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THE INFLUENCE OF ACADEMIC MANAGEMENT, STUDENT SATISFACTION, QUALITY OF SERVICE ON LEARNING INFORMATION SYSTEMS IN VOCATIONAL SCHOOLS

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ABSTRACT

The aim of this research is to find out how much influence the variables of Academic Management, Student Satisfaction and Service Quality have on the Learning Information System, both simultaneously and partially. Quantitative research is a type of research that has systematic, planned and clearly structured specifications from the beginning to the end of the design. The total number of samples was 133 samples consisting of several Vocational High Schools in Kutacane. Academic Management has a positive and significant effect on the Learning Information System, Student Satisfaction has a positive and significant effect on the Learning Information System, Service Quality has a positive and significant effect on the Learning Information System. Then Academic Management, Student Satisfaction and Service Quality have a positive and significant effect on the Learning Information System.

Keywords : Academic Management, Student Satisfaction, Service Quality, Learning Information System

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INTRODUCTION

The more educational services an institution provides to students, the more benefits the students feel. Institutions will also have the ability to create a well-conditioned academic environment (Budiarti, 2018) . Students can access academic information such as Study Plan Cards (KRS), Study Results Cards (KHS), information about classes and lecturers, and help them make their own academic decisions, class schedules and tests (Suprono Wahyujatmiko & Belantari, 2017) .

Various forms of academic information systems have been developed, including information systems that can be accessed via the internet or SMS. The new application also has features such as results display, learning material search, online courses, and registration processes, all of which can be done via the internet, SMS, or other connections (Oktaviana, Apriliani, & Novita, 2024) . In the world of education, implementing information systems can be a challenge. This can stem from a lack of knowledge and skills on how to use and operate this system, as well as the completeness of existing facilities (Mahmud, Laswi, Tahrim, & Renaldi, 2024) .

Services in education are an important component that must continue to be improved. Services are an important part of the education sector if we want to serve society and remain competitive in the modern world. The aim is to ensure administrative and academic excellence (Arina, Febrianti, Amarta, & Sabandi, 2023) . Perceptions about service quality, product quality, price, and temporary factors influence customer satisfaction (Rudini, 2015) .

Education that is provided systematically, consistently and is related to the quality of human resources is called a quality education system. This is based on the belief that the output of an education system is human resources that will be used in industry and regional or institutional development (Luh Putu Rara Ayu, 2023) .

Satisfaction is an evaluation that describes feelings of pleasure or displeasure during an activity. Thus, the higher a person's assessment of an activity that is considered to suit their wishes, the higher their satisfaction with that activity (Susanto, 2014) . Improving the quality of educational services is a difficult task and often raises questions. Customer dissatisfaction is increasing, which often occurs both internally and externally. If the

service offering does not meet the expectations and aspirations of stakeholders, this indicates customer dissatisfaction (Arina et al., 2023) .

The aim of this research is to find out how much influence the variables of Academic Management, Student Satisfaction and Service Quality have on the Learning Information System, both simultaneously and partially.

LITERATUR RIVIEW

As consumers, students have the right to determine whether their educational institution meets the requirements or not with an academic information system (Suprono Wahyujatmiko & Belantari, 2017) . The main factors that influence service quality include expected service and perceived service. If the perceived service is in accordance with the expected service, the quality of the service will be considered good or positive; conversely, if the perceived service is worse than expected, the quality of the service will be considered negative or bad (Luh Putu Rara Ayu, 2023) . Academic services are considered quality if the quality is the same or exceeds the expected quality (Susanto, 2014) .

Students can access information about the study plan card (KRS), study results card (KHS), and the lecture schedule they are currently following through the academic information system (SIA) (Rudini, 2015) . Systems created by humans to process data about students in formal and non-formal educational institutions, from basic to advanced levels, are known as academic information systems (Oktaviana et al., 2024) . Student satisfaction is a comparison between student expectations regarding employee service, lecturer competence supported by facilities, and leadership with students' feelings after receiving service (Widawati & Siswohadi, 2020) .

METHODS

Quantitative research is a type of research that has systematic, planned and clearly structured specifications from the beginning to the end of the design. In another definition, quantitative research is a type of research that uses a lot of numbers when

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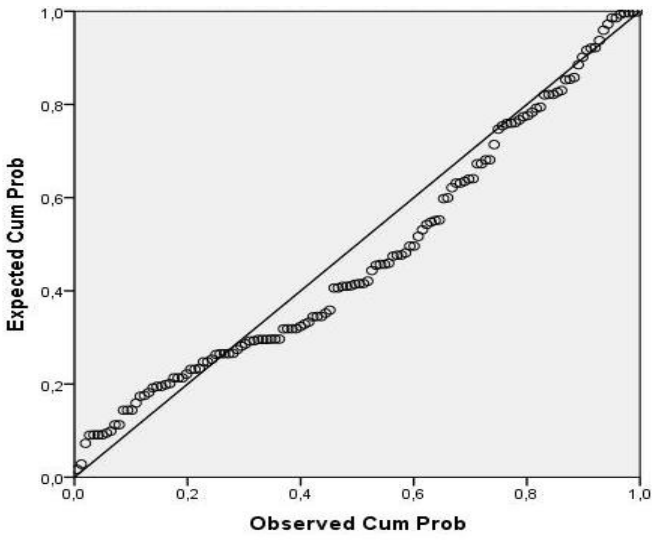
collecting data, interpreting it, and showing the results. The research results are explained through a description of the research object, which consists of the condition of the respondents studied as well as the distribution of items for each variable (Situmorang & Cahyani, 2023) . Data that has been collected through a questionnaire in the form of statements with predetermined answer choices is then processed, tabulated into a frequency table, and then discussed descriptively (Faris, Sitompul, & Nainggolan, 2023) .

RESULTS AND DISCUSSION

RESULTS

Classic assumption test

Normality test



Picture. 1 PP Plot Normality Test

Source: Research Results, 2022 (Data processed)

Picture. 1 *PP Plot Normality* Graph shows that the data is spread around the diagonal line, the distribution is mostly close to the diagonal line. This means that the data is normally distributed.

Statistic test

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the Kolmogorov-Smirnov (KS) non-parametric statistical test , the test criteria are:

1. If the significance value is > 0.05, then the data is normally distributed
2. If the significance value is <0.05, then the data is not normally distributed

The following is a statistical normality test using *Kolmogorov Smirnov* .

Table. 1 Kolmogorov Smirnov Normality Test

		Unstandardized Residual
N		134
Normal Parameters[a,b]	Mean	0E-7
	Std. Deviation	9,90469950
Most Extreme Differences	Absolute	,108
	Positive	,108
	Negative	-,066
Kolmogorov-Smirnov Z		1,256
Asymp. Sig. (2-tailed)		,085

a. Test distribution is Normal.
b. Calculated from data.

Source: Research Results, 2022 (Data processed)

Table. 1 shows the results of the normality test using the *Kolmogorov Smirnov test* showing a significant value of 0.085 > 0.05. Thus from the results *Kolmogorov Smirnov* test shows the data is normally distributed.

Multicollinearity Test

The following are the results of the multicollinearity test, namely:

Table. 2 Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
ACADEMIC MANAGEMENT	,858	1,165
STUDENT SATISFACTION	,849	1,178

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QUALITY OF SERVICE	,866	1,155

Source: Research Results, 2022 (Data processed)

Table. 2 shows that the *tolerance value* for the independent variable, namely Academic Management, is 0.858 > 0.1, Student Satisfaction is 0.849 > 0.1 and Service Quality is 0.866 > 0.1, while the VIF value for the independent variable, namely Academic Management, is 1.165 <10, Student satisfaction was 1,178 <10 and service quality was 1,155 <10. Thus, in the multicollinearity test, there was no correlation between the independent variables.

Heteroscedasticity Test

The heteroscedasticity test aims to test differences in residual *variance* from one observation period to another observation period. There are several ways to detect the presence or absence of heteroscedasticity:

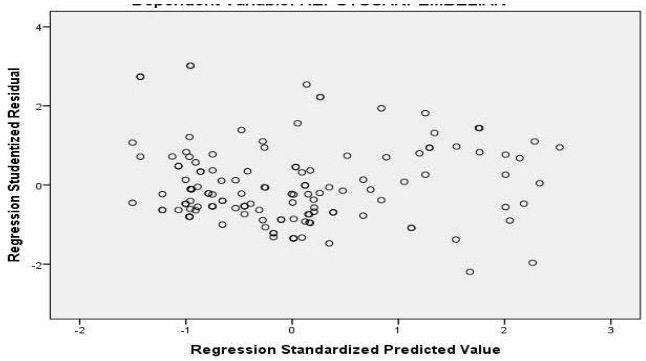

Fig.2 . Heteroscedasticity Test

Source: Research Results, 2022 (Data processed)

From the *scatterplot graph* , it can be seen that the points are spread out in an unclear pattern both above and below zero (0) on the Y axis, and do not gather in one place, so from the *scatterplot graph* it can be concluded that heteroscedasticity does not occur in the regression model.

Glejser

Whether or not there is heteroscedasticity can be seen from the significance probability, if the significance value is above the 5% confidence level then it can be concluded that it does not contain heteroscedasticity.

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Table. 3 Glejser Test

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,771	1,770		3,260	,001
	ACADEMIC MANAGEMENT	,025	,043	,055	,585	,559
	STUDENT SATISFACTION	,030	,056	,051	,541	,590
	QUALITY OF SERVICE	,015	,046	,030	,324	,746

a. Dependent Variable: ABSUT

Source: Research Results, 2022 (Data processed)

Table. 3 above shows a significant value of the independent variable Academic Management of 0.559 > 0.05, the independent variable Student Satisfaction of 0.590 > 0.05 and the independent variable Service Quality of 0.746 > 0.05. Thus, from the results of *the Glejser test* it can be said that there is no heteroscedasticity problem.

Results of Research Data Analysis

Research Model

The formula for the multiple linear regression equation is as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + e$$

The regression model used is as follows:

Table. 4 Results of Multiple Linear Regression Analysis

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,759	2,859		1,315	,191
	ACADEMIC MANAGEMENT	,246	,069	,282	3,569	,001
	STUDENT SATISFACTION	,309	,091	,271	3,411	,001
	QUALITY OF SERVICE	,186	,074	,197	2,508	.013

a. Dependent Variable: Learning Information Systems

Source: Research Results, 2022 (Data processed)

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Y = 3.759+ 0.246 Customer Satisfaction+ 0.309 Student Satisfaction + 0.186 Service Quality

The explanation of multiple linear regression above is:

1. The constant of 3.759 states that if the independent variables Academic Management, Student Satisfaction and Service Quality do not exist or are constant then the dependent variable is Learning Information Systems at 3.759 units.
2. The regression coefficient for the independent variable Academic Management is 0.249 and is positive, this states that every 1 unit increase in the independent variable Academic Management will increase the dependent variable for purchasing decisions by 0.249 units assuming the other variables are constant.
3. The regression coefficient for the independent variable Student Satisfaction is 0.309 and is positive, this states that every increase in the independent variable Student Satisfaction by 1 unit will cause an increase in the dependent variable Learning Information System of 0.309 units assuming the other variables are constant.
4. The regression coefficient for the distribution channel independent variable is 0.186 and is positive, this states that every 1 unit increase in the distribution channel independent variable will cause an increase in the Learning Information System dependent variable of 0.445 units assuming the other variables are constant.

Hypothesis Determination Coefficient

Adjusted R Square is denoted by R^2 is the coefficient of determination value corrected which adjusts R^2 by dividing each *sum of squares* by their respective degrees of freedom.

Table. 5 Coefficient of Determination Test

Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,552 [a]	,305	,289	10,018

a. Predictors: (Constant), Service Quality, Academic Management, Student Satisfaction

b. Dependent Variable: Learning Information Systems

Source: Research Results, 2018 (Data processed)

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Table. 5. The results of the coefficient of determination test obtained an *Adjusted R Square value* of 0.289, this means that 28.9% of the variation in the dependent variable, namely the Learning Information System, can be explained by variations in the independent variables Academic Management, Student Satisfaction and Service Quality, while the remainder is 73.6% (100% - 26.4%) is explained by other variables not examined in this study.

Simultaneous Hypothesis Testing (F Test)

The F statistical test basically shows whether all the independent variables included in the model have a simultaneous influence on the dependent variable.

Table. 6 Simultaneous Test (F Test)

ANOVA [b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5716.351	3	1905.450	18,985	,000 [a]
	Residual	13047.709	130	100,367		
	Total	18764.060	133			

a. Predictors: (Constant), Service Quality, Academic Management, Student Satisfaction

b. Dependent Variable: Learning Information Systems

Source: Research Results, 2022 (Data processed)

Table. 6 degrees of freedom 1 (df_1) = k – 1 = 4-1 = 3, and degrees of freedom 2 (df_2) = nk = 134-4=130, where n = number of samples, k = number of variables, then the value of F_{table} at a significance confidence level of 0.05 is 2.67. The test results obtained a $_{calculated}$ F value (18.985 > F_{table} (2.67) and a significance probability of 0.000 < 0.05, meaning that simultaneously Academic Management, Student Satisfaction and Service Quality have a positive and significant effect on the Learning Information System

Partial Hypothesis Testing (t Test)

The t test is used to determine whether there is a significant (significant) relationship or influence between the independent variables partially on the dependent variable.

Table. 7 Partial Test (t Test)

Coefficients [a]

Model		Standardized		

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		Unstandardized Coefficients		Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,759	2,859		1,315	,191
	Academic Management	,246	,069	,282	3,569	,001
	Student Satisfaction	,309	,091	,271	3,411	,001
	Service Quality	,186	,074	,197	2,508	.013

a. Dependent Variable: Learning Information Systems

Source: Research Results, 2022 (Data processed)

The $t_{table\ value}$ for a probability of 0.05 at degrees of freedom (df) = 134-4=130 is 1.978. Thus the results of partial hypothesis testing can be explained as follows:

1. The results of partial hypothesis testing calculations obtained a value of $t_{count} > t_{table}$ or 3.569 > 1.978 and the significance obtained was 0.001 < 0.05, meaning that partially Academic Management had a positive and significant effect on the Learning Information System
2. The results of partial hypothesis testing calculations obtained a value of $t_{count} > t_{table}$ or 3.401 > 1.978 and the significance obtained was 0.001 < 0.05, meaning that partially Student Satisfaction had a positive and significant effect on the Learning Information System
3. The results of partial hypothesis testing calculations obtained a value of $t_{count} > t_{table}$ or 2.508 > 1.978 and the significance obtained was 0.013 < 0.05, meaning that partially Service Quality has a positive and significant effect on the Learning Information System

Research Discussion

The Influence of Academic Management on Learning Information Systems

The results of partial hypothesis testing calculations obtained a value of $t_{count} > t_{table}$ or 3.569 > 1.978 and the significance obtained was 0.001 < 0.05, meaning that partially Academic Management had a positive and significant effect on the Learning Information System

The Influence of Student Satisfaction on Learning Information Systems

The results of partial hypothesis testing calculations obtained a value of t count > t table or 3.401 > 1.978 and the significance obtained was 0.001 < 0.05, meaning that partially Student Satisfaction had a positive and significant effect on the Learning Information System

The Influence of Service Quality on Learning Information Systems

The results of partial hypothesis testing calculations obtained a t value > t table or 2.508 > 1.978 and the significance obtained was 0.013 < 0.05, meaning that partially Service Quality has a positive and significant effect on the Learning Information System

CONCLUSIONS

The conclusions from the results of this research are as follows. An academic information system (AIS) on campus can improve the quality of service because it will make it easier for students to get information without having to deal directly with the administration and help them manage their academic problems. The results of the research are that Academic Management has a positive and significant effect on the Learning Information System, Student Satisfaction has a positive and significant effect on the Learning Information System, Service Quality has a positive and significant effect on the Learning Information System. Then Academic Management, Student Satisfaction and Service Quality have a positive and significant effect on the Learning Information System

REFERENCES

Arina, Yudela, Febrianti, Helsi, Amarta, Yoga, & Sabandi, Ahmad. (2023). Urgensi Sistem Informasi Manajemen Dalam Meningkatkan Mutu Layanan Pendidikan. *Innovative:Journal Of Social Science Research*, *3*(2), 8089–8098. Retrieved From Https://J-Innovative.Org/Index.Php/Innovative%0aurgensi

Budiarti, Erika Mei. (2018). Pengaruh Kualitas Layanan, Budaya Akademik, Dan Citra Lembaga Terhadap Kepuasan Mahasiswa. *Jurnal Manajemen Dan Supervisi Pendidikan*, *2*(3), 169–178. Https://Doi.Org/10.17977/Um025v2i32018p169

Faris, Salman, Sitompul, Ahmad Irhan, & Nainggolan, Tuty. (2023). Influence Tuition Fees And Facilities On Student Decisions For Choose Study At The Faculty Of Agro Technology, Universitas Prima Indonesia Under A Creative Commons Attribution-Noncommercial 4.0 International License (Cc By-Nc 4.0). *Jurnal Ekonomi*, *12*(02),

2023. Retrieved From Http://Ejournal.Seaninstitute.Or.Id/Index.Php/Ekonomi

Luh Putu Rara Ayu, Ratnaningrum. (2023). Analisis Kepuasan Mahasiswa Terhadap Kualitas Pelayanan Pendidikan Pada Perguruan Tinggi. *Jurnal Manajemen Pendidikan*, *3*(1), 279–299. Retrieved From Http://Bussman.Gapenas-Publisher.Org/Index.Php/Home/Article/View/124/140

Mahmud, Hilal, Laswi, Aishiyah Saputri, Tahrim, Tasdin, & Renaldi, M. Surya. (2024). *Implementasi Sistem Informasi Dalam Meningkatkan Mutu Layanan Pendidikan Di Sekolah Menengah Pertama Negeri 6 Topoyo*. *2*(1), 1–11.

Oktaviana, Shaqia Nur, Apriliani, Vina, & Novita, Windi Nova. (2024). *Implementasi Sistem Informasi Akademik Dalam Meningkatkan Mutu Pelayanan Kampus*. *7*(1), 53–63.

Rudini, Ahmad. (2015). Pengaruh Kualitas Sistem, Kualitas Informasi Dan Kualitas Pelayanan Sia Terhadap Kepuasan Mahasiswa (Studi Pada Mahasiswa Stie Sampit Ta. 2014-2015). *Jurnal Terapan Manajemen Dan Bisnis*, *1*(1), 39–49.

Situmorang, Dokman Marulitua, & Cahyani, Anggun. (2023). Analisis Laporan Realisasi Anggaran Pendapatan Dan Belanja Pada Pt Pelindo Regional 3 (Persero). *Surplus: Jurnal Riset Mahasiswa Ekonomi Manajemen Dan Akuntansi*, *3*(2), 115–120. Https://Doi.Org/10.31862/9785426311961

Suprono Wahyujatmiko, R., & Belantari, Armi. (2017). Pengaruh Sistem Informasi Akademik Dan Kualitas Pelayanan Sistem Informasi Akademik Terhadap Kepuasan Mahasiswa Stie Ieupaweda Yogyakarta. *Optimal*, *14*(1), 59–72.

Susanto, Hery. (2014). Pengaruh Layanan Akademik Terhadap Kepuasan Mahasiswa Program Pascasarjana Universitas Terbuka Pada Unit Program Belajar Jarak Jauh (Upbjj) Mataram. *Jurnal Pendidikan Terbuka Dan Jarak Jauh*, *15*(2), 88–98. Https://Doi.Org/10.33830/Ptjj.V15i2.592.2014

Widawati, Etty, & Siswohadi. (2020). Analisis Tentang Kepuasan Mahasiswa Terhadap Pelayanan Akademik Dan Pelayanan Administrasi. *Jurnal Mitra Manajemen*, *4*(10), 1500–1513. Https://Doi.Org/10.52160/Ejmm.V4i10.478