

THE EFFECT OF SELF-EFFICACY AND SYSTEM QUALITY ON EFFECTIVENESS USER E-LEARNING ON STUDENT ECONOMY AND BUSINESS TADULAKO UNIVERSITY

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Abstract

This study aims to analyze the influence of self-efficacy and system quality on the effectiveness of e-learning use in students. faculty of Economics and Business of Tadulako University. The study used an associative quantitative approach with a stratified random sampling technique on 230 respondents. Data were collected through questionnaires and analyzed using multiple linear regression with the help of SPSS version 30. The results showed that self-efficacy and system quality simultaneously had a positive and significant effect on effectiveness use e-learning ($F = 252,963$; $\text{Sig.} = 0,000$), with contribution of 69.0% ($R \text{ Square} = 0.690$). Partially, self-efficacy has a positive and significant effect on the effectiveness of e-learning use ($t = 14.471$; $\text{Sig.} = 0.000$), as does system quality ($t = 12.882$; $\text{Sig.} = 0.000$), with self-efficacy as a relatively more dominant variable. The results of this study are expected to provide academic contributions in the development of educational management science and information systems, particularly regarding the use of e-learning in the learning process. In addition, this study is also expected to be a consideration for Tadulako University, especially the Faculty of Economics and Business, in improving quality e-learning system and strengthen student self-efficacy, so that the effectiveness of e-learning use can increase and support the improvement of the quality of learning and student learning outcomes.

Keywords: Self-efficacy, quality system, effectiveness use of E-learning student.

INTRODUCTION

Advances in information technology are encouraging all educational institutions to adopt e-learning as a more flexible learning model. This shift is not only changing the way learning is conducted, but also how technology is used. In this implementation, the success of e-learning depends heavily on how users experience the learning process within the system. allows students to access materials, work on assignments, and interact with lecturers flexibly without limitations of space and time. The use of technology-based systems shows that the success of a system is not only determined by the existence of the technology itself, but also influenced by the perception and ability of users to utilize the system (Risnawati et al., 2022).

Users of a system or organizational change greatly influence the success of its use. This relates to your research because students, as e-learning users, must have self-efficacy and the ability to adapt to digital learning systems to ensure effective e-learning use. At the Faculty of Economics and Business, Tadulako University, e-learning implementation is supported by two main systems: SIGA (Academic Information System) and SILA (Learning Information System). SIGA serves as an academic administration system that encompasses student data management, student study plan (KRS) completion, class schedules, and grade information. Meanwhile, SILA serves as an online learning platform, facilitating the distribution of materials, assignment submission, learning discussions, and online exams. The presence of these two systems is expected to improve the effectiveness of students' learning processes. The existence of SIGA and SILA is expected to support a more effective and efficient learning process. However, the success of e-learning implementation is not only determined by the availability of the system, but also by the effectiveness of its use. The effectiveness of e-learning use refers to the extent to which the system is able to help students achieve learning objectives optimally, improve material understanding, and

support learning productivity. One factor that plays an important role in the effectiveness of e-learning use is self-efficacy. Self-efficacy is an individual's belief in their ability to complete a particular task. Students with a high level of self-efficacy tend to be more confident in using e-learning. learning technology, more active in the learning process, and able to overcome obstacles that arise during the use of online systems. (Hara Permana et al., 2022) Apart from internal student factors, the quality of the system System quality is also an external factor influencing the effectiveness of e-learning. System quality includes ease of use, access speed, security, flexibility, and reliability. A high-quality system will increase student convenience and ease in accessing learning materials, thereby increasing the effectiveness of its use (Supriyadi, 2022) . The development of technology and internet networks has become part of the formal education system and Informal technology in the present and future, especially information technology, has brought many positive impacts in the world. education, One of them is E-Learning, there are already many which implements E-Learning in helping or facilitate the activities of students and lecturers as a learning medium (Elvitaria et al., 2024). The development of technology and internet networks has become part of the formal and informal education system in the present and future, especially information technology has brought many positive impacts in the world of education, one of which is E-Learning, E-Learning is a learning method that relies on the internet as a link between lecturers and students (Fitriani et al., 2020).

Information systems that focus on the interaction between users and systems, including aspects such as equipment availability, reliability, ease of use, and responsiveness of the system when used, are important factors in assessing the quality of E-learning systems. The use of E-learning technology also involves individual psychological factors, such as self-confidence, which have an impact on the acceptance and use of the technology. This emphasizes the importance of considering individual psychological aspects. in study about adoption and use E-technology learning. By Because That, phenomenon This motivated researchers to conduct further studies on the use of e-learning. A novelty in this study is the inclusion of the concept of e-learning readiness as a variable in the research model. This is novel because e-learning readiness indicates the extent to which individuals are ready to use technology for learning, and this factor is increasingly crucial in the context of distance learning (Supriyadi, 2022) .

Self-efficacy can be defined as an internal drive that motivates students to act in order to achieve desired goals. In an academic context, self-efficacy relates to students' confidence in their ability to complete various tasks, manage the learning process, and meet academic expectations from both themselves and others. Therefore, it can be concluded that the higher the level of self-efficacy a student has, the greater the effort they will expend to achieve optimal learning outcomes. According to Sucitno et al. (2020), self-efficacy is an individual's belief in their ability to perform tasks or actions necessary to achieve certain results. To improve learning achievement, having good or high self-efficacy is very important. Research on self-efficacy still requires further exploration, especially in the context of students and its relationship to learning achievement. Previous research shows that self-efficacy has a significant influence on successful student learning achievement.

The effectiveness of e-learning is influenced not only by technical factors but also by user psychological factors. Therefore, it is important to further examine the influence of self-efficacy and system quality on the effectiveness of e-learning use among students at the Faculty of Economics and Business, Tadulako University. This research is expected to contribute to improving the quality of digital-based learning systems and supporting improved learning outcomes for students at the Faculty of Economics and Business, Tadulako University. Use application system information show that quality system Which Good can increase ease, comfort, and effectiveness of users in carrying out their activities. Therefore, the quality of e-learning systems such as ease of access, system speed, and service stability are thought to influence the effectiveness of e-learning use among students (Natsir et., 2019).

Literature Review

SELF-EFFICACY

Self-efficacy is a belief in one's own abilities that can be seen from the process of achieving success in something. Currently, self-efficacy has become one of the things used to assess others, a person will judge himself and even judge others by looking at self-efficacy, whether the person has confidence or self-belief in a matter they are facing or vice versa. Self-efficacy greatly influences a person's attitude or individual when taking action or decision, where the decision or action is carried out to achieve a goal (Dinda J. A et al. 2023, n.d.). Self-efficacy will influence several aspects from cognition. Self-efficacy is an aspect Psychological factors significantly influence students' success in completing assignments and problem-solving questions. Harahap et al. (2021) found that, despite basic abilities, they are crucial for achieving success. A person's efforts to overcome challenges are strongly influenced by self-efficacy and play a significant role in determining the behavior displayed, the amount of effort expended to overcome challenges or achieve goals, and the length of time spent facing obstacles (Amalia & Sari, 2024).

In context education, self-efficacy student related with belief they to ability to overcome task academic. Individual with self-efficacy tall tend own motivation Which strong, try hard work, and respond to challenges with a positive attitude. Self-efficacy is an individual's belief in his or her ability to organize And carry out action Which required use reach performance certain.

Indicator Self-Efficacy according to study Endang Supardi & Fadli Agus Triansyah, (2024) .

Indicator variables :

- a) Level of difficulty : shows how confident students are in facing tasks with a certain level of difficulty.
- b) Condition: show how much strong belief student in face challenge.
- c) Condition general : show belief self student in face various situation.

QUALITY SYSTEM

System quality is a measure that indicates how well a system meets the needs of its users and achieves its goals. System quality is a sign or something related to the expected quality of a system and the quality of accurate information regarding the characteristics of a product. In an information system, system quality is a combination of software and hardware that work within the system. The quality of a system can be measured by the extent to which the system can meet the needs represented in the quality model . In an information system, system quality is a combination of software and hardware that work within the system (Amarin & Wijaksana, 2021).

System quality is one of the main factors that determines the success of using an information system. System Quality (X2) According to Putra et al., (2020) suitability of the E-Learning system with the needs and expectations of Management students in using the E-Learning system

Indicator quality system According to Son et al., (2020) :

- a. Utility: Convenience users student in learn And use system.
- b. Accuracy: The level of correspondence between the information generated by the system and the reality of the student.
- c. Reliability: Ability system For operate in a way consistent And free from error Which produced by students.
- d. Flexibility : System can adapt need users And easy developed.

EFFECTIVENESS USER-LEARNING

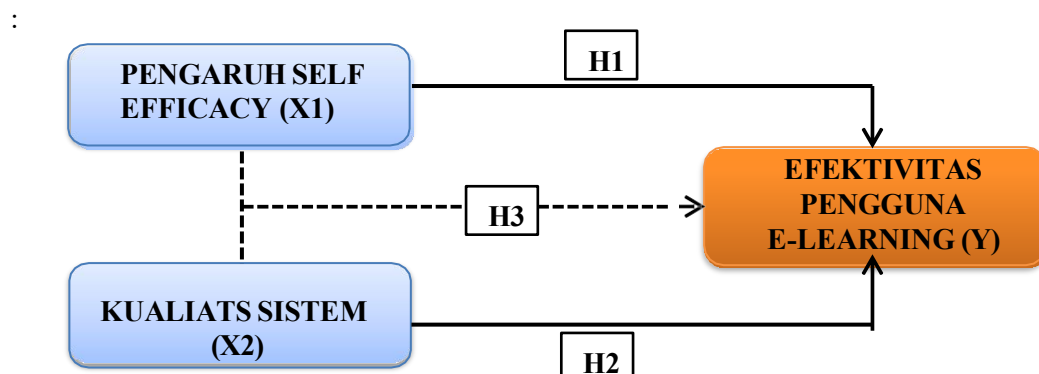
E-learning is used as a medium for learning, disseminating materials, and completing student assignments. This is done to reduce paper usage and avoid delays in delivering materials to students. E-learning effectiveness is the level of success of an electronic learning system in delivering materials. supports the optimal student learning process as measured by ease of use, efficiency, and user satisfaction in using the e-learning system Fathurrasyid et al., tt, (2024) . The effectiveness of e-learning is the extent to which a learning system through the use of an online platform successfully achieves the desired goals. The online platform for e-learning represents the digital era because it is integrated with the internet so it can be done anytime and anywhere, (Linting, 2023).

Indicator Effectiveness Use E-Learning according to Fathurrasyid et al., tt, (2024)

1. Convenience Use (Ease of Use / Usability)
2. Efficiency Use (Efficiency)
3. Satisfaction Users (Satisfaction)
4. Convenience Studied (Learnability)
5. consistency And Clarity System

FRAMEWORK CONCEPTUAL

The conceptual framework of this study explains the relationship between self-efficacy (X1) and system quality. (X2) as an independent variable that influences the effectiveness of E-learning users (Y) as an independent variable.



Information:

Shows Simultaneous

Partial Effect

Effect

Shows

Effect Shows

Picture 1. Framework Conceptual

RESEARCH HYPOTHESIS

H1: Self-efficacy influential positive to effectiveness use e-learning. H2: Quality system influential positive to effectiveness use e-learning.

H3: Self-efficacy And quality system influential in a way simultaneous to effectiveness use e-learning.

METHOD

This study uses a quantitative approach with an associative research approach, namely research that aims to determine the influence or relationship between two or more variables. According to (Sugiyono, 2023), associative research is used to test hypotheses that explain the relationship or influence between the variables being studied. The quantitative approach was chosen because this research requires data in the form of numbers obtained from distributing questionnaires, and the results were analyzed using statistical methods such as the t-test, F-test, and multiple linear regression. This research model is designed to test the direct relationship between the independent variables (self-efficacy And quality system) with variables dependent (effectiveness use e-learning). self-efficacy as factor Student internal factors are assumed to have an influence on the effectiveness of use because students who have high confidence in their abilities tend to be more active, independent, and able to overcome obstacles in using online learning systems.

In addition to internal factors, system quality, as an external factor, was also tested for its influence on the effectiveness of e-learning use. System quality, which includes ease of use, access speed, flexibility, security, and error recovery capabilities, is believed to increase student comfort and ease in accessing materials and completing assignments. The better the system quality perceived by users, the higher the level of effectiveness of e-learning use, as reflected in improved material understanding, learning outcomes, time flexibility, learning process efficiency, and better learning interactions. Therefore, this study seeks to empirically test how psychological factors (self-efficacy) and technical factors (system quality) partially or simultaneously influence the effectiveness of e-learning use. (Hernita et al., 2020)

Population And Sample

This study adopted a quantitative method with an associative (causal) approach. This approach was chosen to test the causal relationship between the independent variables, namely self-efficacy (X1) and system quality. (X2) and the dependent variable is the effectiveness of using e-learning (Y) at the Faculty of Economics and Business Tadulako University. As explained by (Sugiyono, 2023) quantitative research can be interpreted as a research

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method based on the philosophy of positivism, used to research certain populations or samples, collecting data. data using research instruments, data analysis is quantitative/statistical.

Respondents in this study focused on students from the class of 2022 because they already have sufficient experience using e-learning, allowing them to provide more objective assessments. Furthermore, selecting a single class aims to maintain data homogeneity and reduce research bias.

According to (Sugiyono, 2023) Population is a generalization area that includes objects or subjects that have certain quantities and features. which is determined by the researcher to be studied before draw conclusions. The population in this study includes all students faculty of economics and business Tadulako University The class of 2022 consists of 538 students based on 2025 data. (Internal data of students of the Faculty of Economics And business, 2025).

(Sugiyono, 2023) states that a sample is a subset that represents the number and characteristics of a population. The sampling technique used in this study was stratified random sampling. The sample size was calculated using the Slovin formula with a 5% error rate to maintain proportionality, validity, and analytical strength.

Formula Slovin :

$$n = \frac{N}{1 + N \cdot e^2}$$
$$n = \frac{538}{1 + 538 \cdot 0.05^2}$$
$$n \approx 230 \text{ sample.}$$

Information:

- n = size sample
- N = population
- e = level error (margin of error, 5% or 0.05)

Furthermore, amount sample the distributed to each strata region Work in a way proportionally using the formula:

$$nh = \frac{Nh}{N} \times \pi$$

Information:

- nh = amount sample on strata i-
- Nh = amount population on strata i-
- N = total population
- n = total sample

Technique Collection Data

No.	Major/ Study Program	Amount student	Amount sample
1.	Management	262	112
2.	Accountancy	187	80
3.	Economy development	89	39
	Total	538	230

Data collection is a crucial activity because without it, research will not be able to achieve its objectives (Firdaus et al., 2023). This study used a quantitative approach with data collection techniques in the form of direct interviews and questionnaires. Interviews were conducted to obtain information directly from students. faculty of economics and business Meanwhile, the questionnaire was distributed via Google Form which contained statements related to the research variables using a Likert scale from 1 to 5. According to Noviana & Santoso (2024),), the Likert scale is a psychometric scale that is commonly used in quantitative research using questionnaire methods, especially in survey research. The most common form is an opinion assessment scale, which is usually presented in a questionnaire with five answer choices:

- 1 = Very Don't agree
- 2 = Don't agree
- 3 = Neutral
- 4 = Agree
- 5 = Very Agree

Method Data analysis

analysis in this study was conducted using SPSS Version 26 software. The analysis techniques used included multiple linear regression, f-test, t-test, coefficient of determination, and correlation coefficient, which aimed to examine the simultaneous and partial effects between variables and the strength of the relationships that occurred. Prior to the analysis, a classical assumption test was conducted to ensure that the data met the regression requirements, as well as validity and reliability tests to ensure the research instrument was suitable for use. Data collection techniques in this study were through questionnaires and observations, which were then tested for quality through validity and reliability tests (Gaurifa, 2024).

Results And Discussion of Instrument Testing

Test Validity And Reliability

Validity and reliability tests are conducted to ensure that the research instrument used is capable of measuring variables accurately and consistently. Validity tests aim to determine the extent to which the statement items in the questionnaire are able to measuring research variables, with the criteria that the calculated r value must be greater than the table r

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($r_{\text{count}} > r_{\text{table}}$). Processing And analysis data done with help device soft SPSS for Windows version 26. Results testing validity And reliability the served on table following.

Table 2. Results Validity Test

Variables	Question items	r count	r table	Note
Self-Efficacy (X1)	X1.1	0.826	0.129	Valid
	X1.2	0.79	0.129	Valid
	X1.3	0.789	0.129	Valid
	X1.4	0.804	0.129	Valid
	X1.5	0.801	0.129	Valid
	X1.6	0.75	0.129	Valid
	X1.7	0.772	0.129	Valid
	X1.8	0.791	0.129	Valid
	X1.9	0.808	0.129	Valid
Quality System (X2)	X1.1	0.73	0.129	Valid
	X1.2	0.792	0.129	Valid
	X1.3	0.722	0.129	Valid
	X1.4	0.765	0.129	Valid
	X1.5	0.758	0.129	Valid
	X1.6	0.767	0.129	Valid
	X1.7	0.776	0.129	Valid
	X1.8	0.746	0.129	Valid
ctiveness Use of E-Learning (Y)	X1.9	0.731	0.129	Valid
	Y.1	0.602	0.129	Valid
	Y.2	0.555	0.129	Valid
	Y.3	0.619	0.129	Valid
	Y.4	0.481	0.129	Valid
	Y.5	0.466	0.129	Valid
	Y.6	0.598	0.129	Valid
	Y.7	0.576	0.129	Valid
	Y.8	0.633	0.129	Valid
	Y.9	0.526	0.129	Valid
	Y.10	0.55	0.129	Valid
	Y.11	0.589	0.129	Valid
	Y12	0.557	0.129	Valid
	Y13	0.53	0.129	Valid
	Y14	0.621	0.129	Valid
	Y.15	0.636	0.129	Valid

Source: output SPSS 26 (2026)

Results validity test that all over grains statement on Self-Efficacy variable (X1) , Quality System (X2), And The Effectiveness of Using E-Learning (Y) has a calculated r value that is greater than the table r (0.129) with a significance value of 0.000. (< 0.05) . With thus, all over grains statement on each variables are declared valid , so that suitable for use as a research instrument in measuring the variables studied.

Table 3. Results Reliability Test

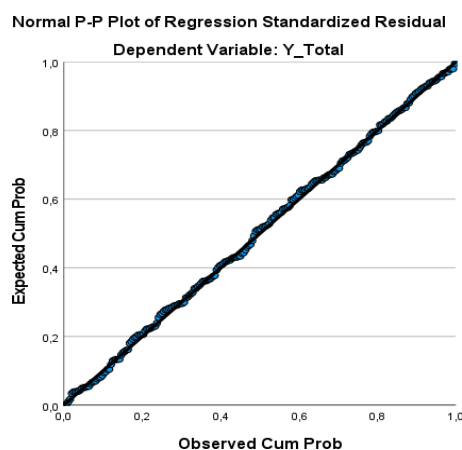
No.	Variables	onbach's Alpha	Information
1	Self-Efficacy (X1)	0.938	Reliable
2	Quality System (X2)	0.921	Reliable
3	Effectiveness Use E-Learning (Y)	0.876	Reliable

Source: output SPSS 26 (2026)

Based on the table above, all instruments in the three variables are declared reliable, because the instrument is said to be reliable if the Cronbach's Alpha value is > 0.60 , and the test results show that all items have met the criteria and can be relied on.

Testing Assumptions Classic Normality Test

Normality testing is necessary to ensure that the collected data meets the normal distribution assumptions required by various statistical analysis methods (Isnaini et al., 2025). In general, several methods can be used to test data normality in regression models, including the Kolmogorov–Smirnov test or the PP plot. In this study, normality testing was performed using graphical analysis using the P–P plot.



Picture 2: Results Test Normality PP Plot Source: SPSS 26 output (2026)

Based on the results of the normality test in Table 4, the Asymp. Sig. (2-tailed) value was obtained at 0.200. This value is more than big from 0.05, so that can concluded that data study distributed normal. Thus, The regression model has met the normality assumption and is suitable for further analysis.

Test Multicollinearity

Test Multicollinearity aim For know whether variables independent in model regression has a high relationship or correlation between each other (Muthahharah & Fatwa, 2022).

Table 4. Test Multicollinearity

Variables	ollinearity Statistics	
	Tolerance	VIF
Self-Efficacy (X1)	,933	1,072
Quality System (X2)	,933	1,072

Source: output SPSS 26 (2026)

Based on results test multicollinearity, variables Self-Efficacy And Quality System No experience symptoms of multicollinearity. Therefore, the regression model is suitable for further analysis.

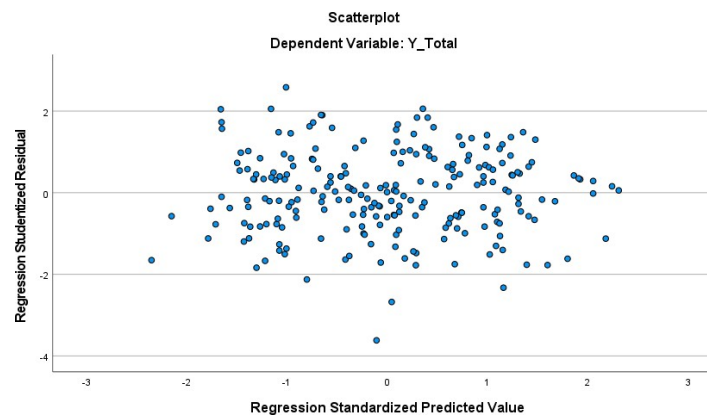
Test Heteroscedasticity

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The heteroscedasticity test aims to determine whether there are differences in residual variance between observations in the regression model. A good regression model is one that does not experience heteroscedasticity (Setyarini, 2020). The results of the heteroscedasticity test can be described as follows:

Test Heteroscedasticity with Scatterplot



Based on the results of the heteroscedasticity test, the residual points appear to be spread above and below the zero line without forming a specific pattern, such as a tapered, widened, or wavy pattern. Therefore, the assumption of homoscedasticity can be declared fulfilled.

Analysis statistics descriptive

Descriptive statistical analysis in this study was used to provide a general overview of the research data which includes the variables of the Influence of Self-Efficacy, system quality, and the Effectiveness of E-Learning Use on students.

Table 6. Results Descriptive Analysis

Variables	Indicator	N	Mean	Information
Self-Efficacy (X1)	1. Magnitude (Level Difficulty)	230	2.97	Enough Good
	2. Strength (Condition)	230	2.97	Enough Good
	3. Generality (Condition General)	230	3.03	Enough Good
	Average (Mean)	230	2.99	Enough Good
System Quality (X2)	1. Utility (Ease of Use)	230	3.06	Enough Good
	2. Accuracy	230	3.02	Enough Good
	3. Reliability (Reliability)	230	3.06	Enough Good
	Average (Mean)	230	3.05	Enough Good
Effectiveness of Use E-Learning (Y)	1. Ease of Use (Ease of Use/Usability)	230	3.41	Good
	2. Efficiency Use (Efficiency)	230	3.39	Good
	3. Satisfaction User (Satisfaction)	230	3.41	Good

	4. Convenience Studied (Learnability)	230	3.43	Good
	5. Consistency And System Clarity	230	3.32	Enough Good
	Average (Mean)	230	3.39	Good

Results analysis descriptive show variables Self-Efficacy (X1) get average 2.99 And Quality The system (X2) was 3.05, both of which are in the fairly good category. This means that students' confidence in using e-learning effectively, as well as the quality of the e-learning system itself in terms of usability, accuracy, and reliability, are still at a moderate level and have not yet reached the good category. Temporary That, variables Effectiveness Use E-Learning (Y) get average 3.39 And classified as The good category, with the highest score for the ease of learning indicator (3.43) and the lowest for system consistency and clarity (3.32). This indicates that although self-efficacy and system quality still need to be improved, students still feel that the use of e-learning is quite effective in supporting their learning process.

Analysis Regression Linear Multiple

Analysis regression linear multiple used For test influence variables independent to dependent variable. The table below shows the results of multiple linear regression testing.

Table 7. Test Analysis Regression Linear Multiple

Coefficients ^a						
Model				Standardize d Coefficient s	t	Sig.
				Beta		
1	(Constant)	16,325	1,605		10,173	,000
	Self-Efficacy	,656	,045	,553	14,471	,000
	System Quality	,618	,048	,493	12,882	,000

a. Dependent Variable : Effectiveness Use E- Learning
Source: SPSS 26 (2025)

Based on the results of multiple linear regression analysis, the influence of Self-Efficacy and Quality is positive on the Effectiveness of E-Learning Use. Based on the coefficients table, the constant value is 16.325, the regression coefficient X1 is 0.656, and the regression coefficient X2 is 0.618. The multiple linear regression equation can be formulated as follows:

$$Y = 16,325 + 0.656X1 + 0.618X2$$

The constant value of 16.325 indicates that if the score X1 and X2 are mathematically zero, the value Y is predicted to be 16.325. However, the interpretation of the constant needs to be done carefully because a score of zero is outside the observed range of X1 and X2 scores, which is a minimum of 9.00. The X1 coefficient of 0.656 has a positive direction. This means that every one-unit increase in the X1 score is estimated to increase the Y score by 0.656 units assuming X2 remains constant. The X2 coefficient of 0.618 also has a positive direction. This means that every one-unit increase in the X2 score is estimated to increase the Y score by 0.618 units assuming X1 remains constant. Thus, increases in both X1 and X2 are related to increases in Y.

Based on the standardized beta coefficient, X1 has a beta value of 0.553 and X2 has a beta value of 0.493. This shows that in the same model, the relative influence of X1 on Y is stronger than the relative influence of X2 on Y. This comparison uses the standardized beta coefficient, not just the B coefficient which is still influenced by the measurement unit.

Test Hypothesis

Test Partial (Test T)

The t-test is used to determine whether the independent variable has a partial effect on the dependent variable. has a sufficient level of significance (Ananda et al., 2023).

Table 8. Results test partial

Coefficients ^a						
Model				Standardized Coefficients	t	Sig.
				Beta		
1	(Constant)	16,325	1,605		10,173	,000
	Self-Efficacy	,656	,045	,553	14,471	,000
	System Quality	,618	,048	,493	12,882	,000

b. Dependent Variable: Effectiveness Use E- Learning(Y)

Source: output SPSS 26 (2025)

The partial test results indicate that both independent variables have a significant contribution after the influence of other independent variables is controlled. X1 has a larger standardized t-value and beta than X2, so X1 is a relatively more dominant predictor in the model.

Test Simultan (F Test)

This test was used to determine the simultaneous or joint positive and significant influence of Self-Efficacy and System Quality variables on the Effectiveness of E-Learning Use. The F-test results showed a calculated F-value of 252.963 with a significance value of 0.000 or $p < 0.001$. Because the significance value is smaller than 0.05, the regression model is declared significant. This means that X1 and X2 together have a significant effect on Y. Thus, the simultaneous hypothesis can be accepted and the regression model is suitable for explaining changes in the Y variable.

Table 9. Results Simultaneous Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22188,381	2	11094.19	252,963	,000 ^b
	Residual	9955,515	227	43,857		
	Total	32143,896	229			

Source: output SPSS 26 (2026)'

Analysis Coefficient Determination

The coefficient of determination is used to determine the extent to which the independent variables, namely Self-Efficacy and Quality System able to explain variation Effectiveness Use E-Learning .The more big mark R^2 or The closer the number is to 1, the better the model's ability to explain the relationship between the variables studied.

Table 10. Results Test Coefficient Determination (R Square)

Model Summary ^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,831 ^a	,690	,688	6.62245

Source: output SPSS 26 (2026)

Discussion

Influence Self-Efficacy And Quality System To Effectiveness Use E- Learning

The results of the study indicate that self-efficacy and system quality simultaneously have a positive and significant effect on the effectiveness of e-learning use in students of the Faculty of Economics and Business, Tadulako University, with a calculated F value of 252.963 (Sig. = 0.000) and a coefficient of determination (R Square) of 0.690. This finding indicates that 69.0% of the variation in the effectiveness of e-learning use can be explained jointly by self-efficacy and system quality, while the remaining 31.0% is influenced by other factors outside this research model.

Based on the results of the regression analysis, self-efficacy has a standardized beta coefficient value of 0.553, which is greater than system quality. of 0.493. This shows that self-efficacy is a factor that relatively more dominant in influencing the effectiveness of e-learning use. This condition is in line with DeLone and McLean's Information Systems Success Theory, which emphasizes that the success of using an information system is determined not only by the technical quality of the system itself, but also by user factors in utilizing the system optimally (DeLone & McLean, 2003). In other words, no matter how sophisticated the available e-learning system, its effectiveness still depends on the confidence and psychological readiness of students as users.

This finding aligns with research by Endang Supardi & Fadli Agus Triansyah (2024), which showed that self-efficacy and self-regulated learning influence learning outcomes through the effectiveness of the Learning Management System as a mediating variable. This research confirms that student self-confidence is a crucial prerequisite for optimal use of digital learning systems.

From a practical perspective, these findings provide implications for the faculty to not only focus on providing and developing the system. SIGA and SILA, but also in strengthening students' self-confidence through academic mentoring, literacy training digital, and motivational support learning. Synergy between increasing student self-efficacy and strengthening system quality is expected to optimize the effectiveness of the use of e-learning in a sustainable manner.

Influence Self-Efficacy To Effectiveness Use E- Learning

The results of the study indicate that self-efficacy has a positive and significant effect on the effectiveness of e-learning use, with a t-value of 14.471 and a significance of 0.000 ($p < 0.001$), and a regression coefficient of 0.656. This means that every one-unit increase in self-efficacy score is estimated to increase the effectiveness of e-learning use by 0.656 units, assuming the system quality remains constant. Thus, H1 in this study is accepted.

This finding shows that students who have high confidence in their ability to complete academic tasks tend more confident, more active, and better able to overcome obstacles while using online learning systems. This is consistent with the view that self-efficacy plays an important role in determining behavior, size business, And resilience somebody in face challenge to achieve goals (Amalia & Sari, 2024). Students with high self-efficacy also tend to have stronger learning motivation and are able to respond to digital learning challenges with a more positive attitude.

Results This Also in line with Harahap's research et al. (2021) Which show that self-efficacy influence the student learning process, particularly in supporting active engagement in discussion-based and online learning models. Furthermore, the findings of Sucitno et al. (2020) further support this finding, stating that self-efficacy influences student learning motivation, which ultimately impacts the successful utilization of media and learning systems. Practically, the results of this study emphasize the importance of increasing student self-efficacy through academic guidance, providing positive feedback on learning achievements, and training in the use of digital platforms. so that students feel more confident and independent in utilizing e-learning optimally.

Influence Quality System To Effectiveness Use E- Learning

The results of the study indicate that system quality has a positive and significant effect on the effectiveness of e-learning use, with a t-value of 12.882 and a significance level of 0.000 ($p < 0.001$), and a

regression coefficient of 0.618. This means that the better the quality of the e-learning system perceived by students, the higher the level of effectiveness of its use. Thus, H2 in this study is accepted. System quality, including ease of use, information accuracy, reliability, and flexibility, are determining factors in student comfort when accessing materials, submitting assignments, and interacting through SIGA and SILA. This finding aligns with the view of Putra et al. (2020), who stated that information system quality influences end-user satisfaction, as a reliable and easy-to-use system will encourage users to utilize it more optimally. These results are also supported by research (Amarin & Wijaksana, 2021). shows that system quality influences consumer satisfaction in using an application, which in turn encourages the intensity and effectiveness of using the system.

In addition, this finding is also relevant to the statement (Supriyadi, 2022) that the readiness of the digital learning system, including stability and ease of access, is a crucial factor in supporting the success of distance and hybrid learning. Practically, these results indicate the importance of faculties and universities to continue maintaining and developing the SIGA and SILA systems, especially in terms of access speed, service stability, and ease of interface, so that students can utilize e-learning more effectively and comfortably.

Conclusion

Based on the results of research on students of the Faculty of Economics and Business, Tadulako University, it can be concluded that self-efficacy and system quality simultaneously have a positive and significant effect. on the effectiveness of e-learning use, with a contribution of 69.0% to the variation in the effectiveness of e-learning use. Partially, self-efficacy has a positive and significant effect on the effectiveness of e-learning use, as does system quality, which also has a positive and significant effect. Self-efficacy is a variable that is relatively more dominant than system quality in influencing the effectiveness of e-learning use. Thus, the three hypotheses of this study (H1, H2, and H3) can be accepted, and the results of this study confirm that student self-efficacy and system quality learning digital is factor important Which each other complete in support effectiveness use e- learning.

Suggestion

For student, recommended For Keep going increase self-efficacy through involvement active in learning process, such as daring to face tasks with varying levels of difficulty, building self-confidence in completing academic challenges, and expanding self-confidence in facing various online learning situations. This increased self-confidence is expected to encourage students to be more active and independent in optimally utilizing e-learning systems. The Faculty of Economics and Business and Tadulako University are advised to continue improving the quality of their e-learning systems (SIGA and SILA), particularly in terms of system reliability to ensure consistent, uninterrupted operation and system flexibility to easily adapt to user needs. Furthermore, training and mentoring are needed for students. in the use of e-learning systems to strengthen their self-efficacy, so that the use of digital learning technology can run more effectively and support improved learning outcomes For further researchers, it is recommended to develop this research by adding other variables that also influence the effectiveness of e-learning use, such as learning motivation, digital literacy, or lecturer support, considering that the self-efficacy and system quality variables in this study only explain 69.0% of the variation in the effectiveness of e-learning use, so there are still other factors that need to be studied further .

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