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Influence of Service Quality on Students' Satisfaction in Using the Library of UPN "Veteran" Jatim

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Abstract

Many people stated that the library is the heart of university. This study is conducted it the Library of UPN "Veteran" of East Java. Library of UPN "Veteran" of East Java provides services to the users based on the dimensions determined in servqual. Nevertheless, the application of indirect servqual dimension assurances the satisfaction in using library services, for it is crucial to figure out the application of servqual at the library of UPN "Veteran" of East Java so that the service provided by the staff can satisfy the library user.

The purposes of this study are 1) to determine the effect of service quality (reliability, responsiveness, assurance, empathy and direct evidence) to the students' satisfaction in using the library of UPN "Veteran" of East Java, 2) Service quality dimension that mostly affect students satisfaction of UPN "Veterans" of East Java. The method used in this study is a survey method using questionnaires as a tool of data collection, with the unit of analysis is a student of the library in UPN "Veteran" of East Java. The sampling technique in this research is Simple Random Sampling. The data analysis technique used in this research is Multiple Linear Regression to find out the dimension of reliability, responsiveness, assurance, empathy, and direct evidence which simultaneously or partially influence to the students' satisfaction in using the library of UPN "Veteran" of East Java. The interim results of this study showed that the quality of service (reliability, responsiveness, assurance, empathy and direct evidence) simultaneously have a significant effect on the students' satisfaction on the library services of UPN "Veteran" of East Java. Secondly, the dimensions of reliability, responsiveness, empathy and direct evidence have a significant effect on student satisfaction while the assurance dimension has no significant effect.

Keywords: Library service, university library, user satisfaction

INTRODUCTION

In the era of technology and modern information, the community's need for information and education is very crucial and it becomes a challenge for information and education service providers in Indonesia. Educational institutions such as the university are engaged in the development of information technology and the demand to

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improve the services at education field. This phenomena demand the state universities to improve their performance in terms of education services and information needed by the community, especially academic community. It could also motivate the state universities to transform the structure and strategy of developing educational facilities in order to become a superior and trusted educational institution.

Service is a form of social activity to help others and has the purpose to build long-term cooperation between parties with the principle of mutual benefit between parties concerned. Good service is a service that can understand the needs of consumers and strive to provide more values for the customers. State universities should also seek to participate in improving the quality of their education services, because it is an effort that can improve the image to the consumers, especially students. Kotler (cited by Assegaff, 2009) argued that quality must be started from customer needs and ends on customer's perception. Assegaff (2009) stated that a good quality image is not based on the perception of service providers, but based on customer's perception.

Service in the library is ideally more compelling, friendly, fast, and accurate, which means that the orientation of library services should be based on customer needs, anticipating the development of information technology and friendly services. In other words, to place the user as one important factor that influences policy in the library that is easier to remember by the people.

UPN "Veteran" of East Java provides service to the user based on the dimensions determined in service quality (servqual). However, the application of servqual dimension indirectly ensure the satisfaction in the library utilization, for it is crucial to figure out the application of servqual on the UPN library so that the services provided can satisfy the library users.

METHODOLOGY

Research Types

This research is a descriptive explanatory research which basically aims to explain and describe the truth of a hypothesis. The method used in this study is a survey method using questionnaires as a tool of data collection, with the unit of analysis is a student of the library of UPN "Veteran" of East Java.

Research Variables

In this study, there are six variables that will be measured. To explain the variables, it is necessary to define the operational definition of each variable to avoid the misunderstanding in the research.

1. Student satisfaction (Y) is an assessment given by the students after using the services of the library. The indicator is informing other users to use library services, and the required information is met through the library.
2. Reliability (X1) is the ability to provide services in accordance with the commitment and reliable. The indicators are fulfillment of appointments, problem solving and employee attitudes.
3. Responsiveness (responsiveness (X2) is the willingness and readiness of librarians to assist students and provide responsive services. The indicator is to prioritize the interests of students and responsive to student complaints.
4. Assurance (X3) that is trustworthy and free from doubt. The indicator is to generate students' trust and confidence in the library and the security in using the library.
5. Empathy (X4) that includes relationship, communication, personal attention and understanding the needs of students. The indicators are attention to the students, responding to student needs and communication.
6. Direct evidence (X5) includes physical facilities, equipment, and appearance. The indicators are visual facilities, library materials owned, employee professionalism, technology and equipment.

Measurement of Variables

The measurement scale used Likert scale consisting of 5 (five) scores. The technique of data collection is giving some written questions to the respondents. Likert measurement scale uses the following classification:

a. Strongly Agree = 5
b. Agree = 4
c. Simply agree / neutral = 3

d. Less Agree = 2
e. Strongly Disagree = 1

The response or opinion is expressed by assigning values within the range of 1 to 5 values on each scale, where value 1 denotes the lowest value and the 5th value of the highest value. The overall variable is measured using Likert scale units because Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of social phenomena (Sugiono, 2002). With the Likert scale, the variables to be measured are translated into indicators. Then the indicator is used as a starting point to arrange the items of instruments that can be statements or questions written in the form of questionnaires.

1. Population
   According to Bambang Supomp et al, (2009: 115) population is a group of people, events or everything that have certain characteristics. The population here is all students of UPN "Veteran" Jawa Timur who are library users. In this case, there are 27,645 students.
2. Sample
   The sample is part of the population that has characteristics and characteristics that are similar to that population. Therefore the sample must be representative of a population (Sumarsono, 2002: 45). Sampling technique in this research is Simple Random Sampling that is sample determination technique by random. To determine a known sample, the Slovin formula can be used as follows:
   N 27645
   n = = 394
   1 + Ne2 1+ {27.645X (0.05)²}

Data Types

a. Primary data
   This data is obtained from the results of the distribution of questionnaires as much as the number of predefined samples.
b. Secondary Data.
   This secondary data is data description from the agency.

Data Collection Techniques

Data collection in this research is done by doing in the following ways:

a. Observation
   Data collection is done by direclty observing the object investigated.
b. Documentation
   Data collection is done by digging from the books records documents and archives owned by UPN "Veteran" of East Java.
c. Questionnaire
   Questionnaire as a lecturer's performance measurement is done by lecturers of UPN "Veteran" of East Java who receive lecturer certification allowance.

Analysis Techniques

Data analysis technique used in this research is Multiple Linear Regression that aims to find out the dimension of reliability, responsiveness, assurance, empathy, and direct evidence that influence simultaneously and partially to the students'satisfaction in using the library of UPN "Veteran" of East Java. The Multiple Linear Regression Model is formulated as follows:

$Y = \beta 0 + \beta 1\ x1 + \beta 2\ x2 + \beta 3\ x3 + \beta 4\ x4 + \beta 5\ x5 + e$

Y = student satisfaction

$\beta 0$ = Intercept Y

β_1 = variable coefficient x1
β_2 = variable coefficient x2
β_3 = coefficient of variable x3
β_4 = variable coefficient x4
β_5 = variable coefficient x5
x1 = reliability
x2 = responsiveness
x3 = assurance
x4 = empathy
x5 = direct evidence
e = epsilon or variable not revealed

RESULT AND DISCUSSION

Data Quality Test

Table 1. Faculty

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture	15	3.8	3.8	3.8
	Law	51	12.9	12.9	16.8
	Engineering	97	24.6	24.6	41.4
	Economics and Business	103	26.1	26.1	67.5
	Social and Political Sciences	128	32.5	32.5	100.0
	Total	394	100.0	100.0	

Based on the Table 1, it can be seen that most of the respondents in this study are students of Faculty of Agriculture, there are 15 people or by 3.8%, 51 students of Faculty of Law or by 12.9%, 97 students of faculty of Engineering or by 24.6%, 103 students of faculty of Economics and Business or equal to 26,1%, and 128 students of faculty of Social and Political Sciences or equal to 32.5%.

Table 2. Student Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2011	2	.5	.5	.5
	2012	2	.5	.5	1.0
	2013	21	5.3	5.3	6.3
	2014	66	16.8	16.8	23.1
	2015	80	20.3	20.3	43.4
	2016	211	53.6	53.6	97.0
	2017	12	3.0	3.0	100.0
	Total	394	100.0	100.0	

Based on the Table 2, it can be seen that the most respondents in this study are from 2011 as much as 2 people or by 0.5%, force 2012 as much as 2 people or by 0.5%, force 2013 as many as 21 people or by 5.3% force 2014 as

many as 66 people or 16.8%, force 2015 as many as 80 people or 20.3%, force 2016 as many as 211 people or by 53.6% and force in 2017 as many as 12 people or by 3%.

In the regression analysis obtained the following results (Table 3):

Table 3. Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.535[a]	.287	.277	2.13809	1.406

a. Predictors: (Constant), x5=direct evidence, x4=empathy, x1=reliability, x2=responsiveness, x3=assurance

b. Dependent Variable: y=student satisfaction

Table 4. Anova[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	712.673	5	142.535	31.179	.000[a]
	Residual	1773.723	388	4.571		
	Total	2486.396	393			

a. Predictors: (Constant), x5=direct evidence, x4=empathy, x1=reliability, x2=responsiveness, x3=assurance

b. Dependent Variable: y=student satisfaction

1. The results of this analysis, F test analyzed using this model shows significant results. In brief, the multiple regression analysis tool used as the analytical tool is suitable, with a significant level of 0.000, such as the following results (Table 4):
2. Seen from the number F 31,179 with Sig.0,000 <0.05: Significantly positive, meaning change of variable (X1) Reability, (X2) Responsiveness (X3) Assurance, (X4) Empathy and (X5) Direct evidence. it explains the change of variable Y (Student Satisfaction). Where (see R Square 0.287) or 28.7% while the rest 71.3% [100% - 28.7%] is explained by other variables besides variables X1, X2, X3, X4 and X5.

Classic Assumption Detection:

Normality test

Normality: A regression model of the Dependent and Independent variables or both has a normal distribution or not.

Normality Detection:

Using the QQ graph test is stated to be ensured data from a normally distributed population if there is not much data transmission away from the existing line. Based on the table of normality as follows:

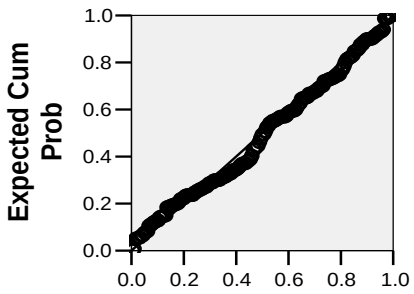

Figure 1. Normal Plot Standardized Residual

The results of the analysis above indicate that the data is taken from normal distributed data. Multicollinearity: The existence of correlation of independent variables in multiple regressions (Figure 1).

Detection of Multicollinear:

a. The magnitude of VIF (Variance Inflation Factor) and Tolerance
   If VIF exceeds 10, then the variable indicates the presence of multicollinearity. (Gujarati)
b. Eigenvalue value close to 0 (Singgih Santoso)
c. Condition Index exceeds the number 15 (Singgih Santoso)

In testing the classical assumption of multiple linear regression analysis is stated that the results of this study analysis showed no symptoms of multicollinearity where the VIF value in the variable not greater than 10 then this variable concluded there are symptoms multicollinearity with other independent variables. With VIF value for (X1) Reability = 2,837, (X2) Responsiveness = 2,949, Assurance (X3) = 3,355, Emphaty (X4) = 2,734 and Direct evidence (X5) = 3,398. Requirements occur multicollinearity if the value of VIF (Variance Inflation Factor) 10 (Cryer, 1994: 681) (Table 5).

Table 5. Coefficients

		Unstandardized Coefficients		Standardized Coefficients			Correlations	Collinearity Statistics	
Model		B	Std. Error	Beta	t	Slg.	Partial	Tolerance	VIF
1	(Constant)	1.805	.659		2.737	.006			
	x1=reliability	.136	.030	.324	4.481	.000	.222	.352	2.837
	x2=responsiveness	.039	.053	.054	.737	.461	.037	.339	2.949
	x3=assurance	.094	.057	.130	1.657	.098	.084	.298	3.355
	x4=empathy	-,029	.059	-.035	-.498	.619	-.025	.366	2.734
	x5=direct evidence	.031	.023	.110	1.386	.166	.070	.294	3.398

Dependent Variable: y=student satisfaction

Non-Heteroscedasticity

Heteroscedasticity: The variant of the residual from one observation to another has different variants. If the same name Homoscedasticity, a good regression model does not have Heteroscedasticity.

Detection of Heteroscedasticity:

a. From the Scatter Plot Residual: if there is a certain pattern (such as points or points that exist form a certain pattern that regular (wavy, spread and narrow)
b. If there is no clear pattern, as well as the spots spread above 0 on the Y axis, then Heteroscedasticity does not occur.
c. In linear regression the residual value should not be related to variable X. This can be identified by calculating Spearman rank correlation between residuals with all independent variables. Spearman rank formula is:
   rs = 1 - 6
   Information:
   di = difference in rank between residual with i-free variable
   N = number of data

Heteroscedasticity test here uses Spearman rank correlation between residual with all independent variable with result of analysis as follows (Table 6):

Nonparametric Correlations

Table 6. Correlations

			Unstandardized Residual
Spearman's rho	x1=realibility	Correlation Coefficient	.021
		Sig. (2-tailed)	.676
		N	394
	x2=responsiveness	Correlation Coefficient	.004
		Sig. (2-tailed)	.930
		N	394
	x3=assurance	Correlation Coefficient	.028
		Sig. (2-tailed)	.579
		N	394
	x4=empathy	Correlation Coefficient	.003
		Sig. (2-tailed)	.953
		N	394
	x5=direct evidence	Correlation Coefficient	.023
		Sig. (2-tailed)	.648
		N	394
	Unstandardized Residual	Correlation Coefficient	1.000
		Sig. (2-tailed)	
		N	394

The results of the analysis show that the variables for (X1) Reability, (X2) Responsiveness, (X3) Assurance, (X4) Emphaty, and (X5) Direct evidence DOES have a significant correlation between residual with independent variables,

then the results of this analysis can be concluded all research variables Heteroscedasticity does not occur. Therefore, it can be concluded that all research variables meet the assumption of Non Heteroscedasticity.

Non Autocorrelation

Autocorrelation: There is a correlation between the confounding error in period t with the t-1 annoying error (previous). If the data above 15

Note: Autocorrelation in most time series data.

Autocorrelation Detection:

a. The magnitude of Durbin Watson's figure
   Benchmark: D-W numbers below -2 have autocorrelation (positive)
   D-W numbers above +2 have autocorrelation (negative)
   Number Between: -2 to +2 No Autocorrelation
   (or Comparing with Durbin Watson's Table)

a. The coefficient of multiple determination (R square) is high
b. The coefficient of correlation is very simple.
c. High F count (significant)
d. But none (or very few) of the independent variables are significant.

For the classical assumptions that detect the presence of autocorrelation here seen from the analysis that shows the result that Durbin Watson value of 1.406 this indicates the absence of symptoms of autocorrelation (Table 8).

Table 8. Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.535[a]	.287	.277	2.13809	1.406

a. Predictors: (Constant), x5=direct evidence, x4=empathy, x1=reliability, x2=responsiveness, x3=assurance

b. Dependent Variable: y=student satisfaction

Nevertheless, described the results of regression analysis as follows (Table 9):

Table 9. Multiple regression results Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Slg.	correlations	Collinearity Statistics	
		B	Std. Error	Beta			Partial	Tolerance	VIF
1	(Constant)	1.805	.659		2.737	.006			
	x1=reliability	.136	.030	.324	4.481	.000	.222	.352	2.837
	x2=responsiveness	.039	.053	.054	.737	.461	.037	.339	2.949
	x3=assurance	.094	.057	.130	1.657	.098	.084	.298	3.355

x4=empathy	-,029	.059	-.035	-.498	.619	-.025	.366	2.734
x5=direct evidence	.031	.023	.110	1.386	.166	.070	.294	3.398

a. Dependent Variable: y=student satisfaction

Hypothesis testing:

1. Reability (X1) Positive and real effect on Y (Student Satisfaction), or can be accepted with the level [Sig. 0,000 <0.05: significant [positive].
2. Responsiveness (X2) has no positive effect and (not real) on Y (Student Satisfaction) or cannot be accepted with [Sig. 0.461> 0.05: not significant [positive].
3. Assurance (X3) has no positive effect and (not real) to Y (Student Satisfaction) or cannot be accepted with [Sig. 0.098> 0.05: not significant [positive].
4. Emphaty (X4) has no negative effect and (not real) to Y (Student Satisfaction) or cannot be accepted with [Sig. 0.619> 0.05: not significant [negative].
   Direct evidence (X5) has no positive effect and (not real) to Y (Student Satisfaction) or cannot be accepted with [Sig. 0.166> 0.05: not significant [positive].
6. To determine the hypothesis tested or not adjusted with the research hypothesis (in accordance with the direction coefficient).
   With the results of the following regression equation:
   Y = 1,805 + 0,136 X1 + 0,039 X2 + 0,094 X3 - 0,029 X4 + 0,031 X4

CONCLUSION

The results of data analysis show the quality of service (reliability, responsiveness, assurance, empathy and direct evidence) simultaneously have a significant effect on the students' satisfaction in using the library of UPN "Veteran" of East Java. This is indicated by the significance of less than 0.005 which is 0.000. Secondly, the dimension of reliability (X1) has a significant influence while the responsiveness dimensions (X2), assurance (X3), empathy (X4), and direct evidence (X5) have no significant effect to the student satisfaction in using the library of UPN "Veteran" of East Java.

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