The Quality of the Online Mail Information System and Its Influence on Service Satisfaction for Students of the Faculty of Teacher Training and Education Sriwijaya University

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Abstract

This study seeks to examine the impact of system quality, information quality, and service quality on user satisfaction with the online mail system among students at the Faculty of Teacher Training and Education (FKIP) at Sriwijaya University. Data were collected via a quantitative survey approach utilizing questionnaires and analyzed through multiple linear regression. The results indicate that system quality, information quality, and service quality positively and significantly influence user satisfaction. This suggests that enhancing system and information quality directly elevates student satisfaction. Thispoints out the importancethe necessity of creating a responsive, informative, and user-friendly online mail system. The administration of FKIP Universitas Sriwijaya ought to leverage these findings to foster ongoing enhancement, concentrating on the augmentation of technological infrastructure, data precision, and user service responsiveness to elevate administrative efficiency and the faculty's service reputation. This study theoretically enhances the DeLone and McLean model regarding digital academic services and offers practical recommendations for managing technology-based services in higher education settings.

Keywords: System Quality; Information Quality; Service Quality; User Satisfaction; Online Mail System

Introduction

Higher education institutions, as premier academic entities, must adopt essential digital transformation to enhance the efficacy and efficiency of academic services. The adoption of digital information systems in higher educatirapiddministration is crucial for attaining rapid, precise, and transparent governance (Hussen, B. T., & Onia, S. I. 2024; Nweke, P. O. 2025). A significant advancement in student services is the adoption of online mail systems that facilitate digital academic correspondence. This service streamlines administrative procedures, enhances efficiency and digital operations, and reduces bureaucratic obstacles, aligning with the objectives of higher education modernization.

Sriwijaya University's Faculty of Teacher Training and Education (FKIP) has adopted an online letter system to enhance its academic services (Yusuf et al., 2025). This system enables students to submit multiple documents, such as active diplomas, observation permits, research letters, and internship letters, without the necessity of visiting the faculty office in person (Farhatuaini, L. (2024). This digital method resolves manual service challenges, including processing delays, extended wait times, and administrative inaccuracies (Utomo et al., 2020).

This system has been operational since the 2023/2024 academic year and presently accommodates an average of 75 users monthly. The success of an information system implementation is contingent not solely upon its availability but also upon its

quality (Iwogbe, E. C, et.all (2025). Notwithstanding the substantial user base and favorable reception of the online letter service, certain students continue to encounter challenges associated with technical problems, including data upload failures, protracted verification procedures, and an absence of notifications regarding letter status (Rowiyah, S., Cahyono, B. Y., & Laksmi, E. D. (2025). These issues underscore inadequacies in the quality of the system and service that necessitate enhancement.

The efficacy of an information system can be assessed through the DeLone and McLean Model (1992, 2003), which identifies six essential dimensions, with system quality, information quality, and service quality deemed the most significant determinants of user satisfaction. Prior research, including Rai et al. (2002), Wixom & Todd (2005), Putera, et.al (2025)., Triadi & Nurajijah (2024), and Wijaya & Lestari (2024), consistently demonstrates that an increase in the quality of the system and information correlates with elevated user satisfaction levels. While numerous users value the online mail service, not all express equivalent satisfaction levels. Several students have reported challenges with multiple technical issues, such as data upload failures, protracted verification procedures, and an absence of automated notifications concerning the status of their correspondence. These issues underscore inadequacies in the system and service quality that must be addressed for the online mail system to function efficiently. This study addresses the disparity between system implementation and varying satisfaction levels at the Faculty of Teacher Training and Education (FKIP) of Sriwijaya University, emphasizing this critical aspect of quality. This study seeks to examine the impact of system quality, information quality, and service quality in the online letter system on student satisfaction with academic services at the Faculty of Teacher Training and Education (FKIP) at Sriwijaya University. The objective is to furnish a thorough comprehension of student perceptions and their influence on the ongoing enhancement of digital academic services.

Method

This study employs explanatory research utilizing a quantitative approach via a survey method. This methodology was selected to examine the causal relationship among variables by offering an objective empirical account of the impact of system quality, information, and services on user satisfaction (Sari, A. R, et.all. 2025; Waruwu, M., Puat, et.all. 2025). The primary data source consists of information gathered directly from current students of the Faculty of Teacher Training and Education at Sriwijaya University. The respondent selection method employed purposive sampling, with the criterion being students who had utilized the FKIP online letter system at least once. The research instrument used was a closed questionnaire that measured variables based on a Likert scale, referring to the dimensions of the DeLone and McLean Model. Data collection was conducted online using a structured questionnaire. Additionally, multiple linear regression analysis was conducted to evaluate the hypothesis and ascertain the significance and direction of the impact of independent variables on dependent variables.

Results and Discussion
1. Respondent Overview

Category	Description	Number of Respondents (n=354)	Percentage
Gender	Man	78	22%
	Woman	276	78%
Force (Majority)	Class of 2023	149	42%
	Class of 2022	117	33%

The study comprised 354 student participants, predominantly female (78%), with a balanced representation across different cohorts: Class of 2023 (42%), Class of 2022 (33%), and Class of 2024 (25%). Participants originated from diverse depardepartments, luding Indonesian Language Education, Mathematics, History, Physics, and Economics. The extensive distribution across class years and departments clearly signifies that the online letter system has attained universal and indispensable service status within the academic administration of the Faculty of Teacher Training and Education at Sriwijaya University. The participation of students from various cohorts demonstrates that this system is not simply a pilot initiative but has been incorporated as an essential resource for regular academic communication, propelling the advancement of academic governance towards a more modern and efficient structure (Saputra, W. 2025; Iwara, I. O 2023).

Moreover, the outcomes of succinct online interviews corroborate the quantitative findings concerning the system's effectiveness. Students experience considerable advantages regarding time efficiency and reduction of data inaccuracies. Requests from respondents for the implementation of a real-time letter status tracking feature constitute essential feedback that necessitates enhanced process transparency. This demonstrates users' acute awareness of the necessity for system enhancements, signifying students' proactive engagement in assessing and optimizing the faculty's digital services.

2. Description of Research Variables

To capture respondents' perceptions of the online mail system, a descriptive analysis focused on four key variables: system quality, information quality, service quality, and user satisfaction.

Table 1. Percentage Distribution of Respondents Based on
Dimensions System Quality, Information, and Online Mail Services

Dimensions	Very Good	Good	Enough	Not Bad	Very Bad
Information Quality	53.11%	40.68%	6.21%	0.00%	0.00%
System Quality	47.18%	46.33%	6.50%	0.00%	0.00%
Quality of Service	48.02%	43.50%	8.47%	0.00%	0.00%

Source: Data primer diolah, July 2025

Table 1 indicates that students' evaluations of the three dimensions of the online mail system quality are exceedingly favorable (total > 90% for Very Good + Good). Information Quality attained the highest rating (93.79% Very Good/Good), succeeded by System Quality (93.51%) and Service Quality (91.52%). The results validate the efficacy of information technology integration, offering substantial convenience in academic administrative processes through enhanced accessibility, user-friendly interfaces, and expedited processing speed. Nonetheless, the minor proportion (6% - 8%) that rated the quality as "fair" warrants consideration. This group emphasized technical challenges, including sluggish loading times and the lack lack of an automatic reminder for letter statuse practical implication of these findings is that, while the system has effectively addressed conventional bureaucratic issues, the emphasis on enhancement should transition to refining technical elements and user experience. Concerns regarding speed and notifications highlight the necessity for system administrators to execute regular technical updates to enhance system stability, aligning with students' expectations for efficient and entirely digital administrative services.

3. User Satisfaction of Online Mail Services

Table 2. Percentage Distribution of Respondents
Based on User Satisfaction

Indicator	Very good	Good	Enough	Not good	Very Bad
Perception of whether students are satisfied or not with online mail services	46.90%	46.05%	7.06%	0.00%	0.00%

Source: Data primer diolah, July 2025

The degree of student satisfaction attained an exceptional score of 92.95% (Excellent + Good). The elevated satisfaction rate directly indicates the system's efficacy in enabling seamless and efficient academic administration without requiring physical presence. This success aligns with the assertion that technology can alleviate conventional bureaucratic limitations (Panjaitan, R. P., Sugiri, D., & Waluyo, B. (2025) by offering more efficient services and reducing administrative inaccuracies.

These results conceptually affirm that digital information systems are vital for enhancing the efficiency and transparency of public services in higher education. Online systems generate verifiable data trails, enhance institutional accountability, and reduce ambiguity, exemplifying FKIP's successful adaptive digital transformation centered on user satisfaction.

4. Validity and Reliability Test

All items in the questionnaire are considered valid because their calculated r values exceed the tabulated r values (0.104). The results show that each item in the research instrument accurately assesses the targeted variables and is in line with the research objectives. High validity indicates that the items in the questionnaire are closely related to the constructs being assessed, including system quality, information quality, service quality, and user satisfaction. Therefore, this research instrument can be trusted as a valid tool for collecting accurate empirical data from respondents.

In addition to the validity assessment, the reliability test results show that the Cronbach's Alpha value for each variable exceeds 0.87. This value far exceeds the widely recognized minimum reliability threshold (0.70). This very high alpha value confirms that the instrument has exceptional internal consistency so that the measurement results of each question item can be relied upon to be stable and consistent, indicating that the respondents' answers to the questions in each variable show sufficient stability and consistency of pattern, both between items in one variable and across the entire questionnaire. Strong reliability ensures that the data produced can be relied upon to articulate students' perceptions of the online mail system objectively and consistently.

The combination of high validity and reliability test results proves that the instrument used in this study complies with scientific benchmarks for quantitative data acquisition. This ensures that each variable assessed—system quality, information quality, service quality, and user satisfaction—accurately represents the empirical conditions observed in the field. The analysis results obtained from this instrument can provide a strong basis for drawing conclusions, testing hypotheses, and providing recommendations for the development of an online mail system at the Faculty of Teacher Training and Education, Sriwijaya University.

5. Multiple Linear Regression Test Results

Table 3. Results of Multiple Linear Regression Test (t-Test)

Indicator	Coefficient (B)	t-count	Sign	Information
System Quality (X1)	0.278	3.902	0	Significant
Information Quality (X2)	0.312	4.211	0	Significant
Service Quality (X3)	0.249	3.587	0.001	Significant

Source: Data primer diolah, July 2025

The t-test results indicate that all independent variables—system quality, information quality, and service quality—exert a positive and significant influence on user satisfaction with the online mail system at the Faculty of Teacher Training and Education, Sriwijaya University. This finding is consistent with the literature based on the DeLone and McLean Model, which asserts a direct causal link between quality dimensions and user satisfaction (Wixom & Todd, 2005).

This signifies that enhancements in these three areas will directly elevate student satisfaction as service consumers. Dependable system quality, prompt service, and precise, readily accessible information collaboratively foster an affirmative user experience. The successful implementation of an online mail system relies on both technological factors and efficient information management, as well as service interaction with students. Of the three variables, information quality (X_2) possesses the highest coefficient, specifically 0.312. This indicates that the quality of information is the predominant factor affecting user satisfaction. Increased accuracy, completeness, and relevance of the information supplied by the system correlate with heightened student satisfaction and trust in the service. Transparent and dependable information facilitates user comprehension of the letter delivery procedure and diminishes ambiguity in the administrative process. The supremacy of information quality carries significant conceptual ramifications:

a. Relevance to TAM: These results align with the notion of perceived usefulness within the Technology Acceptance Model (TAM). In administrative contexts, the greatest utility is derived from the accuracy and relevance of the information produced by the system, including letter status, procedural details, and feedback.

b. Mitigating Uncertainty: In digital bureaucratic services, precise and tAccurate and clear information in digital bureaucratic servicesperience heightened satisfaction and confidence when they are assured of the status of their applications, bolstered by dependable system information. Consequently, administrators ought to prioritize the precision, comprehensiveness, and accessibility of information rather than mere system velocity.

Consequently, system administrators must consistently verify that all accessible information is regularly updated, presented in an intuitive format, and aligned with students' academic requirements to ensure the online letter system functions effectively and enhances the faculty's digital services.

6. F Test Results and Coefficient of Determination (R²)

The F-test results indicate a calculated F value of 52.418, surpassing the table F value of 2.64, with a significance level (Sig.) of 0.000. This analysis demonstrates that the three independent variables—system quality, information quality, and service quality—collectively exert a significant influence on user satisfaction with the online mail

system at the Faculty of Teacher Training and Education, Sriwijaya University. Consequently, it can be inferred that the regression model utilized in this study is both valid and effective in elucidating the relationship between the variables (Angraini, R., Wening, N., & Setiawan, E. (2025). This discovery reinforces the notion that enhancing the system's technical components, information accuracy, and service responsiveness will collectively elevate student satisfaction with the faculty's digital administrative services.

The coefficient of determination (R^2) of 0.681 signifies that 68.1% of the variance in user satisfaction is attributable to three independent variables: system quality, information quality, and service quality. This value is deemed elevated in social and management research, signifying that the model possesses substantial explanatory power concerning the phenomenon being examined. Nonetheless, the residual 31.9% of the variation is probably affected by elements beyond the research model, including user experience, digital literacy, trust in the system, and external technical factors such as network stability and institutional policies. This indicates that while this model is robust, there remains potential for further investigation to uncover additional factors that may enhance user satisfaction. The F-test results and R^2 value substantiate the significance of DeLone and McLean's (2003) information system success model. This model asserts that the efficacy of an information system is contingent upon the interplay of technology quality, information content quality, and service support quality, rather than a singular factor. The online mail system at the Faculty of Teacher Training and Education, Sriwijaya University, demonstrates that the integration of system reliability, information accuracy, and prompt, courteous administrative services is crucial for attaining user satisfaction. Consequently, concurrently enhancing these three facets is a crucial strategy for the faculty to establish an effective, efficient, and student satisfaction-oriented academic service system.

The results affirming the substantial impact of these three quality variables align with prior research (e.g., Rai et al., 2002; Mirna, 2022). Specifically, these results corroborate the research conducted by Triadi & Nurajijah (2024), emphasizing the significance of system and information quality within digital academic services. The significant impact of Information Quality at the Faculty of Teacher Training and Education, Sriwijaya University highlights the progression of user requirements, where satisfaction is influenced not solely by the technology, but by substantive information output that directs the process. The efficacy of the FKIP University of Sriwijaya online letter system depends on the interplay of system reliability, accuracy of information content, and responsiveness of service (DeLone and McLean, 2003). Development strategies should prioritize the maintenance of infrastructure and the enhancement of information content management to ensure clarity and accountability for students, thereby bolstering the faculty's service reputation.

Conclusion

This study concludes that the quality of the online letter information system significantly enhances student satisfaction at the Faculty of Teacher Training and Education (FKIP) of Sriwijaya University. The three dimensions of quality system quality, information quality, and service quality account for 68.1% of the variance in satisfaction, with information quality being the most influential factor. This substantial impact highlights that the precision, lucidity, and pertinence of the information produced by the system are essential for fostering student trust and favorable perceptions of FKIP's online academic services. These findings theoretically bolster DeLone and McLean's (2003) Information Systems Success Model within the realm of digital academic services, affirming that user satisfaction is influenced by the effective amalgamation of technology, content, and service support components.

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