
**THE EFFECT OF SERVICE QUALITY AND PRODUCT QUALITY ON
LOYALTY MEDIATED BY CUSTOMER SATISFACTION**



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Abstract

Service quality and product quality are the most important components in measuring student satisfaction and loyalty, especially for those who are attending education in the field of courses and training. The study aims to determine the effect of service quality and product quality on loyalty which is mediated by customer satisfaction at the Intermedia Training Center: Computer Courses and Training Institute in Rantauprapat. It uses quantitative methods. The data analysis technique used is the classical assumption test and uses path analysis which will discuss the direct or indirect effects or effects of the intermediary independent variables and the dependent which became the causal hypothesis of the effect on variables with the help of the SPSS version 26 software program for Windows. The results indicate that there is a significant influence between service quality and product quality on satisfaction. But there is no significant effect on the quality of service through student satisfaction on student loyalty. Furthermore, product quality through student satisfaction has a significant and significant effect on student loyalty. And also, the influence has been given to student satisfaction so that there is loyalty given. Due to the results of the study, the variable of service quality on loyalty is weak, therefore it is better to provide improvements in service quality and be more selective in determining appropriate services and products.

Keywords: Service Quality, Product Quality, Loyalty, Customer Satisfaction

INTRODUCTION

Educational institutions are important factors that affect the continuity of the nation's education such as computer course institutions to train talents and abilities and education is a supporting factor that plays the most important role in advancing welfare and educating life. On the other hand, the development of the times and increasingly modern life. The very rapid development of technology creates major changes to changes in human behavior, both in the world of education, the economy, and the community environment.

Service user satisfaction, in this case, course customers, is one measure of the success, of course, educational institutions in managing their educational institutions and still paying attention to the quality of the institution as a service product that must be achieved. This has resulted in the educational course institutions needing to continuously improve the quality of service and product quality by looking at the gap between the services provided and the services obtained by customers. Conditions like this should be the basis for every human resource to improve their skills and abilities, especially the ability to make the right decisions, have high creativity, be able to compete and cooperate with others, creative thinking, critical thinking, communicating, oriented, and innovating. There are many human resources who choose to take courses or business schools in order to train their skills and abilities in a particular field, especially in the fields of computer and network engineering, graphic design, and office administration, and are ready to work or equivalent to D1, and many other courses.

The ability to operate computers and network technology is a skill needed for an increasingly digital era. The presence of technology based on the industrial revolution 4.0 provides many advantages and provides many opportunities that we will get in today's limitless world that have never existed before. The presence of many technological facilities created can change the world in digital systems and management. The change in online-based learning systems with e-learning and virtual meeting learning systems is a new challenge in information and communication computer technology.

This is a business opportunity for some entrepreneurs by establishing a course institution for the Intermedia Training Center Computer Course and Training Center Rantauprapat. To compensate for the competition, the course institution must be able to meet the demands and expectations of its customers to provide the best quality service, and

the best product quality, because if the quality of services and products provided by its competitors is better, there is a possibility that customers will move to compete institutions that provide services and services. Quality in accordance with their wishes and expectations so that the possibility of getting customer loyalty will be difficult to achieve.

Customer loyalty has a very important role for the company, retaining customers' means improving the performance of excellence and the survival of the company. This is a state that every company expects, the main reason for a company or institution to retain and attract customers. Loyal customers will show their attitude and loyalty if a company or institution is able to give them satisfaction. Loyal customers are those who have a high desire to repurchase or subscribe to a product consistently at this time and in the future so that it will be repeated in purchasing the same product and consider the product choice very important for him.

Customer loyalty in this case is students or course participants at the Intermedia Computer Training and Training Center Rantaupratat Institute. Student satisfaction is a major factor in customer loyalty. The satisfaction provided by each of the various courses. Some are in accordance with student expectations and some are not in accordance with expectations. While the satisfaction felt by students can be measured by students who persist only by deciding on a course institution that they believe in based on their own experience and from others.

The tight competition between other course institutions that provide more choice negotiation makes students more selective in comparing what they want from competing course institutions which will have a discrepancy effect because of the results of comparing with other competing course institutions. Service quality is the level of how far the difference between reality and customer expectations for the service they have received. If the reality of the quality of service is much better than what they want then.

REVIEW OF LITERATURE

Service Quality

Service quality is something that must be achieved by a company engaged in the service sector. Service quality has a very important role in customer satisfaction and is a factor of excellence for course institutions. Service providers must be able to satisfy

customers by providing good service quality. A successful course institution is one that is able to achieve a consistent level of quality.

According to Tjiptono, service quality is a form of consideration for students on the level of service obtained with the level of service expected (Wahyuni, Agung, and Anggraini 2019). While Kasmir in Ika Sudana (2021) states service quality is a measure taken by individuals or groups or agencies that are useful for a sense of satisfaction for users and is profitability to assess the company's ability to earn profits (Sudana & Yesy Anggreni, 2021)

Product Quality

In the study, the quality-of-service products is an assessment of something that must be met by course agencies, such as computer and network engineering, graphic design, and office administration, if the product quality is good this is evidence that there is a productivity development in a course institution. The higher the quality of the service product of the course institution, the higher the level of student satisfaction and loyalty will be.

Kotler and Armstrong in Sari and Suroko (2017) explain product quality, namely the expertise of a product offered to consumers to get attention and have a sense of desire to buy according to its use and can be used and able to satisfy the needs, desires and expectations of consumers (Sari & Suryoko, 2017). Daryanto and Setyobudi (2014:94) in (Roswita 2021) argue that the quality-of-service products is strongly influenced by consumer perceptions. Consumer perception usually refers to the consumer's impression of the services he has received, based on what he imagines and receives (Roswita, Nurlenawati, and Savitri, 2021).

Customer Satisfaction

Customer satisfaction depends on each student who feels it if the quality of service and product quality meets expectations, students will feel happy and satisfied, but if the performance of service quality and product quality do not meet expectations, then students will be disappointed and tend to compare performance (or results) with their expectations (Nur Aisa, 2021). Customer satisfaction is the main goal in the course institution. Institutions must be better at maintaining the level of student satisfaction.

Kotler and Keller in Kusuma and Suwitho (2015) define that customer satisfaction as the level of feeling that affects a person's benchmark after comparing the performance results he feels compared to his expectations (Kusuma & Suwitho, 2015). Chandra in Tjiptono, service quality, customer satisfaction, and loyalty are the three elements that determine the success of implementation in the marketing concept, these three aspects become a forum for profit and non-profit organizations (Nurhadi, 2019). This opinion is in line with Theresia Cahya Setiani's research (2020) which proves that service quality, product quality, and promotion quality have a major impact on consumer satisfaction at English First Surabaya educational institutions (Setiani, 2020).

Customer Loyalty

Loyalty has an important role in the course institution to retain members and maintain viability and increase the profitability and image of the course institution. The success of the institution in building relationships with students is to form loyalty. Kotler and Keller explain how to make customers loyal to a company is the heart of every business activity, whether goods or services. The customers who are loyal or loyal to a company will make repeated purchases and will provide positive information to loyal or loyal consumers about the company through word of mouth to prospective company customers so that they can help the company achieve its goals (Halim et al., 2021).

This opinion is in line with Porral & Lang's (2015) research which proves that customers who are loyal to a product will intend to repurchase the product in the future. Indirectly, customer loyalty can increase the competitiveness of a company. Seeing the role of customer loyalty as crucial for companies, many experts have examined the important contribution of customer loyalty to companies.

Hypothesis Development

The research of Dewi Tresya Kaunang (2015) explains that the quality variable of the product has a significant effect on the customer satisfaction variable partially. The service quality variable does not have a significant effect on the customer satisfaction variable partially. Variable of customer satisfaction has a significant effect on customer loyalty (Young 2015). In addition, Theresia Cahya Setiani (2020) conducted research concluding that service quality has a significant positive effect on satisfaction. Product quality has a significant positive effect on satisfaction. It shows that the level of product

quality is high and thus the level of consumer satisfaction will increase because the English First Surabaya Education Institute provides and maintains product quality well and the products offered are quality products. Promotional quality has a significant positive effect on consumer satisfaction (Setiani 2020).

Meanwhile, Suhartono's research (2021) shows that the quality of service, price, and product quality either partially or simultaneously have an effect on customer satisfaction. Based on the theory and the results of various studies, several hypotheses can be taken as follows:

H1: It is suspected that service quality affects student satisfaction

H2: It is suspected that product quality affects student satisfaction

H3: It is suspected that the quality of service affects student loyalty

H4: It is suspected that product quality affects student loyalty

H5: It is suspected that the quality of service through student satisfaction on student loyalty

H6: Expected product quality through student satisfaction on student loyalty

H7: It is suspected that student satisfaction affects student loyalty

RESEARCH METHOD

The study uses a quantitative research paradigm. The data collection techniques for this research are primary data and secondary data. In testing the hypothesis through factor testing the numbers, are based on information, facts, and correlation. Primary data is a source of data obtained directly from the original source, namely from respondents based on a list of questions or statements submitted, while secondary data comes from Intermedia Training Center documents, reports during research, websites, and the internet related to service quality, product quality, customer satisfaction, and customer loyalty.

The location of this research is at the Intermedia Training Center in the city of Rantauprapat, the time of the research is 27 January - 14 February and the objects in this research are students of the 2021-2022 Intermedia Training Center course. The research method is collecting data through interviews with the leadership of the intermedia training

center, namely to find the problems that will be studied. Furthermore, the survey method is through a questionnaire.

Population and Sample

According to Morissan (2012:109), the population is a set of between-subject variables, concepts, or a phenomenon that occurs, while the sample is part of the population that represents the entire population that represents or is representative (according to its function) (Hidayat 2015). The population was all students of the Intermedia Training Center Course in Rantauprapat as many as 100 students.

A probability sampling technique is used, namely by using a sample frame in the form of a list containing a table of random numbers to determine the sample selection method to be used. The sample in this study was 70 students aged 15-24 years who were customers of courses in various courses, namely regular, graphic design, office administration, and ready to work equivalent to D1.

Analysis Model

The study uses path analysis which will discuss the direct or indirect effects or effects of the intermediary independent variables, and the dependent. which becomes the causal hypothesis of the effect on these variables. Before analyzing the data that has been collected, the first thing to do is test the validity and reliability of whether the data that has been obtained from the respondents is correct and valid.

In addition, validity and reliability tests were carried out to minimize some of the errors that existed in data collection, measurement of the variables studied, and errors caused by external factors that could not be controlled by the researcher. Data submission is done as a whole using SPSS 26 software.

Research Instrument Test

Sugiyono revealed that if the instrument test with validity and reliability tests is declared valid, then an instrument can be used as a tool to measure what should be measured (Herawati & Mulyani 2016). If the accuracy of a measuring instrument is high, then the measuring instrument can be right on target so that it shows the suitability of the data. Validity test can be done by testing the score of each statement item with a total score with the formula and rules:

“If r count r table (product-moment) then the data can be said to be valid.”

“If r count r table (product-moment) then the data can be said to be invalid.”

Reliability is a measure to determine the extent of the consistency of the measuring instrument if the instrument is used repeatedly to produce the same data and remains consistent if the measurement is repeated. Measuring the reliability of the instrument data is carried out using a standard Cronbach’s Alpha > 0.70 method, so the instrument can be declared reliable.

Classic Assumption Test

The classical assumption test aims to determine the condition of the data used in a study. The tests carried out were the normality test, multicollinearity test, and heteroscedasticity test.

Path Analysis

The path analysis method is used to determine the effect of the relationship directly or indirectly. Path Analysis is a feasibility test and prerequisite test that is carried out before carrying out further analysis of the data that has been obtained. This statistical analysis technique is a development of the multiple regression model.

RESULTS AND DISCUSSION

Descriptive Characteristics of Respondents

Table 1
Characteristics of Respondents

No	Respondent Characteristics	Information
1	Gender	1. Men = 13 Persons
		2. Women = 57 Persons
2	Age	1. 15-20 years old = 60 Persons
		2. 21-24 years old = 10 Persons
3	Course Program	1. Office administration = 20 Persons
		2. Ready to Work / D1 = 30 Persons
		3. Apprenticeship = 15 Persons
		4. Network and Computer = 3 Persons

		5. Graphic Designer = 2 Persons
4	Level of Education	1. Junior High School = 1 Person
		2. Senior High School = 60 Persons
		3. Associate's Degree = 1 Person
		4. Bachelor = 8 Persons

Source: Data Processed, 2022

Normality Test

Table 2
Normality Test Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		70
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.73215059
Most Extreme Differences	Absolute	.083
	Positive	.048
	Negative	-.083
Test Statistic		.083
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Source: Output SPSS 26, 2022

Based on the results of the normality test, it is known that the significance value is $0.200 > 0.05$, so it can be concluded that the residual value is normally distributed.

Validity

Ghozali states the validity test in this study was used to test the validity of the questionnaire (Novianto & Yuniati 2015).

The validity criteria in an instrument can be stated as follows:

$$D(f) = n - 2 = 70 - 2 = 68$$

$$r_{table} = r(70 - 2; 0.05) = 0.2352$$

“The data is said to be valid if r count r table, then the questionnaire data can be said to be valid.”

“If t count r table, the questionnaire data can be said to be invalid.”

Table 3
Validity Test

Variable	Statement	r count	r table	Criterion
Service Quality	P_1	0,611	0,2352	Valid
	P_2	0,687	0,2353	Valid
	P_3	0,626	0,2352	Valid
	P_4	0,633	0,2352	Valid
	P_5	0,594	0,2352	Valid
	Result X1	0,432	0,2352	Valid
Product Quality	P_6	0,816	0,2352	Valid
	P_7	0,818	0,2352	Valid
	P_8	0,693	0,2352	Valid
	P_9	0,686	0,2352	Valid
	P_10	0,717	0,2352	Valid
	Result X2	0,752	0,2352	Valid
Student Satisfaction	P_11	0,818	0,2352	Valid
	P_12	0,705	0,2352	Valid
	P_13	0,777	0,2352	Valid
	P_14	0,838	0,2352	Valid
	P_15	0,795	0,2352	Valid
	Result Y	0,503	0,2352	Valid
Student Loyalty	P_16	0,768	0,2352	Valid
	P_17	0,788	0,2352	Valid
	P_18	0,768	0,2352	Valid
	P_19	0,856	0,2352	Valid
	P_20	0,820	0,2352	Valid
	Result Z	0,858	0,2352	Valid

Source: Data Processed, 2022

Reliability

A reliability test can be used to measure a questionnaire which is an indicator of a variable. The method used to test the reliability of the questionnaire is to use the Cronbach Alpha coefficient formula. The minimum Cronbach alpha value so that data is said to be highly reliable is greater than 0.70 (Kodu, 2013).

Table 4
Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
.875	22

Source: Output SPSS 26, 2022

The results of the research reliability were found based on the Cronbach Alpha value of 0.875. It means that the instrument used in the research is reliable.

Correlation

The correlation between X1 and X2 of 0.546 for this provision can be said to be a high correlation relationship because 0.5 is included in the category of a strong correlation.

Table 5
Correlation Test

Correlations			
		X1_Service Quality	X2_Product quality
X1_ Service Quality	Pearson Correlation	1	.546**
	Sig. (2-tailed)		.000
	N	70	70
X2_ Product Quality	Pearson Correlation	.546**	1
	Sig. (2-tailed)	.000	
	N	70	70

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Output SPSS 26, 2022

Multicollinearity

It is said to be free from multicollinearity if the tolerance value is greater than 0.1 and the VIF value is less than 10. The tolerance value in this study is $0.965 > 0.1$ and the VIF value is $1.036 < 10$. This proves that this study is free from multicollinearity.

Table 6
Multicollinearity

Coefficients ^a			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	X1_ ServiceQuality	.965	1.036
	X2_ ProductQuality	.965	1.036

a. Dependent Variable: Y_ StudentSatisfaction

Source: Output SPSS 26, 2022

Heteroscedasticity

Based on the heteroscedasticity image, it is known that the image is randomly distributed and does not form a certain pattern. Therefore, it can be concluded that this regression model identified no heteroscedasticity, so this research is declared feasible.

First Model Path Coefficient

Table 7
t Test Model 1

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.826	3.859		1.769	.081		
	X1_ ServiceQuality	.356	.140	.285	2.541	.013	.965	1.036
	X2_ ProductQuality	.329	.136	.273	2.430	.018	.965	1.036

a. Dependent Variable: Y_ StudentSatisfaction

Source: Output SPSS 26, 2022

Referring to the regression model 1 output in the “coefficients” section, it can be seen that the significance value of the two variables, namely X1 = 0.013 and X2 = 0.018 is smaller than 0.05. So, these results can be concluded that regression model 1, namely the variables X1 and X2 have a significant effect on Y.

The effect of service quality and product quality on student satisfaction:

$$Y = 0.285x_1 - 0.273x_2 + 0.917e_1 \dots \dots \dots (1)$$

The amount of R Square is 0.185. It shows that the contribution of the coefficient of determination (R²) of X₁ and X₂ to Y is 18.5% while the remaining 81.5% is a contribution from other variables not included in the study. Meanwhile, to find the value of e₁ can be searched with the formula: (1-0,185) = 0,917.

The magnitude of the significance in the f test is 0.01 in the f test is accepted. Because the significant value is less than 0.05, it can be said that the variables X₁ and X₂ simultaneously affect the Y variable.

Second Model Path Coefficient

Table 8
t Test Model 2

Coefficients ^a								
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	-.423	2.505		-.169	.866		
	X1_ ServiceQuality	-.140	.093	-.114	-1.505	.137	.880	1.136
	X2_ ProductQuality	.887	.090	.745	9.888	.000	.887	1.128
	Y_ StudentSatisfaction	.208	.078	.211	2.689	.009	.815	1.227

a. Dependent Variable: Z_ StudentLoyalty
 Source: Output SPSS 26, 2022

Based on the output of regression model 2 in the “coefficients” section, it can be seen that the significance value of the variable is X₁ to Y = 0.137 > 0.05. Meanwhile X₂ = 0.000 and Y = 0.009 is smaller than 0.05.

$$Z = 0.745x_2 + 0.211y + 0.576e_2 \dots \dots \dots (2)$$

X₁ has an effect on Z if the significant value is X₁ 0.05

Ho: X₁ affects Z

Ha: X₁ has no effect on Z

In this result Ho is rejected because 0.137 > 0.05.

The service quality variable has a t count of -1.505 with a significance value of 0.137. Provisions for taking the hypothesis are accepted or rejected based on the magnitude of the significance value. If the significance is less than 0.05 then the hypothesis is accepted. The results of the study obtained a significance value of $0.137 > 0.05$, so it was concluded that the hypothesis was rejected.

The results indicate that service quality has no effect on loyalty. These results are in line with the research of Dewi Tresya Kaunang (2015) which states that service quality has no effect on mediation from customer satisfaction.

X2 has an effect on Z if the significant value of X2 is 0.05

Ho: X2 affects Z

Ha: X2 has no effect on Z

In this study, Ho is accepted because $0.000 < 0.05$

Y has an effect on Z if the significant value of X2 is 0.05

Ho: Y affects Z

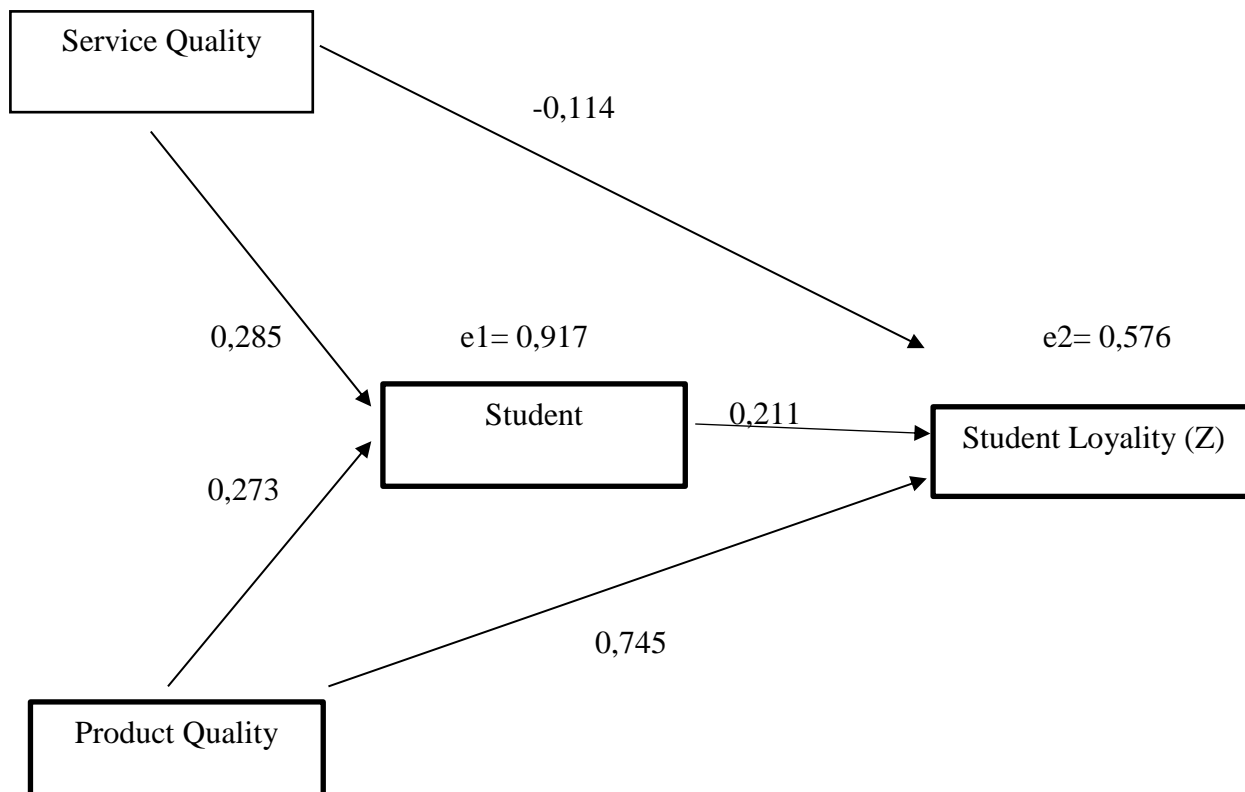
Ha: Y has no effect on Z

In this study, Ho is accepted because $0.009 < 0.05$

The magnitude of R Square is 0.668. This shows that the contribution of the coefficient of determination (R^2) from X1, X2, and Y to Z is 66.8% while the remaining 33.2% is a contribution from other variables not included in the study. Meanwhile, to find the value of e^2 can be searched with the formula $= (1-0.668) = 0.576$. The magnitude of the significance in the f test is 0.00 in the f test is accepted. Because the significant value is less than 0.05, it can be said that the variables X1, X2, and Y simultaneously affect the Z variable.

Full Path Analysis Model

Figure 2
Full Path Analysis Model



Source: Data Proceed, 2022

Hypothesis Testing Stage

Analysis of the influence of X1 on Y

The significance value of X1 is $0.013 < 0.05$, so it can be concluded that there is a direct significant effect of X1 on Y (H1 is accepted).

Analysis of the influence of X2 on Y

The significance value of X2 is $0.018 < 0.05$, so it can be concluded that there is a direct significant effect of X2 on Y (H2 is accepted).

Analysis of the influence of X1 on Z

The significance value of X1 is $0.137 < 0.05$ so it can be concluded that there is no direct significant effect of X1 on Z (H3 is rejected).

Analysis of the influence of X2 on Z

The significance value of X2 is $0.000 < 0.05$ so it can be concluded that there is a direct significant effect of X2 on Z (H4 is accepted).

Analysis of the influence of Y on Z

Obtained a significance value of Y of $0.009 < 0.05$ so it can be concluded that there is a direct significant effect of Y on Z (H5 is accepted).

Analysis of the influence of X1 through Y on Z

The direct effect given by X1 to Z is -0.114 . While the indirect effect of X1 on Y with the beta value of Y on Z is the product of the beta value of X1 on Y with the beta value of Y on Z, namely: $0.285 \times 0.211 = 0.060$.

Then the total effect given by X1 on is the direct effect plus the indirect effect, namely: $-0.114 + 0.060 = -0.054$. Based on the results of the calculations above, it is known that the value of the direct influence is greater than the value of the indirect effect, these results indicate that there is no indirect effect between X1 through Y on Z (H6 is rejected).

Analysis of the influence of X2 through Y on Z

It is known that the direct effect given by X2 to Z is 0.745 . While the indirect effect of X2 through Y on Z is: $0.273 \times 0.211 = 0.0576$. Then the total effect given by X2 to Z is $0.745 + 0.0576 = 0.802$. Based on the calculation results above, it is known that the value of direct influence is smaller than the value of indirect influence, this result indicates that indirectly X2 through Y has a significant effect on Z (H7 is accepted).

DISCUSSION

The Effect of Service Quality (X1) on Student Satisfaction (Y)

Service quality is an important factor that affects student satisfaction because satisfied students will give a positive response to the service and will provide high loyalty to the course institution. The Intermedia Training Center creates a good quality of service for students because the service staffs are able to understand the difficulties that occur to students, and how good the physical evidence is in the service starting from the layout of the room, tidiness, sophistication of tools, reliability, and how consistent the institution in delivering quality to students.

The results showed that there was a significant positive effect of service quality on intermedia training center student satisfaction. because the significance value of X1 is $0.013 < 0.05$, it can be concluded that there is a direct significant effect of X1 on Y. This means that the better the quality of service, the more student satisfaction will increase.

It is in line with the research of Fernis Mayos Likumahwa (2020) in Nurul Fatimah (2021) where the results of the research show that there is an influence on service quality and has been proven to have a significant effect on IndiHome customer satisfaction at PT. Telecommunications, Tbk Witel Maluku.

Effect of Product Quality (X2) on Student Satisfaction (Y)

A product can be called good and quality if the product has a good quality value, quality of service products. Course education must provide satisfaction and confidence to students that the quality-of-service products provided by this course institution are of good quality. A product can be said to be of high quality if the course product or Business School Intermedia Training Center is in accordance with the wishes of the consumer, namely to train his skills and abilities in a particular field. Especially in expertise in the field of computer and network engineering, graphic design, office administration, and many other course products that have functions according to their use and can increase income at course institutions.

The quality of a product affects its ability to satisfy the desired needs. Through another understanding that an item or service will be judged as quality if it can meet the expectations of students who will assess the product. The existence of quality is one of the factors that determine the assessment of student satisfaction. Students will buy course service products to complete their studies and give value to their abilities because they can do something. The value given by students is related to the benefits or advantages, so it can be said that the quality of the product is higher. There are many measures that can be used in determining the quality of a course product, but the ultimate goal is the same, namely being able to provide satisfaction to students.

The results showed that there was a significant positive effect of product quality on student satisfaction in the Intermedia Training Center. The significance value of X2 is $0.018 < 0.05$, so it can be concluded that there is a direct significant effect of X2 on Y. It means that the better the quality of the product, the higher the student satisfaction. It is in

line with the research of Ratlan Pardede (2017), namely product quality has a positive effect on consumer satisfaction in testing product quality on consumer satisfaction that product quality has a positive effect on consumer satisfaction.

The Effect of Service Quality (X1) through Student Satisfaction (Y) on Student Loyalty (Z)

The results showed that there was no significant effect between service quality through student satisfaction on student loyalty at the Intermedia Training Center. It means that the better the quality of service provided does not necessarily make students loyal. The condition may be caused because students are very critical of service problems. So, to decide to be loyal to a course service, students must be in a position to compare with the same services provided by other course institutions.

Currently, when a student uses the services of a product, he will surely have expectations about how the service product is useful and does not really care about the quality of service that is on average provided by the course institution. If a student already enjoys and is satisfied with a particular product or service, the student will certainly feel satisfied and loyal to the course institution.

The results of this study indicate that the direct effect given by X1 to Z is -0.114. While the indirect effect of X1 on Y with the beta value of Y on Z is the product of the beta value of X1 on Y with the beta value of Y on Z, namely: $0.285 \times 0.211 = 0.060$. Then the total effect given by X1 on is the direct effect plus the indirect effect, namely: $-0.114 + 0.060 = -0.054$.

Based on the calculation results above, it is known that the direct influence value is greater than the indirect effect value, this result indicates that there is no indirect effect between X1 through Y on Z. This is in line with the research of Dewi Tresya Kaunang (2015) which states that service quality has no effect on mediation from customer satisfaction.

Effect of Product Quality (X2) through Student Satisfaction (Y) on Student Loyalty (Z)

High product quality will make students more satisfied and students will feel more loyal to the products offered. In addition, on the other hand, students' trust in the Intermedia Training Center cannot be separated from the problem of satisfaction which can

be met with good services and products. Product quality is the main prerequisite for a long-term relationship between students and the course institution. The results showed that student satisfaction had a positive and significant effect on student loyalty. The more satisfied students are with the quality of products and services, the more loyal they will feel to these products and services. On the other hand, students' trust in the Intermedia Training Center cannot be separated from the problem of satisfaction which can be met with good services and products. Product quality is the main prerequisite for a long-term relationship between students and the course institution.

The results showed that there was a positive and significant influence between product quality through student satisfaction on student loyalty because the direct effect given by X2 to Z is 0.745. While the indirect effect of X2 through Y on Z is: $0.273 \times 0.211 = 0.0576$. Then the total effect given by X2 to Z is $0.745 + 0.0576 = 0.802$. Based on the calculation results above, it is known that the direct influence value is smaller than the indirect effect value, this result indicates that X2 through Y indirectly has a significant effect on Z. The results of this study are in line with the research of Muhammad Rezha Pahlawan (2019) that there is a significant effect of product quality on customer loyalty if mediated by customer satisfaction at the Regional Water Company (PDAM) Makassar City. (Heroes et al. 2019)

The Effect of Student Satisfaction (Y) on Student Loyalty (Z)

Student loyalty always comes from satisfaction, pleasure, and the desire to always feel the quality of a product. This loyalty will appear along with a feeling of satisfaction with something, both in terms of service excellence, in terms of products, and many other supporting factors. Competition between course institutions is getting tighter which will make course institutions more involved in meeting the needs and desires of students, causing each course institution to place student satisfaction as the main goal. The loyal attitude of students is influenced by trust, intuition, and feelings of satisfaction from various desired expectations. Besides that, the course institution must be able to change feelings of satisfaction into feelings of pleasure.

For the course institution, it is a challenge to create a special relationship between students and the course institution in the long term will be profitable. The results showed that there was a positive and significant influence between student satisfaction on student

loyalty. The significance value of Y is $0.009 < 0.05$, so there is a direct significant effect of Y on Z. It is in line with the research of Anak Agung Gde Mantra Suarjana (2015) which explains that it significantly supports the statement that consumer satisfaction has a positive and significant effect on consumer loyalty, consumer satisfaction in inpatients at the Sanjiwani Hospital, Gianyar.

CONCLUSION

Service quality has a positive and significant effect on student satisfaction at the Intermedia Training Center Rantauprapat, meaning that service quality has an effect on increasing student satisfaction. Product quality has a positive and significant effect on student satisfaction at the Intermedia Training Center Rantauprapat, meaning that the influence of product quality can increase student satisfaction.

Service quality has no significant effect on student loyalty at the Intermedia Training Center Rantauprapat, meaning that service quality has no effect on increasing student loyalty. Product quality has a positive and significant effect on student loyalty at the Intermedia Training Center Rantauprapat, meaning that the influence of product quality can increase student loyalty.

Service quality through student satisfaction on student loyalty does not have a significant effect on student loyalty. There is no significant effect between service quality through student satisfaction on student loyalty at the intermedia training center course institution. This means that the better the quality of service provided does not necessarily make students loyal.

The results showed that there was a positive and significant influence between product quality through student satisfaction on student loyalty. Student satisfaction has a positive and significant effect on student loyalty at the Intermedia Training Center. It means that the more satisfied students are with the quality of products and services, the more loyal they will be to these products and services.

Intermedia Training Center Rantauprapat is always oriented toward student satisfaction. So, to be able to create competitive advantages in the future, the students get satisfaction from various ways to improve quality through intermedia training centers and conduct various kinds of educational training for students and training for educators.

Evaluation of service quality needs to be carried out regularly, especially for dimensions of service quality and product quality in order to maintain the dimensions that are considered good and improve the dimensions that are considered to be included in the quality improvement category at the Intermedia Training Center Rantauprapat.

In order for the research to be more extensive and complete, it is recommended for further researchers to use a better and larger sample of students. Intermedia Training Center students will get a bigger and more comprehensive picture of students in order to improve the service quality and product quality of Intermedia Training Center Rantauprapat. The influence of the independent variable on the dependent variable, either directly or indirectly, has not yet reached 100%, which means that it is still possible to include other variables in subsequent research.

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