The Effect Of Academic Service Quality On Satisfaction And Loyalty Of Students University

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ABSTRAK
Penelitian ini bertujuan untuk mengetahui faktor-faktor Service Quality akademik dan menganalisis hubungan Service Quality akademik dengan kepuasan dan loyalitas mahasiswa di Universitas Bina Bangsa. Ini adalah penelitian penjelasan dengan populasi mahasiswa semester Ganjil Universitas Bina Bangsa, tahun akademik 2018/2019. Sampel penelitian menggunakan *purposive sampling* dengan total 200 responden. Data dianalisis dengan *Equation Model Structure* (SEM) yang terdiri dari model pengukuran dan model struktural. Dari hasil penelitian dapat disimpulkan bahwa peningkatan *System Quality* akan dapat mempengaruhi kepuasan siswa tetapi belum tentu dapat meningkatkan loyalitas siswa secara langsung. Secara tidak langsung melalui kepuasan siswa, loyalitas siswa dapat ditingkatkan melalui *System Quality*. Meningkatkan *Information Quality* baik secara langsung maupun tidak langsung dapat mempengaruhi kepuasan dan loyalitas siswa. *Service Quality* di perguruan tinggi menjadi sangat penting dalam meningkatkan kepuasan dan loyalitas siswa.

Kata kunci: Kepuasan, Loyalitas; Service Quality Akademik

ABSTRACT
This aims is to determine the factors of academic service quality and analyze the relationship between academic service quality to student satisfaction and loyalty at Bina Bangsa University. This is explanatory research with the population of the students of Bina Bangsa University odd semester, academic year 2018/2019. The research sample uses purposive sampling with a total of 200 respondents. Data were analyzed with the Equation Model Structure (SEM) consisting of measurement models and structural models. It can be concluded that improving the quality of the system will be able to influence student satisfaction but not necessarily be able to increase student loyalty directly. Indirectly through student satisfaction, student loyalty can be increased through the quality of the system. Improving the quality of information both directly and indirectly can affect student satisfaction and loyalty. Quality of service at a tertiary institution becomes very important in increasing student satisfaction and loyalty.

Keywords: Satisfaction; Loyalty; Quality of academic services.

INTRODUCTION

Higher education institution is an institution that interacts with the community. Fulfillment of community expectations is one of the main objectives of the public service function which must always be strived for improvement, both in terms of quantity and quality. The policies

that need to be taken by educational institutions to improve services are one of them by optimizing the ability of human resources, both lecturers and education personnel as well as improving facilities and infrastructure that support the smooth running of educational services.

Service quality is a driver of satisfaction that is multidimensional (Ali, Narulita, & Nurmahdi, 2018). Quality of service must be viewed from the customer's point of view and cannot be judged by the company's point of view. Service satisfaction from the consumer side is considered good if it is deemed to have met their expectations, but on the contrary, service will be perceived poorly if it does not meet what they expect (Nurmahdi, 2019). Customer satisfaction is defined as the perception of a product or service that has met customer or consumer expectations. Consumer behavior theory states that customer satisfaction is the perception of consumer experience gained after using a product or service (Oliver, 1993). Customer satisfaction is an indicator that influences customer loyalty. Loyal customers will be able to provide sustainable benefits to the institution (Nurmahdi, 2019).

Educational institutions are expected to be able to examine the quality of education services provided. Educational activities are not only oriented towards the result of the education process, but also through proof of good accountability including quality assurance, quality control, and quality improvement (Isnaini, Wardani, & Noviani, 2015).

Public interest to attend education at Bina Bangsa University is very high. Every year the average reaches 1700 to 2000 students. Students who have completed their education can work in various industrial sectors that are widely spread in the Banten region. The educational program offered by Bina Bangsa University is the Strata 1 (S1) program, with various majors by the demands and developments of the industry in Banten today.

With the number of students, the management of education must be balanced with the provision of good service, following the established academic rules, as the basis for all academic community members, namely administrative staff, lecturers, students and management of this education management. To be able to synchronize the academic regulations with the expected goals, it is necessary to have a strong commitment from each party, namely students, lecturers, administrative staff and management to carry out and evaluate their activities so that the objectives can be achieved by the vision and mission of this institution. The priority in the field of services provided to students is, of course, the academic service field. Quality academic services are expected to be able to provide student satisfaction, and service recipient students can provide an evaluation of the services they receive. Both parties have a reciprocal relationship so that each party gets the same satisfaction.

Related to the satisfaction of academic services, Bina Bangsa University is deemed necessary to evaluate all the activities of the management of education, both in the financial, social, external and internal environment. One of the internal environments is that students as agents of service users need special attention because these students will have an impact on the external environment, namely the general public who will assess the performance of Bina Bangsa University education.

The addition of majors, study programs and high student interest at Bina Bangsa University can not only be viewed as educational success, but the quality of services provided must be in line with student expectations. Based on suggestions and complaints from several students directly to several lecturers, administrative staff and through electronic media, the suggestions and complaints about facilities, infrastructure, attendance of lecturers, lecturers' competencies, curriculum, and administration system as well as learning results (grades) are not on time many questions remain. This needs to get more serious attention, answers, and improvements, so that the implementation of Bina Bangsa University's academic activities can run better.

Students as the most important element in educational institutions need to be listened to whether the services that have been provided are in line with their expectations. Evaluation of service quality needs to be done to find out what is expected, what has been perceived by students for the quality of service received. Thus the quality of academic services can be used as a basis for satisfaction to increase student loyalty in the development of Bina Bangsa University in the future.

Reality shows that competition to capture the market (prospective students) in educational institutions is very tight, it is not enough to provide good physical facilities, but it must also be accompanied by a satisfactory academic service delivery process to make students loyal. Although in this case education is not a profit-seeking organization, more and more students who are interested in entering the educational institution will increase the value of the educational institution, which in turn will give a good image.

Research on the topic of service quality, satisfaction and loyalty has been commonly conducted in tourism industries, healthcare by Chahal & Kumari (2011) and telecommunication by Santouridis & Trivellas (2010). The similar research are conducted by Mansori, Vaz and Ismail (2014) which was in education found that the most decisive factor service quality is empathy, tangibility and responsiveness; and service quality has an effect on satisfaction and student's loyalty

With increasingly intense competition and a variety of public complaints against the implementation of education, Bina Bangsa University is expected to be able to provide professional services to the community, in this case, academic services that can satisfy students and foster their loyalty. Services are considered to be satisfactory if the services are perceived to be the same or exceed the quality of service expected (Parasuraman, Zeithaml, 1988). Services like this are perceived as quality and ideal service. Customer expectations are reflected in the dimensions of service quality as defined by Parasuraman which makes the five dimensions of service quality consisting of tangible (physical evidence), reliability, responsiveness, assurance, and empathy (Parasuraman, Zeithaml, 1988).

Academic services at Bina Bangsa University are an inseparable part of all educational activities carried out. Academic activities are important things that need attention from all stakeholders involved in the management of Bina Bangsa University. Academic services are important because they are very much in touch with the dimensions of service quality, where satisfied students will ultimately have loyalty to their institutions and become their marketing forces for their institutions.

High student loyalty cannot be directly obtained by providing good quality academic services, but it needs to be evaluated continuously. High satisfaction will certainly form a high attitude of loyalty as well. Student loyalty reflected in behaviors such as helping to maintain the good name of the alma mater and recommending the campus to others, both as long as the student follows the educational process or after going through the educational process.

Based on the description of the problems stated above, it is deemed necessary to measure the quality of service in the academic field of Bina Bangsa University, which is seen from the aspects of System Quality, Quality of Inflation, Service Quality and its effect on student satisfaction and loyalty at Bina Bangsa University. From this, the problem formulation can be arranged as follows: First; Does Quality System which is a dimension of academic service quality at Bina Bangsa University has an influence on student satisfaction and loyalty at Bina Bangsa University. Second; Does the quality of academic information have an influence on student satisfaction and loyalty at Bina Bangsa University. Third: Does the quality of academic services have an influence on student satisfaction and loyalty at Bina Bangsa University. The purpose of this study is to determine the quality of academic services that can affect student satisfaction and loyalty, seen from the factors of reliability, responsiveness, assurance, empathy, and

tangibility. The framework of thought in this study is illustrated in the following figure:
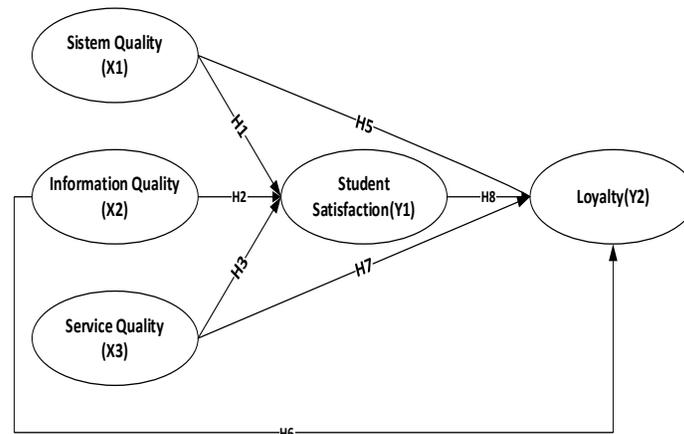

Figure 1. The Framework of Thought

RESEARCH METHODS

This study uses an explanatory research approach, which is an approach to analyze the causality relationship between research variables by the hypotheses that have been prepared. The nature of the data collected in this study is cross-sectional, i.e. research activities carried out at any given moment. The population in this study are students of Bina Bangsa University, S1 program in Accounting and Management, morning and evening classes in odd semester of the academic year 2018/2019. The purposive sampling method is used in this sampling, which is non-probability sampling where all elements of the population may not necessarily have the same opportunity to be selected as sample members. The number of samples is set at 200 people (Ghozali, 2016). Data collection using a questionnaire, which is then performed data editing and data analysis with the help of software programs SPSS version 21.0 and AMOS version 21.0.

Structural Equation Modeling (SEM) is used to analyze data, which identifies factors on the quality of academic services, student satisfaction, and student loyalty, and also to determine the relationship between academic service quality, student satisfaction, and student loyalty. Testing with SEM follows the stages as suggested (Ferdinand, 2006).

Definition of Variable Operations
Table 1 Definition of Operational Variables

Variabel		Definisi	Atribut/ Indikator
Independent Variable (Service Quality)	System Quality	The degree to which computer systems and technology are available at institutions is relatively easy to understand and use.	Reliability functionality Use Accessibility
	Information Quality	The level of quality of the contents of an	Accuracy Timeliness Relevance

Variabel		Definisi	Atribut/ Indikator
		information system structure available at the institution	Accuracy of Information
	Service quality	Efforts to meet the needs/desires of consumers and how to deliver it to meet customer expectations and satisfaction.	Reliability Service The response Guarantee Empathy
Dependent Variable (Student Loyalty)	Student Satisfaction	A person's feelings of pleasure or disappointment stem from the comparison between real/actual expectations and experiences.	Product stability Product usage habits Providing product recommendations Ease of use of the product In line with expectations
	Loyalty	A strong commitment to return or re-transaction the product/service that is preferred.	*Trust.* *Emotion commitment* *Switching cost* *Word of mouth* *Cooperation*

Source :   (Mohd, Abu Bakar, & Wan Ismail, 2010; Suryanto, Setyohadi, & Faroqi, 2016)

Validity and Reliability Test
Validity test
A validity test is used to measure the validity or validity of a questionnaire. A questionnaire is said to be valid if the questions on the questionnaire can reveal something that will be measured by the questionnaire (Ghozali, 2014). The validity of questionnaire question items can be measured by correlating the question item scores with the total score of the variable or construct. The resulting correlation coefficient is then compared to the r table - if the correlation between item scores and total scores is less than 0.30 (obtained from the calculation of interpolation calculations from the Product Moment r value table) then the question items in the instrument are declared invalid. Instrument items are considered valid if it is greater than 0.30 by comparing it to r tables. If r arithmetic> r table then valid.

Reliability Test
Reliability is a tool to measure a questionnaire which is an indicator of a variable or constructs. A questionnaire is said to be reliable or reliable if the respondent's answer to the question is consistent or stable over time. The level of reliability of a variable or research construct can be seen from the results of the Cronbach Alpha statistical test (α). According to Ghozali's criteria (2016), a variable or construct is said to be reliable if the Cronbach Alpha value> 0.60. The more the value of the alphas approaches one, the more reliable the value of the data reliability for each variable.

Path Analysis
Path analysis known as (Path Analysis) was first developed in the 1920s by geneticist Sewall Wright. Ghozali, (2016) said that the

path analysis model was used to analyze the pattern of relationships between variables to know the direct or indirect influence of a set of independent (exogenous) variables on exogenous variables. Ghozali states, there are some basic assumptions for researching with the path analysis method:

1. The relationship between variables must be linear.
2. The research model has a relationship (one-way casual flow), there is no inverse causality relationship.
3. Minimal endogenous variables in the interval scale Research instruments must be valid and reliable
4. Using probability sampling is a sampling technique to provide equal opportunities for each member of the population to be elected as a sample member.
5. The research model carried out is built based on a specific theoretical framework that can explain the causality relationship between the variables examined.

After the basic assumptions above can be fulfilled as a basis for research on path analysis methods, the initial stage in applying the path analysis model is to formulate structural model equations and path diagrams based on theoretical studies.

This path analysis technique will be used in testing the amount of contribution (contribution) addressed by the path coefficient on each path diagram of the causal relationship between variables X1, X2, X3 to Y1 and their impact on Y2. Correlation analysis and regression become the basis of path analysis calculations. Based on the hypotheses put forward in this study structural equation is known, as follows:

$Y1 = \alpha0 + \beta1\ X1 + \beta2\ X2 + \beta3\ X3 + \varepsilon1$
$Y2 = \alpha0 + \beta1Y1 + \beta2\ X2 + \beta3\ X3 + \varepsilon2$

Whereas :
Y1: Student Satisfaction
Y2: Loyalty
$\alpha0$: *Intercept*
$\beta1.... \beta3$: *Coefficient Of Variable*
X_1: System Quality
X2: Information Quality
X3: Service Quality
$\varepsilon1.... \varepsilon2$: *Error Term*

Analysis of the Structural Equation Hypothesis

1. Structural Equation I

$$Y_1 = \beta_1\ X_1 + \beta_2\ X_2$$

   Student Satisfaction = 0.103 (System Quality) + 0.942(Information Quality) + 0.009 (Service Quality)

2. Structural Equation II

$$Y_2 = \beta_1\ X_1 + \beta_2\ X_2 + \beta_3\ X_3 + Y_1$$

   Loyalitas = 0.098(System Quality)+ 0.201(Information Quality)+ 0.005* (Service Quality)+ 0.005 (Student Satisfaction).

RESULTS AND DISCUSSION
Analysis of Respondents based on Gender
Table 2 Analysis of gender frequency

	Frequency	Percentage
Male	112	37,33 %
Female	188	62,67 %

Source: Processed Data (2020)

Based on the table above it was found that respondents in this study based on gender consisted of 37.33% female students while male student respondents were 62.67%.

Validity and Reliability Test
Validity and reliability tests were carried out using SPSS version 20. Where the whole

statement obtained the results of corrected items total correlation> 0.3 which means valid data while Cronbach alpha> 0.6 which means that all variables are loyal or reliable to the next test.

Model Feasibility Test

The step that must be taken before assessing the feasibility of a structural model is to assess whether the data to be processed meets the assumptions of the structural equation model. Assessing goodness of fit is the main purpose of SEM to find out to what extent the model is hypothesized to be "fit" or compatible with the sample data (Ghozali, 2014). Goodness of-fit results are shown in the following table:

Table 3 *Goodness of Fit Result*

The goodness of Fit Index	Cut-Off*	Result	Conclusion
Chi-Square		613.094	
Probability	≥ 0.05	0.000	Marginal
G F I	≥ 0.90	0.857	Marginal
A G F I	≥ 0.90	0.821	Marginal
T L I	≥ 0.90	0.911	Fit
C F I	≥ 0.90	0.923	Fit
N F I	≥ 0.90	0.851	Marginal
I F I	≥ 0.90	0.924	Fit
RMSEA	0.05 – 0.08	0.059	Fit

* source:(Hair et al., 1998 in Ghozali, 2014). Processed Data (2020)

Based on the results in the table above, it can be seen that the research model has approached as a fit model. This is indicated by the value of TLI (0.911), CFI (0.923), IFI (0.924) and RSMEA (0.059) whose models have reached the fit criteria while Probability (0.000), GFO (0.857), AGFI (0.821) and NFI (0.851) which is almost or marginal. This means that through this test the model can be said to be suitable and can be continued to the next test.

Hypothesis Testing Path Analysis with Analysis of Moment Structure (AMOS)
Tabel 4 Hypothesis Testing Path Analysis

	Exogenous Variable	Endogenous Variable	Standardized Coefficient	Critical Ratio	p-value
H_1	System Quality (X1)	Student Satisfaction (Y1)	0.103	0.920	0.000
H_2	Information Quality (X2)	Student Satisfaction (Y1)	0.942	6.244	0.000
H_3	Service Quality (X3)	Student Satisfaction (Y1)	0.009	0.082	0.005
H_4	System Quality (X1)	Loyalitas (Y2)	0.098	0.882	0.075
H_5	Information Quality (X2)	Loyalitas (Y2)	0.139	0.513	0.021

H₆	Service Quality (X3)	Loyalitas (Y2)	**0.021**	**1.746**	**0.033**
H₇	Student Satisfaction (Y1)	Loyalitas (Y2)	**0.005**	**0.021**	**0.028**

Source: Processed Data (2020)

Effect of System Quality on Student Satisfaction and Loyalty

Based on the research results obtained that the System Quality has a significant effect on Student Satisfaction, in this case, students. This means that the better the Quality System of academic information in tertiary institutions, Student Satisfaction as a user will also increase. This is contrary to the effect on user loyalty. Through this research, insignificant results are obtained for the relationship between System Quality and user loyalty. This means that the System Quality in this study will only affect Student Satisfaction but may not necessarily increase loyalty.

System Quality (X1) consists of adaptability, availability, reliability, response time and usability. Adaptability The ability to adapt as a system (for example a computer system) to adapt efficiently and quickly to different situations. Therefore an adaptive system is an open system that can adjust behavior according to changes in the environment or from the system itself. The need to recognize change without other factors involved. Availability of a reliable system for testing and maintenance. Improving maintenance and maintenance is generally easier and more accurate. Reliability of the ability of the system or component to function under stated conditions for a certain period. Response time is the total amount of time needed to respond to a request for a particular service.

Services in the form of information access to the academic system. Usability is the ease of operation and learning of academic information systems. Learn to effectively interact and achieve maximum performance. Academic Quality System has a significant influence on Student Satisfaction at Bina Bangsa University. This statement is supported by structural test results where the probability value (P) produced is $P = 0,000$ or $P < 0.05$ which means that Academic System Quality has a significant effect on Student Satisfaction. The value of the direct effect $X \rightarrow Y1 = 0.920$ which means that the Academic Quality System influences Student Satisfaction of 92.0% (very strong) while the remaining 8.0% is influenced by other factors outside this study. The decision on the first hypothesis test is H0 rejected and H1 accepted, meaning that the quality of the academic system has a significant effect on Student Satisfaction at Bina Bangsa University. This is in line with the results of the study (Bulkia, 2018) concluding that there is a positive influence on the quality of the academic system on Student Satisfaction at the Kalimantan Islamic University (Uniska) Muhammad Arsyad Al Banjary Banjarmasin. Strengthened by research (Nugroho, Cahyono, & Suryawirawan, 2018), which concluded that the variable service quality (tangible, reliability, responsiveness, assurance and empathy) has a positive effect on Student Satisfaction at the Indonesian College of Economics (STIESIA) Surabaya. This reinforces the theory of the influence between service quality and customer satisfaction, where adequate service quality will make customers happy and assess the quality of the service is high (Parasuraman, Zeithaml, 1988). Academic Service Quality that can meet the desires and expectations of students based on service performance as a form of Student Satisfaction. As stated, (Kotler, 2010), customer satisfaction is a level where the product or service is felt by the wishes and expectations of customers, or even beyond their expectations. From the results of this study, it can be said that academic Service Quality can satisfy Bina Bangsa University Undergraduate (S1) students, who actively attend lectures in semesters 3,5,7 and 9, including students who carry out guidance in completing their final assignments.

The Influence of Information Quality on Student Satisfaction and Loyalty

The results showed that Information Quality has a significant influence on each user's satisfaction and loyalty. This means that the higher the quality of information from a university academic system, students as users will feel satisfied and loyal. Based on the results of the hypothesis test, it was found that the Information Quality variable significantly affected the 95% confidence level partially on Student Satisfaction (Y), with a p-value of 0,000. This means that Information Quality has a positive and significant effect on Student Satisfaction. In other words, the better the Information Quality, the Student Satisfaction will increase, conversely, if Information Quality is poor, Student Satisfaction will decrease.

Information Quality in Pitt and Watson's research (DeLone & McLean, 2003) refers to the output of information systems, concerning the value, benefits, relevance, and urgency of information. Meanwhile, the variables in DeLone and McLean (2003) describe Information Quality perceived by the user, as measured by the four Bailey and Pearson research indicators, namely information accuracy (accuracy), timeliness, completeness of the information (completeness) and presentation of information (format).

The Effect of Service Quality on Student Satisfaction and Loyalty

The results showed that service quality had a significant effect on each Student Satisfaction and loyalty. Improving the quality of service at tertiary institutions is very necessary considering that students tend to choose universities that provide high service quality and student satisfaction (Mohd et al., 2010).

Loyal students are not caused by getting good service quality. But good service quality is accompanied by increased student satisfaction which will make students loyal. Improving service quality without measuring the level of Student Satisfaction, will not be effective in increasing student loyalty. These results are consistent with research conducted by (Kim, 2011). In line with research (Dib & Mokhles, 2013) which states that good service quality will not increase student loyalty in Syria. Indeed, research conducted in India (Annamdevula & Bellamkonda, 2016) obtained results that state the important role of service quality in increasing student loyalty both directly and through Student Satisfaction.

Academic Service Quality directly does not have a significant effect on the loyalty of Bina Bangsa University students. This statement is supported by the results of structural tests that produce a probability value (P) = 0.005 or P = 0.05 meaning that there is no significant effect on academic Service Quality on student loyalty. Value of direct effects $X \rightarrow Y2 = 0.082$. This figure means that academic Service Quality has an influence on student loyalty by only 8.2% (very low) and the remaining 91.8% is influenced by other factors not analyzed in this study. From the results of the hypothesis test, H0 is accepted and H1 is rejected, meaning that Academic Service Quality has no direct significant effect on student loyalty at Bina Bangsa University. The results of this study support the findings (Mariska & Hati, 2015), which proves that the direct effect of Service Quality on student loyalty is not significant.

Student Satisfaction does not have a significant effect on student loyalty at Bina Bangsa University. This statement is supported by the results of structural tests that produce the probability value (P) produced, namely P = 0.028 or P> 0.05 meaning that there is no significant effect between Student Satisfaction and student loyalty. The value of the direct effect $Y1 \rightarrow Y2 = 0.021$ means that Student Satisfaction can affect its loyalty by only 2.1% (very weak), and the remaining 97.9% is influenced by other factors not examined in this study. Then the decision on the hypothesis 7 test is H0 accepted and H1 rejected, which means Student Satisfaction does not have a significant effect on student loyalty at Bina Bangsa University. The findings of this study contradict the research conducted by (Saifuddin & Sunarsih, 2016), which explains

that Student Satisfaction towards student loyalty has a very positive relationship. Student Satisfaction in Educational institutions can shape student loyalty. Service Quality and the image of the institution do not influence student satisfaction and loyalty, but Student Satisfaction has a significant effect on students' loyalty at Telkom University Business Administration (Rahareng & Volunteers, 2017).

So Student Satisfaction has no influence on student loyalty at Bina Bangsa University in a very weak relationship. The loyalty of these students is not reflected in the intention of students to recommend and say positive things about this educational institution to others or the general public. As well as to maintain the image or good name of the University of Bina Bangsa campus as long as they are active as students or later become alumni at educational institutions it's still lacking.

Academic Service Quality has a significant influence on loyalty through the satisfaction of students at Bina Bangsa University. This statement is supported by the value of the indirect effect produced, namely X → Y1 → Y2 = 1.746. This figure means that academic Service Quality has an indirect effect on student loyalty of 60.7% through student satisfaction at Bina Bangsa University, and the remaining 37.3% is influenced by other factors. This is consistent with the results of the study (Martasubrata & Suwatno, 2016), which concluded that student loyalty can be built from the variable service quality through the Student Satisfaction variable. Students at Bina Bangsa University will not behave loyally if they are not satisfied with the academic services they receive.

CONCLUSION

From the results of the study, it can be concluded that improving the quality of the system will be able to affect the increase in Student Satisfaction but may not necessarily be able to increase student loyalty directly. Indirectly through Student Satisfaction, student loyalty can be increased through the Quality System. Increasing Information Quality both,

directly and indirectly, can affect student satisfaction and loyalty. Service Quality at a tertiary institution becomes very important in increasing student satisfaction and loyalty.

Higher Education can make this research as a reference for improving academic performance and other services provided to students. The development of technology and the development of environmental situations requires that all aspects that can affect Service Quality can be done effectively and efficiently. For this reason, through system improvement, a university is expected to be able to compete with other universities. Furthermore, research can be developed that involves variables that become modes of mediation or other mediations such as university image, university promotion, and others.

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