ANALYSIS OF IMIS'S SUCCESS ON TEACHER PERFORMANCE AND ORGANIZATIONAL PERFORMANCE IN VOCATIONAL SCHOOLS

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Abstraksi

Tulisan ini bertujuan untuk menganalisis faktor-faktor yang mempengaruhi kinerja individu dan organisasi mengenai penggunaan Sistem Informasi Manajemen Magang (IMIS) yang diberi nama aplikasi SIM-PKL untuk program magang di SMK Negeri 11 Malang dengan framework DeLone. dan Model Keberhasilan Sistem Informasi McLean (ISSM). Metode yang digunakan adalah metode kuantitatif dengan mengumpulkan data dari pengguna SIM-PKL. Sampel berjumlah 55 responden yang terdiri dari 9 orang koordinator, 30 orang guru SMK, dan 16 orang guru mata pelajaran umum. Analisis tersebut mengidentifikasi faktor-faktor kunci keberhasilan, termasuk kualitas sistem, kualitas informasi, kualitas layanan, niat untuk menggunakan, kepuasan, kinerja individu, dan kinerja organisasi. Temuan ini sejalan dengan kerangka Delone & McLean, yang mengevaluasi keberhasilan sistem informasi. Analisis lebih lanjut mengungkapkan pengaruh langsung yang signifikan antara kualitas sistem, kualitas informasi, dan kualitas layanan terhadap niat penggunaan dan kepuasan pengguna, sedangkan manfaat bersih (kinerja individu dan organisasi) tidak signifikan secara statistik. Niat penggunaan dan kepuasan pengguna mampu memediasi pengaruh kualitas sistem, kualitas informasi, dan kualitas layanan secara signifikan terhadap manfaat bersih. Niat untuk menggunakan dan kepuasan pengguna penting untuk meningkatkan penggunaan sistem, meningkatkan produktivitas, dan secara positif mempengaruhi kinerja. Penelitian ini memberikan kontribusi pemahaman SIM-PKL untuk memandu sekolah dalam menyempurnakan sistem informasi manajemennya.

Kata Kunci :
Kualitas Sistem, Kualitas Informasi, Kualitas Pelayanan, Kepuasan Pengguna, Manfaat Bersih

Abstract

This paper aims to analyze the factors that influence individual and organizational performance regarding the use of an Internship Management Information System (IMIS), which is named the SIM-PKL application for the internship program at SMK Negeri 11 Malang, with a framework in the DeLone and McLean Information Systems Success Model (ISSM). A quantitative method was employed, gathering data from SIM-PKL users. The sample comprised 55 respondents: 9 coordinators, 30 vocational teachers, and 16 general subject teachers. The analysis identifies key success factors, including system quality, information quality, service quality, intention to use, satisfaction, individual performance, and organizational performance. The findings align with the Delone & McLean framework, which evaluates information system success. Further analysis revealed a significant direct influence of system quality, information quality, and service quality on usage intentions and user satisfaction, while the net benefits (individual and organizational performance) were not statistically significant. Intention to use and user satisfaction are able to significantly mediate the influence of system quality, information quality, and service quality on net benefits. Intention to use and user satisfaction are important to increase system usage, enhance productivity, and positively affect performance. This study contributes to understanding SIM-PKL to guide schools in enhancing their management information systems.

Keywords :
System Quality, Information Quality, Service Quality, User Satisfaction, Net Benefit

Introduction

The rapid advancement of technology, particularly in the field of information technology, has had a significant positive impact on supporting human activities. The continuous evolution in information technology has underscored the need for effective process management, especially in data processing, to transform it into efficient, accurate, and continuously improving information. One such technology for data processing is Management Information Systems (MIS) [4].

MIS must exhibit quality in its usage. To enhance user satisfaction and increase the number of users, the quality of MIS must be consistently improved. It is a fact that the success of an information system is

influenced by user satisfaction, which has been confirmed through research [1].

The theoretical framework employed in this research is the DeLone & McLean (2003) Success Model to assess the quality of management information systems in relation to intention to use and satisfaction. When there is an improvement in the quality of the information system, intention to use and user satisfaction also tend to increase.

SMK Negeri 11 Malang, a state vocational school in East Java, is an educational institution with various programs, one of which is the Internship Program (PKL). The PKL program is usually carried out by SMK students, commonly during their intermediate or final stages of study. Currently, SMK Negeri 11 Malang is one of the schools capable of developing and utilizing a management information system for processing PKL activity data, known as SIM-PKL. SIM-PKL is expected to provide significant benefits for enhancing organizational performance. Intention to use, user satisfaction, individual impact, and organizational impact are crucial indicators in determining the success of its implementation.

Several users, including supervising teachers and students, have reported that SIM-PKL does not work optimally and does not provide user satisfaction. Users have encountered errors multiple times when accessing SIM-PKL. This issue arises because the application is hosted on the school's server, which is sometimes unstable when accessed through a public address. This dissatisfaction highlights that the workflow of SIM-PKL and several other applications is not functioning properly. Therefore, if users are dissatisfied with SIM-PKL, it indicates that the performance of SIM-PKL is not operating optimally.

Theoretical Review

System Quality

System quality serves as a benchmark for systems managed by an organization or company and is used to manage the quality standards of the products and services provided [10]. System quality in an organizational environment with the use of information systems aligns with the requirements and capabilities of its users, aiming to transform data into high-quality information and provide significant benefits to its users [5].

System quality in the context of SIM-PKL refers to the system's ability to meet the needs of information system users, with indicators including reliability, productivity, and accuracy.

Information Quality

Information quality represents the form of information generated by an information system with quality that can provide benefits to its users by providing the desired form of information as needed by the users [2]. Information quality reflects the quality of the products produced through the information system. As the quality of information presented increases, its impact on user satisfaction becomes more significant [8].

Information quality in the context of SIM-PKL refers to the ability of the information generated by the information system to meet the needs of information system users, with indicators including accuracy, relevance, consistency, and integrity of the information.

Service Quality

Service quality refers to the level of satisfaction experienced by users regarding the services provided by the system. This involves aspects such as the system's responsiveness to user requests, availability, reliability, user friendliness, and the level of support provided. Good service quality in an information system means that the system can provide users with a positive, efficient, and effective user experience [4].

In the realm of SIM-PKL, service quality pertains to the information system's capability to deliver services that align with the requirements of its users, with indicators including availability, accuracy, and response time.

Intention to Use

Intention to use refers to an individual's inclination to use an information system. Intention to use is used as one of the measurement variables in evaluating the success and effectiveness of an information system for its users. This attitude represents an evaluation by each individual towards the information system. If individuals have a positive attitude towards the system, they are more likely to have a strong intention to use it. If individuals perceive a strong subjective norm to use the system, their intention to use the system will be higher [3].

Intention to use in the context of SIM-PKL refers to the individual's tendency to use or continue using the information system, with indicators including perceived usefulness, perceived ease of use, and attitude towards use.

User Satisfaction

User satisfaction refers to the evaluation of a product or service that meets the user's desires and is rated on a scale from low to high acceptance. This concept emphasizes the role of users in utilizing an information system. Providing satisfaction with a service relies on the experiences and usage encountered by each individual. The primary role of user satisfaction makes it a tool for measuring the quality of a system, resulting in subjective assessments of system quality. Therefore, user satisfaction can be more focused on users' perceptions of the information system [9].

User satisfaction in the context of SIM-PKL is a positive or negative evaluation by users of their experience using SIM-PKL, with indicators including system usage, task success rate, and acceptance level.

Net Benefit (Individual Performance)

Success can be defined as the outcome achieved by an individual or a group in accomplishing the goals of an institution or organization while carrying out the tasks assigned to them to achieve the organizational

objectives without violating applicable regulations or ethical codes [6].
Individual performance in the context of SIM-PKL is one of the measurement dimensions of information system success from the perspective of individual impact variables, with indicators including completeness and effectiveness.

Net Benefit (Organizational Performance)
Organizational performance in information systems refers to the extent to which the use and implementation of information systems can positively contribute to the overall goals and outcomes of the organization [4].
Effective use of information systems can provide direct benefits to organizational performance. Information systems can help improve operational efficiency through business process automation, the use of accurate data and information for better decision-making, and enhancing collaboration and coordination among organizational units [7].
Organizational performance in the context of SIM-PKL is the organization's ability to achieve its established goals and objectives through the use of information systems, with indicators including operational efficiency and service quality.

Delone & McLean ISSM
DeLone and McLean introduced a conceptual model aimed at gauging and appraising the effectiveness of an information system. Within this framework, six pivotal dimensions are identified: system quality, information quality, service quality, intention to use, user satisfaction, and net benefits, all interconnected in the assessment of an information system's triumph. The adoption of the Delone & McLean theory has found favor among numerous researchers and empirical investigations when scrutinizing the success of management information systems. This model offers a comprehensive roadmap for the evaluation of system quality, information quality, and service quality, all recognized as crucial components in achieving the overall success of an information system. [11].

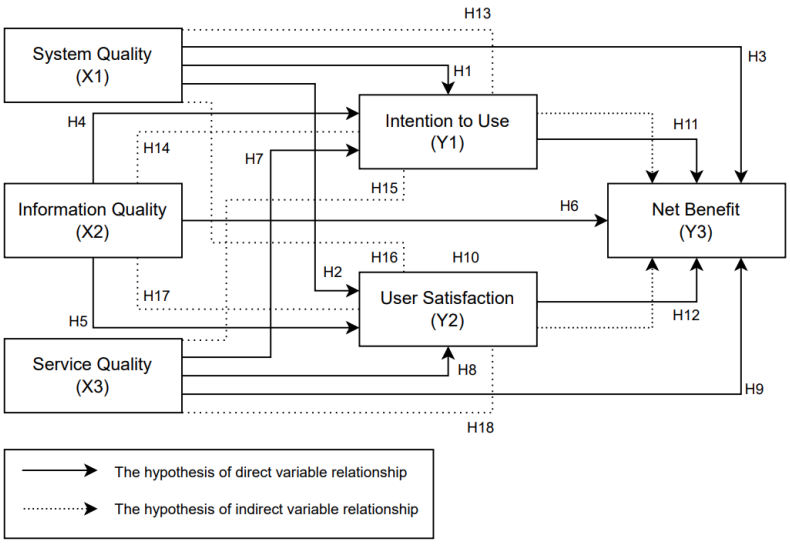

Figure 1 Research Conceptual Framework

Research methodology

This research employs a quantitative research design, which involves hypotheses and requires statistical tools for validation. Specifically, it utilizes a causal-comparative research design involving three independent variables and three dependent variables. The results regarding the influence of the studied variables will be explained in greater depth, signifying that this type of research is explanatory. Explanatory research is used to explore the relationships between research variables and test proposed hypotheses.

The location chosen for this research is the Dinas Pendidikan Provinsi Jawa Timur SMK Negeri 11 Malang. The selection of this research location is based on the fact that this institution utilizes management information systems for processing internship program (PKL) data. Primary data serves as the source of information for this research. Collectively, the researcher acquires primary data by employing questionnaires that encompass statements designed to assess the educational staff's perceptions concerning the quality of the system, information, and service within SIM-PKL.

Table 1 Number of PKL Place and Supervising Teachers in 2023 First Period

No	Expertise Competency	Industry	Teacher
1	Nursing Assistant	**18**	**11**
2	Animation	**3**	**3**
3	Modeling Design and Building Information	**12**	**2**
4	Multimedia	**32**	**13**
5	Software Engineering	**10**	**6**
6	Computer and Network Engineering	**20**	**6**
7	Light Vehicle and Automotive Engineering	**40**	**7**
8	Motorcycle Engineering and Business	**11**	**4**
9	Network Information Systems and Applications	**10**	**3**
	Total	**156**	55

The population represents the entirety of the subjects in a research study. In this research, the population consists of educational staff, specifically supervising teachers and heads of expertise concentrations closely related to the implementation of the PKL program. The total number of educational staff in question is 55 individuals, making the population and sample size in this research equal to 55 teachers, with a breakdown of 46 supervising teachers and 9 heads of expertise competencies (coordinators).

Result and Discussion

There were 55 questionnaires distributed, and 55 questionnaires were collected to be processed as research data.

Respondent Demographic Description

In this section, the characteristics of the respondents are described, including age, gender, experience as a supervising teacher, and teacher position. The frequency distribution results are as follows:

Table 2 Respondent Demographic Description

Characteristic	F	%
Age		
25 - 30	13	23.6
31 - 35	20	36.4
36 - 40	10	18.2
41 - 45	7	12.7
51 - 55	4	7.3
> 55	1	1.8
AVG =35.91, MIN=25, MAX=56.		
Gender		
Male	33	60.0
Female	22	40.0
Experience as a supervising teacher		
1 - 5 year	31	56.4
6 - 10 year	13	23.6
> 10 year	11	20.0
Teacher position		
Coordinator	9	16.4
Vocational Teacher	30	54.5
General Subject Teacher	16	29.1

Validation Test

The validation test assesses the extent to which the items in a questionnaire are valid using the Pearson product-moment correlation method, which involves correlating each item with its total score. The validity of each item is established by comparing the Pearson product-moment correlation index at a 5% significance level with the table value (0.266, n = 55). If the calculated correlation coefficient (r) is greater than the table value, the item is considered valid; otherwise, if it is lower, the item is considered invalid.

Table 3 Validation Test of Variables Statement Instrument

Item	r	r tabel	Result
X1			
X1_1	0.817	0.266	Valid
X1_2	0.776	0.266	Valid
X1_3	0.731	0.266	Valid
X1_4	0.781	0.266	Valid
X1_5	0.786	0.266	Valid
X1_6	0.675	0.266	Valid
X2			
X2_1	0.669	0.266	Valid
X2_2	0.716	0.266	Valid
X2_3	0.827	0.266	Valid
X2_4	0.808	0.266	Valid
X2_5	0.385	0.266	Valid
X2_6	0.750	0.266	Valid
X2_7	0.766	0.266	Valid
X2_8	0.527	0.266	Valid
X3			
X3_1	0.823	0.266	Valid
X3_2	0.733	0.266	Valid
X3_3	0.829	0.266	Valid
X3_4	0.814	0.266	Valid
X3_5	0.453	0.266	Valid
X3_6	0.715	0.266	Valid
Y1			
Y1_1	0.919	0.266	Valid
Y1_2	0.831	0.266	Valid
Y1_3	0.748	0.266	Valid
Y1_4	0.874	0.266	Valid
Y1_5	0.868	0.266	Valid
Y1_6	0.834	0.266	Valid
Y2			
Y2_1	0.935	0.266	Valid
Y2_2	0.927	0.266	Valid
Y2_3	0.917	0.266	Valid
Y2_4	0.890	0.266	Valid
Y2_5	0.871	0.266	Valid
Y2_6	0.900	0.266	Valid
Y3			
Y3_1	0.710	0.266	Valid
Y3_2	0.818	0.266	Valid
Y3_3	0.758	0.266	Valid
Y3_4	0.596	0.266	Valid
Y3_5	0.772	0.266	Valid
Y3_6	0.741	0.266	Valid
Y3_7	0.728	0.266	Valid
Y3_8	0.715	0.266	Valid

The results of the validity test indicate that all items are valid, as the calculated correlation coefficient (r) is greater than the table value (0.266). The "system quality" dimension, comprising six items, is deemed valid, with correlation coefficients ranging from 0.675 to 0.817. The "information quality" dimension, consisting of 8 items, is also considered valid, with

correlation coefficients ranging from 0.385 to 0.827. The "service quality" dimension, consisting of six items, is likewise found to be valid, with correlation coefficients ranging from 0.453 to 0.829. The intention to use dimension, comprising six items, is confirmed as valid, with correlation coefficients ranging from 0.748 to 0.919. The user satisfaction dimension, consisting of six items, is validated, with correlation coefficients ranging from 0.871 to 0.935. Finally, the "net benefits" dimension, consisting of 8 items, is also considered valid, with correlation coefficients ranging from 0.596 to 0.818.

Reliability Test

Reliability is a measure that assesses the degree to which a measurement instrument can be relied upon or considered consistent. Cronbach's Alpha is employed as the reliability test. A variable is regarded as reliable if it attains a reliability coefficient of 0.6 or greater; if it falls below 0.6, it is considered unreliable. The outcomes of the reliability test for all variables are presented in the adjacent table.

Table 4 Variable Reliability Test

Variabel	Item	Alpha Coefficient
X1	6	0.855
X2	8	0.843
X3	6	0.829
Y1	6	0.920
Y2	6	0.956
Y3	8	0.875

Descriptive Analysis of Research Variables

System quality, based on responses from 55 respondents, had the highest-rated item: "SIM-PKL can provide accurate information," with an average rating of 4.255, indicating "strongly agree." The majority of respondents strongly agreed with this statement. The lowest-rated item was "SIM-PKL has an attractive and easy-to-understand user interface," with an average rating of 4.055, indicating "agree." Most respondents agreed with this statement. The overall average response rating was 4.155, suggesting a tendency for respondents to agree with the system quality variable.

Information quality, based on responses from 55 respondents, had the highest-rated item: "Information presented by SIM-PKL has a well-structured data format," with an average rating of 4.255, indicating "strongly agree." Most respondents strongly agreed with this statement. The lowest-rated item was "Information presented by SIM-PKL is reliable," with an average rating of 3.964, indicating "agree." Most respondents still strongly agreed with this statement. The overall average response rating was 4.084, indicating a tendency for respondents to agree with the information quality variable.

Service quality, based on responses from 55 respondents, had the highest-rated item: "SIM-PKL Admin provides adequate technical support in case of issues or questions," with an average rating of 4.145, indicating "agree." Most respondents agreed or strongly agreed with this statement. The lowest-rated item was "SIM-PKL offers features that meet my needs," with an average rating of 3.727, indicating "agree." Most respondents agreed with this statement. The overall average response rating was 3.939, suggesting a tendency for respondents to strongly agree with the service quality variable.

Intention to use, based on responses from 55 respondents, had the highest-rated items: "I feel compelled to use SIM because I believe it will provide significant benefits," and "I believe that using SIM will improve my work efficiency," both with an average rating of 4.091, indicating "agree." Most respondents agreed or strongly agreed with these statements. The lowest-rated item was: "I believe that using SIM-PKL will improve the efficiency of running the internship program," with an average rating of 3.891, indicating "agree." Most respondents still strongly agreed with this statement. The overall average response rating was 4.003, indicating a tendency for respondents to agree with the intention-to-use variable.

User satisfaction, based on responses from 55 respondents, had the highest-rated item: "SIM-PKL can be a solution for managing the school's internship program," with an average rating of 4.345, indicating "strongly agree." Most respondents strongly agreed with this statement. The lowest-rated item was: "SIM-PKL can help with the administration of the internship program more efficiently," with an average rating of 4.145, indicating "agree." Most respondents agreed with this statement. The overall average response rating was 4.270, indicating a tendency for respondents to strongly agree with the user satisfaction variable.

Net benefits, based on responses from 55 respondents, had the highest-rated item: "SIM-PKL helps the school improve productivity and work efficiency," with an average rating of 4.527, indicating "strongly agree." Most respondents strongly agreed with this statement. The lowest-rated item was "SIM-PKL helps the school with financial and budget management efficiency," with an average rating of 4.291, indicating "strongly agree." Most respondents agreed with this statement. The overall average response rating was 4.416, indicating a tendency for respondents to strongly agree with the Net Benefits variable.

Classical Assumption Test

Linearity

The linearity test aims to determine whether the relationship between independent and dependent variables is linear or not. A good path model is one where the relationship between these two variables is linear. The method used to test linearity is the curve estimation test. The relationship between the two variables is considered linear if the significance value of the test is smaller than the alpha level used.

Table 5 Linearity Test Results with Curve Fit

Variable	Sig.	Result
X1 – Y1	0.003	Linier
X2 – Y1	0.003	Linier
X3 – Y1	0.005	Linier

X1 – Y2	0.013	Linier
X2 – Y2	0.003	Linier
X3 – Y2	0.002	Linier
X1 – Y3	0.021	Linier
X2 – Y3	0.001	Linier
X3 – Y3	0.005	Linier
Y1 – Y3	0.000	Linier
Y2 – Y3	0.000	Linier

The linearity assumption test depicted in the table above was conducted using the Curve Fit method, which involves examining the relationship between independent and dependent variables. It was found that the significance values for each relationship between independent and dependent variables were smaller than α (5%), indicating a linear relationship between these variables. Therefore, it can be concluded that the linearity assumption is met.

Residual Normality

A regression model is said to meet the normality assumption if the residuals (ei) obtained from the regression model follow a normal distribution. To test this assumption, you can use a histogram and a Normal P-P plot, as well as conduct a one-sample Kolmogorov-Smirnov test as follows:

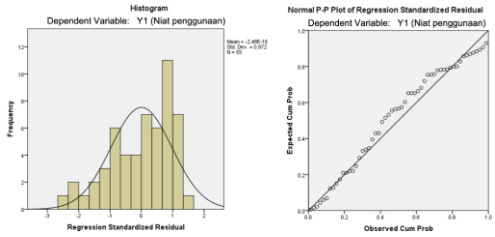

Figure 2 Histogram dan Normal P-P plot (model 1)

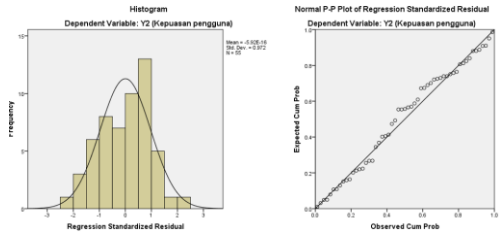

Figure 3 Histogram dan Normal P-P plot (model 2)

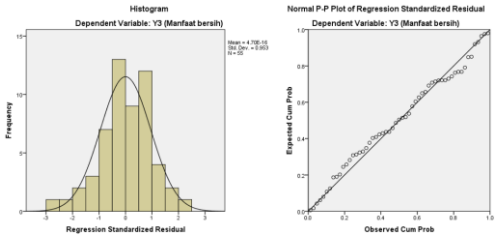

Figure 4 Histogram dan Normal P-P plot (model 3)

Based on the histogram, it appears that the bar chart follows the normal curve, although some data points seem to be outliers. However, overall, the data distribution roughly follows a normal curve. In the Normal P-P plot, the observed data points are around the diagonal line.

Table 6 One sample Kolmogorov-Smirnov test

Residual	Sig.
Model 1	0.090*
Model 2	0.200*
Model 3	0.200*

In the table provided, it is observed that the significance values for models 1, 2, and 3 from the one-sample Kolmogorov-Smirnov test are greater than α (0.05). Based on these three tests, it means that the residual distribution is normal.

Heteroskedasticity

This test aims to determine whether a regression model has relatively consistent residual variance or not. A good regression model has a relatively consistent residual variance. To test for homoskedasticity, you can examine a plot between the predicted values of the dependent variable (ZPRED) and the residuals (SRESID). If the points form a systematic pattern, it indicates heteroskedasticity (assumption not met). However, if there is no clear pattern or the points are scattered above and below zero on the Y-axis, then there is no heteroskedasticity (assumption met).

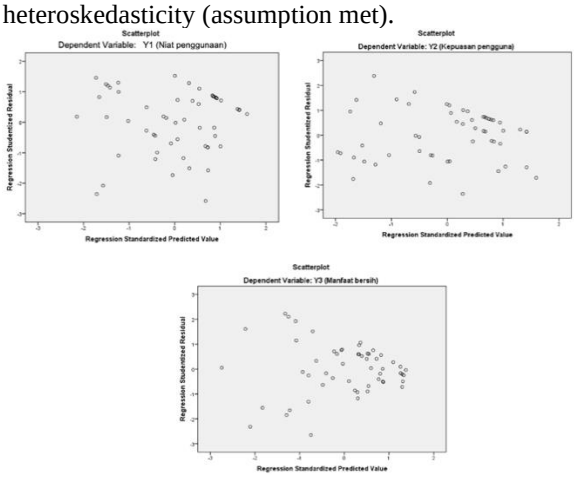

Figure 5 Heteroscedasticity test with Scatterplot models 1, 2 & 3

Multicollinearity

The test for multicollinearity is used to determine whether there is a correlation among the independent variables in a regression model. A good regression model should not exhibit multicollinearity. One of the methods used to test for multicollinearity is the Variance Inflation Factor (VIF). If the VIF value is greater than 10, it indicates the presence of multicollinearity. Conversely, if the VIF is less than 10, then there is no multicollinearity.

Table 7 Multicollinearity test with VIF

Variable	**Model 1**		**Model 2**		**Model 3**	
	Tolerance	**VIF**	**Tolerance**	**VIF**	**Tolerance**	**VIF**
X1	0.990	1.010	0.990	1.010	0.730	1.370
X2	0.986	1.014	0.986	1.014	0.697	1.436
X3	0.985	1.015	0.985	1.015	0.695	1.439
Y1					0.605	1.653

Y2	0.615	1.627

The VIF values for each independent variable in models 1, 2, and 3 are less than 10, with tolerance values greater than 0.1. This indicates that there is no strong correlation among the independent variables, and multicollinearity is not present (assumption met).

Path Analysis

Based on the influence between variables, theoretically, a model was created in the form of a path diagram as follows:

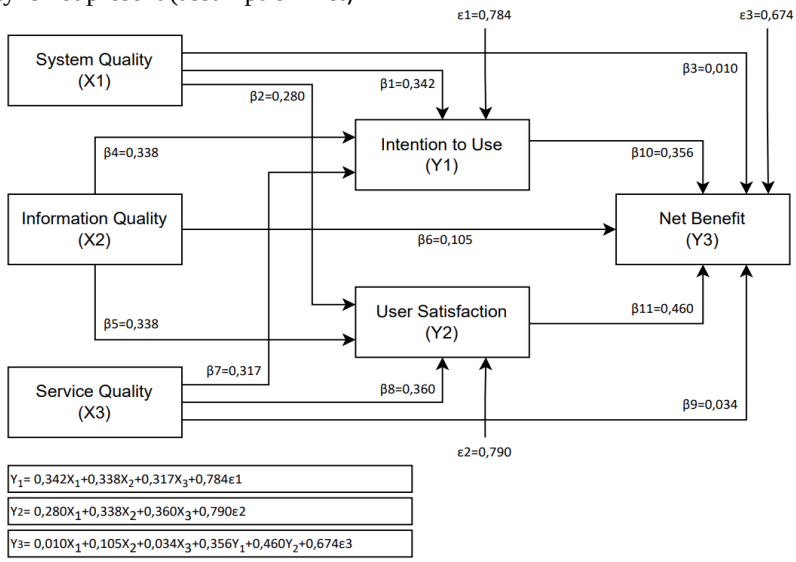

Figure 6 Research Path Analysis

Model Testing

Table 8 Simultaneous F test results

Model	F value	F table	p-value F	Result
1 (Y1)	10.665	2.786	0.000	Significant
2 (Y2)	10.224	2.557	0.000	Significant
3 (Y3)	11.799	2.404	0.000	Significant

Model 1 has an F value greater than the F table value (10.665 > 2.557) or a p-value smaller than α 5% (0.000 < 0.050). Therefore, it can be concluded that in Model 1, the exogenous variables X1, X2, and X3 significantly influence the endogenous variable Y1.

Model 2 has an F value greater than the F table value (10.224 > 2.786) or a p-value smaller than α 5% (0.000 < 0.050). Therefore, it can be concluded that in Model 2, the exogenous variables X1, X2, and X3 significantly influence the endogenous variable Y2.

Model 3 has an F value greater than the F table value (11.799 > 2.404) or a p-value smaller than α 5% (0.000 < 0.050). Therefore, it can be concluded that in Model 3, the exogenous variables X1, X2, X3, Y1, and Y2 significantly influence the endogenous variable Y3.

Hypothesis Testing

Table 9 Hypothesis Testing of Direct and Indirect Effects

Hypothesis	Direct	Indirect	t-value | t-table	R Square	p-value	Result
X1 → Y1	0.342	-	3.097 > 2.008		0.003 < 0.05	Significant
X2 → Y1	0.338	-	3.055 > 2.008	0.385	0.004 < 0.05	Significant
X3 → Y1	0.317	-	2.868 > 2.008		0.006 < 0.05	Significant
X1 → Y2	0.280	-	2.519 > 2.008		0.015 < 0.05	Significant
X2 → Y2	0.338	-	3.036 > 2.008	0.376	0.004 < 0.05	Significant
X3 → Y2	0.360	-	3.228 > 2.008		0.002 < 0.05	Significant
X1 → Y3	0.010	-	0.087 < 2.010		0.931 > 0.05	Not Significant
X2 → Y3	0.105	-	0.914 < 2.010		0.365 > 0.05	Not Significant
X3 → Y3	0.034	-	0.296 < 2.010		0.769 > 0.05	Not Significant
Y1 → Y3	0.356	-	2.881 > 2.010		0.006 < 0.05	Significant
Y2 → Y3	0.460	-	3.749 > 2.010		0.000 < 0.05	Significant
X1 → Y1 → Y3	-	0.342 X 0.356 = 0.122	0.122 > 0.010	0.546	0.035 < 0.05	Significant
X2 → Y1 → Y3	-	0.338 X 0.356 = 0.120	0.120 > 0.105		0.036 < 0.05	Significant
X3 → Y1 → Y3	-	0.317 X 0.356 = 0.113	0.113 > 0.034		0.042 < 0.05	Significant
X1 → Y2 → Y3	-	0.280 X 0.460 = 0.129	0.129 > 0.010		0.036 < 0.05	Significant
X2 → Y2 → Y3	-	0.338 X 0.460 = 0.156	0.156 > 0.156		0.018 < 0.05	Significant
X3 → Y2 → Y3	-	0.360 X 0.460 = 0.166	0.166 > 0.034		0.014 < 0.05	Significant

Model 1, characterized by an R-square value of 0.385, explains that 38.5% of the variance in the variable Y1 (intention to use) is accounted for by the variables X1 (system quality), X2 (information quality), and X3 (service quality), while the remaining 61.5% is attributed to external factors not included in the studied independent variables.
Model 2, with an R-square value of 0.376, demonstrates that 37.6% of the variance in the variable Y2 (user satisfaction) can be attributed to the variables X1 (system quality), X2 (information quality), and X3 (service quality), leaving 62.4% of the variance influenced by external factors beyond the variables under investigation.
Model 3, characterized by an R-square value of 0.546, signifies that 54.6% of the variance in the variable Y3 (net benefits) is explained by the variables X1 (system quality), X2 (information quality), X3 (service quality), Y1 (intention to use), and Y2 (user satisfaction), while the remaining 45.4% is influenced by factors external to the analyzed independent variables.

Coefficient of Determination Combined

The total data variability explained by the model is quantified using the following formula:

$$R^2{}_m = 1 - [(1 - R1^2) \times (1 - R2^2) \times (1 - R3^2)]$$
$$R^2{}_m = 1 - [(1 - 0.385) \times (1 - 0.376) \times (1 - 0.546)]$$
$$= 0.826\ atau\ 82.6\%$$

The calculated R-squared value, R^2_m, reveals that the data's variability explained by the model amounts to 0.826, meaning that 82.6% of the information within the data can be accounted for by the model. Conversely, the remaining 17.4% of variability is attributed to other variables not incorporated into the model.

Discussion of Research Results

In the first hypothesis, it was stated that system quality was suspected to affect the intention to use SIM-PKL. The analysis results showed that system quality, consisting of reliability, productivity, and accuracy, significantly influenced the intention to use. Specifically, accuracy played the most significant role in enhancing the perception of ease of use and the attitude of supervising teachers towards using SIM-PKL for internship data processing.
In the second hypothesis, it was mentioned that system quality was suspected to affect user satisfaction with SIM-PKL. The analysis results indicated that system quality, which includes reliability, productivity, and accuracy, significantly influenced user satisfaction. Once again, accuracy played a crucial role in improving user satisfaction, with good acceptance by supervising teachers in the internship data processing.
In the third hypothesis, it was suggested that system quality was suspected to affect the net benefits of SIM-PKL. The analysis results showed that service quality, comprising availability, accuracy, and response time, did not have a direct impact on net benefits, which referred to the completeness, effectiveness, and operational efficiency of individual and organizational performance in implementing the internship program. Therefore, good system quality in SIM-PKL did not directly improve the performance of individuals or organizations in implementing the internship program.
In the fourth hypothesis, it was stated that information quality was suspected to affect the intention to use SIM-PKL. The analysis results demonstrated that information quality, including accuracy, relevance, consistency, and integrity, significantly influenced user satisfaction. Once again, information integrity played a vital role in enhancing the perception of ease of use and the attitude of supervising teachers towards using SIM-PKL for internship data processing.
In the fifth hypothesis, it was mentioned that information quality was suspected to affect user satisfaction with SIM-PKL. The analysis results showed that information quality, consisting of accuracy, relevance, consistency, and integrity, significantly influenced user satisfaction. Specifically, information integrity played the most significant role, with good acceptance by supervising teachers in the internship data processing.
In the sixth hypothesis, it was suggested that information quality was suspected to affect the net benefits of SIM-PKL. The analysis results showed that service quality, comprising availability, accuracy, and response time, did not have a direct impact on net benefits, which referred to the completeness, effectiveness, and operational efficiency of individual and organizational performance in implementing the internship program. Therefore, good information quality in SIM-PKL did not directly improve the performance of individuals or organizations.
In the seventh hypothesis, it was mentioned that service quality was suspected to affect the intention to use SIM-PKL. The analysis results indicated that service quality, including availability, accuracy, and response time, significantly influenced the intention to use. Specifically, service accuracy had the most significant impact on enhancing the perception of ease of use and the attitude of supervising teachers towards using SIM-PKL for internship data processing.
In the eighth hypothesis, it was stated that service quality was suspected to affect user satisfaction with SIM-PKL. The analysis results demonstrated that service quality, comprising availability, accuracy, and response time, significantly influenced user satisfaction. Once again, service accuracy played a crucial role in improving user satisfaction, with good acceptance by supervising teachers in the internship data processing.
In the ninth hypothesis, it was suggested that service quality was suspected to affect the net benefits of SIM-PKL. The analysis results showed that service quality, consisting of availability, accuracy, and response time, did not have a direct impact on net

benefits, which referred to the completeness, effectiveness, and operational efficiency of individual and organizational performance in implementing the internship program. Therefore, good service quality in SIM-PKL did not directly improve the performance of individuals or organizations.

In the tenth hypothesis, it was stated that intention to use was suspected to affect the net benefits of SIM-PKL. The analysis results showed that intention to use, which included the perception of usefulness, ease of use, and attitude towards information system usage, indicated that ease of use and attitude towards SIM-PKL usage significantly influenced individual and organizational performance, consisting of work effectiveness and operational efficiency. Therefore, a positive intention to use SIM-PKL could enhance the performance of individuals or organizations in implementing the internship program.

In the eleventh hypothesis, it was mentioned that user satisfaction was suspected to affect the net benefits of SIM-PKL. The analysis results demonstrated that user satisfaction, including the level of system use, task success rate, and system acceptance, indicated that the level of system acceptance significantly influenced individual and organizational performance, consisting of work effectiveness and operational efficiency. Therefore, good user satisfaction with SIM-PKL could improve the performance of individuals or organizations in implementing the internship program.

In the twelfth hypothesis, it was stated that there was an indirect influence of system quality on net benefits through the intention to use SIM-PKL. The analysis results showed that intention to use SIM-PKL, including the perception of ease of use and the attitude towards SIM-PKL usage, mediated the influence of system quality on net benefits. This can be explained by the fact that the perception of ease of use and the attitude towards usage play a crucial role in enhancing system quality, including reliability, productivity, and accuracy, which in turn affects the effectiveness and efficiency of supervising teachers.

In the thirteenth hypothesis, it is mentioned that there is an indirect influence between information quality and net benefits through the usage intention of SIM-PKL. The analysis results indicate that the usage intention in SIM-PKL regarding the perceptions of ease of use and attitudes towards SIM-PKL usage can mediate the influence of information quality on net benefits. This can be explained further by emphasizing that perceptions of ease of use and attitudes towards usage play a crucial role in enhancing information quality concerning accuracy, relevance, consistency, and integrity, ultimately contributing to the effectiveness and efficiency of supervising teachers.

In the fourteenth hypothesis, it is mentioned that there is an indirect influence between service quality and net benefits through the usage intention of SIM-PKL. The analysis results indicate that the usage intention in SIM-PKL regarding the perceptions of ease of use and attitudes towards SIM-PKL usage can mediate the influence of service quality on net benefits. This can be explained further by emphasizing that perceptions of ease of use and attitudes towards usage play a crucial role in enhancing service quality concerning availability, accuracy, and response time, ultimately contributing to the effectiveness and efficiency of supervising teachers.

In the fifteenth hypothesis, it is mentioned that there is an indirect influence between system quality and net benefits through user satisfaction with SIM-PKL. The analysis results indicate that user satisfaction with SIM-PKL regarding system usage, task success, and acceptance of SIM-PKL can mediate the influence of system quality on net benefits. This can be explained further by emphasizing that the level of acceptance plays a crucial role in enhancing system quality concerning reliability, productivity, and accuracy, ultimately contributing to the effectiveness and efficiency of supervising teachers.

In the sixteenth hypothesis, it is mentioned that there is an indirect influence between information quality and net benefits through user satisfaction with SIM-PKL. The analysis results indicate that user satisfaction with SIM-PKL regarding system usage, task success, and acceptance of SIM-PKL can mediate the influence of information quality on net benefits. This can be explained further by emphasizing that the level of acceptance plays a crucial role in enhancing information quality concerning accuracy, relevance, consistency, and integrity, ultimately contributing to the effectiveness and efficiency of supervising teachers.

In the seventeenth hypothesis, it is mentioned that there is an indirect influence between service quality and net benefits through user satisfaction with SIM-PKL. The analysis results indicate that user satisfaction with SIM-PKL regarding system usage, task success, and acceptance of SIM-PKL can mediate the influence of service quality on net benefits. This can be explained further by emphasizing that the level of acceptance plays a crucial role in enhancing service quality concerning availability, accuracy, and response time, ultimately contributing to the effectiveness and efficiency of supervising teachers.

Conclusion and recommendation

Conclusion

Based on the analysis of the collected data and the results of the multiple linear regression analysis, the findings indicate that the quality of the system in terms of system accuracy, the quality of information in terms of information integrity, and the quality of service in terms of service accuracy have a significant influence on usage intention. This, in turn, can increase the perception of ease of use and the attitude of educational staff toward using the PKL system for processing internship data.

In addition to their significant impact on usage intention, the quality of the system, information, and service also have a significant influence on user

satisfaction. User satisfaction, in this case, refers to the high acceptance level among educational staff for processing internship data. However, it's important to note that the quality of the system, information, and service directly does not significantly impact net benefits, which in this context refers to the performance of individuals and the organization in terms of completeness, effectiveness, and operational efficiency.

Furthermore, additional analysis reveals that usage intention and user satisfaction act as mediators, playing a significant role in mediating the impact of the quality of the system, information, and service on net benefits. This indicates that the perception of ease of use in usage intention and the level of acceptance in user satisfaction are crucial factors in enhancing the quality of the system, information, and service's impact on net benefits. Specifically, they contribute to the effectiveness and efficiency of educational staff in utilizing the PKL system for internship data processing at SMK Negeri 11 Malang.

Recommendation

Based on the findings of this research, it is crucial to acknowledge the existing limitations and errors in the study. Nevertheless, the research aims to provide valuable contributions. For SMK Negeri 11 Malang, the results are expected to enhance system reliability, productivity, information relevance, integrity, service accuracy, response time, and perception of usefulness. It is also hoped that this study will contribute to improving attitudes toward system usage, ultimately leading to better utilization and satisfaction among users. Moreover, the research emphasizes the significance of the performance of individual educational staff members when utilizing the SIM-PKL. These insights can inform policies to enhance the school's programs, particularly its internship initiatives, fostering continuous improvements in both individuals and the organization's performance within the school.

For those interested in further research development, it is advisable to explore alternative research methods beyond the Delone & McLean framework. Given the potential influence of external variables, future studies could incorporate additional variables impacting individual and organizational performance. This might involve considering system flexibility, integration, user expectation realization, precision, timeliness, user comprehensibility, responsiveness, assurance, empathy, daily usage, frequency of use, software and hardware satisfaction, comfort, self-confidence, computer literacy, time efficiency, and organizational benefits. Incorporating these variables could refine future research on the analysis of information system success.

In conclusion, this research significantly contributes to the understanding of information systems and their impact on individual and organizational performance. It underscores the pivotal role of user perception and acceptance in maximizing the benefits derived from these systems, highlighting the mediating role of usage intention and user satisfaction.

References

[1] Andriyanto, D., Said, F., Titiani, F., & Erni, E. (2021). *Analisis Kesuksesan Aplikasi Jakarta Kini (Jaki) Menggunakan Model Delone And Mclean*. Paradigma - Jurnal Komputer dan Informatika, 23(1), 43–48. Https://Doi.Org/10.31294/P.V23i1.10018

[2] Budiartha, I Ketut, N. M. S. R. (2016). *Pengaruh Kualitas Sistem Informasi, Kualitas Informasi Dan Perceived Usefulness Pada Kepuasan Pengguna Akhir Software Akuntansi (Studi Empiris Pada Hotel Berbintang Di Provinsi Bali)*. E-Jurnal Ekonomi dan Bisnis Universitas Udayana 5.1, 1, 115–142

[3] DeLone, W., & McLean, E. (2003). *The DeLone and McLean Model of Information System Success: A Ten-Year Update*. Managemen Information System. New York: M.E. Sharpe Inc.

[4] Laudon, Keneth C. (2016). *Management Information Systems: Managing the Digital Firms, 13th ed*. Pearson Education, Inc Upper Saddle River New Jersey

[5] Listanto T. U., Yusaq T. A., dan Nanik S., (2017). *Pengaruh Kualitas Sistem, Kualitas Informasi, Kualitas Layanan, Terhadap Kepuasan Pengguna Sistem Informasi Akademik Universitas Merdeka Malang* – UNMER Malang.

[6] Machmud, R. (2013). *Peranan penerapan sistem informasi manajemen terhadap efektivitas kerja pagawai lembaga pemasyarakatan narkotika (lapastika) bollangi kabupaten gowa*. Jurnal capacity STIE AMKOP Makassar, 9(3), 409–421

[7] Melville, N., Kraemer, K., & Gurbaxani, V. (2004). *Review: Information Technology and Organizational Performance: An Integrative Model of IT Business Value*. MIS Quarterly, 28(2), 283-322.

[8] Miftah R, Syarif H, & Harianto R. (2017). *Analisis Kualitas Sistem Dan Kualitas Informasi Terhadap Kepuasan Pemakai Sistem Informasi Akademik Dosen. Fakultas Teknologi Informasi* – UNMER Malang.

[9] Nuryanti, Y., Hutagalung, D., Nadeak, M., Abadiyah, S., & Novitasari, D. (2021). *Understanding The Links Between System Quality, Information Quality, Service Quality, And User Satisfaction in The Context of Online Learnin*g. 04, 54–64.

[10] Popoola, B. A., Chinomona, R., & Chinomona, E. (2014). *The Influence of Information Quality, System Quality and Service Quality on Student's Self-Efficacy at Institutions of Higher Learning in South Africa*. Mediterranean Journal of Social Sciences, 5(27), 974–984.

[11] Sedera, D., & Gable, G. G. (2014). *The Impact of Process Complexity on IS-Enabled Process Performance*. Journal of the Association for Information Systems, 15(5), 266-298.