Associations Between Perceived SIM-PAK Implementation Quality and Lecturer-Reported Administrative Outcomes

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Abstract
Digital information systems may support higher-education administration, but user perceptions of an administrative system do not directly indicate educational quality or progress toward Sustainable Development Goal 4 (SDG 4).This study evaluates the implementation of the Academic Credit Assessment Information System (SIM-PAK) at one of the public university at Surabaya, describing the application, analysing lecturers' responses to its strengths and weaknesses, and examining the association of implementation quality with administrative effectiveness, process efficiency, and user satisfaction. Grounded in the DeLone and McLean model, a quantitative explanatory design was complemented by descriptive analysis of open responses. Data from 550 active SIM-PAK users were collected via an online five-point Likert questionnaire; all constructs showed Cronbach's alpha above 0.90, analysed using descriptive statistics, Pearson correlation, and simple linear regression. Implementation quality was positively and significantly associated with all three outcomes ($p < 0.001$), with the strongest association observed for satisfaction, supporting more sustainable, higher-quality governance aligned with SDG 4.

1. Introduction

Sustainable Development Goal 4 (SDG 4) targets inclusive and equitable quality education for all. In higher education, digital transformation can form part of the institutional environment that supports teaching, research, and academic services (Kangwa et al., 2026). However, the performance of an administrative information system is not itself an SDG 4 indicator, and user perceptions of such a system cannot demonstrate progress in educational quality. In this study, SDG 4 is therefore treated only as a broader policy context. The empirical focus is limited to lecturers' perceptions of SIM-PAK implementation quality and associated administrative outcomes.

The digital transformation of higher education demands that universities integrate information technology into all academic governance processes effectively and sustainably. Evidence from higher education shows that web-based academic management information systems can improve service quality and administrative efficiency when they are effectively implemented and integrated into institutional processes (Zulkhairi, 2020). In this context, management information systems are a key instrument to support the management of academic human resources, particularly lecturers, as the primary actors in higher education delivery.

One form of digital transformation in higher education is a web-based lecturer credit-point assessment information system, designed to support the submission and assessment of credit points for academic promotion more efficiently (Chotib, 2020). SIM-PAK is designed to make it easier for lecturers to document their professional track records, from education and teaching, research, community service, to supporting activities. This system is expected to create administrative efficiency through the digitization of the process of inputting, verifying, storing, and reporting lecturer performance data, thereby reducing the manual administrative burden.

However, implementing academic information systems in universities can still create challenges when systems are difficult to use, poorly integrated into existing workflows, or inadequately supported. Evidence from information-system evaluations shows that technical quality, information quality, and support quality are central to user satisfaction and perceived usefulness (Al-Fraihat et al., 2020), while administrative automation

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can intensify administrative burden for academic staff when digital processes do not reduce work complexity (Woelert et al., 2026). These conditions can create additional workloads for lecturers and compete with their primary academic duties. Therefore, technology does not automatically increase work effectiveness; outcomes depend on the quality of implementation and support.

To objectively assess the success of an information system, a well-established theoretical framework is required. DeLone and McLean's (2003) Information System Success Model explains that information system success is determined by the dimensions of system quality, information quality, and service quality, which in turn influence system usage, user satisfaction, and net benefits. This model has been widely validated across diverse system contexts in higher education (Elmunsyah et al., 2023; Sarasi et al., 2023; Widyaningrum et al., 2024) and public services (Abdulkareem & Mohd Ramli, 2022). This framework is relevant for evaluating SIM-PAK because it positions implementation quality as the primary determinant of perceived user benefits, including administrative effectiveness, process efficiency, and satisfaction.

Although previous studies have examined information-system quality and user satisfaction in higher education across e-learning, learning management, and general academic information systems (Al-Fraihat et al., 2020; Anwarudin et al., 2024; Elmunsyah et al., 2023; Sarasi et al., 2023; Widyaningrum et al., 2024), research on lecturer credit-point systems has largely emphasized system development, functional testing, and interface or usability design rather than relationships among implementation quality and user-reported administrative outcomes (Chotib, 2020; Tandra et al., 2024). Specifically, prior credit-point system studies have not tested, within an operational institutional setting, whether a combined assessment of system, information, and service quality is associated simultaneously with perceived administrative effectiveness, process efficiency, and user satisfaction, nor have they paired those quantitative associations with structured user feedback on strengths and weaknesses. The empirical novelty of the present study is therefore the joint examination of these three lecturer-reported outcomes within a credit-point governance system, using the DeLone and McLean framework as the organizing model.

Based on this gap, this study evaluates SIM-PAK at one of the public university at Surabaya from the perspective of its users. Specifically, the study: (1) describes the construction and function of the SIM-PAK application as the implementation context; (2) analyzes lecturers' reported advantages and disadvantages of the application; and (3) examines the associations between perceived SIM-PAK implementation quality and administrative effectiveness, process efficiency, and user satisfaction. The study is intended to provide empirical evidence for the application of the DeLone and McLean model in lecturer performance governance and practical input for system improvement. It does not directly measure educational quality, lecturer academic performance, or SDG 4 indicators.

2. Method

2.1. Types and Approaches of Research

This study uses a quantitative explanatory approach to examine the relationship between the quality of SIM-PAK implementation and system usage outcomes. The research design is a cross-sectional survey, meaning data collection is conducted at a single point in time through a questionnaire to predetermined respondents.

2.2. Population and Sample

The study population was lecturers at one of the public university at Surabaya, Indonesia who actively use SIM-PAK in the process of submitting and monitoring functional position credit points. The sampling technique used purposive sampling with the criteria of lecturers who have used SIM-PAK. The number of respondents collected and eligible for analysis was 550 people. Respondents came from various faculties with varying academic levels, ranging from lecturers to professors.

2.3. Instruments and Data Collection

Data were collected through an online questionnaire consisting of a respondent characteristics section and a research construct measurement section. The research constructs included four variables measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The independent variable was the quality of SIM-PAK implementation (8 items) that operationalized the dimensions of system quality, information quality, and service quality; an example item was, “SIM-PAK is easy to access without significant technical obstacles.” Administrative effectiveness (5 items) included statements such as, “SIM-PAK helps accelerate the completion of academic-promotion administration.” Process efficiency (5 items) included, “SIM-PAK accelerates the promotion-submission process compared with the manual process.”. The dependent variable consisted of three system usage output constructs: administrative effectiveness (5 items), process efficiency (5 items), and user satisfaction (5 items). The instrument items were arranged referring to the dimensions of DeLone and McLean's (2003) Information Systems Success Model.

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2.4. Construct Validity and Reliability Test

Measurement quality was examined before substantive analysis. Factorability of the 23 items was assessed using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity. Convergent validity was evaluated using standardized loadings from separate single-factor models for each prespecified scale, average variance extracted (AVE), and composite reliability (CR), while discriminant validity was examined using the heterotrait-monotrait ratio (HTMT; Henseler et al., 2015). The overall KMO value was 0.961 and Bartlett's test was significant, $\chi^2(253) = 5962.02$, $p < 0.001$. Standardized factor loadings ranged from 0.677 to 0.905, AVE values from 0.618 to 0.755, CR values from 0.903 to 0.939, and Cronbach's alpha from 0.903 to 0.940 as seen in Table 1, supporting convergent validity and internal consistency. HTMT values ranged from 0.894 to 0.958, with several values exceeding 0.90; therefore, discriminant validity among the four scales was limited. The scales are consequently interpreted as closely related composite perceptions rather than fully distinct latent constructs.

Table 1. Construct Validity and Reliability of the Measurement Scales

Construct	Number of Items	Loading Range	AVE	CR	Cronbach's Alpha
Quality of SIM-PAK Implementation (X)	8	0.677–0.859	0.618	0.928	0.927
Administrative Effectiveness (Y1)	5	0.820–0.905	0.749	0.937	0.940
Process Efficiency (Y2)	5	0.702–0.891	0.652	0.903	0.901
User Satisfaction (Y3)	5	0.847–0.886	0.755	0.939	0.938

2.5. Data Analysis Techniques

The data were analyzed through several stages. First, descriptive statistical analysis was conducted to describe the characteristics of respondents and the mean and standard deviation of each construct. Second, Pearson correlation analysis was conducted to measure the closeness of the relationship between constructs. Third, simple linear regression analysis was conducted to examine the predictive association between SIM-PAK implementation quality and each system usage output. Statistical significance was determined at $p < 0.05$, with the unstandardized coefficient (b), standardized coefficient (β), t-value, and coefficient of determination (R^2) reported. Fourth, responses to open-ended questions regarding the application's advantages and disadvantages were analyzed descriptively by calculating the frequency of each aspect.

3. Results and Discussion

3.1. Results

3.1.1. Construction and Function of SIM-PAK Application

Before discussing the statistical analysis results, it is important to outline the SIM-PAK application construction as the implementation context. SIM-PAK at the research site is a web-based application accessed through a browser using an integrated lecturer account. This application functions as a credit score management system that integrates all stages of functional position applications, from inputting evidence of Tridharma performance, file verification, assessment by the assessment team, to online application status monitoring.

Architecturally, SIM-PAK is built following a centralized database-based application pattern that connects three main user roles: lecturers as applicants, assessment teams or reviewers as examiners of work and credit points, and managers or administrators at the faculty and university levels. From a functional perspective, SIM-PAK provides a lecturer profile module, a document upload and management module, a credit point calculation module, a verification and assessment module, and a status monitoring module and position decree (SK). This flow design aims to maintain transparency, accountability, and traceability at every stage of the academic promotion process. Illustrations of the interface display and flow diagram are presented in Figures 1 and 2.

Conceptually, this construction demonstrates that SIM-PAK functions not only as a document repository but also as a workflow system that connects recording, auditing, assessment, and decision-making in a single digital chain. Integration of processes from upstream to downstream is crucial because digital transformation is not simply defined as the transfer of paper forms to online media; new transformations generate value when technology transforms work coordination, data exchange, and organizational service delivery (Mergel et al., 2019). In the context of SIM-PAK, a centralized database and status monitoring enable a single piece of evidence to be used consistently across multiple stages, reducing input duplication and clarifying the file's position in the submission process.

The SIM-PAK construction can also be mapped in more detail along the three main dimensions of the Information Systems Success Model. System quality is reflected in stability, response speed, ease of navigation, access security, and inter-module connectivity. Information quality is not only related to the accuracy of credit scores, but also to the completeness, currency, relevance, consistency, and understandability of the information for users; these attributes are important parts of data quality from a user perspective (Wang & Strong, 1996).

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Meanwhile, service quality is evident in the availability of guidance, responsiveness of technical assistance, clarity of communication when corrections occur, and the ability of managers to resolve problems. Service components need to be assessed alongside technical quality because the effectiveness of an information system is also determined by the reliability and responsiveness of the accompanying services (Pitt et al., 1995; DeLone & McLean, 2003).

The separation of roles between lecturers, assessors, and administrators provides a broader governance function than simply restricting access. A role-based structure supports the separation of duties, ensures that submissions and assessments are handled by different actors, and creates a traceable process trail. Administratively, this traceability enhances transparency because users can see which stages have been completed, who is processing them, and what actions are still needed. Thus, the profile module, document upload, credit calculation, verification, assessment, and status monitoring are integrated into a process control mechanism, not stand-alone features.

However, the completeness of core functions does not automatically guarantee successful implementation. The literature shows that system and information characteristics shape user evaluations of the system, while these evaluations subsequently influence satisfaction and willingness to continue using the technology (Wixom & Todd, 2005; Petter et al., 2008). Findings on digital learning systems also show that technical quality, information quality, and support quality collectively explain user satisfaction and perceived usefulness (Al-Fraihat et al., 2020). Therefore, an intuitive interface, clear instructions, informative notifications, and prompt technical support should be positioned as part of the SIM-PAK service construction, not as an add-on after the application is developed.

This reading provides a basis for interpreting the research results: the implementation quality score represents lecturers' experiences with the entire SIM-PAK ecosystem, from application performance and information quality to interactions with service administrators. If one component is weak, the benefits of other components can be diminished; for example, accurate calculations are not fully helpful when process status is unclear, while an easy-to-use interface is insufficient if the system frequently fails when uploading documents. Because technological details and module naming may change as institutions develop, this description is positioned as a functional analysis based on the general SIM-PAK flow and should be aligned with applicable official technical documentation.

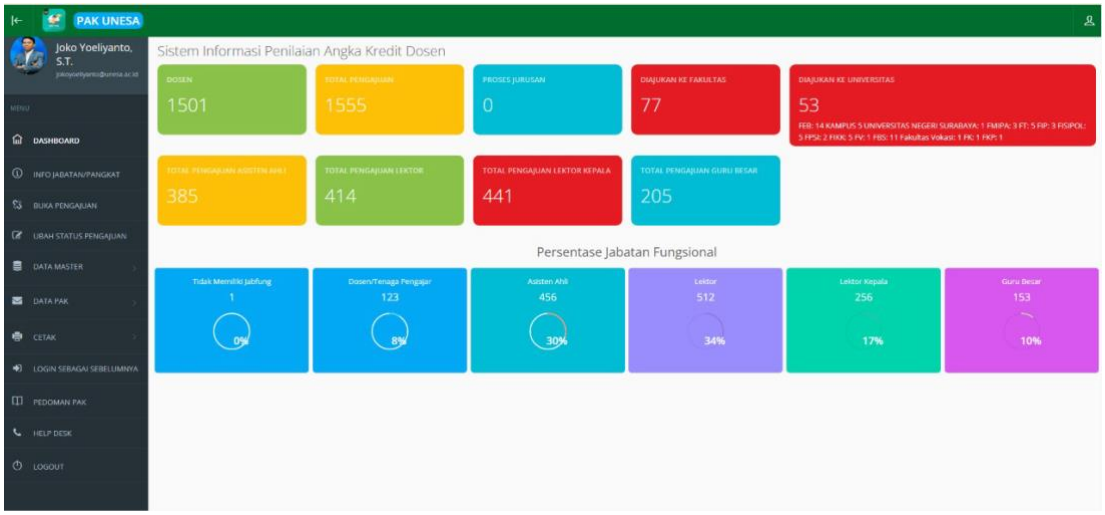


Figure 1. SIM-PAK Application Interface Display

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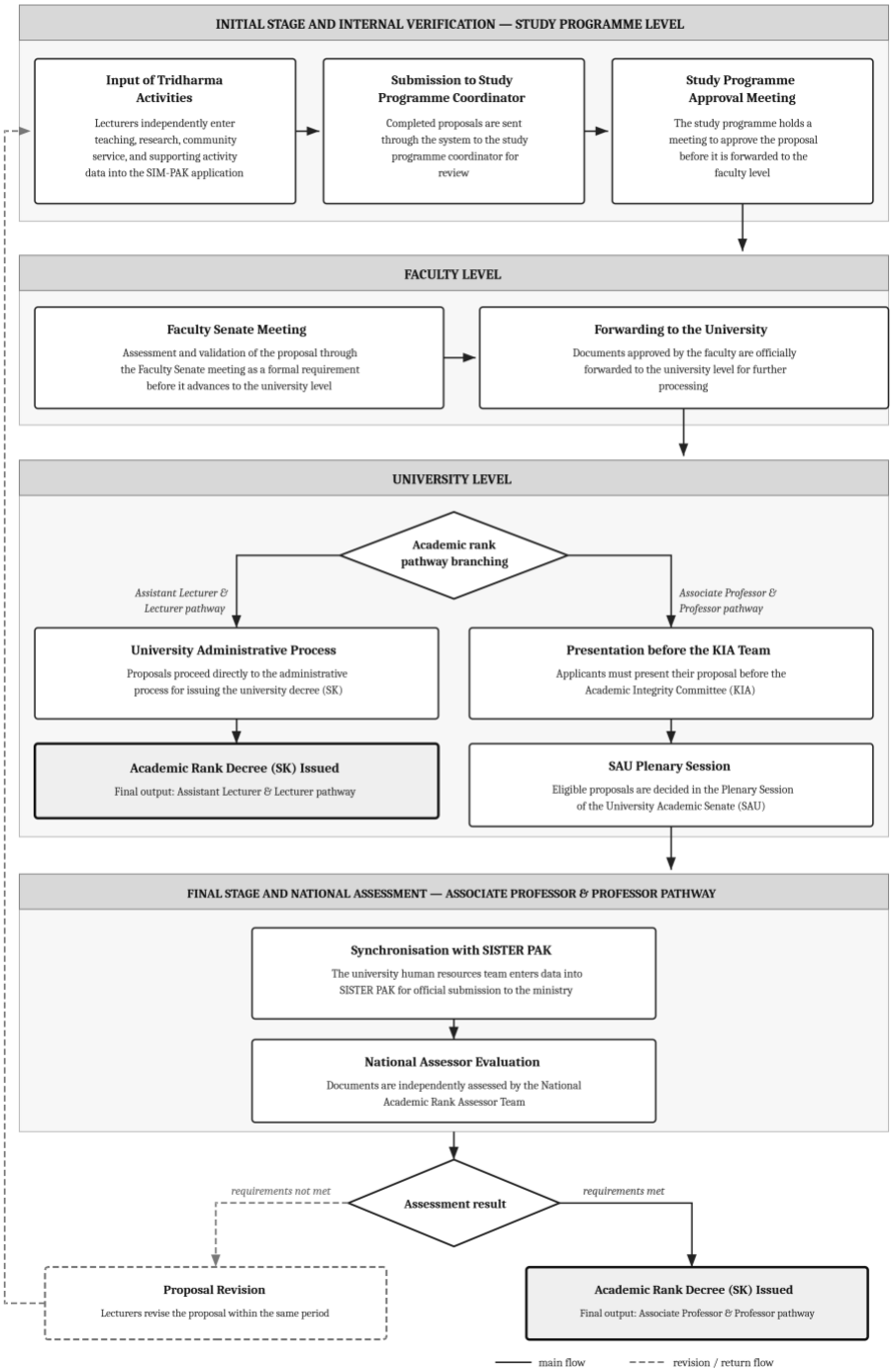


Figure 2. Flowchart of the Application Process for SIM-PAK

3.1.2. Respondent Characteristics

A total of 550 lecturers participated in this study. Based on gender, respondents consisted of 296 women (53.8%) and 254 men (46.2%). In terms of age, the largest group was in the 31–40 years range (48.2%), followed by 41–50 years (23.6%) and above 50 years (20.9%). Based on academic position, respondents were dominated by lecturers (191 people), associate lecturers (147 people), and expert assistants (131 people), with the remainder being teaching staff (41 people) and professors (40 people). Almost all respondents (98.2%) had used SIM-PAK, and the most dominant purpose of use was to apply for functional positions (79.6%).

3.1.3. Descriptive Statistics of Constructs

The average value for all constructs was in the high category (Table 2). User satisfaction obtained the highest average (M = 4.59), followed by process efficiency (M = 4.57), administrative effectiveness (M = 4.56), and SIM-PAK implementation quality (M = 4.50). The relatively small standard deviation value (0.50–0.57) indicates a tendency for homogeneous responses.

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Table 2. Descriptive Statistics of Research Constructs (scale 1–5)

Construct	Average	Standard Deviation	Min	Max
Quality of SIM-PAK Implementation (X)	4.50	0.50	2.00	5.00
Administrative Effectiveness (Y1)	4.56	0.57	1.80	5.00
Process Efficiency (Y2)	4.57	0.51	1.80	5.00
User Satisfaction (Y3)	4.59	0.54	1.40	5.00

3.1.4. Correlation Test Results

Pearson correlation analysis showed that all constructs were positively and significantly correlated at $p < 0.001$ (Table 3). The quality of SIM-PAK implementation was strongly correlated with administrative effectiveness ($r = 0.810$), process efficiency ($r = 0.816$), and user satisfaction ($r = 0.830$). The correlation between output constructs was also high ($r = 0.845–0.888$).

The correlation coefficients between implementation quality and the three outcomes ranged from 0.810 to 0.830. This value indicates a very strong positive linear relationship; even with conservative interpretation guidelines, coefficients above 0.70 indicate a strong association (Schober et al., 2018). A significance of $p < 0.001$ should be read in conjunction with the coefficient size and the precision of the estimate, not as evidence alone. In a large sample, even small relationships can be significant, but in this study, the large r value and narrow confidence intervals suggest that the results are not solely a consequence of $n = 550$. Empirically, lecturers who rated SIM-PAK as more reliable, informative, and supported by good service also tended to rate the administrative process as more effective, more efficient, and more satisfying.

The strongest relationship was found between implementation quality and user satisfaction ($r = 0.830$). This pattern is consistent with the DeLone and McLean Model, which positions satisfaction as a user response that is close to direct experience of system, information, and service quality (DeLone & McLean, 2003; Petter et al., 2008). Wixom and Todd (2005) also explained that beliefs about information quality and system quality shape satisfaction with technology objects before continuing to evaluation of use and behavior. Thus, the slightly higher correlation with satisfaction compared to administrative effectiveness is understandable because satisfaction captures immediate evaluations of interactions with applications, while administrative effectiveness is a more distal benefit and is also influenced by procedures, policies, and organizational coordination.

The very high correlation between the outputs ($r = 0.845–0.888$) suggests that effectiveness, efficiency, and satisfaction are perceived by users as interrelated experiences of system success. However, this pattern also warrants examination of whether the three constructs truly possess adequate discriminant validity. The VIF between the output variables was not a primary test in the three separate simple regressions because the outputs were not entered simultaneously as predictors. A more appropriate test in further research would be a confirmatory factor analysis or heterotrait–monotrait ratio (HTMT) to ensure that each construct remains empirically distinct despite their strong correlation (Henseler et al., 2015). If the discrimination threshold is not met, the model could be considered as a higher-order construct of perceived SIM-PAK benefits or success.

Although correlation patterns support the relationships predicted by theory, correlation does not prove causality. All variables were measured by the same respondents, instruments, and collection time, so covariance may be influenced by common method bias, such as consistency of responses, a tendency to give generally positive evaluations, or similarity of scale formats (Podsakoff et al., 2003). Therefore, correlation results are best interpreted as strong and consistent evidence of association, which needs to be confirmed using objective usage data, different data sources, or measurements at different times.

Table 3. Inter-construct Correlation Matrix

Construct	X	Y1	Y2	Y3
X	1			
Y1	0.810	1		
Y2	0.816	0.845	1	
Y3	0.830	0.888	0.875	1

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3.1.5. Regression Test Results

Hypothesis testing was conducted using three simple linear regression models with SIM-PAK implementation quality as the independent variable (Table 4). All three models showed a positive and significant effect at $p < 0.001$.

Table 4. Results of Simple Linear Regression Analysis

Model (X →)	b	β	t	R^2	Sig.
Administrative Effectiveness (Y1)	0.914	0.810	32.34	0.656	< 0.001
Process Efficiency (Y2)	0.828	0.816	33.06	0.666	< 0.001
User Satisfaction (Y3)	0.886	0.830	34.89	0.690	< 0.001

All three regression models show that implementation quality is a positive and significant predictor of administrative effectiveness, process efficiency, and user satisfaction. In a simple linear regression with one predictor, the standardized coefficient β is mathematically equal to the Pearson correlation r, while R^2 is the square of r (Bewick et al., 2003). Therefore, the fit of the values β = 0.810–0.830 and R^2 = 0.656–0.690 with the correlation results indicates consistency of the calculations. The regression in this section does not produce a relationship separate from the correlation but translates the relationship into predictions and proportions of output variation associated with implementation quality.

Substantively, the R^2 of 0.656 indicates that 65.6% of the variation in administrative effectiveness scores is related to variations in the quality of SIM-PAK implementation. This proportion increases to 66.6% for process efficiency and 69.0% for user satisfaction. This hierarchical pattern reinforces the theoretical interpretation that system quality, information quality, and service quality first shape user evaluations, then relate to individual and organizational benefits (DeLone & McLean, 2003; Petter et al., 2008). The finding that satisfaction has the highest R^2 is also in line with research on digital systems in education that places technical quality, information quality, and support as important antecedents of satisfaction and perceived benefits (Al-Fraihat et al., 2020).

The unstandardized coefficients provide operational meaning to the measurement scale. In the effectiveness model, b = 0.914 means that a one-point increase in the implementation quality score is predicted to be followed by an average increase of 0.914 points in the administrative effectiveness score. The values of b = 0.828 for efficiency and b = 0.886 for satisfaction show a similar pattern. The magnitude of these coefficients indicates that perceived improvements in system reliability, information clarity, and service support are related not only to application acceptance but also to the experience of faster and more structured work processes. The practical implication is that SIM-PAK improvements need to be implemented as an integrated package: improving system stability and speed, simplifying the interface, providing contextual guidance, status notifications, data interoperability, and responsive support services.

Despite the high R^2 value, the term "effect" should be used sparingly, as it represents a statistical influence in the model, not causal evidence. The cross-sectional design does not ensure that implementation quality precedes outcomes; satisfied users may also rate all aspects of the system more positively. Furthermore, measuring all constructs using the same questionnaire opens up the possibility of common method bias, which could amplify the relationship between scores (Podsakoff et al., 2003). Variations not yet included—such as digital competence, frequency of use, prior application experience, workload, academic tenure, quality of faculty mentoring, and institutional policies may also partially explain the relationship. Therefore, these results are more appropriately described as strong predictive evidence than as estimates of causal effects.

Interpretation also requires consideration of the highly concentrated distribution of scores in the high categories. Ceiling effects reduce the instrument's ability to discriminate between respondents at the upper end of the scale and can limit the variance available to accurately estimate relationships (Terwee et al., 2007). This condition does not necessarily inflate coefficients; range restrictions can weaken or distort relationships, while common method bias can work in the opposite direction. Replication using scales with better discrimination, system log data, application turnaround times, upload failure frequency, and a longitudinal design would provide a stronger basis for assessing the extent to which SIM-PAK quality improvements actually result in increased effectiveness, efficiency, and satisfaction.

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3.1.6. Lecturers' Responses to the Advantages and Disadvantages of SIM-PAK

The questionnaire also included open-ended questions regarding the advantages and disadvantages of SIM-PAK. The frequencies for each aspect are presented in Tables 5 and 6.

Table 5. Advantages of SIM-PAK according to Lecturer Responses

Advantages Aspects	Frequency	Percentage
Easy to use	418	76.0%
Speed up the promotion process	401	72.9%
More structured process	374	68.0%
Data is stored securely	369	67.1%
Reduce administrative errors	355	64.5%

Table 6. Disadvantages of SIM-PAK according to Lecturer Responses

Weaknesses Aspects	Frequency	Percentage
Lack of user manual	224	40.7%
Less intuitive display	160	29.1%
Slow technical support response	87	15.8%
The system often experiences disruptions	75	13.6%
Document upload process is slow	56	10.2%
Declaring there are no deficiencies	55	10.0%

Note: Respondents can choose more than one aspect (n = 550). Source: Processed primary data (2026)

Table 5 shows that the most frequently cited advantages were ease of use (76.0%) and accelerated promotion processes (72.9%), followed by a more streamlined process structure (68.0%), data storage security (67.1%), and reduced administrative errors (64.5%). This pattern is consistent with the high scores on the administrative effectiveness and process efficiency constructs.

In contrast, Table 6 shows that the most frequently reported deficiencies were the lack of user guidance (40.7%) and an unintuitive interface (29.1%), which are directly related to the dimensions of system quality and service quality. This is in line with the findings at the item level, namely low scores on the aspects of system stability ("rarely experiences errors," M = 4.26) and clarity of user instructions (M = 4.47). Several lecturers also requested a mobile version, a submission cancellation feature, status notifications, electronic signatures and seals, and synchronization with other systems; 55 respondents (10.0%) stated that they did not find any deficiencies.

3.2. Discussion

The findings demonstrate that the quality of SIM-PAK implementation is strongly associated with administrative effectiveness, process efficiency, and user satisfaction. This pattern is consistent with the DeLone and McLean (2003) Information Systems Success Model, which positions system quality, information quality, and service quality as key determinants of users' evaluations and the benefits obtained from an information system. In the present study, implementation quality explained a substantial proportion of variance in administrative effectiveness, process efficiency, and user satisfaction, with R^2 values ranging from 0.656 to 0.690. These findings suggest that lecturers' perceptions of system reliability, clarity of information, ease of interaction, and service support are closely related to how effectively they perceive the academic promotion process to be managed. The results are also consistent with Petter et al. (2008), who emphasized the interrelationships among system quality, information quality, service quality, user satisfaction, and perceived net benefits in determining information system success.

The strong relationship between implementation quality and administrative effectiveness indicates that SIM-PAK is perceived as more than a digital repository for lecturer documents. Its integrated functions—covering submission, verification, assessment, and monitoring of academic promotion status—allow users to conduct administrative processes within a more structured and traceable workflow. This interpretation is supported by lecturers' open-ended responses, in which 68.0% reported that SIM-PAK made the process more structured and 64.5% perceived that it reduced administrative errors. These findings illustrate how information system quality can contribute to administrative effectiveness by reducing fragmented procedures and facilitating more consistent management of lecturer performance records. In this regard, the findings extend the application of the DeLone and McLean framework from general academic and learning information systems to a more specific form of institutional governance system concerned with lecturer credit-point assessment and academic promotion.

A similarly strong relationship was found between implementation quality and process efficiency. Lecturers who evaluated SIM-PAK more positively also tended to perceive the academic promotion process as more efficient. This result is consistent with the functional design of SIM-PAK, which integrates document

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submission, verification, assessment, and status monitoring within a single digital process. The open-ended findings reinforce this interpretation: 72.9% of respondents indicated that SIM-PAK accelerated the promotion process, while 76.0% considered the application easy to use. From a digital transformation perspective, this finding is important because efficiency is not achieved merely by transferring paper-based procedures into an online environment. Rather, digital transformation creates value when technology improves the coordination of tasks, information exchange, and service processes (Mergel et al., 2019). Therefore, the perceived efficiency of SIM-PAK appears to result from the integration of administrative stages into a more coordinated digital workflow rather than from digitalization alone.

Among the three outcomes, user satisfaction showed the strongest relationship with SIM-PAK implementation quality ($\beta = 0.830$; $R^2 = 0.690$). This finding is theoretically plausible because satisfaction represents users' immediate evaluation of their interaction with a system and is therefore closely linked to perceptions of system quality, information quality, and service quality. Wixom and Todd (2005) similarly explained that beliefs regarding information quality and system quality contribute directly to users' satisfaction with information technology. Nevertheless, the high level of satisfaction found in this study should not be interpreted as evidence that SIM-PAK is free from implementation problems. The open-ended responses revealed that 40.7% of lecturers perceived a lack of user guidance, 29.1% considered the interface less intuitive, 15.8% reported slow technical-support responses, and 13.6% experienced system disruptions. The coexistence of high overall satisfaction and specific criticisms suggests that users generally recognize the benefits of SIM-PAK while still identifying particular aspects of system and service quality that require improvement. This convergence between the quantitative and open-ended findings strengthens the interpretation of the study because it provides a more differentiated picture than satisfaction scores alone.

More broadly, the findings contribute to the literature by showing that the Information Systems Success Model is relevant not only to learning management systems or general academic information systems but also to digital systems used for lecturer performance governance. Previous studies have frequently examined information-system success in learning and general academic-service environments, whereas empirical studies focusing specifically on lecturer credit-point and academic-promotion management remain limited. The present findings therefore provide evidence that the quality dimensions proposed by DeLone and McLean remain important in a governance context in which the system must support not only individual users but also institutional processes involving lecturers, assessors, and administrators. At the same time, because the study used a cross-sectional self-report design, these relationships should be interpreted as strong predictive associations rather than definitive causal effects. This distinction is particularly important given the high correlations among the constructs and the concentration of responses at the upper end of the scale.

3.3. Implications

The findings have practical implications for the management and further development of SIM-PAK. Lecturers generally perceived the system as easy to use, helpful in accelerating the promotion process, and capable of making administrative procedures more structured. At the same time, the reported weaknesses: particularly limited user guidance, a less intuitive interface, slow technical-support responses, system disruptions, and a slow document-upload process (identify specific areas that system managers can prioritize for improvement). Accordingly, practical follow-up should focus on clearer user guidance, interface refinement, improved system stability and upload performance, more responsive technical support, and more informative status notifications. These implications are limited to users' perceptions of administrative system performance. Although effective digital administration may form part of the institutional environment that supports higher education, this study did not measure educational quality or SDG 4 indicators and therefore does not provide evidence that SIM-PAK itself advances SDG 4.

3.4. Limitations

This study has limitations. First, the distribution of responses showed a ceiling effect: the majority of respondents (90–95%) gave high scores (≥ 4.0) for all constructs, thus limiting data variation and requiring caution in generalizations. Second, the study was cross-sectional at a single institution. Third, the data were sourced from self-reports, which can be potentially biased. Future research is recommended using objective data on system usage, cross-institutional samples, and longitudinal designs.

4. Conclusion

This study evaluates the implementation of SIM-PAK at one of the public university at Surabaya from three complementary perspectives. From a construction perspective, SIM-PAK is a web-based application that integrates submission, verification, assessment, and credit score monitoring in a single structured flow. In terms of user responses, lecturers most appreciated the ease of use (76.0%) and the acceleration of the promotion process (72.9%), while the main shortcomings were the lack of user guidance (40.7%) and the less intuitive interface (29.1%). In terms of association, SIM-PAK implementation quality was positively and significantly associated with administrative effectiveness ($\beta = 0.810$; $R^2 = 0.656$), process efficiency ($\beta = 0.816$; $R^2 = 0.666$), and user satisfaction ($\beta = 0.830$; $R^2 = 0.690$), all at $p < 0.001$, with the strongest association observed for user

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satisfaction. These findings support targeted improvements to user guidance, interface usability, system reliability, document-upload performance, status communication, and technical-service responsiveness. Because the study used a cross-sectional, single-institution, self-report design, the results should not be interpreted as evidence of causal effects on lecturer performance, educational quality, or progress toward SDG 4. Further research should use objective system-use indicators, broader institutional samples, and longitudinal designs to examine whether improvements in system quality are followed by measurable changes in administrative performance.

Author Contributions

Joko Yoeliyanto: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Visualization, Writing (Original Draft). Bambang Yulianto: Conceptualization, Supervision, Validation, Writing (Review and Editing). Syunu Trihantoyo: Methodology, Formal analysis, Supervision, Validation, Writing (Review and Editing). Sujarwanto: Resources, Validation, Writing (Review and Editing). Ratna Suhartini: Investigation, Resources, Project administration, Writing (Review and Editing). Lena Citra Manggalasari: Data curation, Visualization, Project administration, Writing (Review and Editing). Warju: Data curation, Visualization, Project administration, Writing (Review and Editing). All authors have read and approved the final manuscript.

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Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethics and Consent Declarations

This study involved adult participants and employed a non-interventional survey design with minimal risk. Formal ethical approval was not required as the study involved no interventions, vulnerable groups, or the collection of sensitive personal data or personally identifiable information, in accordance with applicable institutional regulations. Nevertheless, the study was conducted in adherence to ethical principles regarding research involving human participants. Participation was voluntary, and respondents were informed of the study's objectives, data confidentiality, and their right to participate voluntarily prior to completing the questionnaire. Informed consent was obtained through the respondents' willingness to proceed with and submit the online questionnaire. Data were analyzed and reported in aggregate form, without including respondents' personal identities, to ensure participant privacy and confidentiality.

Data Availability

The datasets generated and/or analyzed during the current study are not publicly available because they contain research data obtained from human participants and are subject to confidentiality considerations. Anonymized data supporting the findings of this study are available from the corresponding author upon reasonable request, subject to applicable ethical guidelines and institutional policies.

Declaration on AI Use

Artificial intelligence (AI) technology and/or AI-assisted tools were used to a limited extent to enhance the readability, linguistic clarity, and linguistic accuracy of the manuscript under the authors' close supervision. All AI-assisted output was critically reviewed, verified, and edited by the authors, who bear full responsibility for the final content of the manuscript. AI was not used to generate scientific data, perform statistical analysis, formulate scientific interpretations, draw conclusions, or draft research recommendations, nor is it listed as an author.

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