

## The Impact of Information Systems for Academic Management on Student Satisfaction

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Article Information	Abstract
Article History: Received: March 2024 Accepted: March 2024 Published: April 2024	The purpose of this study is to examine how the Academic Management Information System at SMP Plus Darul Ilmi Murni, Deli Serdang, North Sumatra, affects student satisfaction. This is a quantitative research design with 75 participants in the population. Saturated sampling was used to collect samples. All populations become research subjects. Primary data or information gathered straight from the research location are sources of information used in studies. Furthermore, information from publications and articles that is ancillary to the research is also incorporated. This study uses the Statistical Product and Service Solution (SPSS) as an analysis tool. As methods for gathering data, documentation studies, questionnaires, and observation are used. The study's findings demonstrate that SMP Plus Darul Ilmi Murni Deli Serdang, North Sumatra, students' satisfaction is positively and significantly impacted by the academic management information system. The academic management information system variable accounts for 70% of the variation in student satisfaction, according to the coefficient of determination analysis's $R^2$ value of 0,70.
Keywords: Academic Management Information System, Student Satisfaction	
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### INTRODUCTION

The field of education is one that is always evolving to meet new demands. Naturally, this development must coincide with the growth of human resources that oversee education, since human resource capabilities have a significant impact on the advancement of the educational field (Purba and Trieanovi, 2022). People who employ information and communication technology are encouraged by its constant advancement to remain competitive in this age of globalization. Every business now considers information technology to be essential, particularly when it comes to executing organizational tasks and developing goods, services, and competencies that will provide them a competitive edge in the marketplace (Hami and Anggraini, 2022).

The purpose of the academic information system is to facilitate and expedite academic service activities involving students, faculty, and associated departments. Prior to the development of information technology, academic services at universities were still provided by hand using paper-based processes. To effectively manage all connected academic activities, however, manual tasks and the usage of paper are beginning to decline due to the use of information technology, which is being replaced by computer-based electronic services. User satisfaction will undoubtedly be impacted by the academic services offered by academic information systems, particularly as students make up the majority of users. If users are successful in reaching their goals when using the academic information system, they will make a positive impression. Satisfaction can be expressed as achieving this objective, (Azzahra and Hariono, 2022).

In 2005, the Haji Masri Darul Ilmi Murni Islamic Education Foundation was established in Deli Serdang, North Sumatra, with the goal of teaching kids science and technology while molding them into devout and Islamic adults. This school is prepared to compete with other institutions in the public information services sector thanks to the support of human resources. Specifically, web information technology is a way to deliver information services in a timely, transparent, and accountable manner. As a result of this service, the school is open to recommendations from any source that can ultimately address the community's needs, particularly those of individuals residing outside of Sumatra. Students are the main users of Web-based academic information systems in schools. Users of a Web-based academic information system for schools can, of course, use it to obtain exam questions or assignments, gather assignments, learn about the teaching staff, student body, and organizational structures at the school, as well as access information about the school itself. The academic management information system of the Haji Masri Darul Ilmi Murni Islamic Education Foundation, located in Deli Serdang, North Sumatra, is still subpar, particularly in the junior high school division. In the same way that the academic management information system is still not updated with regard to school announcements, it is also not updated with regard to the academic calendar. In addition, server errors like these frequently happen, and the academic management information system frequently takes longer than usual to load. This is due to the fact that the students' academic management information system is still free and does not have a high license. Consequently, there are still technological issues with the academic administration information system at the Haji Masri Darul Ilmi Murni Islamic Education Foundation in Deli Serdang, Sumatra.

In order to improve academic data management for decision-making in the school setting, the Academic Information System is an application created for the administrative data processing needs of schools (Solahudin, 2021). In order to enhance an institution of higher learning's competitiveness, performance, and quality of services, academic information systems are an absolute must (Iskandar et al., 2022). A series of questions about system quality are implemented as system quality indicators, and these questions can be evaluated using many indicators, including 1) User Ease, 2) Access Speed, 3) System Reliability, 4) Flexibility, and 5) Security, (Setyono, 2017).

User satisfaction with a Web-based school academic information system will have a positive value if the system's service quality performs well and can match user expectations. This was demonstrated by Ramdani and Erfina (2023), who provided an explanation of the research's findings and stressed the significance of schools offering top-notch academic services and information systems—services that prioritize the happiness of all parties involved in the school system, including pupils. Because the level of happiness among students will dictate whether an educational institution continues to grow or not. Lailasari (2014), who asserts that academic management information systems have an impact on student happiness, likewise supports the findings of other studies.

Tjiptono (2017), claims that the word "satis" in Latin means "enough," and that everything gratifying will unquestionably satisfy needs, wants, and expectations without raising any red flags. Rangkuti (2016), contends that "user satisfaction is defined as a response to the discrepancy between the previous level of interest and the actual performance felt after use". These metrics are predicated on Kotler and Keller's (2016) viewpoint. The research employed the following satisfaction indicators: 1) Confirmation of expectations; 2) Intention to repurchase; 3) Good individual attention given to users; and 4) Recommendation to others. According to this background information, the theme of this research is the Influence of Academic Management Information Systems on Student Satisfaction at SMP Plus Darul Ilmi Murni, Deli Serdang, North Sumatra.

## **RESEARCH METHOD**

This study is quantitative in nature, and it is being conducted at SMP Plus Darul Ilmi Murni in Deli Serdang, North Sumatra. The research employed observation, documentation, and Likert scale questionnaires as data gathering methods. 75 students, including female students, made up the research population. Saturated sampling was used to collect samples. The entire population thereby becomes a study topic. Data normality testing, as well as validity and reliability testing, were the analytical techniques employed in this study. The coefficient of determination ( $R^2$ ) and partial testing ( $t$ ) were used to assess a simple linear regression analysis.

## **RESULTS AND DISCUSSION**

### **Result**

According to Ghozali (2018), the validity test determines whether or not a questionnaire is deserving of being deemed valid. Data that does not vary between what the researcher reports and what actually happens at the research item is considered valid data. The study variables' validity test has a significant criteria of  $>0.5$ . Fifteen samples were used in the validity test for this study at SMP Ulun Nuha Islamic in Medan Johor, Medan City. Table 1 presents the findings from the validity test conducted for this study.

Tabel 1. Validity Test Results

Variable	Indicator	Pearson Correlation	Value Measurement	Details
Academic Management Information System	User Ease	0,911	0,5	Valid
	Access Speed	0,805	0,5	Valid
	System Reliability	0,706	0,5	Valid
	Flexibility	0,708	0,5	Valid
	Security	0,833	0,5	Valid
Student Satisfaction	Confirmation of expectations	0,903	0,5	Valid
	Intention to repurchase;	0,903	0,5	Valid
	Good individual attention given to users	0,877	0,5	Valid
	Recommendation to others	0,862	0,5	Valid

Source: Research Data Processing, 2024

To ascertain consistent measurement findings when using the same measuring instrument, reliability tests are conducted. If an indication in the questionnaire has an alpha coefficient greater than 0.7, it can be accepted. Table 2 contains the reliability test findings for this study:

Table 2. Reliability Test Results

Variable	CA	Value Measurement	Details
Academic Management Information System	0,804	0,7	Reliable
Student Satisfaction	0,838	0,7	Reliable

CA: Croanbach Alpha

Source: Research Data Processing, 2024

All of the statement items are valid and reliable, as demonstrated by Tables 1 and 2, where each indicator in the validity test has a value greater than 0.5 and each variable in the reliability test has a value more than 0.7. A normalcy test can be used to examine the results of the next test. The p-plot graph in Figure 1 can be used to load the normality test for this study.

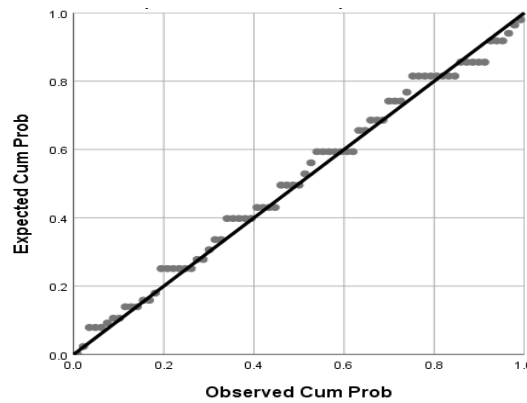


Figure 1. P-plot graph  
 Source: Research Data Processing, 2024

The regression model satisfies the normalcy condition since the data in the P-Plot graph spreads out around the diagonal line and moves in that direction. The regression model satisfies the normalcy assumption since the graphic representation indicates that the distribution pattern tends to be normal and the data demonstrates that the points are dispersed around the diagonal line and follow its direction. The following normalcy test can be found in Table 3:

Table 3. One Sample K-S Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		75
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	1.09533633
Most Extreme Differences	Absolute	.070
	Positive	.063
	Negative	-.070
Test Statistic		.070
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Source: Research Data Processing, 2024

The Kolmogorov-Smirnov procedure with a significance value of 0.200 and a significance level of  $> 0.05$  is used for the normalcy test in Table 3. The test's outcomes demonstrate that the study's normality test has a normal distribution. The histogram displayed in Figure 2 can be used to load the normality test for this study.

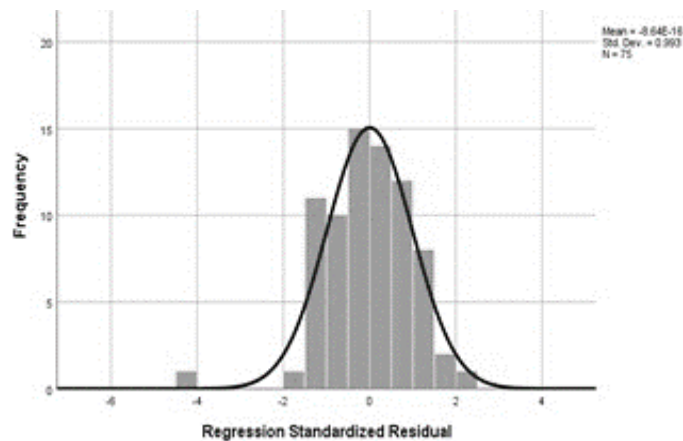


Figure 2. Histogram graph  
 Source: Research Data Processing, 2024

The data displays a normal curve that produces a precisely concave shape, according to the histogram graph. If the line resembles the picture and has an upward concave curve, it might be considered normal. Table 4 presents the findings of the study analysis conducted utilizing basic linear analysis testing.

Table 4. Results of Simple Linear Analysis

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	SE	Beta		
1	(Constant)	1.469	1.119		1.313	.193
	Academic Management Information System	.727	.056	.837	13.051	.000

a. Dependent Variable: Student Satisfaction

SE: Std. Error

Source: Research Data Processing, 2024

These values yield the following basic linear regression equation:  $Y = 1.469 + 0.727 X$ . According to Table 4, the constant value (a) is 1.469 and the B value for the Academic Management Information System is 0.727. The academic management information system variable significantly affects student satisfaction, as demonstrated by the multiple linear regression equation's explanation.

The t test can be used to evaluate the study hypothesis. The purpose of this test was to examine how the academic management information system, an independent variable, affected the dependent variable, student satisfaction. The equation  $df = n - k - 1 = 75 - 1 - 1 = 73$  can be used to find the ttable value. The ttable value, as determined by applying this equation, is 1.6660. Table 5 can be loaded with the results of the t test:

Table 5. T Test Results (Partial)

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		t	Sig.
		B	SE		
1	(Constant)	1.469	1.119	1.313	.193
	Academic Management Information System	.727	.056	13.051	.000

a. Dependent Variable: Student Satisfaction

SE: Std. Error

Source: Research Data Processing, 2024

Table 5 illustrates that the calculated t value of 13.051 > t table 1.6660 was obtained for the partial test data. This indicates that student happiness is positively impacted by the academic management information system variable. Student happiness is significantly impacted by the academic management information system variable, as indicated by the significant value of 0.000 < 0.05.

The contribution of the independent variable, the academic management information system, to the dependent variable, student happiness, is examined using the coefficient of determination. The following table contains the results of the coefficient of determination test:

Table 6. Coefficient of Determination Test Results

Model Summary <sup>b</sup>				
Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE of the Estimate
1	.837 <sup>a</sup>	.700	.696	1.103

a. Predictors: (Constant), Academic Management Information System

b. Dependent Variable: Student Satisfaction

Source: Research Data Processing, 2024.

The academic management information system variable accounts for 70% of the variation in student satisfaction, according to the coefficient of determination analysis's R Square value of 0.700.

## Discussion

The test findings showed that the academic management information system variable had a positive impact on student satisfaction, as indicated by the t-count value of 13.051 > t-table 1.6660. Student satisfaction is positively and significantly impacted by the academic management information system variable, as indicated by the significant value of 0.000 < 0.05.

The findings of this study are consistent with those of studies by Tyas (2017) ; Hidayat (2023) ; Purwati et al. (2018) ; Manurung (2023) ; Hidayat (2023), which found that management information systems significantly affect user satisfaction. All facets of academic activities are intended to be managed and organized by the academic system. beginning with instruction, investigation, curriculum creation, student enrollment, academic administration, assessment,

and documentation of learning objectives. Additionally, this academic information system makes it possible to gather, store, process, and retrieve academic data online or through electronic means.

The online academic management information system used at SMP Plus Darul Ilmi Murni, Deli Serdang, North Sumatra, is not yet functioning optimally. This means that there are still deficiencies in the quality of system performance. As a result, schools can improve the standards of academic management information systems, leading to increased student satisfaction in the future. It is hoped that the presence of a system will enable effective data processing between users and academic system components that receive student input, as well as school activity transactions and student and school administrative operations.

## **CONCLUSION**

The study's findings demonstrate that, at SMP Plus Darul Ilmi Murni in Deli Serdang, North Sumatra, the academic management information system a positive and significant affects student satisfaction. In addition to providing value, the integration of all information systems in schools can make management and information system users' lives easier. To put it simply, there are three primary functions found in all information systems. These tasks involve obtaining data as input, processing it through computations, merging data elements, and updating accounts, and finally providing you with information as output. Correctly executed services can have a greater influence on institutions when it comes to deciding how the principal or teacher should serve students and colleagues. It is stated that service quality refers to the general qualities or makeup of a program that affects its capacity to satisfy explicit or implicit needs.

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