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# Evaluating SEVIMA Academic System Effectiveness in Managing Lecturer Performance Through the DeLone–McLean Information Success Model

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## Abstract

Digital transformation has increased the demand for academic information systems that are accurate, user-friendly, and interoperable. At Universitas Tanjungpura, SEVIMA functions as a central reporting system for lecturer performance within a fragmented digital ecosystem that includes SISTER, Edlink, SKP, and SINTA. This fragmentation often leads to usability issues, unclear information, limited service responsiveness, and reduced work efficiency. This study aims to examine the effects of system quality, information quality, and service quality on system use, user satisfaction, and lecturer performance, as well as the mediating roles of system use and user satisfaction. A quantitative approach was employed by surveying 119 lecturers who actively use SEVIMA, with data analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate moderate explanatory power, with $R^2$ values of 0.630 for user satisfaction, 0.582 for system use, and 0.618 for lecturer performance. All quality dimensions significantly influence system use and user satisfaction. User satisfaction exerts the strongest direct effect on lecturer performance, followed by system use. Mediation analysis confirms that both variables significantly mediate the relationship between quality dimensions and lecturer performance, with user satisfaction acting as the dominant mediator. These findings emphasize the importance of improving system integration, user-centered design, and institutional support to enhance lecturer performance and reduce digital fatigue in higher education information systems.

KEYWORDS

sevima; system quality; information quality; service quality; system use; user satisfaction; lecturer performance.

## Introduction

Digital transformation has become an integral component of higher education management, particularly in monitoring and reporting lecturer performance, which increasingly requires accuracy, efficiency, and data-driven decision-making. Universities are now expected to rely on academic information systems to support performance evaluation, institutional planning, and accountability. In Indonesia, this transformation has accelerated through the adoption of various national and institutional platforms designed to support lecturer activities across education, research, and community service.

As a public university, Universitas Tanjungpura (UNTAN) has adopted SEVIMA as a digital platform to support lecturer performance reporting. SEVIMA is intended to assist lecturers in documenting tridharma activities in a structured manner, thereby improving performance monitoring and institutional decision-making. However, empirical observations at UNTAN indicate that the implementation of SEVIMA has not fully met user expectations. The system was introduced rapidly, accompanied by limited socialization and a lack of structured technical training. Most lecturers received only brief guidance

through leaflets, short tutorial videos, or informal instructions from faculty operators, resulting in limited understanding of system features and procedures.

These challenges are particularly evident among senior lecturers, many of whom experience difficulties in navigating digital platforms. Unfamiliarity with system functions often leads to anxiety, confusion, and fear of making errors when entering performance data. Such conditions reduce system use intensity and negatively affect user satisfaction, despite the system's formal role in performance evaluation.

Moreover, SEVIMA does not operate as a standalone system. Lecturers at UNTAN are simultaneously required to use multiple platforms, including SISTER, Edlink, SKP, SINTA, and various internal faculty systems, each with different interfaces and data structures. This fragmented digital environment forces lecturers to repeatedly input similar information across non-integrated systems. Instead of increasing efficiency, this fragmentation creates administrative complexity, cognitive overload, and digital fatigue, ultimately reducing work efficiency and perceived system benefits.

Although prior studies based on the DeLone and McLean Information Systems Success Model emphasize the importance of system quality, information quality, and service quality in determining system use and user satisfaction, most empirical research evaluates information systems as isolated platforms. There remains a lack of empirical evidence examining how these quality dimensions operate within a fragmented academic digital ecosystem and how such fragmentation contributes to digital fatigue and reduced performance outcomes. This represents an important institutional gap in the literature.

Recent studies have begun to acknowledge this issue. Purna et al., (2025) emphasize the role of human resource readiness in determining the success of information system implementation in higher education. Alexandra et al. (2021) highlight the importance of system quality and perceived benefits in academic information system adoption, while Setyowati et al. (2024) underline the role of service responsiveness and user satisfaction in encouraging sustained system use. However, these studies have not sufficiently addressed the combined effects of multiple, non-integrated systems on user experience and performance.

Building on the DeLone and McLean Information Systems Success Model and incorporating insights from digital adoption maturity frameworks, this study positions SEVIMA within a broader institutional digital ecosystem. It argues that system fragmentation can simultaneously weaken perceived system quality, information clarity, and service effectiveness, thereby increasing digital fatigue and undermining lecturer performance.

Therefore, this study aims to: (1) examine the effects of system quality, information quality, and service quality on SEVIMA use and user satisfaction; and (2) analyze the mediating roles of system use and user satisfaction in the relationship between these quality dimensions and lecturer performance within a fragmented digital environment at Universitas Tanjungpura.

By addressing this gap, the study is expected to provide empirical and practical insights for developing more integrated, inclusive, and user-oriented academic information systems that enhance lecturer performance while minimizing digital fatigue.

## Methods

### Research Type

This study used a quantitative cross-sectional survey to examine how system quality, information quality, and service quality influence user satisfaction and lecturer performance in the SEVIMA academic information system.

### Population and Sample

The study population comprised all permanent lecturers at Universitas Tanjungpura (UNTAN) who had actively used the SEVIMA academic information system for at least two consecutive semesters. Based on official personnel data in 2025, the population included 1,124 lecturers across nine faculties and the graduate program. Purposive sampling was employed to ensure that respondents had sufficient experience using SEVIMA. The minimum sample size was calculated using Slovin's formula with a 10% error tolerance, yielding a requirement of at least 92 lecturers. To strengthen data adequacy and address potential non-response, a larger number of respondents was targeted, resulting in 119 valid lecturer responses for analysis

### Research Location

The research was conducted at Universitas Tanjungpura (UNTAN), Pontianak, West Kalimantan, Indonesia, a public university that has officially implemented SEVIMA as its academic and workload reporting system. UNTAN represents a relevant research context because lecturers simultaneously use multiple digital platforms, including SEVIMA, SISTER, SKP, SINTA, and internal faculty systems. This multi-platform environment creates potential challenges related to system integration, data consistency, and user adaptation, making UNTAN an appropriate setting for evaluating the effectiveness of SEVIMA in supporting lecturer performance.

### Instrumentation / Tools

The primary research instrument was a structured questionnaire developed based on established constructs from the DeLone and McLean IS Success Model. The instrument measured six core variables: System Quality, Information Quality, Service Quality, Use, User Satisfaction, and Lecturer Performance. Indicators were adapted from prior validated studies (Delone & Mclean, 2016; Fornell & Larcker, 1981; Hair et al., 2021). A pilot test involving 30 respondents was conducted to assess clarity, content validity, and preliminary reliability. The final instrument demonstrated strong psychometric properties, with all constructs achieving Cronbach's Alpha and Composite Reliability values above 0.70.

### Data Collection Procedure

Data collection was carried out online using Google Forms and distributed through UNTAN's official academic communication channels. Participants received an information sheet, consent form, and instructions before completing the questionnaire. Data collection lasted approximately one month. The survey ensured anonymity and voluntary participation. Responses were screened and cleaned prior to analysis, resulting in 119 usable datasets.

### Data Analysis

Data were analyzed using PLS-SEM with SmartPLS 4 following a two-stage procedure (Hair et al., 2021). In the first stage, the measurement model was evaluated to assess convergent validity, discriminant validity, and construct reliability using established threshold values (outer loadings ≥ 0.70, AVE ≥ 0.50, HTMT < 0.90, and reliability coefficients ≥ 0.70) (Hair et al., 2021). In the second stage, the structural model was assessed through bootstrapping with 5,000 subsamples to test the significance of path coefficients, along with the evaluation of $R^2$, $f^2$, and $Q^2$ values and overall model fit indicators (SRMR, NFI, and VIF) (Hair et al., 2021). This procedure enabled the examination of both direct and mediating effects in the proposed model.

### Ethical Approval

This study followed standard ethical procedures for social

science research. Participation was voluntary, anonymity was guaranteed, and no personally identifiable information was collected. Ethical clearance was obtained from the research ethics committee at Universitas Tanjungpura prior to data collection.

## Result and Discussion

Respondent Characteristics

This study examined how system quality, information quality, and service quality influence lecturer performance at Universitas Tanjungpura, with user satisfaction serving as a mediating variable. Primary data were collected through an online questionnaire (Google Form) distributed to lecturers across various faculties using official academic communication channels at the university. A total of 119 respondents participated in this study. Descriptive analysis of respondent characteristics includes gender, age, academic rank, years of service, and faculty affiliation, as presented in Table 1.

A total of 119 lecturers participated in this study. Most respondents were female (56.3%) and predominantly in the 31–40 age group (46.22%), followed by those aged 41–50 years (23.53%). The largest proportion of respondents came from the Faculty of Economics and Business, with representation from all other faculties, indicating broad institutional coverage. In terms of academic rank, most lecturers held Assistant Expert or Associate Professor positions, and the majority had between less than five and ten years of service (Scarton et al., 2025). Overall, the respondent profile reflects active lecturers in productive career stages who regularly use the SEVIMA academic information system at Universitas Tanjungpura.

Measurement Model

Table 2 presents the results of the convergent validity assessment, which includes outer loading values and the Average Variance Extracted (AVE) for each construct.

**Table 1.** Participant Demographics

| Characteristic | Category | Frequency (n) | Percentage (%) |
|---|---|---|---|
| **Gender** | Female | 67 | 56.3% |
| | Male | 52 | 43.7% |
| **Age** | < 30 years | 18 | 15.13% |
| | 31–40 years | 55 | 46.22% |
| | 41–50 years | 28 | 23.53% |
| | > 50 years | 18 | 15.13% |
| **Faculty** | Economics and Business | 25 | 21.01% |
| | Medicine | 16 | 13.45% |
| | Law | 14 | 11.76% |
| | Engineering | 13 | 10.92% |
| | Agriculture | 13 | 10.92% |
| | Teacher Training and Education | 12 | 10.08% |
| | Social and Political Sciences | 12 | 10.08% |
| | Forestry | 8 | 6.72% |
| | Mathematics and Natural Sciences | 6 | 5.04% |
| **Years of Service** | < 5 years | 36 | 30.25% |
| | 5–10 years | 34 | 28.57% |
| | 11–15 years | 28 | 23.53% |
| | > 15 years | 21 | 17.65% |
| **Academic Rank** | Assistant Expert | 36 | 30.25% |
| | Associate Professor | 31 | 26.05% |
| | Lecturer | 30 | 25.21% |
| | Teaching Staff | 12 | 10.08% |
| | Professor | 10 | 8.40% |
| **Civil Service Rank** | III/b – Penata Muda Tk. I | 43 | 36.13% |
| | III/c – Penata | 22 | 18.49% |
| | III/d – Penata Tk. I | 15 | 12.61% |
| | IV/a – Pembina | 12 | 10.08% |

**Table 2.** Convergent Validity Test Results and Average Variance Extracted (AVE)

| Variable | Indicator | Outer Loading | AVE | Description |
|---|---|---|---|---|
| **System Quality** | SQ1: The SEVIMA interface is easy to understand and use. | 0.775 | | Valid |
| | SQ2: The SEVIMA system responds quickly. | 0.808 | | Valid |
| | SQ3: SEVIMA rarely experiences errors or technical issues. | 0.806 | | Valid |
| | SQ4: SEVIMA is accessible across different devices (PC/mobile). | 0.836 | | Valid |
| | SQ5: SEVIMA's display is comfortable and supports work tasks. | 0.847 | 0.664 | Valid |
| **Information Quality** | IQ1: Data produced by SEVIMA is accurate and reflects real conditions. | 0.812 | | Valid |
| | IQ2: Information in SEVIMA is complete to support academic activities. | 0.801 | | Valid |
| | IQ3: The information matches my task needs. | 0.815 | | Valid |
| | IQ4: Information is always updated according to the latest regulations. | 0.767 | | Valid |
| | IQ5: The format and structure of information are easy to understand. | 0.819 | 0.645 | Valid |

| Variable | Indicator | Outer Loading | AVE | Description |
|---|---|---|---|---|
| Service Quality | SVQ1: The SEVIMA support team responds quickly to complaints. | 0.801 | | Valid |
| | SVQ2: User guides (manuals, videos) assist me effectively. | 0.804 | | Valid |
| | SVQ3: Technical support from SEVIMA operators is adequate. | 0.806 | | Valid |
| | SVQ4: Support services are friendly and communicative. | 0.833 | | Valid |
| | SVQ5: I feel well-supported in using SEVIMA. | 0.790 | 0.651 | Valid |
| Use | USE1: I frequently use SEVIMA for extended periods to support academic work. | 0.776 | | Valid |
| | USE2: I access SEVIMA regularly according to academic needs. | 0.786 | | Valid |
| | USE3: I consistently produce academic reports with SEVIMA. | 0.805 | | Valid |
| | USE4: Using SEVIMA does not add excessive workload. | 0.750 | | Valid |
| | USE5: I use SEVIMA independently without relying heavily on others. | 0.845 | 0.629 | Valid |
| User Satisfaction | US1: I feel comfortable using SEVIMA. | 0.805 | | Valid |
| | US2: SEVIMA features match my reporting needs. | 0.817 | | Valid |
| | US3: Overall, I am satisfied using SEVIMA. | 0.844 | | Valid |
| | US4: I intend to continue using SEVIMA in the future. | 0.798 | | Valid |
| | US5: SEVIMA increases my work efficiency. | 0.772 | 0.652 | Valid |
| Lecturer Performance | EP1: I complete tasks effectively with the help of SEVIMA. | 0.824 | | Valid |
| | EP2: SEVIMA helps improve the quality of my work. | 0.805 | | Valid |
| | EP3: I complete tasks more quickly using SEVIMA. | 0.824 | | Valid |
| | EP4: SEVIMA supports the achievement of my work targets. | 0.804 | | Valid |
| | EP5: I am able to work better because of SEVIMA. | 0.804 | 0.660 | Valid |

**Table 3.** Reliability Test Results

| Variable | Cronbach's Alpha | Composite Reliability | Conclusion |
|---|---|---|---|
| Lecturer Performance | 0.871 | 0.906 | Reliable |
| Information Quality | 0.863 | 0.901 | Reliable |
| Service Quality | 0.867 | 0.903 | Reliable |
| System Quality | 0.873 | 0.908 | Reliable |
| Use | 0.852 | 0.894 | Reliable |
| User Satisfaction | 0.867 | 0.903 | Reliable |

**Table 4.** Goodness of Fit Index

| Indicator | Saturated Model | Estimated Model |
|---|---|---|
| SRMR | 0.067 | 0.072 |
| d_ULS | 2.102 | 2.383 |
| d_G | 0.888 | 0.936 |
| Chi-Square | 565.749 | 583.353 |
| NFI | 0.760 | 0.753 |

**Table 5.** R-Square Test Results

| Construct | R-Square | Adjusted R-Square |
|---|---|---|
| Lecturer Performance | 0.618 | 0.611 |
| Use | 0.582 | 0.571 |
| User Satisfaction | 0.630 | 0.617 |

**Table 6.** F-Square Test Results

| Relationship | F-Square |
|---|---|
| Information Quality → Use | 0.164 |
| System Quality → Use | 0.182 |
| Service Quality → Use | 0.197 |
| Information Quality → User Satisfaction | 0.103 |
| System Quality → User Satisfaction | 0.146 |
| Service Quality → User Satisfaction | 0.094 |
| Use → User Satisfaction | 0.128 |
| Use → Lecturer Performance | 0.152 |
| User Satisfaction → Lecturer Performance | 0.348 |

The measurement model evaluation shows that all indicators have outer loading values exceeding 0.70, indicating adequate indicator reliability and convergent validity. In addition, all constructs achieved Average Variance Extracted (AVE) values above 0.50, confirming that the constructs sufficiently explain the variance of their indicators. The detailed results of the convergent validity assessment are presented in Table 2.

Construct Reliability Test Results

Table 3 presents the results of the reliability assessment for each construct, evaluated using Cronbach's Alpha and Composite Reliability.

The reliability assessment further demonstrates that all constructs meet the recommended internal consistency thresholds. As shown in Table 3, both Cronbach's Alpha and Composite Reliability values for all constructs exceed 0.70, indicating that the measurement model is reliable and suitable for subsequent structural model analysis.

Structural Model Evaluation

Goodness of Fit

Table 4 presents the model fit indices for both the saturated and estimated models. Five indicators were used to assess the overall goodness of fit, including SRMR, d ULS, d G, Chi-Square, and NFI.

Following the guidelines of Hair et. al., (2021) , a structural model is considered acceptable when the goodness-of-fit indices meet or exceed recommended thresholds on at least three to four key measures. Based on Table 4, the SRMR values are below the 0.080 cut-off, and the additional fit indices fall within acceptable ranges. Thus, the model demonstrates satisfactory overall fit and is appropriate for further structural analysis

Coefficient of Determination (R-Square)

The R-Square ($R^2$) value represents the proportion of variance in an endogenous variable explained by the exogenous variables in the model. Table 5 summarizes the $R^2$ results.

The $R^2$ values indicate that the research model has moderate explanatory power for Lecturer performance, use, and user satisfaction, showing that the exogenous variables

account for a substantial proportion of variance in key outcomes within the SEVIMA implementation at Universitas Tanjungpura

Effect Size (F-Square)

The F-Square ($f^2$) values indicate the contribution of each exogenous variable to an endogenous variable. Table 6 presents the $f^2$ results.

The $f^2$ results indicate that user satisfaction has the strongest effect on lecturer performance, highlighting its central role in translating SEVIMA system characteristics into performance outcomes. System quality, service quality, and information quality show moderate effects on both system use and user satisfaction, while system use also contributes meaningfully to lecturer performance. Overall, these findings emphasize user satisfaction as the most influential mechanism linking system quality to performance improvement.

Predictive Relevance ($Q^2$)

$Q^2$ values indicate the model's predictive accuracy for endogenous constructs. Table 7 summarizes the $Q^2$ results.

The $Q^2$ values demonstrate strong predictive relevance for the main endogenous constructs, namely system use, user satisfaction, and lecturer performance. This indicates that the PLS-SEM model has adequate predictive capability in explaining key outcomes of SEVIMA implementation among lecturers.

Hypothesis Testing

Direct Effect

To evaluate the structural model and test the proposed hypotheses, a direct effect analysis was conducted using the PLS-SEM bootstrapping procedure. This analysis examines the magnitude and significance of the relationships between the exogenous and endogenous variables. The resultt, including path coefficients, t-statistics, and p-values are summarized in Table 8.

Indirect Effect

To assess the mediating role of Use and User Satisfaction in the relationship between system quality attributes (system quality, information quality, and service quality) and lecturer performance, an indirect effect analysis was conducted using the PLS-SEM bootstrapping procedure. The results of the mediation paths are presented in Table 9.

**Table 7.** $Q^2$ Test Results

| Construct | SSO | SSE | $Q^2$ (1 – SSE/SSO) |
|---|---|---|---|
| Lecturer Performance | 595 | 359.615 | 0.396 |
| Information Quality | 595 | 595 | 0.000 |
| Service Quality | 595 | 595 | 0.000 |
| System Quality | 595 | 595 | 0.000 |
| Use | 595 | 393.775 | 0.338 |
| User Satisfaction | 595 | 364.045 | 0.388 |

**Table 8.** Direct Effect Results

| Path Relationship | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T-Statistics | P-Values | Conclusion |
|---|---|---|---|---|---|---|
| Information Quality → Use | 0.384 | 0.383 | 0.052 | 7.336 | 0.000 | Hypothesis Accepted |
| Information Quality → User Satisfaction | 0.280 | 0.287 | 0.061 | 4.564 | 0.000 | Hypothesis Accepted |
| Service Quality → Use | 0.422 | 0.420 | 0.063 | 6.715 | 0.000 | Hypothesis Accepted |
| Service Quality → User Satisfaction | 0.214 | 0.217 | 0.063 | 3.397 | 0.001 | Hypothesis Accepted |
| System Quality → Use | 0.400 | 0.400 | 0.063 | 6.361 | 0.000 | Hypothesis Accepted |
| System Quality → User Satisfaction | 0.371 | 0.378 | 0.070 | 5.297 | 0.000 | Hypothesis Accepted |
| Use → Lecturer Performance | 0.312 | 0.312 | 0.090 | 3.472 | 0.001 | Hypothesis Accepted |
| Use → User Satisfaction | 0.301 | 0.284 | 0.076 | 3.930 | 0.000 | Hypothesis Accepted |
| User Satisfaction → Lecturer Performance | 0.534 | 0.529 | 0.085 | 6.309 | 0.000 | Hypothesis Accepted |

**Table 9.** Indirect Effect Results

| Mediation Path | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T-Statistics | P-Values | Conclusion |
|---|---|---|---|---|---|---|
| Information Quality → Use → Lecturer Performance | 0.120 | 0.120 | 0.039 | 3.078 | 0.002 | Hypothesis Accepted |
| Service Quality → Use → Lecturer Performance | 0.132 | 0.131 | 0.042 | 3.147 | 0.002 | Hypothesis Accepted |
| System Quality → Use → Lecturer Performance | 0.125 | 0.126 | 0.044 | 2.823 | 0.005 | Hypothesis Accepted |
| Information Quality → User Satisfaction → Lecturer Performance | 0.149 | 0.153 | 0.044 | 3.432 | 0.001 | Hypothesis Accepted |
| Service Quality → User | 0.114 | 0.116 | 0.041 | 2.795 | 0.005 | Hypothesis |

| Mediation Path | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T-Statistics | P-Values | Conclusion |
|---|---|---|---|---|---|---|
| Satisfaction → Lecturer Performance | | | | | | Accepted |
| System Quality → User Satisfaction → Lecturer Performance | 0.198 | 0.202 | 0.056 | 3.519 | 0.000 | Hypothesis Accepted |

Interpretation of Key Findings

The Influence of Information Quality on System Use

Information quality has a positive and significant effect on system use (β = 0.384), indicating that lecturers are more likely to rely on SEVIMA when the information provided is accurate, relevant, and up to date. In the context of Universitas Tanjungpura, where lecturers interact with multiple parallel academic platforms, high-quality information reduces uncertainty and the need for repetitive cross-checking across systems, thereby encouraging more consistent system use. From a theoretical perspective, this finding extends the DeLone–McLean Information System Success Model by highlighting that, in fragmented digital environments, information quality not only facilitates system use but also helps reduce cognitive load and digital fatigue caused by overlapping systems. When information is clear and reliable, lecturers experience greater task clarity and perceived control, which strengthens their willingness to engage with the system. This result is consistent with previous studies showing that accurate and reliable academic information supports sustained system use (Aziz & Yusof, 2012; Danso et al., 2021; Hariguna et al., 2017; Padmawidjaja et al., 2024)

The Influence of Information Quality on User Satisfaction

Information quality has a positive and significant effect on user satisfaction (β = 0.280), indicating that lecturers feel more satisfied with SEVIMA when the system delivers accurate, timely, and well-structured information. High-quality information helps lecturers clearly understand reporting requirements and reduces errors and ambiguity in administrative tasks, which is especially important in a complex academic environment involving multiple digital platforms. In the context of Universitas Tanjungpura, dependable information increases perceived usefulness and reduces frustration caused by data inconsistencies across systems, thereby strengthening overall satisfaction with the system. This finding supports previous studies showing that information accuracy and clarity are key determinants of user satisfaction in academic and digital information systems (Abdul Rahim et al., 2023; Abu Afifa et al., 2023; Alam & Mezbah-ul-Islam, 2023; Alshammari et al., 2024; X. Li & Zhu, 2022; Manuari & Putra, 2023)

The Influence of Service Quality on Use

Service quality has a strong and significant effect on system use (β = 0.422), indicating that lecturers are more likely to continue using SEVIMA when technical support is responsive and problems are resolved effectively. In academic environments characterized by tight reporting schedules and high administrative workloads, timely assistance reduces operational disruptions and helps lecturers complete mandatory tasks without unnecessary delays. At Universitas Tanjungpura, where system interruptions can directly affect compliance with reporting deadlines, dependable support services increase users' confidence in the system and reduce hesitation to rely on SEVIMA for routine academic activities. From a behavioral perspective, effective service quality lowers perceived risk and effort associated with system use, thereby strengthening continued usage intention. This finding is consistent with previous studies demonstrating that service quality plays a critical role in sustaining the use of ERP, e-learning, and academic information systems (Banafo Akrong et al., 2022; Almaiah et al., 2020; Manuari & Putra, 2023).

The Influence of Service Quality on User Satisfaction

Service quality also has a positive and significant effect on user satisfaction (β = 0.214), indicating that timely assistance and supportive communication play an important role in shaping lecturers' perceptions of SEVIMA. When technical issues are addressed promptly and users receive clear guidance, frustration is reduced and confidence in the system increases. In higher education contexts, where technical disruptions can directly interfere with work efficiency and reporting accuracy, effective support services become a key determinant of positive user experiences. Reliable service quality not only helps resolve immediate problems but also strengthens users' trust in the system, leading to higher overall satisfaction. This finding is consistent with previous empirical studies demonstrating the critical role of service quality in enhancing user satisfaction across academic and digital learning systems (Banafo Akrong et al., 2022; Almaiah et al., 2020; Manuari & Putra, 2023).

The Influence of System Quality on System Use

System quality has a significant and positive effect on system use (β = 0.400), indicating that reliable operation, fast response times, and intuitive navigation encourage lecturers to integrate SEVIMA into their routine academic activities. When the system performs consistently and responds efficiently, lecturers can complete reporting tasks with less effort and fewer interruptions. In a multi-platform digital environment, stable system performance reduces operational complexity and discourages avoidance behavior that may arise from repeated technical failures or slow system responses. By lowering the perceived effort required to use the system, high system quality strengthens lecturers' willingness to rely on SEVIMA as a primary reporting tool. This finding supports prior evidence that system reliability and usability are key drivers of continued use in academic information systems (Gorla et al., 2010; Padmawidjaja et al., 2024; Pitt et al., 1995; Prasetya & Prayogo, 2025)

The Influence of System Quality on User Satisfaction

System quality has a positive and significant effect on user satisfaction (β = 0.371), indicating that stable system performance and a user-friendly interface contribute substantially to lecturers' satisfaction with SEVIMA. When the system operates with minimal technical disruptions, lecturers expend less cognitive effort and experience greater comfort during routine academic and administrative tasks. In contexts where system interaction is frequent and mandatory, reliable performance becomes a critical source of satisfaction, as technical problems can quickly lead to frustration and reduced confidence in the system. High system quality enhances perceived ease of use and trust, thereby strengthening overall user satisfaction. This finding is consistent with previous studies emphasizing the importance of system reliability and interface quality in shaping satisfaction with academic information systems (Gunawan & Nengzih, 2023; Kurniawan, 2021; Manuari & Putra, 2023; Othman et al., 2022; Ratu &

Lestari, 2024)

The Influence of System Use on Lecturer Performance

System use has a positive and significant effect on lecturer performance (β = 0.312), indicating that more frequent and consistent use of SEVIMA contributes to improved work outcomes. Regular system use helps streamline academic reporting processes, reduce manual errors, and support timely completion of administrative and academic tasks. These performance improvements arise not merely from the availability of the system, but from its effective integration into lecturers' daily work routines. When SEVIMA becomes a routine tool rather than an occasional platform, lecturers can manage tasks more efficiently and allocate more time to core academic activities. This finding reinforces earlier evidence that sustained engagement with academic information systems enhances individual productivity and performance (Almaiah et al., 2020; Manuari & Putra, 2023; Setyowati et al., 2024; Yan et al., 2021)

The Influence of System Use on User Satisfaction

System use has a positive and significant effect on user satisfaction (β = 0.301), indicating that increased interaction with SEVIMA enhances lecturers' satisfaction with the system. As lecturers use the system more frequently, they become more familiar with its features and procedures, which reduces uncertainty and increases perceived usefulness and value. This finding suggests that user satisfaction develops not only from system design and technical attributes, but also from accumulated user experience over time. Regular use allows lecturers to build confidence and efficiency in completing academic tasks, leading to more positive system evaluations. Similar relationships have been reported in previous studies on educational and academic information systems (Alshammari et al., 2024; Kurniawan, 2021; Y. Li & Shang, 2020; Othman et al., 2022)

The Influence of User Satisfaction on Lecturer Performance

User satisfaction has the strongest and most significant direct effect on lecturer performance (β = 0.534), indicating that positive experiences with SEVIMA play a central role in improving lecturers' work outcomes. When lecturers feel satisfied with the system, they are more motivated and confident in using it to support academic and administrative tasks. In complex administrative environments, user satisfaction functions as a key mechanism through which digital systems transform technical features and services into tangible performance improvements. High satisfaction reduces resistance to system use, encourages proactive engagement, and enables lecturers to work more efficiently and effectively. This finding is consistent with previous studies demonstrating that user satisfaction is closely associated with increased productivity and performance in academic information systems (Gunawan & Nengzih, 2023; Kurniawan, 2021; Othman et al., 2022; Setyowati et al., 2024)

Mediation Effects

System use mediates the relationships between information quality, service quality, system quality, and lecturer performance, indicating that technical and service attributes improve performance primarily by encouraging consistent use (Abu Afifa et al., 2023; Almaiah et al., 2020; Gorla et al., 2010; Hariguna et al., 2017; X. Li & Zhu, 2022; Nelson et al., 2005; Pitt et al., 1995; Setyowati et al., 2024).

User satisfaction also serves as a key mediating mechanism, particularly in translating high-quality information, reliable systems, and supportive services into performance gains. This highlights that performance improvement in academic information systems depends not only on technical adequacy, but on positive user evaluations formed through repeated and meaningful system interactions (Banafo Akrong et al., 2022; Delone & Mclean, 2016; Kurniawan, 2021; Othman et al., 2022; Ratu & Lestari, 2024)

Mediation Effects

The findings indicate that system use mediates the relationships between information quality, service quality, system quality, and lecturer performance. Given UNTAN's fragmented academic digital environment where SEVIMA operates alongside SISTER, SINTA, Edlink, SKP, and other platforms such as high-quality technical and service attributes do not directly translate into performance gains unless they encourage consistent system use. Reliable information, stable system performance, and responsive support reduce lecturers' hesitation and administrative resistance, enabling SEVIMA to be more effectively embedded into daily academic routines (Hariguna et al., 2017; Abu Afifa et al., 2023; Setyowati et al., 2024; Pitt et al., 1995; Gorla et al., 2010; Nelson et al., 2005; Almaiah et al., 2020; Li & Zhu, 2022).

User satisfaction also emerges as a dominant mediating mechanism at UNTAN, particularly in translating system quality, information quality, and service quality into lecturer performance improvements. In an institutional setting characterized by mandatory reporting and overlapping systems, satisfaction plays a critical role in mitigating digital fatigue and cognitive overload. When lecturers perceive SEVIMA as reliable, supportive, and aligned with their work needs, they are more willing to depend on the system and use it effectively, thereby amplifying its contribution to performance outcomes. This finding reinforces the argument that performance enhancement at UNTAN depends not only on technical adequacy, but also on positive user evaluations formed through repeated and meaningful system interactions (Banafo Akrong et al., 2022; Delone & Mclean, 2016; Kurniawan, 2021; Othman et al., 2022; Ratu & Lestari, 2024)

Limitations and Cautions

Despite its contributions, this study has several limitations. First, the use of a cross-sectional design restricts causal interpretation, a limitation commonly noted in PLS-SEM. Second, data were collected through self-reported surveys, which may introduce subjective bias, including possible overestimation of usage behavior or satisfaction levels. Third, the study focuses exclusively on Universitas Tanjungpura, where digital infrastructure, administrative culture, and user readiness may differ from other higher education institutions in Indonesia. Therefore, generalization to broader academic contexts should be made with caution. Fourth, the study did not examine moderating variables such as digital literacy, age, or IT training intensity, which may influence the relationships between system attributes and performance (Kirste et al., 2024).

Recommendations for Future Research

Future studies should incorporate longitudinal designs to observe changes in system use, satisfaction, and performance over time, particularly as SEVIMA undergoes upgrades or policy adjustments. Researchers are encouraged to examine moderating factors such as digital literacy, workload, or organizational support to better understand individual variation in system adoption. Expanding the sample to include multiple universities would improve generalizability across different institutional environments. Moreover, qualitative approaches such as interviews or focus groups could provide deeper insights into user frustrations, cognitive load, and the impact of platform fragmentation on lecturer productivity. Finally, future research should explore the integration of SEVIMA with external systems (e.g., SISTER, Sinta) to propose an optimized digital ecosystem that reduces redundancy and enhances user experience.

## Conclusion

This study concludes that information quality, system quality, and service quality significantly contribute to the success of the SEVIMA academic information system at Universitas Tanjungpura by increasing system use and user satisfaction, which subsequently enhance lecturer performance. Among these relationships, user satisfaction emerges as the strongest mediating factor, indicating that positive user experiences are critical for translating system capabilities and support services into tangible performance improvements within the fragmented academic digital environment of Universitas Tanjungpura.

Based on these findings, several practical implications are proposed for Universitas Tanjungpura. Information quality should be improved through accurate, complete, and real-time data updates supported by automated verification mechanisms and clearer dashboard displays to reduce reporting errors and uncertainty. System quality enhancements should focus on system stability, scalability, intuitive interface design, and strengthened data security. Considering the use of multiple parallel academic platforms at Universitas Tanjungpura, tighter integration between SEVIMA and other institutional systems is essential to minimize redundant data entry and administrative workload.

Service quality should be reinforced by establishing a responsive helpdesk system supported by clear service-level agreements, along with structured and periodic user training programs for lecturers. In addition, continuous two-way communication channels, such as user feedback mechanisms and regular system evaluations, are needed to ensure that system development remains aligned with lecturers' needs.

To maximize lecturer performance, SEVIMA should be positioned at Universitas Tanjungpura as a core performance-support system rather than merely an administrative reporting tool. This positioning can be strengthened through expanded functional integration, automated reminders, ongoing digital literacy development, and regular monitoring of user satisfaction to support sustainable system adoption.

Despite its contributions, this study is limited by its focus on Universitas Tanjungpura and reliance on self-reported data. Future research is encouraged to involve multiple universities, incorporate objective system usage data, and examine additional factors such as digital literacy, organizational support, and technostress to provide a more comprehensive understanding of academic information system success in higher education.

## Author contributions

All authors contributed substantially to the completion of this research. The first author led the overall project design, developed the research framework, and constructed the survey instrument based on the DeLone and McLean IS Success Model. The second author conducted the data analysis using SmartPLS 4, interpreted the statistical results, and prepared the methodological components of the manuscript. The third, fourth, and fifth authors were responsible for coordinating and executing data collection at Universitas Tanjungpura, validating respondent eligibility, and assisting in data cleaning and preprocessing prior to analysis. All authors participated in drafting, reviewing, and revising the manuscript, and all approved the final version for publication.

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## Conflict of interest

The authors declare that they have no conflicts of interest related to the research, authorship, or publication of this article. There are no financial, institutional, or personal relationships that could have influenced the objectivity or outcomes of this study. The research was conducted independently, and all analyses and interpretations were carried out without external interference.

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