

The method used in this study was multiple linear regression analysis

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Abstract : *The problem arises is STIKOM Surabaya had a will to evaluate the service quality in the AASA based on student's perception which would be an input to improve the service quality in AASA. Based on the above problem, then this study was held in order to know the influence of service quality in AASA to student's satisfaction. The method used in this study was multiple linear regression analysis which measures the influence of service quality in AASA section to the satisfaction of the students of Institute of Business and Informatics STIKOM Surabaya and which factors of the dimensions of service quality that need to be improved. According to Parasuraman (1995), Service quality dimensions include 5 dimensions. They are Tangible, Reliability, Responsiveness, Assurance, and Empathy. Tangible is the display or appearance of physical facilities such as; facilities, equipment and personnel appearance. Reliable is the ability to provide service promised. Responsiveness is a willingness to help customers and provide fast and precise service. According to Westbrook in Tjiptono (2014), satisfaction is an assessment of the evaluative global on the use of product or certain service which has been purchased. According to Sulistiowati (2011), The relationship between Service Quality and Customer satisfaction is every service quality improvement will improve student's satisfaction at LP3I Manyar Surabaya.*

Keywords : *reliability, responsiveness, assurance*

I. INTRODUCTION

Institute of Business and Informatics STIKOM Surabaya is one of the private universities in Surabaya. STIKOM Surabaya has two faculties namely Faculty of Technology and Informatics, and Faculty of Economics and Business. Faculty of Technology and Informatics has several departments. They are S1 Information System, S1 Computer System, S1 Visual Communication Design, Graphic Design S1, Multimedia Computer DIV, and DIII Informatics Management, while Faculty of Economics and Business has three departments. They are: S1 Management Department, S1 Accounting Department, and DIII Computerized Office and Secretarial Department.

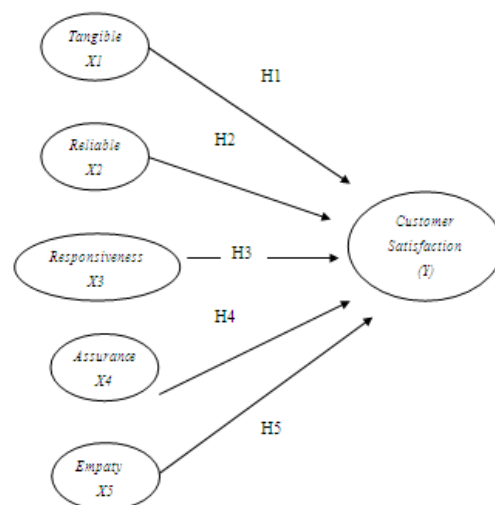
The problem arises is STIKOM Surabaya had a will to evaluate the service quality in the AASA based on student's perception which would be an input to improve the service quality in AASA. Based on the above problem, then this study was held in order to know the influence of service quality in AASA to student's satisfaction. The method used in this study was multiple linear regression analysis which measures the influence of service quality in AASA section to the satisfaction of the students of Institute of Business and Informatics STIKOM Surabaya and which factors of the dimensions of service quality that need to be improved. According to Parasuraman (1995), Service quality dimensions include 5 dimensions. They are Tangible, Reliability, Responsiveness, Assurance, and Empathy. Tangible is the display or appearance of physical facilities such as; facilities, equipment and personnel

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II. RESEARCH METHOD

Conceptual Method and Hypothesis Testing

Conceptual Model used in this research is showed at Picture 1.



Picture 1
Conceptual Model Research

Based on the Conceptual Model of the research, research hypothesis developed as following :

H1 : Allegedly the quality dimension of Tangible service has a positive influence on student's satisfaction

H2 : Allegedly the quality dimension of Reliable service has a positive influence on student's satisfaction

H3 : Allegedly the quality dimension of Assurance service has a positive influence on student's satisfaction

H4 : Allegedly the quality dimension of Responsiveness has a positive influence on student's satisfaction

H5 : Allegedly the quality dimension of Empathy has a positive influence on student's satisfaction

Location and Time of Research

This research was held by taking students of STIKOM Surabaya with entrance year 2012 until 2016 as respondents.

Population, Sample, and Sampling Technique

The population is a collection of all objects measured in the research (Cooper and Schindler, 2003). Population in this research is all students of Surabaya STIKOM with entrance year 2012 until 2016 with an active status of 1368 students.

Table 1. Number of Sample of Students from each Department

Department	Number of Students	Sample
D3 MI	68	7
D3 KPK	30	144
S1 SI	636	36
S1 SK	159	51
S1 DKV	223	16
S1 DG	70	13
S1 Manajemen	59	7
S1 Akun	30	21
DIV KM	93	15
Total	1368	310

Validity and Reliability Testing

The Validity Testing is used to test whether the question / statement on the questionnaire is valid or not. The statistical indicator of the questionnaire for service quality follows the Service Quality theory of Parasuraman (1998), consisting of physical appearance, reliability, responsiveness, assurance, and empathy as independent variables. The dependent variable is student's satisfaction. Based on the validity testing results all variables are declared valid because the value of Sig. (2-tailed) is greater than the value of alpha (0.05). While the results of the reliability test, it can be said that all respondents reliable answers because Cronbach Alpha value is 0.8 greater than 0.7.

Descriptive Analysis

General Descriptin of Respondents

The number of samples in this study are 310 student respondents.

The Variable of Physical Appearance (X1)

Table 2. The Statistic of Variable of Physical Appearance

No	Statement	Answer (%)				Average	Standard Deviation
		Disagree (1)	Less Agree (2)	Agree (3)	Absolutely Agree (4)		
1	The room of AAK is adequate for giving service to students.	6,1	10	26,8	57,1	3,35	0,893
2	The room of AAK is clean and neat.	5,2	9,4	38,7	46,8	3,27	0,835
3	The room of AAK is cool and comfortable.	0,3	0,6	15,8	83,2	3,82	0,425
4	The room of AAK has been equipped with a means of academic information services (eg, touch screen monitor, monitor class schedules, and wifi) which can be well accessed	1,0	5,2	33,2	60,6	3,54	0,641
5	The appearance of AAK Staffs are neat and appealing	1,9	16,1	67,1	14,8	2,95	0,621

The results from table 2 are all good, but when it is viewed from the data distribution, the statement of "AASA staff performance is neat and appealing" still needs to be improved. It is because there are still 18% of respondents who chose less agree and disagree with the statement.

Table 3. The Statistic of Reliability Variable

No	Statement	Answer (%)				Average	Standard Deviation
		Disagree (1)	Less Agree (2)	Agree (3)	Absolutely Agree (4)		
1	The service provided by staff is easy and fast.	0	9,0	51,0	40,0	3,31	0,63
2	The service provided by staff meets student's need	1,0	4,8	34,2	60	3,53	0,64
3	The AAK staffs are always available in their position	0	3,2	39,7	57,1	3,54	0,56

The Variable of Responsiveness (X3)

Table 4. The Statistic of Responsiveness Variable

No	Statement	Answer (%)				Average	Standard Deviation
		Disagree (1)	Less Agree (2)	Agree (3)	Absolutely Agree (4)		
1	AAK staff can answer well if there are questions from students related to academic administration.	0,3	2,6	24,8	72,3	3,69	0,53
2	The AAK staff has provided solutions to student academic administration problem as expected.	0,0	2,3	29,0	68,7	3,66	0,52
3	AAK staff has provided solutions to student's problem in accordance with the expected time.	0,3	4,2	33,9	61,6	3,57	0,59

The Variable of Assurance (X4)**Table 5. The Statistic of Assurance Variable**

No	Statement	Answer (%)				Average	Standard Deviation
		Disagree (1)	Less Agree (2)	Agree (3)	Absolutely Agree (4)		
1	AAK department has socialized all information to students, such as; Achievement Scholarship, Guardianship, and others.	0,3	1,3	24,8	73,5	3,72	0,55
2	AAK department has explained the activities which has been written down on Academic Calendar.	0	3,2	34,2	62,6	3,59	0,59
3	AAK Staffs have given service politely.	0	1,3	7,1	91,6	3,90	0,58

The results from table 5 tend to be very good, so it needs to be maintained.

The Variable of Empathy (X5)

Table 6. The Statistic of Empathy Variable

No	Statement	Answer (%)				Average	Standard Deviation
		Disagree (1)	Less Agree (2)	Agree (3)	Absolutely Agree (4)		
1	AAK Staff always helps if there is a student asking about academic administration	0,0	3,2	33,5	63,2	3,60	0,55
2	Your relationship with AAK staff is good.	1,3	2,3	25,2	71,3	3,83	0,59
3	AAK Staff has provided good service	1,0	3,2	21,9	73,9	3,69	0,58

The results from table 6 are very good, so they should be maintained.

The Variable of Student's satisfaction (Y)

Table 7. The Statistic of Student's Satisfaction Variabel (Y)

No	Statement	Answer (%)				Average	Standard Deviation
		Disagree (1)	Less Agree (2)	Agree (3)	Absolutely Agree(4)		
1	I love the service provided by AAK Staff.	0,6	8,1	34,2	57,1	3,48	0,67
2	I will give compliment to the good service of AAK Staff	1,0	8,7	45,2	45,2	3,35	0,68
3	There is a correspondence between the expectations and the reality that I get from the service provided by AAK Staff	0,0	0,6	19,0	80,3	3,8	0,42

The results from table 7. are all good and tend to be very good, so it needs to be maintained.

Multiple Linear Regresien Analysis

Table 8. Results of Multiple Linear Regression Analysis with Five Independent Variables

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	,263	,230		1,141	,255					
	X1	,243	,055	,228	4,454	,000	,473	,248	,192	,706	1,416
	X2	7,439E-02	,054	,069	1,371	,171	,395	,078	,059	,723	1,383
	X3	7,624E-02	,060	,074	1,267	,206	,487	,072	,055	,539	1,857
	X4	,320	,065	,273	4,909	,000	,544	,271	,211	,601	1,663
	X5	,206	,050	,226	4,152	,000	,513	,232	,179	,625	1,599

a. Dependent Variable: Y

Initial Model :

$$Y = 0,263 + 0,243 X1 + 0,000 X2 + 0,000 X3 + 0,32 X4 + 0,206 X5$$

Assumption Testing

Normality Testing

Results of data processing with SPSS

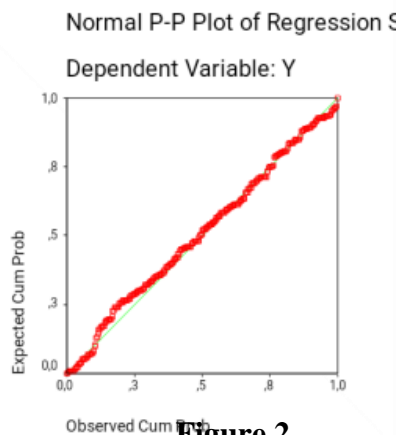


Figure 2.
Normal Distribution Plotting

Based on the graph in Figure 2, the data appears to be normally distributed.

Linearity Testing

Based on the result of data processing, all variables meet linearity testing because Sig Deviation from linearity value more than $\alpha = 0,05$ or Sig value. on the LIN model less than 0.05.

Homoscedasticity Testing

The assumption of homoscedasticity is fulfilled because the plot does not form a certain pattern (irregular).

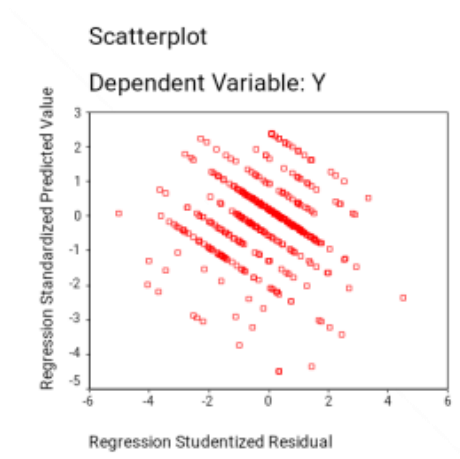


Figure 3.
Scatter Plot of Homoscedasticity Testing

Multicollinearity Testing

The result of data processing shows below, that there is no multi collinearity problem.

Table 9. Collinearity Statistic Processing Result of Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
X1	,706	1,416
X2	,723	1,383
X3	,539	1,857
X4	,601	1,663
X5	,625	1,599

a Dependent Variable : Y

Autocorellation Testing

It is obtained from watbin durbin table with alpha 5% and k (number of independent variables) = 5 → 1,7. No autocorellation if $d_u < d < 4-d_u$. The Result shows that there is no autocorellation.

Table 10. Durbin-Watson Processing Results of Autocorrelation Test
Multiple Linear Regression Analysis

The result of data processing with SPSS is shown by table 11.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,660 ^a	,436	,427	,458337465101010	,436	46,993	5	304	,000	1,705

a. Predictors: (Constant), X5, X1, X2, X4, X3

b. Dependent Variable: Y

Table 11. the Results of Regression Analysis of Summary Model

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,630 ^a	,397	,391	*****	,397	67,212	3	306	,000

a. Predictors: (Constant), X4, X1, X3

b. Dependent Variable: Y

Table 12. The Results of Regression Analysis Process of Anova Table

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44,972	3	14,991	67,212	,000 ^a
	Residual	68,250	306	,223		
	Total	113,222	309			

a. Predictors: (Constant), X4, X1, X3

b. Dependent Variable: Y

Table 13. The Results of Processing Regression Analysis of Coefficient Table

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,243	,226		1,075	,283
	X1	,237	,054	,223	4,427	,000
	X2	5,309E-02	,054	,050	,990	,323
	X3	4,463E-02	,060	,044	,748	,455
	X4	,294	,064	,251	4,582	,000
	X5	,292	,054	,304	5,409	,000

a. Dependent Variable: Y

Regression model with three independent variables :

$$Y = 0,243 + 0,237 X1 + 0,000 X2 + 0,000 X3 + 0,294 X4 + 0,292 X5$$

Keterangan :

X1 : Tangible

X2 : Responsiveness

X3 : Responsiveness

X4 : Assurance

X5 : Empathy

Multiple Linear Regression Model Analysis Testing

$H_0 : \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$ and $H_1 : \text{minimal there is } \beta_i \neq 0$

$\alpha = 0,05$

Statistical Testing : The sig value in the Anova table =0,000

Critical Area : Reject H_0 if the sig value is inn the Anova table is <0,05

Conclusion : Reject H_0 which means a significant model

Each Variable Testing with $\alpha = 0,05$

Constant Testing

$H_0 : \beta_0 = 0$ and $H_1 : \beta_0 \neq 0$

Statistic Testing : The sig value in the Coefficient table =0,283

Critical Area : Reject H_0 if the sig value in the Anova table is >0,05

Conclusion : Accept H_0 means $\beta_0 = 0$

X1 Variable Coefficient Testing

$H_0 : \beta_1 = 0$ and $H_1 : \beta_1 \neq 0$

Statistic Testing : The sig value in the Coefficient table =0,000

Critical Area : Reject H_0 if the sig value in the Anova table is <0,05

Conclusion : Reject H_0 means $\beta_1 \neq 0$

X2 Variable Coefficient Testing

$H_0 : \beta_2 = 0$ and $H_1 : \beta_2 \neq 0$

Statistic Testing : The sig value in the Coefficient table =0,323

Critical Area : Reject H_0 if the sig value in the Anova table is <0,05

Conclusion : Accept H_0 means $\beta_3 = 0$

X3 Variable Coefficient Testing

$H_0 : \beta_3 = 0$ and $H_1 : \beta_3 \neq 0$

Statistic Testing : The sig value in the Coefficient table is 0,455

Critical Area : Reject H_0 if the sig value in the Anova table is <0,05

Conclusion : Accept H_0 means $\beta_3 = 0$

X4 Variable Coefficient Testing

$H_0 : \beta_4 = 0$ and $H_1 : \beta_4 \neq 0$

Statistic Testing : The sig value in the Coefficient table is =0,000

Critical Area : Reject H_0 if the sig value in the Anova table is <0,05

Conclusion : reject H_0 means $\beta_4 \neq 0$

X5 Variable Coefficient Testing X5

$H_0 : \beta_5 = 0$ and $H_1 : \beta_5 \neq 0$

Statistic Testing : The sig value in the Coefficient table is = 0,000

Critical Area : Reject H_0 if the sig value in the Anova table is <0,05

Conclusion : reject H_0 means $\beta_5 \neq 0$

Final Model :

$$Y = 0,237 X1 + 0,294 X4 + 0,292 X5$$

Explanation :

X1 : Tangible

X4 : Assurance

X5 : Empathy

The above model means :

1. The increase of physical appearance will increase student's satisfaction by 23.7%. Based on the results of descriptive analysis that "AASA Staff's appearance is neat and appealing" still needs to be improved.
2. The increase of assurance will increase student's satisfaction by 29.4%. Based on the result of descriptive analysis, it shows that all indicators tend to be very good, so it needs to be maintained.
3. The increase of empathy will increase student's satisfaction by 29.2%. Based on the results of descriptive analysis, all indicators tend to be very good, so it needs to be maintained.

With correlation of all variables X to variable Y equal to 63%

III. CONCLUSION

Based on the result of research, it can be concluded that : The dimensions of tangible, assurance, empathy of service quality have a positive effect towards student's satisfaction at the Institute of Business and Informatics STIKOM Surabaya by 63%, which mean that: the increase of physical display dimensions, assurance, and empathy will increase student's satisfaction. The increase of physical appearance will increase student's satisfaction by 23.7%. The increase of assurance will increase student's satisfaction by 29.4%. The increase of empathy will increase student's satisfaction by 29.2%. Based on the results of descriptive analysis, it is obtained indicator which shows that "AASA staff appearance is neat and appealing" still need to be improved, while for other indicators tend to be very good, so it needs to be maintained.

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