

## **SERVICES QUALITY OF PRIVATE EDUCATION AND THE IMPACT OF STUDENT SATISFACTION**

Oleh:

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### **ABSTRACT**

This study aims to determine the quality of private education services and their impact on student satisfaction in Jember Regency. The research location is at the private colleges in Jember Regency. This research is a quantitative study using data collection techniques through questionnaires. The sampling technique uses Double Sampling, namely purposive sampling, and simple random sampling, with a total sample of 140 respondents obtained from the calculation of 6 variables with a total indicator of 22 multiplied by 6. The analytical method used is Multiple Linear Regression Analysis with Latent Variables so that it can be seen the level of student satisfaction with the services of the private colleges in Jember Regency. The results showed that the variable of empathy had an effect on student satisfaction at the private tertiary institution in Jember Regency. While the other four variables namely physical evidence, reliability, responsiveness, and guarantee had no effect on student satisfaction at the private colleges in Jember Regency.

Keywords: colleges, service quality, student satisfaction

### **A. INTRODUCTION**

Education is a process experienced in human life and takes place sustainably wherever people live. (Siswoyo, 2007) states that where there is human life, there must be education. This statement shows the important role of education in human life both as individual and in social life. The educational function of nature of human life is to prepare someone to become intact human and is expected to provide a better chance and live decently as human.

As the consequence of public awareness on education sector, it requires the educational institutions that can accommodate community interest in education. One of the educational institution needed in the era of technological progress is the Tertiary Education Institution (PT). PT is the final stage of a process on shaping human character. The pressure against PT is not only lying in the ability to produce graduates that measured just academically, but rather the overall program that includes academic administrative services, study counseling services, financial and administrative services, and learning process. (Taman, Sukirno, Sari, Setiawan, & Pustikaningsih, 2013). Besides, PT must also be able to prove the quality of higher level education which is supported by adequate facilities to create a conducive academic atmosphere.

Today the number of universities has increased. It is considering the request of the people who need to continue their education to the college. Increasing quantities of these colleges require each institution must consider the quality of education and organization, to be able to compete with other institutions, (Tinggi, 2018). On the other hand, college is required to explore and improve all aspects of service excellence to be able to create an enhanced image good colleges in the perspective of the public, because the public (prospective students) in the way of choosing a college destination tend to look for PT that provides high quality of service and supported with adequate infrastructure. So that the revolutionary movement in improving integrated quality is very much needed and becomes a need as well as a solution that cannot be ignored if the institution still has a desire to develop and remains in demand by the community. The competition increasingly fierce between PT, increasingly demanding PT to continue to improve the quality of services supported by the existence of the facility of learning are adequate. It aims to create a conducive atmosphere in learning activities and be able to produce graduates following their competencies (Dananjaya, 2007).

Quality colleges always show good quality service. It can be seen through the satisfaction that is owned by consumers. In this case, the students. Students are the primary customers of PT. Therefore, service orientation towards students needs to be focused so that their satisfaction can be fulfilled. As a service industry, PT should always think about improving service to customers, because service can provide customer satisfaction and is a vital aspect of staying in business and winning the competition, (Tjiptono, 2014).

The existence of good and professional service quality at a PT will create student satisfaction that has a domino effect on behavioral intentions. These behavioral intentions will give an idea of whether students will provide positive or negative recommendations to other students or prospective students who wish to continue their study at college. If a service can meet student expectations, then a service can be said to be satisfactory, and vice versa. If a service can not meet student expectations, then the service is not satisfying or students will be disappointed. Forms of service received by students in tertiary institutions include services in academic, student and administrative activities.

Basically, all private colleges have the same desire to provide good and quality services to their students, but some of them are unable to provide good

service as a result of the lack of adequate facilities to support student academic activities. On the other hand, the existence of increasingly stringent government regulations also has a significant impact both positively and negatively on the existence of a college.

Jember Regency is one area that is a center of higher education and is a district that is a beacon of higher education for the four surrounding districts namely Lumajang, Bondowoso, Situbondo, and Banyuwangi. In Jember there are 18 Private Tertiary Institution (PTS). Each of them has advantages and differences from each other. The number of universities in Jember shows that Jember has an important role in realizing the goals of higher education and the aspirations of students especially those in the Jember and surrounding areas. Seeing this, it is necessary to continuously improve the quality of a private tertiary institution in Jember through an assessment of service factors that can affect student satisfaction. This study aims to determine the effect of the level of student satisfaction on the services of private tertiary institution in Jember Regency.

## **B. LITERATURE REVIEW**

(Tjiptono, 2005) defines service quality as a measure of how well the level of service provided is under customer expectations. Based on this understanding, service quality can be realized by meeting customer expectations. Basically, a good and quality service has the power to influence the level of customer satisfaction that can be reflected in the work performance of employees. According to Parasuramanon article (Ivonnty & Purwaka, 2004), there are 5 factors of service quality, namely:

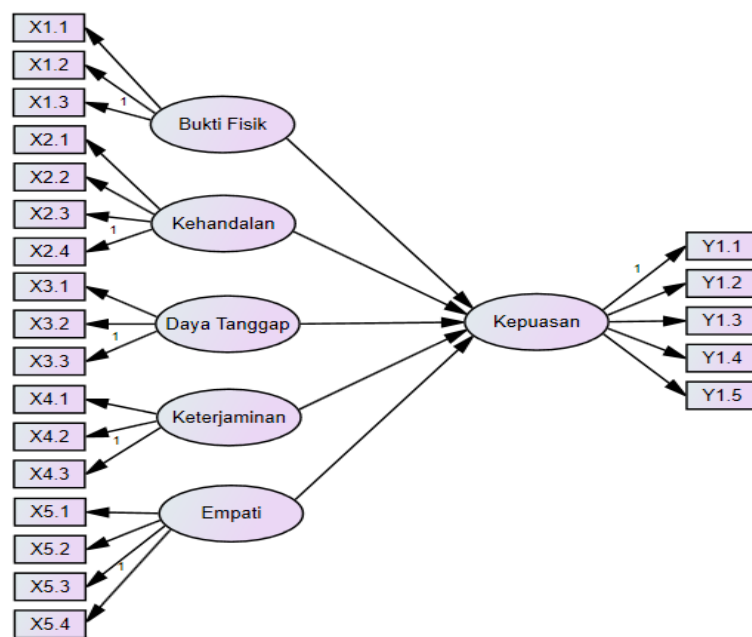
1. Reliability; related to the ability of companies/colleges in providing good and fast services from the first time providing services without making mistakes and being able to provide services following the specified time, (performance) and can be trusted (dependability). This means the company or agency can deliver its services correctly from the start, meet the needs of the community accurately and reliably, deliver data appropriately.
2. Responsiveness; associated with the willingness of employees to assist customers to solve the problem, responded to the request of customers, and to provide information when service will be completed and can provide service quickly. This dimension explains the attitude of employee attention and the ability of employees to get the job done quickly to meet customer demand, service, and complaints for the current problems.
3. Assurance; related to the ability of employees to develop customer confidence. Security needs to check that employees always have a polite attitude and have the knowledge and skills needed to overcome any questions or problems that are owned by customers. This guarantee covers the ability, politeness, and trustworthiness of the staff, free from danger, risk or doubt.

4. Empathy; related to the institution's understanding of customer problems. All actions of institution are based on the interests of customers, besides, employees of the company should also be able to provide personalized care to the customer and have the convenient service time. Empathy in service includes ease of relationships, good communication, and understanding the needs of customers.
5. Physical evidence (tangibles); related to the attractiveness of infrastructure, equipment and materials used, and the appearance of employees. Physical evidence is the company's ability to demonstrate its existence to external parties. Such as the ability to the provision of facilities for the company's physical and condition of the surrounding environment. Good physical evidence could affect customer perception. In addition, physical evidence is also one of the factors that can influence customer expectations. Tangible aspects are including facilities, office equipment, and how to dress for employees.

According to Tse and Wilton in (Yuksel & Yuksel, 2008), consumer satisfaction defines as a consumer response to the evaluation of perceived discrepancies/discrepancies between previous expectations (or some other performance norms) and the actual performance of the product as student felt after consumption. According to Sugito in (Iswani & T.S Yanti, 2011), student satisfaction is a situation where the wishes, hopes, and needs of students are fulfilled. If the services provided can meet the desires, hopes, and needs of students, then the service can be considered satisfactory, and vice versa, if the services provided cannot meet the wants, hopes, and needs of students, then it can be concluded that the service is unsatisfactory. So based on this definition, it can be assumed that student satisfaction is an assessment given on the difference between student expectations and the performance or results (reality) felt by students for the services provided by tertiary institutions.

Some researches on the effect of service quality on customer satisfaction have been done by several previous researchers. One of the findings of research conducted by (Dananjaya, 2007) which states that the quality of service which includes physical evidence, reliability, responsiveness, assurance and empathy variables affects the satisfaction of students of the Faculty of Economics majoring in Management at the University of Jember. In another study conducted by (Sari, 2012) also stated that the quality of service which includes physical evidence variables, reliability, responsiveness, assurance, and empathy affects the satisfaction of students of the Pasundan Faculty of Economics. Besides, there are different research findings in research conducted by (Saifuddin & Sunarsih, 2016). In this study, it was revealed that the factors that have not given satisfaction to Sunan Kalijaga Yogyakarta Islamic State University students are all service quality factors which include reliability, assurance, tangibles, responsiveness, and empathy. A similar sentiment was also expressed by (Santhi & Hartati, 2017) who stated that service quality did not significantly influence student satisfaction at STIA Muhammadiyah Selong.

The variables of this study consisted of five independent variables namely: Physical evidence variable ( $X_1$ ), Reliability ( $X_2$ ), Responsiveness ( $X_3$ ), Security ( $X_4$ ), Empathy ( $X_5$ ) and one dependent variable namely student satisfaction in private universities in Jember Regency ( $Y$ ). These six variables form the following relationship patterns: the relationship between physical evidence variables with student satisfaction variables, the relationship of reliability variables with student satisfaction variables, the relationship of responsiveness variables with student satisfaction variables, the relationship of guarantee variables with student satisfaction variables, and the empathy relationship with satisfaction variables college student. The equation model that describes the pattern of relationships between variables can be seen in the following conceptual framework.



**Figure 1.**  
**Conceptual Framework**

### C. RESEARCH METHOD

This research is confirmatory research. Confirmatory research is research that aims to test a theory or hypothesis to strengthen or even reject a theory or hypothesis that has already existed. In this study, researchers will confirm whether the variables used can confirm a factor called the Confirmatory Factor Analysis of all the indicators used in the model. Research data collection was carried out using a questionnaire to determine the relationship and influence of service quality variables on student satisfaction in private universities in Jember.

The population in this study consisted of two types of population. The first population was private tertiary institutions in Jember Regency and the second population was students in all private tertiary institutions in Jember Regency.

Because there are two types of population in this study, the sampling method used in sampling uses Double sampling or sampling conducted in two stages: first, the sample selection of the population of private tertiary institutions in Jember Regency by using a purposive sampling technique. Second, the selection of respondents from selected PTS using simple random sampling. Technically the sampling method is as follows:

1. Purposive sampling is a sampling technique that takes into consideration the considerations made by the researcher based on convenience and following research criteria (Sugiyono, 2008). This method is used for the selection of research respondents. The criteria for respondents selected are as follows:
  - a) PTS in Jember Regency that has been accredited
  - b) Minimum number of active students is 500 students

Based on the random sampling method, the chosen PTS samples in the study were STIE Mandala Jember, Muhammadiyah University Jember, Jember Islamic University, and Moch. Seroedji University Jember.

2. Simple Random Sampling. It is sampling from a random population based on the probability frequency of all members of the population (Sugiyono, 2014). In other words, all members of the population have the same opportunity to be chosen as respondents. This method is used to select respondents/students at PTS that have been selected based on purposive sampling.
3. According to (Malhotra, Birks, & Wills, 2012), the number of samples taken can be determined by minimally multiplying sub-variables by 5 to 10. Referring to the opinion, the number of samples in this study are 140 respondents. The number of samples obtained from all indicator variables used in this study is 22 sub-indicators multiplied by 6.

Data collection methods or techniques used in this study were questionnaires. According to (Kuncoro, 2013) questionnaire is a technique of data collection which is done by giving a set of questions or a written statement to the respondent to answer. Measurement data in this study using the Likert scale technique, the range of scales used to measure degree strongly agree or strongly disagree for each indicator variable in this study is 1 (one) to 5 (five).

The data analysis method in this research uses Multiple Linear Regression Analysis with Latent Variables. This method is used to determine the effect of independent variables on the dependent variable. Before multiple linear regression analysis with latent variables, first tested the validity and reliability of data. A measurement instrument test tool is said to be valid if the device performs its size function or provides measurement results following the measurement objectives, (Sunyoto, 2011). Testing the validity of the data instrument is done using regression analysis with a *confirmatory factor analysis* on each variable said to be valid if it has a *goodness of fit index* (GFI) value  $> 0,90$ . In addition, a measuring instrument is said to be reliable if repeated use gives the same or consistent results. Reliability testing is carried out to determine the internal consistency of

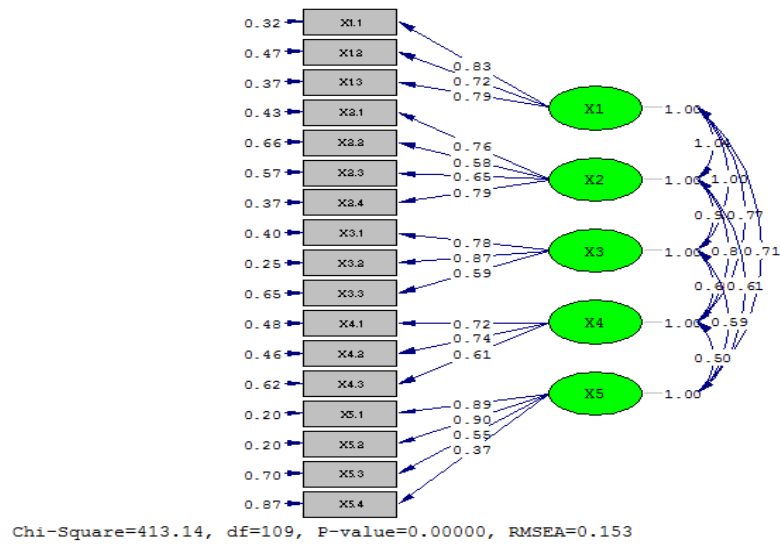
the indicators. Indicators of a construct that embodies the degree to which each indicator identifies a common construct or latent factor.

After testing the validity and reliability of each latent variable, then the classic assumption test is performed to see whether the prerequisites required in multiple linear regression modeling can be fulfilled. The classic assumption test consists of normal multivariate assumptions, the absence of multicollinearity or singularity, and outliers. Then the Measurement model is performed. The measurement model is a modeling process in research that is directed to investigate the unidimensionality of indicators that explain a factor or a latent variable (Ferdinand, n.d.). Basically, the measurement model test tests whether the overall model can be said to be fit or not. In this study, researchers will confirm whether the indicator variables used can confirm a factor called the Confirmatory Factor Analysis of all indicators used in the model.

Data analysis was performed with step 1) Grouping similar data in table 2) Analyzing the data by performing calculations according to the method of quantitative research with analytical techniques that will be used is the *confirmatory technique* using LISREL 8.72 program.

#### **D. RESULTS AND DISCUSSION**

The construct of the technique of multiple linear regression with latent variables is called the latent variable and the indicator is the observed variable (Ghozali, 2011). After the constructs of the constructs and indicators are stated in the equation, then by using multiple linear regression procedures with latent variables, a validity and reliability test is performed using *confirmatory factor analysis*. A validity test is intended to find out how much accuracy and accuracy of a measuring instrument (instrument) in carrying out its measurement function. The indicators of a variable are said to be valid if they have a significant *loading factor* at ( $\alpha = 5\%$ ). An instrument is called unidimensional if it has a *goodness of fit index* (GFI) value  $\geq 0,90$  (Ferdinand, n.d.). The instrument is called *reliable*, if the measuring instrument gets consistent results. Thus, this instrument can be used safely because it works well in different conditions and at different times. Reliability in this study was calculated using *composite (construct reliability)* with a minimum *cut-off value* of 0.6 (Ghozali, 2011). The validity and reliability test results for each latent variable can be seen in the following figure:



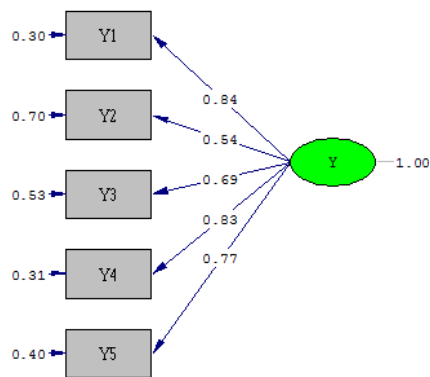
Sumber: Data processed

**Figure 2.**  
**Test Results of Validity and Reliability of Exogenous Variables**

To find out the level of validity and reliability of each indicator on the latent variable, the  $t$ -value can be observed. Indicators with a  $t$ -value greater than 1.96 can be said to be valid, and vice versa indicators that have a  $t$ -value  $<$  of 1.96 are said to be invalid. Based on the results of the exogenous variable validity test it can be seen that all indicators contained in the exogenous variable are declared valid, because all the  $t$ -value values indicate a number above 1.96. Likewise, the results of the exogenous variable reliability test, can be seen that all *construct reliability* is above the recommended value (0.60). Thus all the constructing indicators of the exogenous variable are declared reliable.

In addition, the results of the validity and reliability test on endogenous variables also showed that all indicators contained in the endogenous variables were declared valid and reliable, because all  $t$ -value values showed a number above 1.96 and all *construct reliability* was above the recommended value (0.60). The results of the validity and reliability test of exogenous variables with confirmatory analysis can be seen in the following figure:





Chi-Square=13.71, df=5, P-value=0.01757, RMSEA=0.121

Sumber: Data processed

**Figure 3.**

### **Test Results of Validity and Reliability of Endogenous Variables with CFA**

#### **Test Assumptions of Multiple Linear Regression with Latent Variables**

##### **Normality Test**

The normality test needs to be done both for the normality of univariate data and multivariate normality in which several variables are used at once in the final analysis. To test the presence or absence of normality assumptions, it can be done with the z statistical value for skewness and kurtosis empirically can be seen in the Critical Ratio (CR) used with a significance level of 5%, then the CR value is between -1.96 up to 1.96 ( $-1.96 \leq CR \leq 1.96$ ) is said to be normally distributed data, both univariate and multivariate. If the CR value is outside the range of values, then the data is not normally distributed, (Ghozali, 2011). According to Kline in (Kasanah, 2015), the assumption of multivariate normality is met if the relative multivariate kurtosis is close to 1.

The results of normality testing or assessment of normality (CR) give a CR value of 1.427 located between  $-1.96 \leq CR \leq 1.96$  ( $\alpha = 0.05$ ), so it can be said that the data are multivariate normal. Besides that the data is univariately normally distributed, this is indicated in the critical ratio values for all indicators located between  $-1.96 \leq CR \leq 1.96$ . The results of the normality test data can be seen in the following Table 1 below :

**Table 1.**  
**Data Normality Test**

Test of Univariate Normality for Continuous Variables

Variable	<u>Skewness</u>		<u>Kurtosis</u>		<u>Skewness and Kurtosis</u>	
	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
X1.1	-0.589	0.556	1.826	0.005	8.334	0.016
X1.2	-0.599	0.549	1.595	0.009	7.094	0.029
X1.3	-0.996	0.319	1.651	0.008	8.019	0.018
X2.1	-0.839	0.402	0.769	0.442	1.296	0.523
X2.2	-1.126	0.260	-0.808	0.419	1.920	0.383
X2.3	-1.003	0.316	1.478	0.139	3.191	0.203
X2.4	-1.082	0.279	1.872	0.061	4.678	0.096
X3.1	-0.370	0.711	1.579	0.010	6.787	0.034
X3.2	-0.996	0.319	1.651	0.008	8.019	0.018
X3.3	-0.183	0.855	0.208	0.835	0.077	0.962
X4.1	-0.599	0.549	1.595	0.009	7.094	0.029
X4.2	-0.996	0.319	1.651	0.008	8.019	0.018
X4.3	-0.183	0.855	0.208	0.835	0.077	0.962
X5.1	-0.822	0.411	1.036	0.300	1.748	0.417
X5.2	-1.232	0.218	-0.206	0.837	1.561	0.458
X5.3	-1.706	0.088	1.908	0.056	6.551	0.038
X5.4	-1.265	0.206	1.688	0.091	4.451	0.108
Y.1	-0.822	0.411	1.036	0.300	1.748	0.417
Y.2	-1.232	0.218	-0.206	0.837	1.561	0.458
Y.3	-1.706	0.088	1.908	0.056	6.551	0.038
Y.4	-1.265	0.206	1.688	0.091	4.451	0.108
Y.5	-0.935	0.350	1.223	0.026	5.815	0.055

Relative Multivariate Kurtosis = 1.427

Sumber: Data processed

### Multicollinearity Test

Multicollinearity Test aims to test whether there is a high correlation between independent variables. To detect the presence or absence of multicollinearity in a model can be done by analyzing the correlation variable independent matrix metrics. If between independent variables there is a fairly high correlation (generally above 0.90) then this indicates the presence of multicollinearity. Ghozali in (Amin, Dimiyati, & Firdaus, 2016). The results of multicollinearity testing with the Lisrel 8.7 program showed no multicollinearity was found because the correlation values of  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ , and  $X_5$  were less than 0.90. The magnitude of the correlation between independent variables can be seen in the following table 2 below:

**Table 2.**  
**Multicollinearity Tests**

Correlation Matrix of Independent Variables					
	$X_1$	$X_2$	$X_3$	$X_4$	$X_5$
$X_1$	1.00				
$X_2$	0.29	1.00			
$X_3$	0.59	0.45	1.00		
$X_4$	0.34	0.55	0.46	1.00	
$X_5$	0.49	0.39	0.40	0.60	1.00

Sumber: Data processed

### Test Outliers

Outliers are observations that arise with extreme values both univariate and multivariate, which arise because of the combination of unique characteristics that are possessed and look very much different from other observations. Outlier's results appear on the d-squared Mahalanobis. To calculate the Mahalanobis distance value based on the value of chi-square at free degree 14 (number of indicator variables) at the level of  $\rho < 0.01$  ( $X_2$  0.001) is 36,123 (df chi-square table). So data that has a Mahalanobis distance greater than 36,123 is a multivariate outlier. Based on the results of data processing it can be seen that the maximum Mahalanobis distance is 32,072 so it can be concluded that there are no multivariate outliers.

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**Table 3.**  
**Outliers Test Results (Residuals Statistics)**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	8,85	23,28	19,30	1,890	140
Std. Predicted Value	-5,532	2,108	,000	1,000	140
Standard Error of Predicted Value	,176	,917	,285	,142	140
Adjusted Predicted Value	8,49	23,47	19,31	1,883	140
Residual	-4,195	4,164	,000	1,860	140
Std. Residual	-2,230	2,214	,000	,989	140
Stud. Residual	-2,318	2,303	-,003	1,010	140
Deleted Residual	-4,530	4,506	-,011	1,940	140
Stud. Deleted Residual	-2,356	2,341	-,004	1,017	140
Mahal. Distance	,224	32,072	2,979	4,892	140
Cook's Distance	,000	,114	,011	,024	140
Centered Leverage Value	,002	,231	,021	,035	140

a. Dependent Variable: Y

Sumber: Data processed

### Analysis of Multiple Linear Regression with Latent Variables

This method is used to determine the magnitude of the influence of physical evidence, reliability, the responsiveness of assurance and empathy to student satisfaction with the following formulation:  $Y = \lambda_1 X_1 + \lambda_2 X_2 + \lambda_3 X_3 + \lambda_4 X_4 + \lambda_5 X_5 + e$ . From results of multiple linear regression analysis with latent variables using lisrel program. 8.72 we get the following equation form:  $Y = 0,05X_1 -$

$0.05X_2 - 0,07X_3 - 0,07X_4 + 1,24X_5 + e$ . The test results with the Lisrel program version 8.72 give the results of a regression model with latent variables as shown in Figure 3 which shows the effect of physical evidence, reliability, assurance of responsiveness and empathy for the satisfaction of students of Private High Schools in Jember Regency.

### Model Conformity Test

Before analyzing the hypotheses of the output Analysis of multiple linear regression with latent variables then first do an analysis of the overall model test to find out whether the resulting model is a fit model or not. The overall model test is related to the analysis of the *Goodness-of-fit* (GOG) statistics generated by the Lisrel program. From the printed output generated by the Lisrel program, the suitability analysis of all models of multiple linear regression analysis with latent variables is as follows:

- a. Chi-square value is quite large at 332.15 and  $\rho = 0.00 < 0.05$ . It can be concluded that from the chi-square value the compatibility is not good, what is desired is a small chi-square and  $\rho > 0.05$ .
- b. The RMSEA value is 0.16, greater than 0.08, indicating that the overall fit of the model is at marginal fit. A good RMSEA value is  $< 0.05$  close fit and  $0.05 < RMSEA < 0.08$  good fit. And 90% evidence interval ranged (0.14-0.18). RMSEA value of 0.16 is in that interval. This means that the estimated value of RMSEA has good precision (good degree of precision).
- c. The ECVI Model value is 2.84, the ECVI Saturated model 1.51 and the ECVI Independence model 15.92 show that the ECVI Model is closer to the ECVI saturated model than the ECVI Independence model. Thus it can be said that the ECVI Model is very close to the ECVI saturated model. Meanwhile, 90% of internal evidence from  $ECVI = (2.46; 3.27)$ , this means that the ECVI Model is within 90% of internal evidence, which means that the estimated ECVI value has good precision, so it can be concluded that from the ECVI match the overall model is good.
- d. AIC is also used for comparison of models, AIC Model value is 394.15, AIC saturated model 210.00 and AIC independence model 2213.51. Thus it can be said that the AIC model is closer to the Saturated AIC model compared to the AIC Independence model. Then the overall fit of the model is good.
- e. Likewise, the CAIC Model value is closer to the saturated model which shows that the overall fit of the model is good, where the CAIC Model value is 516.34, the CAIC saturated model 623.87 and the CAIC Independence model 2268.69
- f. The RMR test aims to calculate the residual value or the difference in value from the sample covariance with the covariance estimate. A model is said to be fit if the standard value of the RMR is less than 0.08. In the test results of

the model suitability, the RMR standard value is less than 0.08, which is 0.049. Thus these results show that matches overall good models

- g. GFI and AGFI values close to 1 indicate the overall fit of the model is fit. In the suitability test results, the above model shows a GFI value of 0.75 and AGFI of 0.64, thus this model is already good in explaining existing data.
- h. The NFI, CFI, IFI and RFI tests are non-centrality parameters that look at the comparison of the default model (hypothesized model) with the independence model of the four tests to see whether the existing data shows a model that is fit or not. A model is said to be fit if it has a value above 0.90. In the test results of the model suitability, the values of NFI, CFI, IFI, and RFI are respectively above the value of 0.80. With each value of NFI = 0.84; CFI = 0.87; IFI = 0.87; and RFI = 0.80 Thus the model can be said to be marginal fit with existing data

In summary, the results of the suitability of the regression model with latent variables can be seen in the following table 4 below:

**Table 4.**  
**Model Conformity Test Results**

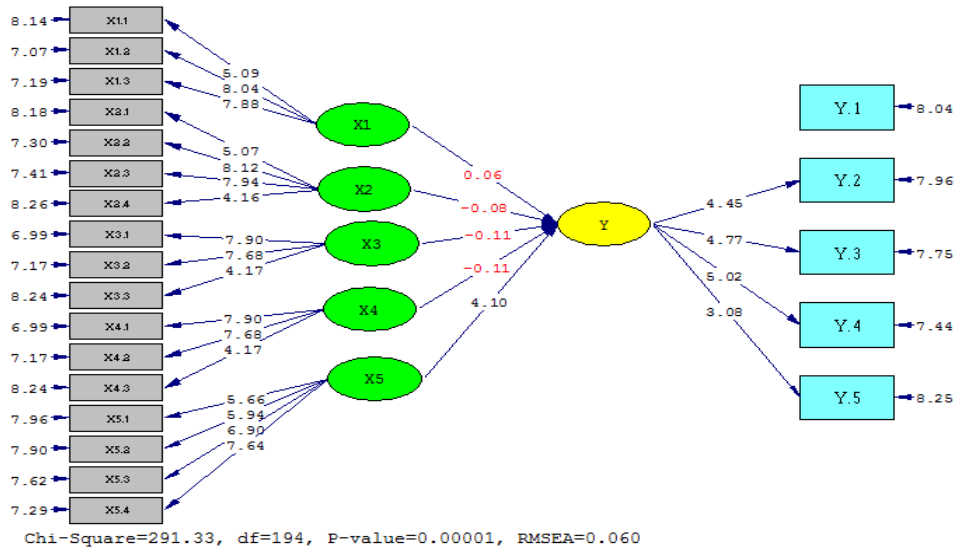
GOF size	Match levels	Estimated Results	Match Level
Chi-square	Small value	332.15	Not good
$\rho$ -value	$\rho > 0.05$	$\rho = 0.00$	
RMSEA	RMSEA < 0.08	0.16	Marginal fit
$\rho$ (Close fit)	$\rho > 0.05$	$\rho = 0.00$	
ECVI	A small value close to ECVI is saturated	$M^* = 2.84$ $S^* = 1.51$ $I^* = 15.92$	Good (close fit)
AIC	A small value close to AIC is saturated	$M^* = 394.15$ $S^* = 210.00$ $I^* = 2213.52$	Good (close fit)
CAIC	A small value close to CAIC is saturated	$M^* = 516,34$ $S^* = 623.87$ $I^* = 2268.69$	Good (close fit)
NFI	NFI > 0.90	0.84	Marginal fit
NNFI	NNFI > 0.90	0.83	Marginal fit
CFI	CFI > 0.90	0.87	Marginal fit
IFI	IFI > 0.90	0.87	Marginal fit
RFI	RFI > 0.90	0.80	Marginal fit

Sumber: Data processed

### Hypothesis test

The model testing was conducted to find out how the influence of the relationship between the construct of the influence of physical evidence, reliability, assurance of responsiveness and empathy to the satisfaction of students

of Private Universities in Jember Regency. Testing the hypothesis of the study was based on the results of estimating multiple linear regression models with latent variables using the Lisrel Version program 8.72. Hypothesis test results can be seen in the following figure :



Sumber: Data processed

**Figure 4.**  
**Multiple Linear Regression Analysis With Latent Variables**

Based on the Multiple Linear Regression Model With Latent Variables, then the results of the hypothesis test in the structural model can be summarized in Table 5 below:

**Table 5.**  
**Hypothesis Testing**

Hypothesis	Standardized solution	t-value	t-table	Information
H <sub>1</sub>	0,05	0,06	1,96	Rejected
H <sub>2</sub>	-0,05	-0,08	1,96	Rejected
H <sub>3</sub>	-0,07	-0,11	1,96	Rejected
H <sub>4</sub>	-0,07	-0,11	1,96	Rejected
H <sub>5</sub>	1,24	4,10	1,96	Accepted

Sumber: Data processed

### Discussion

Based on the results of hypothesis testing conducted by researchers, it shows that physical evidence consisting of three indicators namely facilities, infrastructure and achievement of student staff do not significantly influence the satisfaction of PTS students in Jember Regency. This result is not in line with the findings of (Dananjaya, 2007)research which states that physical evidence affects the satisfaction of students of the Faculty of Economics majoring in Management

at the University of Jember, similar things were also expressed in the results of (Basit & Handayani, 2018). These results indicate that the availability of facilities, infrastructure, and neatness of student staff in appearance is not a top priority choice for students in meeting their satisfaction. Based on the indicators in this study, the majority of respondents said that the availability of facilities owned by private tertiary institutions was inadequate. This can reduce the level of student satisfaction with private tertiary services. Therefore private universities in Jember Regency should always develop facilities and infrastructure that support the learning process so that students can enjoy a conducive academic atmosphere with the support of facilities provided by tertiary institutions, besides, academic staff and lecturers in tertiary institutions it should also always look attractive, clean and neat so that every student feels happy in interacting with staff and lecturers in universities.

This study also showed that reliability consisting of four indicators namely ease of communication, lecturer competence, serviceability and service quality did not significantly influence the satisfaction of PTS students in Jember Regency. This means that the higher level of reliability possessed by private universities does not necessarily increase student satisfaction. In the indicator questions, the respondents assumed that the ability and quality of services provided by academic and student staff were not in line with student expectations. Besides, students also think that some teaching staff does not yet have competencies that are appropriate to their field of expertise. Students also assume that they do not get convenience when going to consult with supervisors relating to their academics. So that all of these things can reduce student satisfaction with the services provided by private universities in Jember Regency. This result is not in line with the findings of (Kurbani, 2017) research which states that reliability affects to the student satisfaction. A similar sentiment was expressed in the results of (Rustami, Nuraedi, & Kurniatun, 2016).

In another result in this study shows that the responsiveness did not affect student satisfaction. This means that the responsiveness of PTS in Jember Regency has not been able to increase student satisfaction. This result is not in line with the findings of (Dananjaya, 2007) research which states that responsiveness affects the satisfaction of students of the Faculty of Economics majoring in Management at the University of Jember, similar things were also expressed in the results of (Sari, 2012). This variable was built with three indicators, namely responsiveness in providing services, speed of service and readiness in helping each student's needs. From the results of the survey conducted it can be seen that students think less agree with the statement that lecturers and staff in higher education have good responsiveness in providing services to students; Academic/student staff are always ready to help every student's needs. In other words, these results indicate that the responsiveness ability possessed by PTS in Jember is still quite low. So students are less satisfied with the services received judging by the responsiveness factor. Therefore, in the future private universities should always make continuous improvements to the resources they have in the form of providing education and training. Besides, the

information system that is owned also needs to be improved to speed up the administrative services needed by students.

Based on the results of hypothesis testing that has been done by researchers, shows that the guarantee does not affect student satisfaction. This means that the security possessed by PTS in Jember Regency has not been able to increase student satisfaction. This result is not in line with the findings of (Dananjaya, 2007) research which states that guarantee affects the satisfaction of students of the Faculty of Economics majoring in Management at the University of Jember, similar things are also expressed in the results of (Basit & Handayani, 2018) and (Rustami et al., 2016). This variable is built by three indicators, namely, being polite in providing services, having competencies that are appropriate to the field, and having good expertise in student services. In the survey results, it can be seen that the majority of students disagree with the statement that academic / teaching administrative staff are polite in providing services; Leaders and Lecturers in tertiary institutions have good competencies according to their respective fields; Academic and student administration staff have good expertise in the field of student services. The low perception of students towards the statement requires PTS in Jember Regency to ensure a good guarantee of student services, therefore the skills and competencies of each human resource must be following their fields. Thus students will increase trust in the quality of student services seen from the guarantee factor (Assurance).

The results also showed that empathy variables affect student satisfaction. This means that the higher the level of understanding of the interests of students can increase student satisfaction. This result is in line with the findings of (Basit & Handayani, 2018) research which states that empathy affects the satisfaction of students of the Faculty of Economics majoring in Management at the University of Jember, similar things were also expressed in the results of (Sari, 2012) and (Kurbani, 2017). This variable is built by four indicators namely; awareness, understanding of student needs, activeness in communication and motivating students. Unlike the results of testing on the four previous indicators, the empathy variable shows a positive effect. This means that almost all private universities in Jember Regency have empathy or a good understanding of the interests of students. But this is not necessarily supported by the existence of adequate physical evidence, the Reliability of Lecturers and Academic Staff, good responsiveness and the existence of guarantees of student services.



## **E. CONCLUSION**

Based on the test results and statistical analysis in research, it can be concluded that the variable empathy influential to the student satisfaction on the private colleges in Jember. Whereas the other four variables namely physical evidence, reliability, responsiveness, and security did not affect student satisfaction at the Private Colleges(PTS) in Jember Regency. Based on the results, PTS should always perform continuous improvement of its resources in the form of education and training. Besides, PTS should always develop infrastructure / facilities that support the learning process.As the result, students can enjoy a convenient academic atmosphere supported by the college.

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