



USER SATISFACTION IN DIGITAL SCHOOL REPORTING: AN EMPIRICAL STUDY OF RDM QUALITY IN MADRASAH IBTIDAIYAH ACROSS MALANG CITY

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Abstract:

This study aims to analyze the influence of system quality, information quality, and service quality on user satisfaction with the Madrasah Digital Report Card (RDM) at Madrasah Ibtidaiyah in Malang City. This study adopts DeLone and McLean's Information System Success Model as its primary theoretical framework. The independent variables in this study are system quality, information quality, and service quality, while user satisfaction serves as the dependent variable. The research method employs a quantitative approach with a causal-associative research design. The sample consisted of 91 elementary madrasah teachers selected using purposive sampling. Data were collected via a Likert-scale questionnaire and analyzed using multiple linear regression with IBM SPSS Statistics version 23. Validity, reliability, normality, and heteroscedasticity tests were conducted on the collected data, followed by t-tests, F-tests, and R². The results indicate that information quality and service quality have a positive and significant effect on user satisfaction, whereas system quality does not have a significant effect. These findings suggest that user satisfaction is influenced by the quality of the information produced and the quality of the services provided, rather than by the characteristics of the system quality itself. Therefore, improving information quality and service quality should be a priority in supporting the successful implementation of the Madrasah Digital Report Card.

Keywords: *Madrasah Digital Report Card, User Satisfaction, DeLone and McLean Model.*

INTRODUCTION

The advancement of information technology has driven transformations in various aspects of education, not only in the learning process but also in administration and decision-making within educational institutions. The utilization of information technology enhances the effectiveness of learning, expands access to digital learning resources, and supports more efficient educational administration. Furthermore, the integration of technology in educational management contributes to improving service quality through more accurate, systematic, and integrated data management within a single system. This condition has encouraged the development of Education Management Information Systems (EMIS) as an instrument to support data-driven educational management.

Education Management Information Systems function as a supporting tool in decision-making processes by providing accurate and systematic

information (Marwan, 2018). Research conducted by Wijaya and Risdiansyah (2020) also shows that the implementation of such systems can improve the efficiency of academic activities while strengthening information transparency between schools and the community. Thus, the application of integrated information systems not only minimizes errors in management and data input processes but also enhances the accuracy of information needed to support educational operations.

In realizing digital transformation in madrasahs, one innovation introduced by the Ministry of Religious Affairs of the Republic of Indonesia is the development of the Madrasah Digital Report Card (Rapor Digital Madrasah/RDM). As part of administrative digitalization, RDM is designed to integrate student data management, learning assessment, and academic reporting into a single system connected to the Education Management Information System (EMIS) (Rahmat, 2024). The implementation of this system not only improves administrative efficiency but also supports transparency in educational services by providing easier access to academic information for both teachers and parents (Ramdhani, 2021). In addition, RDM implementation promotes educators' digital literacy and contributes to strengthening technology-based madrasah administration (Syukriady et al., 2024).

Although the implementation of RDM offers various conveniences in educational administration, its success is not solely determined by the existence of the system itself, but also by how users perceive the quality of the system. Several studies indicate that the implementation of information systems in educational institutions still faces various challenges, such as suboptimal system quality, limited quality of information produced, lengthy manual input processes for descriptive data, and service support that does not fully meet user needs (Nuraini et al., 2022; Millah et al., 2024). These conditions suggest that the success of RDM implementation depends not only on the technology itself but also on users' perceptions of system quality, information quality, and service quality. One widely used model to evaluate and explain the success of information systems is the Information System Success Model by DeLone and McLean (2003).

The model explains that system quality, information quality, and service quality are key factors influencing user satisfaction in using an information system. These three dimensions are crucial in assessing system implementation success, as users' perceptions of system quality determine the level of acceptance and satisfaction. However, studies on factors influencing user satisfaction in RDM implementation still require more specific empirical evidence, particularly at the Madrasah Ibtidaiyah (Islamic elementary school) level. Therefore, this study aims to analyze the influence of system quality, information quality, and service quality on user satisfaction with RDM in Madrasah Ibtidaiyah in Malang City using the DeLone and McLean Information System Success Model. The results of this study are expected to provide empirical evidence for improving the quality of systems and services of the Madrasah Digital Report Card in enhancing user satisfaction..

RESEARCH METHODS

This study employs a quantitative approach with a causal associative research design to analyze the influence of system quality, information quality, and service quality on user satisfaction with the Madrasah Digital Report Card (RDM) application. A causal associative research design is used to examine cause-and-effect relationships between independent and dependent variables (Sugiyono, 2013). The independent variables in this study consist of system

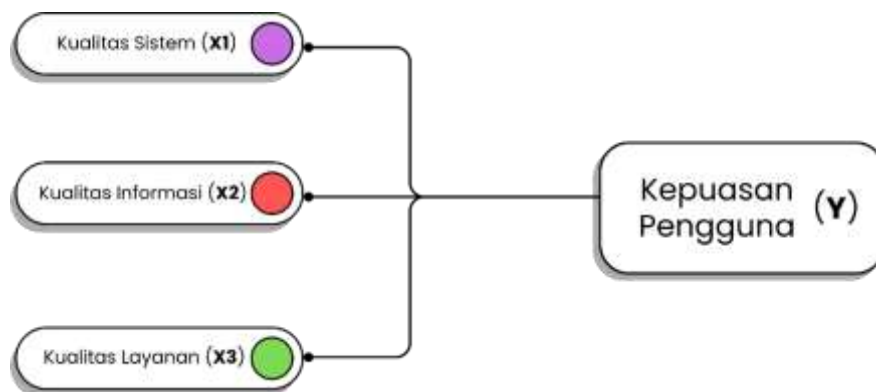
quality, information quality, and service quality, while the dependent variable is user satisfaction. The study was conducted in both public and private Madrasah Ibtidaiyah (Islamic elementary schools) in Malang City.

The population of this study comprises 981 teachers from public and private Madrasah Ibtidaiyah in Malang City, distributed across five districts (Badan Pusat Statistik Indonesia, 2025). The sample was selected using a purposive sampling technique, with the criterion that respondents are teachers who have used RDM in managing report cards in Madrasah Ibtidaiyah (Sugiyono, 2013). Based on the Slovin formula with a margin of error (e) of 10% (0.1), a sample size of 91 teachers was obtained.

Data were collected through the distribution of questionnaires constructed using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) (Likert, 1932). The questionnaires were distributed via Google Forms to teachers in public and private Madrasah Ibtidaiyah in Malang City who have implemented RDM. The collected data were analyzed using IBM SPSS Statistics version 23. Data analysis began with descriptive statistics to describe respondent characteristics and research data. Prior to conducting multiple linear regression analysis, validity and reliability tests, as well as classical assumption tests including normality and heteroscedasticity tests, were performed. Subsequently, multiple linear regression analysis was conducted, followed by partial tests (t-test), simultaneous tests (F-test), and finally the coefficient of determination (R^2) (Ghozali, 2018).

RESULTS AND DISCUSSION

This section presents the results of descriptive analysis and multiple linear regression to explain the influence of system quality, information quality, and service quality on user satisfaction with the Madrasah Digital Report Card (RDM). Prior to the analysis, the data met the assumptions of normality and were free from heteroscedasticity, making them suitable for multiple linear regression analysis. The conceptual framework underlying the analysis is presented as follows.



Source: Processed data by the authors

The research framework was developed based on a theoretical review to explain the influence of system quality, information quality, and service quality on user satisfaction with the Madrasah Digital Report Card (RDM). The analysis of the influence of these three variables was conducted using multiple linear regression with the assistance of SPSS version 23.

Prior to regression analysis, the data were tested to ensure that the classical assumptions were met. The data satisfied the normality assumption (Asymp. Sig. = 0.200). The results of the Glejser test also showed significance values of 0.250 for system quality, 0.266 for information quality, and 0.573 for service quality. All these values are greater than 0.05, indicating that the regression model meets the classical assumptions and is appropriate for

multiple linear regression analysis.

a. Descriptive Analysis

Descriptive analysis was conducted to provide an overview of the data characteristics for each research variable, including minimum, maximum, mean, and standard deviation values. The results of the descriptive analysis are presented in Table 1.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
SISTEM	91	26	50	40.91	3.675
INFORMASI	91	29	49	40.69	3.482
LAYANAN	91	14	25	20.11	2.178
KEPUASAN_PENG GUNA	91	39	60	49.98	3.856
Valid N (listwise)	91				

Source: Processed data by the researcher

The system quality variable has a mean value of 40.91, information quality 40.69, service quality 20.11, and user satisfaction 49.98. The mean values across all variables indicate that respondents tend to provide positive assessments of system quality, information quality, service quality, and user satisfaction with the RDM. In addition, the standard deviation values, which are lower than the mean values for each variable, suggest that respondents' answers are relatively homogeneous.

F-Test

The significance of the regression model was tested using the F-test to examine the simultaneous effect of system quality, information quality, and service quality on user satisfaction. The results of the F-test are presented in the following table.

ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	553.164	3	184.388	20.441	.000 ^b
	Residual	784.792	87	9.021		
	Total	1337.956	90			

a. Dependent variable: user satisfaction

b. Predictors: (constant), service, system, information

Source: Processed data by the researcher

The results of the F-test show an F-value of 20.441 with a significance level of less than 0.001. System quality, information quality, and service quality simultaneously influence user satisfaction. The significance of the regression model indicates that the combination of these three dimensions of information system quality has the capability to explain variations in user satisfaction.

Coefficient of Determination (R^2)

The coefficient of determination is used to determine the extent to which system quality, information quality, and service quality explain the variation in user satisfaction with the Madrasah Digital Report Card (RDM). The results of the coefficient of determination test are presented in Table 3.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.643 ^a	.413	.393	3.003

a. Predictors: (Constant), SERVICE, SYSTEM, INFORMATION
Source: Processed data by the researcher

Based on Table 3, the R Square value is 0.413 and the Adjusted R Square is 0.393. The Adjusted R Square indicates that 39.3% of the variation in user satisfaction with the Madrasah Digital Report Card (RDM) can be jointly explained by system quality, information quality, and service quality. The remaining 60.7% is influenced by other variables outside the research model.

The correlation coefficient (R) value of 0.643 indicates that system quality, information quality, and service quality have a moderately strong relationship with user satisfaction of the Madrasah Digital Report Card (RDM). These results suggest that the three independent variables provide a fairly substantial contribution in explaining user satisfaction, although there are still other factors not examined in this study.

t-Test

The t-test was used to determine whether each independent variable has a partial effect on the dependent variable. The significance of the regression model is presented in the following table:

Table 1.2 t-test

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.450	4.056		5.042	.000
	SISTEM	.146	.114	.139	1.279	.204
	INFORMASI	.291	.131	.263	2.214	.029
	LAYANAN	.583	.210	.329	2.776	.007

a. Dependent Variable: USER SATISFACTION
Source: Processed data by the researcher

Based on the estimation of the regression coefficients, the multiple linear regression equation is as follows:

$$Y = 20.450 + 0.146 X_1 + 0.291 X_2 + 0.583 X_3 + e$$

The analysis results indicate that system quality has a regression coefficient of 0.146 with a significance value of 0.204, meaning that it does not have a significant effect on user satisfaction. In contrast, information quality has a regression coefficient of 0.291 with a significance value of 0.029, while service quality has a regression coefficient of 0.583 with a significance value of 0.007. Both variables have a positive and significant effect on user satisfaction.

DISCUSSION

Based on the results obtained from descriptive analysis and multiple linear regression, this section provides a further discussion on the influence of system quality, information quality, and service quality on user satisfaction with the Madrasah Digital Report Card (RDM), drawing upon similar studies.

System Quality and User Satisfaction

The results of this study indicate that system quality does not have a significant effect on user satisfaction. This finding suggests that system quality is not yet a primary factor determining user satisfaction with RDM. According to the Information System Success Model developed by DeLone and McLean, system quality is considered one of the determinants of user satisfaction as it reflects ease of use, reliability, stability, and the system's ability to support task completion effectively (DeLone & McLean, 2003). Therefore, theoretically, improvements in system quality are expected to enhance user satisfaction. However, the findings of this study show that system quality has not significantly influenced user satisfaction with RDM.

This finding differs from studies by Sari et al. (2023, p. 222) and Putra et al. (2020, p. 250), which demonstrate that system quality has a positive and significant effect on user satisfaction. The study by Putra et al. (2020, p. 250) even confirms this through a significance value of $0.002 < 0.05$ and a regression coefficient of 0.280.

The results suggest that user satisfaction with RDM is more influenced by information quality and service quality than by system quality. This condition indicates that users evaluate RDM not only based on its technical characteristics but also on the benefits obtained during its use. System quality still functions as an operational prerequisite to ensure that RDM can be used properly, although it does not directly increase user satisfaction.

Information Quality and User Satisfaction

Information quality is proven to have a positive and significant effect on user satisfaction, with a regression coefficient of 0.291 and a significance value of 0.029. This finding indicates that improvements in the quality of information generated by RDM are followed by increased user satisfaction. DeLone & McLean (2003) explain that information quality reflects the level of accuracy, completeness, relevance, and ease of understanding and use. Information that meets these characteristics supports more effective task completion as it aligns with user needs. The results of this study reinforce this concept by showing that information quality is a key factor in enhancing user satisfaction with RDM.

This finding is consistent with research by Firdaus et al. (2024, p. 5690), which concludes that information quality has a positive and significant effect on user satisfaction. Accurate, complete, relevant, and timely information is able to meet user needs in completing tasks effectively. Az-zahra (2024) also states that accurate, relevant, and easily understood information can increase users' intention to use a system. This

indicates that information quality is one of the aspects shaping positive user perceptions of a system. The consistency of these findings strengthens the argument that information quality is a dimension that consistently influences user satisfaction in information system implementation.

The findings indicate that RDM users evaluate the system more based on the quality of the information it produces rather than its technical characteristics. Therefore, the ability of RDM to generate accurate, relevant, complete, and easily understood information is a crucial factor in improving user satisfaction.

Service Quality and User Satisfaction

The regression results show that service quality has a positive and significant effect on user satisfaction, with a regression coefficient of 0.583 and a significance value of 0.007. Compared to system quality and information quality, service quality has the highest regression coefficient, making it the most dominant factor in improving user satisfaction with the Madrasah Digital Report Card (RDM).

Technical support, responsiveness to usage issues, and ease of obtaining information are indicators of service quality in information systems (DeLone & McLean, 2003). Responsive services help users utilize the system optimally, thereby improving the overall user experience. The results of this study confirm that service quality is the most dominant factor in enhancing user satisfaction with RDM.

Findings from Adelfi & Rahmah (2023, p. 1085) as well as Amalia and Azizah (2022) support this result, showing that service quality has a positive and significant effect on user satisfaction. The consistency of these findings indicates that service quality is a dimension that consistently influences user satisfaction across various information system implementations. This suggests that responsive services, technical assistance, and continuous support during system use are key factors in shaping positive user experiences. Furthermore, the large regression coefficient of the service quality variable indicates that support during system use plays a more dominant role than the system's technical characteristics. Thus, user satisfaction with RDM is not only shaped by system quality and information quality but also by services that provide timely, accurate, and continuous support.

CONCLUSION

This study aims to analyze the influence of system quality, information quality, and service quality on user satisfaction with the Madrasah Digital Report Card (RDM) in Madrasah Ibtidaiyah in Malang City. Based on the research findings, it is known that information quality and service quality have a positive and significant effect on RDM user satisfaction. Meanwhile, system quality does not show a significant effect on user satisfaction.

These findings indicate that user satisfaction is more influenced by the quality of information generated and the quality of services received during the use of RDM, rather than by the system's characteristics and interface. Therefore, improving information quality and strengthening service support are key priorities in the development of RDM to enhance user satisfaction.

Based on these results, RDM administrators and related stakeholders are recommended to improve the quality of information produced and strengthen user assistance services. Future research is suggested to expand the research model by incorporating additional variables from the DeLone and McLean Information System Success Model or by extending the research object to different educational levels and regions.

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