

Effect of Service Failure on Ferry Passenger Switching Behavior: The Role of Dissatisfaction

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Abstract: This study examines the effect of Service Failures on Brand Switching Behavior through Customer Dissatisfaction (Studies in PT. XYZ Ferry Passengers). Respondents from this study are passengers departing from Batam to Johor who have used the PT. XYZ Ferry at least 2 times and have an age of 17 years and above. The population in this study was PT. XYZ Ferry passengers with a sample of 186 respondents. The sampling technique here uses the Purposive Sampling method with the Slovin formula. In this study, data were collected manually through a questionnaire given directly to respondents. The data analysis method used is Path Analysis with a significance level of 0.05. The results of this study are that service failures affect brand switching behavior, service failures affect customer dissatisfaction, customer dissatisfaction affects brand switching behavior, and service failures affect brand switching behavior through customer dissatisfaction.

1 INTRODUCTION

1.1 Research Background

Nowadays the competition in the passenger ship business in Batam is getting tougher. Whether it's a ship that crosses from one island to another or ships that cross between countries. This happens because Batam has a strategic location that is close to various islands and also with neighbouring countries such as Singapore and Malaysia. There are many passenger ship companies in Batam, so this business competition cannot be avoided. At present, there are various types of ship crossing routes in Batam. One of the routes is the crossing from Batam to Stulang Laut (Johor Bahru, Malaysia). One of the passenger ship companies that have a route from Batam to Stulang Laut (Johor Bahru, Malaysia) is PT. XYZ.

According to Hammer (2004), the background on the business canvas has now been reversed where customers are now in the foreground and the company has been moved to the background. So, customers are the center of good business in the form of products or services. Today's business world has been dominated by customers, so that customers are no longer adjusting to the products or services offered. However, companies must adapt to

customers by providing solutions to customer needs. Then, it is also said that companies that remain self-centred and not customer-centred cannot survive.

Now is an era of choice, where every customer can choose and consider the product or service they have to use because there are a variety of choices offered. This could be one of the factors switching customers to other brands that might result from dissatisfaction with the company. Brand switching behavior according to Hawkins & Mothersbaugh (2010) is the result of customer dissatisfaction with a product or service that causes customers to stop using a product or service on a brand and replace it with another brand. Factors that influence the intention to switch brands according to Firmansyah (2019) can be due to advertising, price, product/service quality, word of mouth, personality, brand image, variety seeking, customer dissatisfaction and promotions offered by competitors. From the factors mentioned that product/service quality and customer dissatisfaction can make customers do brand switching.

The company engaged in services and serving hundreds of passengers every day, PT. XYZ as much as possible provides optimal services to the people who use their services. However, it cannot be denied that the company is not always able to provide services in accordance with the expectations of

service users. When that happens, service failures occur. Service Failures are situations where the services provided are not successful in realizing the expectations of customers (Michel, 2001). So far, there are still failed services provided by PT. XYZ officers. If there is a failure in the services provided by the company and cause passengers to feel less satisfied, then this is called customer dissatisfaction.

Thus, service failures are a failure of PT. XYZ officers in providing services to customers. The failed service can make customers feel dissatisfied so that it can lead to brand switching behavior from customers. So, brand switching behavior occurs because of service failures and customer dissatisfaction.

1.2 Research Purposes

This study investigated how service failures affect dissatisfaction and brand switching behavior on PT. XYZ ferry passengers. The research results help the company to understand the real reasons why customers dissatisfied and switch to another brand. So the company can be improving and developing a strategy to avoid service failures. Based on the research background, the following purposed are listed:

1. To analyze the effect of service failures on brand switching behavior.
2. To analyze the effect of service failures on customer dissatisfaction.
3. To analyze the effect of customer dissatisfaction on brand switching behavior.
4. To analyze the effect of service failures on brand switching behavior through customer dissatisfaction.

of each service provided will be different whether it is satisfying or not.

According to Mccoll-Kennedy & Sparks (2003) there are four sources of service failures, there are service, service provider, things out of control, and customers. Service or facility provided by the service provider that is less than optimal, such as the wrong product/service, the wrong price, and the waiting time is too long. From service providers, service failures can occur because of improper employee actions and behavior. The things out of control are things that the company does not want and cannot avoid during the process of providing services to passengers caused by natural factors and other organizational behavior. Then, the service failures can originate from the behavior of the customer itself and also because of other customer behavior.

2.2 Brand Switching Behavior

Brand switching according to Peter & Olson (2002) is a buying pattern that has the characteristics of a change or change from one brand to another. Hawkins & Mothersbaugh (2010) said brand switching is the result of customer dissatisfaction with products that make customers stop buying or using products on certain brands and replace them with other brands. Meanwhile according to Ray (2019) brand switching is a loyal process of one product or service for a certain period but can also decide to exchange with another, due to dissatisfaction or changes in preferences.

According to Mazursky, LaBarBera, & Aiello (1987), factors that influence brand switching are intrinsic motives and extrinsic incentives. Intrinsic Motives are factors that come from the customer. The dimension is that the customer does not like the product/service used and the customer moves to another brand because they want to try a new product/service. Extrinsic Incentives are factors that affect brand switching that comes from outside the customer. Its dimensions are the products/services offered by competitors are cheaper and competitors offer attractive promotions.

Then, the factors that influence brand switching intentions according to Firmansyah (2019) are advertising, price, product quality, word of mouth communication, personality, brand image, variety seeking, customer dissatisfaction and promotion. Of all the factors that have been mentioned, there are product quality or service failures and customer dissatisfaction as factors that influence brand switching behavior, so that the worse the services provided and can cause customer dissatisfaction and greater chances of customers to switch brands. So, brand switching behavior can arise because of their own desires or no longer want to use the old brand again due to perceived dissatisfaction.

2.3 Customer Dissatisfaction

According to Kotler & Keller (2009) dissatisfaction is a situation where customers' expectations are higher or not in accordance with the services they receive from marketers. The opposite of quality service is service that fails, the consequence that must be accepted is the dissatisfaction of the customer. Customers have spent money and time to get satisfaction for themselves (Laws, 2004). The use of services is temporary so that there can be many possibilities of contact between service providers and customers (Kaihatu, Daengs, & Indrianto, 2015). Lu,

Lu, & Wang (2012) formed customer dissatisfaction in 3 types, there are overall dissatisfaction with the product / service, dissatisfaction due to negative experiences felt more than positive experiences and general dissatisfaction which is not happy with the product / service offered.

In addition, García & Pérez (2011) stated that dissatisfaction due to service failure caused customer anger and regret. Then, the things that are often experienced by customers who are dissatisfied with the attitude of officers according to Kaihatu, Daengs, & Indrianto (2015) are the company employs service personnel who have a sour or sullen face and a rude way of speaking, employees give a passive attitude when serving customers like reluctantly or serving customers while chatting with friends, being discriminatory with customers is like differentiating services provided between one customer and another and underestimate customers.

3 METHODOLOGY

3.1 A Research Framework

Service failures are failures of officers in a company in providing services to customers. The failed service can make customers feel dissatisfied so that it can lead to brand switching behavior from customers. So, brand switching behavior can arise because of service failures and customer dissatisfaction. From the description presented, the research model that will be conducted by researchers is illustrated in Figure 1.

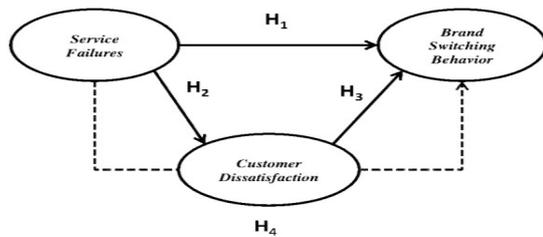


Figure 1: A Research Framework

3.2 Research Hypothesis

Hypotheses that can be developed from the research framework are:

H1: Service failures affect brand switching behavior.

H2: Service failures affect customer dissatisfaction.

H3: Customer dissatisfaction affects brand switching behavior.

H4: Service failures affect brand switching behavior through customer dissatisfaction.

3.3 Population and Sampling Methods

The population in this study were all PT. XYZ passengers both Indonesian and overseas citizens who came from Stulang Laut to Batam or who departed from Batam to Stulang Laut.

The sample used is non-probability sampling with purposive sampling. The sample of this study was passengers who departed from Batam to Stulang Laut who had used PT. XYZ at least 2 times and were at least 17 years old, totalling 186 respondents.

4 ANALYSIS AND RESULTS

Data analysis using the statistical software SPSS 23, the study of statistical methods used are as follows:

4.1 Validity and Reliability Analysis

Validity test is used to determine the level of validity of the questionnaire instrument used in data collection. Then also to find out whether the items on the questionnaire can be examined. Items are valid if r score $>$ r table, conversely if r score $<$ r table then the item is invalid. R table seen by calculating $N - 2$, and $186 - 2 = 184$. Then, it can be seen the value of R Table for 184 samples is 0.1439.

After processing the data, it was found that all the r scores calculated for each question item on service failures, brand switching behavior and customer dissatisfaction $>$ r tables, the results can be seen in Table 1. So, the data in this study are valid.

Table 1: Validity Test Results.

Variables	R Scores	R Tables	Result
X1	0.296	0.1439	Valid
X2	0.334	0.1439	Valid
X3	0.367	0.1439	Valid
X4	0.609	0.1439	Valid
X5	0.507	0.1439	Valid
X6	0.408	0.1439	Valid
X7	0.438	0.1439	Valid
X8	0.273	0.1439	Valid
X9	0.273	0.1439	Valid
X10	0.275	0.1439	Valid
X11	0.683	0.1439	Valid
X12	0.708	0.1439	Valid
X13	0.680	0.1439	Valid
X14	0.663	0.1439	Valid
X15	0.551	0.1439	Valid

X16	0.350	0.1439	Valid
X17	0.443	0.1439	Valid
X18	0.624	0.1439	Valid
Y1	0.770	0.1439	Valid
Y2	0.737	0.1439	Valid
Y3	0.550	0.1439	Valid
Y4	0.629	0.1439	Valid
Y5	0.724	0.1439	Valid
Z1	0.920	0.1439	Valid
Z2	0.912	0.1439	Valid
Z3	0.895	0.1439	Valid

Reliability test is used to determine the consistency of the measurement if used twice or more by using the same measuring instrument. The test method is to compare the Cronbach alpha values with a minimum Cronbach value of 0.6. So, if the value obtained > 0.6 then the questionnaire is reliable. After processing the data, it was found that the Cronbach alpha values of all variables > 0.6 , shown in Table 2. The value of Cronbach alpha of service failures is 0.800, brand switching is 0.717, and customer dissatisfaction is 0.895. Then it can be concluded that the data of this study are reliable.

Table 2: Reliability Test Results

Variables	Cronbach Alpha	Minimum Values	Result
Service Failures	0.800	0.60	Reliable
Brand Switching Behavior (Y)	0.717	0.60	Reliable
Customer Dissatisfaction (Z)	0.895	0.60	Reliable

4.2 Descriptive Statistic Analysis

Descriptive analysis is used to describe the characteristics of each variable. This analysis presents data into a frequency distribution table, calculating the average value, total score, and the level of achievement of respondents (TCR) and interpreting it. Riduwan (2006) said to find the level of achievement of the respondents answers used the following formula:

$$TCR = \frac{\text{Average Score}}{n} \times 100\%$$

The criteria for the level of achievement of respondents (TCR) can be classified as follows:

1. 0 - 25% = Very Low
2. 26% - 50% = Low
3. 51% - 75% = High
4. 76% - 100% = Very High

Based on the results, from 186 respondents who participated in this study were mobilized by Indonesian citizens. Then, the majority of respondents who fill in are male. The age range of respondents was 25 - 44 years who filled out the research questionnaire. The majority of respondents who participated had worked as employees and the purpose of travelling is for work.

After that, the distribution of respondents answers was analyzed for each question item that could support each research variable. Overall, service failures variable resulted in accumulation of an average score of 3.25 with the TCR reaching 81.35%. So, it can be concluded that the level of service failures can disappoint customers when using PT. XYZ services are very high. Brand switching behavior variables produce an accumulation of an average score of 3.39 with TCR reaching 84.68%. So, it can be concluded that the level of brand switching behavior is very high. Then, customer dissatisfaction variable produces an average accumulation of scores of 1.69 with TCR reaching 42.25%. So, it can be concluded that the level of dissatisfaction from customers using PT. XYZ services are low.

4.3 Classic Assumption Test

For the normality test, the data is calculated through the Skewness & Kurtosis Test and for a significance of 0.05, it is said to be normal if the Z value is < 1.96 . The test results are Zskewness value $-1.52 < 1.96$ and Zkurtosis $-1.59 < 1.96$. Then, the residual data are normally distributed and the regression model meets the normality assumption.

The linearity test has criteria if the value of sig. Deviation from Linearity $> \alpha$, then the relationship between variables is linear. The results found are the relationship between service failures variables with brand switching behavior has a value of $0.171 > 0.05$, service failures with customer dissatisfaction have a value of $0.218 > 0.05$ and customer dissatisfaction with brand switching behavior has a value of $0.879 > 0.05$. Then, it can be concluded that the relationship between variables is linear.

Then, multicollinearity test is used to find out whether there is a strong correlation between independent variables by looking at the value of VIF (Variance Inflation Factor) does not exceed 4 or 5. The results found are service failures and customer dissatisfaction has a VIF value of 1,082 $<$ of 5, so there is no multicollinearity in this research.

Heteroskedasticity test uses the Glejser Test, by regressing independent variables on the absolute value of the residual. A good model is not

heteroskedasticity if t value with probability sig > 0.05. The results found are service failures and customer dissatisfaction has a Sig. > 0.05 which is 0.615 and 0.497. So, there is no heteroskedasticity in this study.

The autocorrelation test was tested with the Durbin Watson Test provided that there was no autocorrelation in the regression model. The results show that the DW value is greater than the dU value, which is 1.934 > 1.7818, so there is no positive autocorrelation. Then, if (4 - DW value) > dU, which is 2.066 > 1.7818 then there is no negative autocorrelation. So, it can be concluded that there is no positive or negative autocorrelation and the research is convincing and can be concluded.

4.4 Path Analysis

Path analysis is used to measure the effect of a variable on other variables directly or indirectly (Olobatuyi, 2006). This analysis uses a path diagram that aims to conceptualize a problem or test complex hypotheses. From this diagram, the effects of the independent variables on the dependent variable can be calculated both directly and indirectly. The effects between these variables can be seen from the path coefficient. The path analysis equation model used in this study is as follows:

Z = P1X + ε1 Substructural 1

Y = P2X + p3Z + ε2 Substructural 2

From the output data processed using SPSS, the equation is obtained as follows:

1. Customer Dissatisfaction = (-) 0,275 Service Failures + 0.9638 Substructural 1
2. Brand Switching Behavior = 0.323 Service Failures + (-) 0.161 + 0.9219 .. Substructural 2

If formed in the diagram, equation substructural 1 and 2 shown in Figure 2.

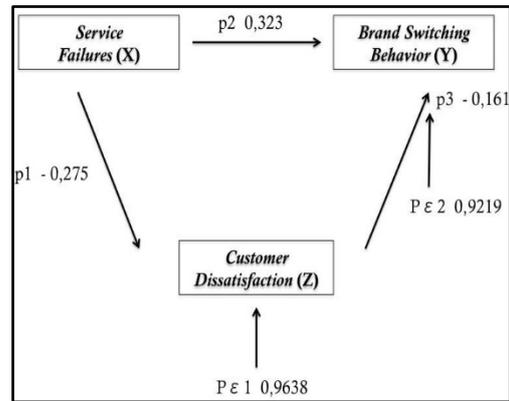


Figure 2: Path Analysis Diagram

4.5 Hypothesis Testing

T-test is used to test partially. This research is two-way research, so if the t score > t table or t score < -t table, then there is an effect of independent variables on dependent variable or hypothesis is accepted. The t-test uses α = 5% and the degree of freedom (df) of the test is n - k = 186 - 3 = 18, so the t table value is 1.973.

Based on the results shown in Table 3, it indicates that service failures affect brand switching behavior (H1 accepted), service failures affects dissatisfaction (H2 accepted) and customer dissatisfaction affects brand switching behavior (H3 accepted).

Furthermore, to test the fourth hypothesis using the Sobel test. This test is used to test the strength of the indirect effect of independent variables to the dependent variable through intervening variables. The calculation is performed using the formula developed by Ghozali (2011) as follows:

Table 3: t-Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11,798	1,628		7,246	,000
	Service Failures	,108	,023	,323	4,586	,000
	Customer Dissatisfaction	-,215	,094	-,161	-2,284	,023

Dependent Variable: Brand Switching Behavior.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9,229	1,076		8,579	,000
	SF	-,068	,018	-,275	-3,883	,000

Dependent Variable: Customer Dissatisfaction.

$$\begin{aligned}
 Sab &= \sqrt{b^2Sa^2 + a^2Sb^2 + Sa^2Sb^2} \\
 &= \sqrt{(-0,335^2 \cdot 0,018^2) + (-0,068^2 \cdot 0,095^2) + (0,018^2 \cdot 0,095^2)} \\
 &= \sqrt{(0,0000363609) + (0,0000417316) + (0,0000029241)} \\
 &= \sqrt{0,0000810166} \\
 &= 0,00900 \\
 t \text{ score} &= \frac{ab}{Sab} = \frac{(-0,068) \times (-0,335)}{0,00900} = \frac{0,02278}{0,00900} = 2,531
 \end{aligned}$$

From the results, it was found that the value of t scores $2.531 > t$ table 1.973 . Then, there is a mediating effect between the independent variables on the dependent variable. So, it can be concluded that the H4 is accepted and service failures have an indirect effect on brand switching behavior through customer dissatisfaction.

4.6 Coefficient of Determination

Then, for the test results, the coefficient of determination is the Adjusted R^2 value is 0.150 , which means the ability of the model of the independent variable (service failures & customer dissatisfaction) explains the variation of the dependent variable (brand switching behavior) is 15% .

4.6.1 The Effect of Service Failures on Brand Switching Behavior

Based on the results of tests with the t-test, it was found that service failures affect brand switching behavior on PT. XYZ ferry passengers (H1 accepted). Service failures affects brand switching behavior because the t scores in the influential area. Thus, the behavior of switching brands from passengers was created because customers felt disappointed by the failed service provided by PT. XYZ officers.

The results are the same as the results of research from Awan, Nadeem & Faisal (2016) in their research that explained that service failures affect brand switching in the telecommunications industry related to cellular service providers in Punjab-South Pakistan. Then, the researchers say that if the failure of the service increases, the desire to switch brands from customers can increase as well.

4.6.2 The Effect of Service Failures on Customer Dissatisfaction

Based on the results of tests with the t-test, it was found that service failures affect customer dissatisfaction on PT. XYZ ferry passengers (H2 accepted). Service failures affect customer dissatisfaction because of the t scores in the influential area. Thus, with the occurrence of a

service that fails will give dissatisfaction to the customer.

The results of this study are in line with research from Janjua (2017) which in his research found that the type and intensity of service failures affected the level of customer dissatisfaction. Then, it is also explained that the size of the service failures that occur will affect customer dissatisfaction. So, the level of dissatisfaction with the customer depends on how big or how often the intensity of service failure occurs.

But the research of Rokhyadi & Putri (2017) has the result that service failure and dissatisfaction have a less powerful influence. The researchers explain that the level of service failure felt by visitors is still at reasonable level. So, if there is a failure in providing service when serving customers, it does not always make the customer immediately feel disappointed or dissatisfied with the service provided by the officer.

4.6.3 The Effect of Customer Dissatisfaction on Brand Switching Behavior

Based on the results of testing with the t-test, it was found that there was an effect of customer dissatisfaction on brand switching behavior on PT. XYZ ferry passengers (H3 accepted). Customer dissatisfaction affects brand switching behavior because of the t scores in the influential area. If customers are not satisfied with the services provided, they will switch from PT. XYZ by looking for variations and try the services of other companies that offer the same service, or switch because the prices offered by competitors are cheaper and offer attractive promotions.

In research of Widiandi & Trinanda (2019) also explained that customer dissatisfaction affects brand switching behavior. In their research, it was stated that the higher the customer dissatisfaction, the higher brand transfer decisions. And conversely, the lower the customer dissatisfaction, the decision to move the brand will be lower too.

4.6.4 The Effect of Service Failures on Brand Switching Behavior through Customer Dissatisfaction

Based on the Sobel test results, it was found that service failures affected brand switching behavior through customer dissatisfaction on PT. XYZ ferry passengers (H4 accepted). From these results indicate that customer dissatisfaction as a mediating variable plays a role in the effect of service failures on brand switching behavior. So it can be concluded that if the

customer gets a service that fails, the customer will switch to another brand because of the feeling of dissatisfaction due to receiving the failed service.

The results of this study are strengthened by the results of research from Buttle & Burton (2001) which in his research explained that customers will leave a brand because the customer is not satisfied due to a failed service. So, if a customer experiences a service that fails then they are not satisfied with this. So, if customer dissatisfaction is out of tolerance then they will take action that is certainly not desired by all companies, which is to switch to another brand.

5 CONCLUSIONS

Based on the test results it can be concluded that service failures affect brand switching behavior on passengers using PT. XYZ. So brand switching behavior of passengers is created because customers feel disappointed from service failures provided by PT. XYZ.

The test results also concluded that service failures affect customer dissatisfaction on passengers using PT. XYZ. So the occurrence of service failures will cause dissatisfaction from customers of PT. XYZ.

Then, the results that the influence of customer dissatisfaction on brand switching behavior on passengers using PT. XYZ. If customers are not satisfied with the services provided, they will switch from PT. XYZ by looking for variations and try the services of other companies.

This study also found that service failures affect brand switching behavior through customer dissatisfaction on passengers using PT. XYZ. Then it can be concluded that if the customer get service failures, the customer will switch to another brand because dissatisfied with the failed service.

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