

Impact of Customer Relationship Management and Quality of Service on Student Loyalty in Private Higher Education in Bandung, Indonesia

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Abstract—Currently the use of management systems is very popular to be done by private universities to foster relationships with students. One of them is by implementing a customer relationship management (CRM) system. The application of customer relationship management (CRM) will have an impact on creating student satisfaction. The impact of student satisfaction is student loyalty to tertiary institution. An important part of student satisfaction is the quality of service. Quality of service will improve on all expectations of students. This will be mutually beneficial between private universities and their colleges. Student loyalty will determine the sustainability of private universities, and therefore must be maintained a good relationship with students by providing excellent service, so students become loyal. Simultaneous and partial customer relationship management (CRM) and service quality on student loyalty in private tertiary institutions in Bandung Indonesia. Research using survey and research methods using the associative method, research instruments using Likert scale and analysis techniques using multiple linear regression. The sample used was 126 respondents using the accidental sampling method. The result shows that customer relationship management (CRM) and simultaneous and partial service quality significantly influence student's loyalty.

Keywords—Customer, Management, Quality, Higher Education

I. INTRODUCTION

The development of the number of universities high private this time continues to increase. According to Ministry of Research and Technology data Higher Education. [1] when it found 3,154 college high private sector in Indonesia. It is an impact on prospective students becomes easier to determine the selection or even students who are already there to move into college high another. If college high private sector is not able to maintain the quality of service it is not possible students that there are not reluctant to move to a university higher other.

When this usage management system is very popular conducted by universities of high private sector to build relationships with students. One of them is by implementing a Customer Relationship Management (CRM) system. In [2] Customer Relationship Management (CRM) is an overall process to build and

maintain relationships with customers through providing superior customer value and customer satisfaction. Implementation of Customer Relationship Management (CRM) this will have an impact on the established relationships are more powerful among college high private and student. Because it is will create satisfaction of students. The impact of student satisfaction is the loyalty of the students against the higher education.

One of the parts important of student satisfaction is Quality of service. Quality of service will have an impact on meeting all expectations of students. It will be mutually beneficial between universities of high private sector and students. Loyalty students will determine sustainability of college high private, so it must be on guard a good relationship with the students to provide service that is excellent, so that students become loyal. Then from aims this research to determine the effect of the simultaneous and partial Customer Relationship Management (CRM) and Quality of Service on the loyalty Students at private higher education in Bandung Indonesia.

II. METHOD

A. Customer Relationship Management

In managing relationship with students a system is called Customer relationship management needed. Ccustomer relationship management is the overall process to build and maintain relationships with customers through providing superior customer value and customer satisfaction [2].

B. Service Quality

Service quality is one of the companys seervice concepts that can be relied upon to survive amid increasingly fierce competition. There are five dimensions Quality of service is [3]

- Reliability, namely the ability to provide the promised service immediately, accurately and satisfactorily,
- responsive e, namely the desire and willingness of the employees to assist customers and provide service with a response,
- An assurance, covers the knowledge, competence, courtesy, and properties can be believed which is

owned by the employees; free from physical harm, risk or doubt,

- Empathy, including ease in establishing relationships, effective communication, personal attention, and understanding of the individual needs of customers
- Tangible includes physical facilities, equipment, employees and means of communication.

C. Consumer Loyalty

Defines loyalty as a condition in which the customer has the attitude positive towards a brand, has a commitment to the brand it, and intends to continue purchasing in the future to come. Loyalty shows the tendency of customers to use a particular brand with a high level of consistency [4]

D. Research Hypothesis

The following are hypotheses in this research, customer relationship management and service quality have an influence on student loyalty.

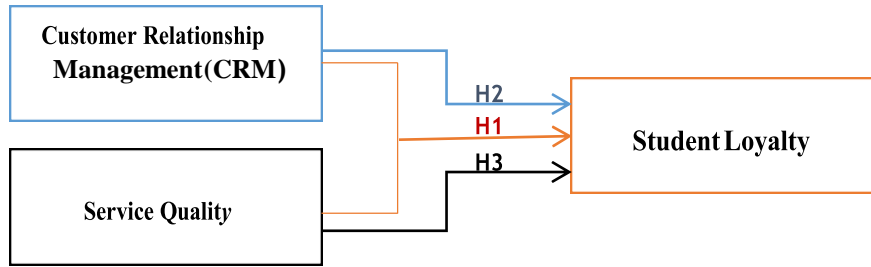


Figure 1. Research hypothesis

Based on figure 1, the research hypothesis is as follows:

- H 1: Customer relationship management and service quality simultaneously have a positive effect on student loyalty
- H 2: Customer relationship management has a positive effect on student loyalty
- H 3: Service Quality has a positive effect on student loyalty

E. Population and Samples

Population is a generalization area consisting of objects or subjects that have the qualities and characteristics determined by researchers to be studied and then drawn conclusions [5]. The population in this study were students of one of the universities of high private sector in the city of Bandung Indonesia. The sample in this study were 126 respondents, based calculate using formulas Slovin, and with due regard to the adequacy of the sample are:

$$n = \frac{N}{Ne^2 + 1} \tag{1}$$

n = number of samples

N = total population

e = precision value (set as *a* = 0.1%)

I = constant numbers

F. Analysis of Multiple Linear Regression

Multiple linear regression analysis is one of the methods of data analysis. In accordance with the purpose of this research is to know the effect of customer relationship management (*X- 1*), Quality of service (*X2*), loyalties student (*Y*) at one of the universities of high

private in Bandung Indonesia. Besides that, we will also find which variable has the most dominant influence. Models of multiple linear regression analysis in this study are:

$$Y = a + b_1X_1 + b_2X_2 + e \tag{2}$$

Y = Student Loyalty

X 1 = Customer Relationship Management

X 2 = Quality of service

β0 = Intercept *Y*

β 1, β 2 = Regression coefficient

e = error (independent variable outside the regression model)

Test statistics in the study of this include the test -t, test -F, and test - *R*², where the test statistic is to see whether customer relationship management (*X- 1*), Quality of service (*X2*) has the effect that significant to loyalties student (*Y*).

1) Test *R*² Correlation Coefficient

The coefficient of determination (*R*²) aims to determine how large the ability of variable - free customer relationship management (*X- 1*), Quality of service (*X 2*) when *R*² has a value between 0 and 1 (0 < *R*² < 1) where more high value of *R*² then will be getting better . It was meant that the entire variable free in jointly able to explain the variables associated

2) Test -F (F-test)

The hypotheses in this test are:

- H 0 = Variable customer relationship management (*X-1*) Quality of service (*X2*) are simultaneously does not have the

effect of significantly towards loyalties student (Y).

D 1 = variable customer relationship management (X1), Quality of service (X2) are simultaneously has the effect of significantly towards loyalties students (Y).

Testing is done by comparing the F- count and F-table. When F count > F table, then H 0 is rejected which means that the variable customer relationship management (X- 1) , Quality of service(X2), were tested in jointly influents significant to the variable loyalty student (Y) , but if F arithmetic ≤ F table then H0 is accepted which means customer relationship management (X1) , Quality of service (X2) were tested in unison does not have the effect of significantly towards loyalty student (Y).

3) *Test -t (t-test)*

Analysis is used to determine the effect of each variable free c customer relationship management

(X1),Quality of service (X 2) are partially or individual against a variable bound namely loyalty student (Y) So if a variable -free medium in the test influence the number of variables are non- other that is allegedly no linkage to the variable bound that is constant or fixed . The analysis is also useful to know the variables are non- Which of the most influential among the variable's others.

III. RESULT AND DISCUSSION

Validity and Reliability, all existing variable in this study is valid. This is based on the correlation value obtained greater than 0.374 that between each indicator of the total construct score of each variable shows significant results, and shows that r count > r table. So, it can be concluded that all question items are declared valid. Based on the reliability test, all variables in this study were declared reliable. This is in accordance with the results of the reliability test which shows that all variables have Alpha coefficients above 0.600 so that it can be said that each variable from the questionnaire is reliable so that henceforth the items on each concept of the variable are feasible to be used as a measurement tool.

Table 1. Multicollinear results of the summary model (a) coefficient

Model	Statistic Collinearity	
	Tolerance	VIP
Constant		
CRM	0.871	1,327
Service Quality	0.871	1,327

Results collinearity *statistics* can be seen in the output coefficient models, said multicollinearities symptoms occur if VIF <10. The result of the calculation produces VIF value for the variable customer relationship

management (X 1), k Quality of service (X 2) is equal to 1 327 and 1. 327 <10, it can be concluded that there were no multicollinearity symptoms in the regression model.

TABLE 2. HETEROSCEDASTICITY TEST RESULTS

Independent Var	Probability	Information
CRM	.132	Non-heteroscedasticity
Quality of Service	0.072	Non-heteroscedasticity

If the probability > alpha value (0.05), then we can be sure the model does not contain an element of heteroscedasticity. If the probability of *correlation* results

< 0.05 (5%), it can be concluded that there was no heteroscedasticity in the regression model.

TABLE 3. MULTIPLE LINEAR REGRESSION TEST RESULTS

Variable	B	t
CRM (X1)	0,281	2,011
Service Quality (X2)	0,392	2.798
R	= 0,511	
R Square	= 0,262	
Adjust R Square	= 0,381	
F	= 11,731	
Ftable	= 3,130	
Sig F	= 0,000	
Ttable	= 2,000	
Sig T	= 0,30	
Contstanta	= 6,231	

- The results of the F test calculation show that $F_{count} > F_{table}$ ($11.731 > 3.130$) or $Sig F < 5\%$ ($0,000 < 0.05$). This means that hypothesis H1 is accepted, together variable customer relationship management (X_1), Quality of service (X_2) significantly effect to the variable the loyalty of the student (Y).
- The results of the correlation coefficient or R for 0.511 this indicates that the effect of customer relationship management (X_1), Quality of service (X_2) the loyalty of the student (Y) at one of the universities in Bandung Indonesia has positive effect that is equal to 51,1%
- Results The coefficient of determination or R^2 is 0.262 indicating that the 26,2% loyalty student at one of the universities of high private in Bandung Indonesia affected by the customer relationship management (X_1), Quality of service (X_2) while the remaining 73.8% is influenced by other causes not examined in this study.
- Calculation results of the T test show that:
 - a) Variable customer relationship management (X_1) has a value of t arithmetic amounted to 2.011 with a significance of 0.05 for t count $>$ t table ($2.011 > 2.000$) or sig t at 5.0%, it partially customer relationship management (X_1) a significant effect on loyalties student (Y) assuming other independent variables constant. Thus the H2 hypothesis is proven or can be accepted
 - b) Variable service of quality (X_2) has a value of t - count 2.798 with significant amounting to 0.05, as t count $>$ t table ($2.798 > 2.000$) or sig t at 5.0%, the partial variable Quality of service (X_2) significantly affects the loyalty of students (Y) assuming other independent variables constant. Thus the hypothesis H3 is proven or accepted.

Hypothesis testing simultaneously indicates that the variable customer relationship management (X_1), service of quality (X_2) has a positive relationship and the direction of the loyalty variable student (Y) and has a very close relationship with a correlation coefficient of 51,1%. Testing the hypothesis partial Customer Relationship Management that t count $>$ t table significantly to the loyalty of students, meaning customer relationship management (X_1) has a positive relationship and the direction of the loyalty of students (Y). The results of hypothesis testing partially service quality variables show that ($2,798 > 2,000$). This means that service quality variables have a positive and direct relationship to student loyalty (Y).

IV. CONCLUSION

Conclusions in research are, Customer Relationship Management and Service Quality simultaneously has an influence on student loyalty, Customer Relationship Management partially has significant influence on student loyalty and Service quality partially significant influence on the loyalty of students

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