

THE EFFECT OF E-SERVICE QUALITY AND CUSTOMER RELATIONSHIP MANAGEMENT ON CUSTOMER LOYALTY WITH CUSTOMER SATISFACTION AND TRUST AS MEDIATION VARIABLES FOR INSTAGRAM USERS IN BANDA ACEH

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<http://doi.org/10.35409/IJBMER.2020.3161>

ABSTRACT

This research is to figure out the effect of E-Service Quality and Customer Relationship Management on customer loyalty with customer satisfaction and trust as a mediation variable. The population in this research is all customers who use Instagram in Banda Aceh. The sample is taken with Accidental sampling method. The calculation used is Maximum Likelihood Estimation (ML) and the number of sample that is 200 respondents, adjusted for Structural Equation Modeling (SEM). The mediation effect is tested using Sobel test calculator. The result shows that E-Service Quality does not have a significant effect on Customer Satisfaction, Customer Relationship Management effects Customer Satisfaction significantly, E-Service Quality does not have a significant effect on Trust, Customer Relationship Management effects Trust significantly, Customer Satisfaction does not have a significant effect on Customer Loyalty significantly, Trust effects Customer Loyalty significantly, E-Service Quality effects Customer Loyalty mediated by Customer Satisfaction, Customer Relationship Management effects Customer Loyalty mediated by Trust, of Instagram users. The findings of this study prove the causality theory from before, whether influential or not, and become a new premise. The originality rests in the combination of the causality theories to be in a model, with the SEM statistical approach. The limitation resides in the amount of variables and object. These findings also contribute to the practical managers especially for the object in this research.

Keyword: E-Service Quality, Customer Relationship Management, Customer Satisfaction, Trust, Customer Loyalty.

1. INTRODUCTION

Amid the rapid development of technology, the means of communication evolved to become more modern and provide more convenience for its users. One example is Social media (social media). Customer satisfaction is the main key that must be considered in marketing services. This research is conducted on one of the Social media applications, namely Instagram as an object, and involves its customers in Banda Aceh. Banda Aceh is a capital city of Aceh Province, Indonesia, which has lots of Instagram users in harmony with the highest number of city residents in Aceh Province, and its economic activities that use Instagram which continues to grow. Based on the reviews, this study aims to see the Effect of E-Service Quality and Customer Relationship

Management on Customer Loyalty with Customer Satisfaction and Trust as mediation Variables. This study builds a model that involves 5 variables that are E-Service Quality, Customer Relationship Management, Customer Satisfaction, Trust, and Customer Loyalty.

According to (Zeithaml, Bitner and Gremler, 2017) Customer Loyalty is a situation where there is a strong desire to repurchase and reuse goods and services from a company. According to (Kotler and Keller, 2012), customer satisfaction is an expression of emotion from customers who feel happy or dissatisfied with a product that occurs after comparing product quality with customer expectations for the product. (Moorman, Deshpandé and Zaltman, 1993) described that Trust is the willingness of someone to entrust themselves to others in an exchange due to a sense of confidence (confidence).

E-Service quality (e-s-qual) is defined as the extent to which a website facilitates efficient and effective shopping, purchasing and delivery (Zeithaml, Bitner and Gremler, 2017), and (Pine and Gilmore, 2013) suggested that Customer Relationship Management can create success or failure in a business that is with information from a series of Customer, Relationship, Management who are also capable of predicting the future assisted by people, technology and processes.

From the description above, authors build the hypothesis as follows.

H1 : E-Service Quality effects Customer Satisfaction significantly

H2 : Customer Relationship Management effects Customer Satisfaction significantly

H3 : E-Service Quality effects Trust significantly

H4 : Customer Relationship Management effects Trust significantly

H5 : Customer Satisfaction effects Customer Loyalty significantly

H6 : Trust effects Customer Loyalty significantly

H7 : E-Service Quality effects Customer Loyalty mediated by Customer Satisfaction

H8 : Customer Relationship Management effects Customer Loyalty mediated by Trust

2. RESEARCH METHOD

The population in this research is all customers who use Instagram in Banda Aceh. The sample is taken with Accidental sampling method. The calculation used is Maximum Likelihood Estimation (ML) and the number of samples that is 200 respondents, adjusted for Structural Equation Modeling (SEM). Structural Equation Model (SEM) is an accurate analysis model to be carried out in this study. By using SEM, the structural models analyzed will produce the following mathematical equations:

$$Y = \beta_1 X_1 + \beta_2 X_2 + \dots + e$$

On condition: Y: Endogenous Variables

X_i : The i variable that affects Y

β_i : Weight of regression for variable i

e : Error

Whereas in this study several variables that will be used are as follows: Exogenous variable or Independent variable which consists of:

a. E-Service Quality as the first exogenous variable (X_1).

b. Customer Relationship Management as the second exogenous variable (X_2).

Endogenous variable or Dependent Variable which consists of:

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- a. The endogenous variable as the first mediation is customer Customer Satisfaction (Y1) and Trust (Y2) as the second mediation.
 - b. Endogenous variables are dependent, namely Customer Loyalty (Z).

Structural Equation Model Analysis Tools

In SEM (Measurement model and structural model) there are two models of analysis tools that can be used, which is:

- **Confirmatory Factor Analysis (CFA)**

In the Confirmatory Factor Analysis model, each indicator will be tested for reliability construct and convergent validity. Data reaches convergent validity if the value of loading factor (standardized regression weight) > 0.5, and achieving reliability construct if reliability construct > 0.7.

- **Multiple Regression Analysis**

Unlike the CFA, this analysis is carried out aiming to find out how much influence between endogenous variables and exogenous variables, and how significant the influence is.

Structural Equation Model Measurement

The level of GOF (Goodness Of Fit) and the size of the acceptance of the compatibility test that are collected by several authors are as follows:

- Chi-square statistics (χ^2) the lower the value the better ($p > 0.05$), which means the model is getting better, this tool is the most appropriate test tool to find out the overall fit value, and is quite sensitive to the sample value, so chi-square (χ^2) is only used if the sample has a size of 100 to 200.
- RMSEA (The Root Mean Square Error of Approximation), is a limit value that becomes a benchmark for chi-square (χ^2) statistical values, the lower the better the value ($= 0.08$) is an index so the model can be accepted.
- GFI (Goodness of Fit Index), is a limitation to assess whether a data fit or not. GFI will measure the value of the variance in the sample covariance matrix mentioned by the estimated population covariance matrix. The data model that is said to be fit is data included in GFI, which has a value between 0.00 - 1.00. Thus the value of 0.90 can be concluded as a model that is better fit because it is within the limits of GFI values.
- AGFI (Adjusted Goodness of Fit), used to test the receipt of this Index mode can be adjusted to the existing free degrees. The recommended value of acceptance size is if AGFI = 0.90.
- CMIN / DF (The Minimum Sample Discrepancy Function), basically is one form of limitation to determine whether a data fit or not. In this indicator the statistics χ^2 are divided by df which is then expressed as relative χ^2 . The relative value of $\chi^2 = 2.0$ or $= 3.0$ indicates that the model is fit with existing data.

The mediation effect is tested using Sobel test calculator, after the direct effects have their result from SEM.

3. RESULT

Validity Test

Table 1. Validity Test

No. Statement	Variabel/Dimension	Correlation Coefficient	Critical Value 5% (N=200)	Info
1. ESQ1	E-Service Quality (X ₁)	0.699	0.138	Valid
2. ESQ2		0.721		
3. ESQ3		0.678		
4. ESQ4		0.682		
5. ESQ5		0.695		
6. ESQ6		0.684		
7. CRM1	Customer Relationship Management (X ₂)	0.642	0.138	Valid
8. CRM2		0.764		
9. CRM3		0.630		
10. CRM4		0.633		
11. CRM5		0.686		
12. CRM6		0.675		
13. CS1	Customer Satisfaction (Y ₁)	0.704	0.138	Valid
14. CS2		0.712		
15. CS3		0.742		
16. CS4		0.765		
17. CS5		0.705		
18. CS6		0.754		
19. TR1	Trust (Y ₂)	0.695	0.138	Valid
20. TR2		0.742		
21. TR3		0.720		
22. TR4		0.793		
23. TR5		0.712		
24. TR6		0.667		
25. CL1	Customer Loyalty (Z)	0.674	0.138	Valid
26. CL2		0.640		
27. CL3		0.695		
28. CL4		0.695		
29. CL5		0.718		
30. CL6		0.753		

Source: Primer Data, 2018 (processed).

Reliability Test

Tabel 2. Reliability (Alpha)

NO	Variabel	Item Variabel	Standardized Cronbach's Alpha	Reliability
1.	E-Service Quality (X1)	6	0.912	Accepted
2	Customer Relationship Management (X2)	6	0.889	Accepted
3.	Customer Satisfaction (Y1)	6	0.906	Accepted
4.	Trust (Y2)	6	0.904	Accepted
5.	Customer Loyalty (Z)	6	0.915	Accepted

Source: Primer Data, 2018 (processed).

From the results of the reliability analysis, it can be concluded that the reliability value of the research variables is categorized as achieving reliability that reaches the Cronbach Alpha criteria where the alphanumeric values are higher than 0.60.

Description of Research Variables

Based on the perception of respondents, here the overview of the indicators measured in this research.

E-Service Quality (X1)

Table 3. Respondent opinion of E-Service Quality

No.	Indicator	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Mean
		Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	
		1		2		3		4		5		
1.	Available for business	22	11	30	15	99	49.5	30	15	19	9.5	2.97
2.	Service is in line with what's promised.	22	11	38	19	81	40	40	20	19	9.5	2.98
3.	Provides a sense of security	21	10.4	38	18.9	79	39.3	44	21.9	18	9.0	3.00
4.	Has an attractive appearance	15	7.5	44	22	88	44.	36	18	17	8.5	2.98
5.	Quick in solving problems.	21	10.4	37	18.5	84	42	38	19	20	10	3.00

6.	Easy to find information.	16	8	3	19	9	47	3	19	1	7	2.98
Mean												2.98

Source :Primer Data, 2018 (Processed).

Customer Relationship Management (X2)

Table 4. Respondent opinion of Customer Relationship Management

No	Indicator	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Mean
		Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	
		1		2		3		4		5		
1	Greet users every day.	17	8.5	42	21	87	43.5	32	16.0	22	11	3.0
2	Routinely develop the latest features.	21	10.4	37	18.4	81	40.3	41	20.4	20	10.0	3.01
3	Interact with users.	16	8	47	23.5	82	41	39	19.5	16	8	2.996
4	Approach users.	19	9.5	41	20.4	81	40.5	42	21	17	8.5	2.998
5	Giving ease of interaction.	15	7.5	41	20.5	94	47	34	17	16	8	2.98
6	Facilitate users in business matters.	15	7.5	42	21	88	44	39	19.5	16	8	3.00
Mean												2.99

Source :Primer Data, 2018 (Processed)

Customer Satisfaction (Y1)

Table 5. Respondent opinions about Customer Satisfaction

No	Indicator	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Mean
		Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	
		1		2		3		4		5		
1	There are distinctive features.	16	8	36	18	92	46	40	20	16	8	3.02
2	Impressive in the minds of users.	17	8.5	38	19	85	42.5	42	21	18	9	3.03

3	Become a differentiator.	16	8	38	19	86	43	45	22.5	15	7.5	3.02
4	Interesting	22	11	36	18	84	42	37	18.5	21	10.5	3.00
5	Accurate and Reliable	15	7.5	42	21	84	42	43	21.5	16	8	3.02
6	Exceed user expectations.	15	7.5	43	21.5	85	42.5	41	20.5	16	8	3.00
Mean												3,01

Source :Primer Data, 2018 (Processed)

Trust (Y2)

Table 6. Respondent Opinions of Trust

No	Indicator	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Mean
		Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	
		1		2		3		4		5		
1	Give good service.	19	9.5	38	19	86	43	39	19.5	18	9	3.00
2	Have good ethics.	23	11.5	32	16	84	42	40	20	21	10.5	3.02
3	Satisfying service quality.	24	12	35	17.5	84	42	36	18	21	10.5	2.98
4	Give benefits	20	10	40	20	82	41	40	20	18	9	2.98
5	Meet the needs	18	9	42	21	83	41.5	39	19.5	18	9	2.98
6	Actions in accordance with what was promised.	15	7.5	40	20	92	46	39	19.5	14	7	2.98
Mean												2.99

Source :Primer Data, 2018 (processed)

Customer Loyalty (Z)

Table 7. Respondent Opinions of Trust Customer Loyalty

No	Indicator	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Mean
		Fr	%	Fr	%	Fr	%	Fr	%	Fr	%	

		1		2		3		4		5		
1	Continue to use the application	20	10	36	18	94	47	30	15	20	10	2.97
2	Accustomed to using the application	18	9	38	19	87	43.5	40	20	17	8.5	3.00
3	Users like the application.	24	12	32	16	89	44.5	35	17.5	20	10	2.98
4	Keep choosing the application.	21	10.5	43	21.5	77	38.5	39	19.5	20	10	2.97
5	Believe this application is the best.	13	6.5	41	20.4	88	43.8	35	17.4	23	11.4	3.07
6	Recommend to others.	1.6	8.0	29	14.5	100	50	35	17.5	20	10	3.07
Mean												3.01

Source :Primer Data, 2018 (processed)

SEM Assumption Test
Multivariate Outlier Test

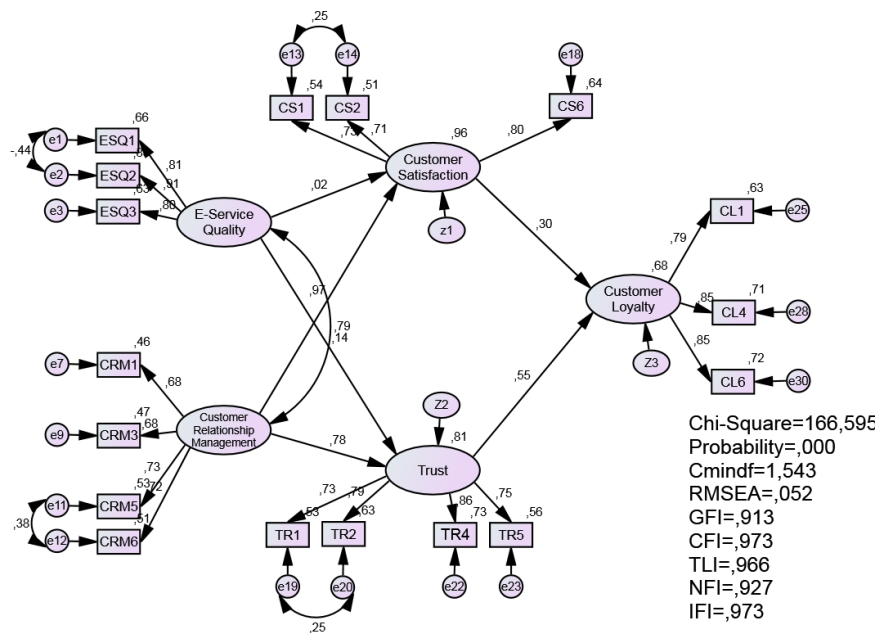
Table 8. Multivariate Outlier Test

Observations farthest from the centroid (Mahalanobis distance) (Group number 1)

Observation number	Mahalanobis d-squared	p1	p2
15	56.052	.003	.417
199	54.978	.004	.161
102	52.452	.007	.157
179	51.586	.008	.090
197	49.747	.013	.126
52	49.218	.015	.081
129	49.195	.015	.033
9	48.699	.017	.021
167	48.505	.018	.010
70	46.530	.028	.053

From Table 4.4.1 it is found that the highest cost of the mahalonobis distance is 56.052 <from the table chi square value of 59.703 ($\alpha = 0.001$, $df = 30$). It concludes that there is no multivariate outliers in the research data.

Structural Equation Model (SEM)
 Based on the literature review and the purpose of the study, a structural model is found as follows:



The output on the structural equation model (structural Equation Model) is fit and satisfactory for sample data with $\chi^2(200) = 166,595$ at $p < .000$; $\chi^2 / df = 1.543$, $GFI = 0.913$, $TLI = 0.966$, $CFI = 0.973$ and $RMSEA = 0.052$. This output also shows that all loading factors in the model are significant at $p < .000$. As explained earlier, goodness-of-fit statistics (ie χ^2) must display $p > .05$ to get a good and fit model.

Hypotesis Test

The following is the result of a structural hypothesis test, based on the estimation and significance values.

Table 9.Hypotesis Test

	Hypotesis	Condition
H ₁	E-Service Quality effects Customer Satisfaction significantly	X
H ₂	Customer Relationship Management effects Customer Satisfaction significantly	√
H ₃	E-Service Quality effects Trust significantly	X
H ₄	Customer Relationship Management effects Trust significantly	√
H ₅	Customer Satisfaction effects Customer Loyalty significantly	X
H ₆	Trust effects Customer Loyalty significantly	√
H ₇	E-Service Quality effects Customer Loyalty mediated by Customer Satisfaction.	√
H ₈	Customer Relationship Management effects Customer Loyalty mediated by Trust	√

4. CONCLUSIONS

The result shows that E-Service Quality does not have a significant effect on Customer Satisfaction, Customer Relationship Management effects Customer Satisfaction significantly, E-Service Quality does not have a significant effect on Trust, Customer Relationship Management effects Trust significantly, Customer Satisfaction does not have a significant effect on Customer Loyalty significantly, Trust effects Customer Loyalty significantly, E-Service Quality effects Customer Loyalty mediated by Customer Satisfaction, Customer Relationship Management effects Customer Loyalty mediated by Trust, of Instagram users in Banda Aceh. The findings of this study prove the causality theory from before, whether influential or not, and become a new premise. The originality rests in the combination of the causality theories to be in a model, with the SEM statistical approach. The limitation resides in the amount of variables and object.

These findings also contribute to the practical managers especially for the object in this study. Customer Relationship Management has a strong influence in increasing Trust and Customer Loyalty. Therefore Instagram must focus on these factors to increase Trust and Customer Loyalty of Instagram users in Banda Aceh. Trust factor is the most dominant factor, and is able to mediate a significant influence between Customer Relationship Management and Customer Loyalty, the company needs to pay attention and maintain this factor to be a key in the marketing strategy, so as to increase the number of loyal customers. On the other hand, E-Service Quality is less dominant factor in influencing Customer Satisfaction and Customer Loyalty. However, Instagram still need to focus on this factor if they want to increase their number of loyal customers.

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