the following figure:

Table 10. Bootstrapping analysis results

	T-Statistic	P-Values	Remarks
PE → BI	2.002	0.046	Accepted
EE → BI	2.411	0.016	Accepted
SI → BI	5.693	0.000	Accepted
FC → UB	1.405	0.161	Rejected
BI → UB	8.254	0.000	Accepted

Based on the results of the hypothesis test in table 10, it can be explained as follows:

1. The Effect of Performance Expectancy on Behavioral Intention
   The results of the analysis showed that the T-statistical value was 2.002 and the P-value was 0.046. These findings indicate a positive and significant influence between the Performance Expectancy variable on Behavioral Intention. Thus the hypothesis is accepted. It can be interpreted that the higher the perception of benefits that users feel for the UBHI LMS, the greater the intention to use the technology.
2. The Effect of Effort Expectancy on Behavioral Intention
   The results of the analysis showed that the T-statistic value was 2.411 and the P-value was 0.016. These findings indicate a positive and significant influence between the Effort Expectancy variable on Behavioral Intention. Thus the hypothesis is accepted. It can be interpreted that the easier the LMS is to use, the higher the intention to use it.
3. The Influence of Social Influence on Behavioral Intention
   The results of the analysis showed that the T-statistic value was 5.693 and the P-value was 0.000. These findings indicate a positive and significant influence between Social Influence variables on Behavioral Intention. Thus the hypothesis is accepted. It can be interpreted that the influence of the academic environment is an important factor in shaping the intention to use the system.
4. Pengaruh Facilitating Conditions terhadap Use Behavior
   The results of the analysis showed that the T-statistic value was 1.405 and the P-value was 0.161. These findings indicate a positive but not significant influence between the Facilitating Conditions variable on Use Behavior. Thus the hypothesis is rejected. This shows that adequate facilities are not necessarily optimized by users.
5. The Influence of Behavioral Intention on Use Behavior

The results of the analysis showed that the T-statistic value was 8.254 and the P-value was 0.000. These findings indicate a positive and significant influence between the Behavioral Intention variable on Use

Behavior. Thus the hypothesis that Behavioral Intention has an effect on Use Behavior is accepted. It can be interpreted that the higher the intention to use the LMS, the higher the actual usage rate of the system.

CONCLUSION

Referring to the analysis that has been carried out, the acceptance rate of users of the Learning Management System (LMS) of Universitas Bhinneka PGRI using the UTAUT method is classified as good. This shows that the LMS has been received by users quite positively. It is evidenced by the positive and significant influence on the PE, EE, SI variables on BI. In addition, the BI variable has a positive and significant effect on UB. However, there are variables that FC do not have a positive and significant effect on UB. In general, the success of using an LMS is determined not only by the technical aspects, but also by the system's ability to shape user intent and motivation. Therefore, the university is advised to improve the quality of the LMS by paying attention to ease of use, adding more interactive features, and strengthening social support in the academic environment. For further research, it is recommended to add other variables such as habits and user satisfaction and expand the number of samples to obtain more comprehensive results.

REFERENCES

Iskandar, J., Prasetya, A., Sari, Y. K., & Cahyono, T. A. (2022). Analisis Penerimaan Sistem Informasi Akademik Universitas Bhinneka PGRI menggunakan Integrasi Model TPB dan TAM. *JIPI (Jurnal Ilmiah Penelitian Dan Pembelajaran Informatika)*, *07*, 254–263.

Iskandar, J., Rozi, F., Kusumaningtyas, C. P., & Panggayuh, V. (2024). *Analisis Penerimaan Sistem E-learning Informatika Menggunakan Model Integrasi TAM dan EUCS*. *9*(4), 2485–2498.

Maita, I., & Majid, S. (2022). *Analisis Penerimaan terhadap Penggunaan E-Learning Menggunakan Metode Technology Acceptance Model (TAM)*. *4*, 30–35. https://doi.org/10.37034/jsisfotek.v4i1.120

Priyatma, J. E. (2023). *Application of the Unified Theory of Acceptance and Use of Technology (UTAUT) to the Use of Learning Management System (LMS)*. *3*(3), 138–149.

Salsabila, U. H., & Agustian, N. (2021). *Peran Teknologi Pendidikan Dalam Pembelajaran*. *3*, 123–133.

Sekarini, D., Yuhana, U. L., & Santoso, B. J. (2021). *Faktor Penerimaan Pengguna Pada E-Learning Dari Perspektif Siswa Sekolah Dasar Berbasis UTAUT*. *8*(4), 1693–1709.

Setiabudhi, H., Suwono, Setiawan, Y. A., & Karim, S. (2024). *Analisis Data Kuantitatif dengan SmartPLS 4*. Borneo Novelty Publishing.

Setiyani, L., Effendy, F., & Prawidhi, M. Z. (2021). *Analisis Kesuksesan Implementasi E-Learning STMIK Rosma di Masa Pandemi Covid-19 Menggunakan DeLone and McLean IS Success Model*. *September*, 80–91.

Sukarya, I. G. A., Pradnyana, I. M. A., & Sugihartini, N. (2020). *Analisis Faktor-Faktor yang Mempengaruhi Perilaku Penggunaan Sistem E-Learning Undiksha dengan Model Unified Theory Of Acceptance and Use of Technology (UTAUT)*. *1*(2), 62–75.

Trisnadi, L., Sartika, I., Maghfiroh, E., & Saputra, M. C. (2025). *Analisis Penerimaan Pengguna Learning Management System (LMS) Brone di Universitas Brawijaya Berdasarkan Model Unified Theory of Acceptance and Use of Technology (UTAUT)*. *12*(2), 369–378. https://doi.org/10.25126/jtiik.2025129425

Wiragunawan, I. G. N. (2022). Pemanfaatan Learning Management System (LMS) dalam Pengelolaan Pembelajaran Daring pada Satuan Pendidikan. *Jurnal Inovasi Pendidikan Berbantuan Teknologi*, *2*(1), 82–89.

Wiratomo, Y., & Muslim, S. (2025). *Diffusion of Innovation in Distance Learning : A Case Study of the Open University*. *2*, 60–65.