

Research Article

The Effect of Service Failures and Service Quality on Customer Loyalty and Repurchase Intentions: A Case Study of Lion Air Group During the COVID-19 Pandemic

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Abstract.

The COVID-19 pandemic restricted people's movement and forced airlines to cancel or reschedule flights. Lion Air Group is one example, cutting at least 65% of their regular frequency and rescheduling flights since March 2020. This paper aimed to examine the effects of service failure and service quality of Lion Air Group on their passengers' loyalty and repurchase intention during the COVID-19 pandemic. 100 respondents participated through an online questionnaire, and SEM-PLS was used for quantitative analysis. It was found that the service quality of Lion Air Group influenced passenger loyalty. Following this, passenger loyalty significantly influenced repurchase intention. Interestingly, passengers did not consider service failures as a factor that influenced their decision to be loyal and fly again with Lion Air in the future, but rather the service quality of the airline group when handling service failures.

Keywords: service failure, service quality, customer loyalty, repurchase intention, Lion Air, Batik Air, Wings Air, COVID-19, airline

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1. Introduction

The COVID-19 pandemic is currently one of the worst global crises in recent history. The virus' transmissibility and easy air travel have resulted in rapid spreading of the virus and repeated travel restrictions which result in flight disruptions of global scale. Aviation thus became one of the worst hit sector [1]: in 2020, global passengers declined by 60% and Revenue passenger kilometer (RPK) went down by 90%. Indonesia is no exception: between January and March 2020, more than 18.000 flights going through Angkasa Pura 1 airports were canceled. Airlines have had to obey the restrictions as a result but with adverse impacts on their passenger satisfaction and financial performance [2]. Lion Air Group is one of airlines in Indonesia facing mass cancelation and rescheduling:


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everyday, close to 1000 flights are estimated to be canceled when the airline group adjusts to the demand for air travel.

TABLE 1: Lion Air Group, average daily frequency comparison table.

Airline	Normal frequency	Frequency offered during pandemic	Number of canceled flights
Lion Air	700	245	455
Batik Air	420	147	273
Wings Air	400	140	260
Percentage	100%	34.8%	65.2%

Source: Lion Group corporate communications manager (interview)

Lion Air Group is the largest airline in Indonesia in terms of capacity, network, and fleet size, thus, it received the most customer complaints over service failures in 2020 over any other Indonesian airlines [3]. Several House of Representative members (DPR RI) also directly called for action against Batik Air Indonesia over rescheduling issues [4], adding more dissatisfaction to the already airline brand. Unfortunately, although cancellations and reschedules are part of typical airline service failures, they can result in negative customer experience and low repurchase intention [5]. The potential effect of this massive disruption is profound, especially the negative effect it can have after the pandemic ends. This study aims to explain the effect of service failures and the service quality of Lion Air Group on customers' repurchase intention and their loyalty.

2. Literature Review

Flight disruption is a situation where a scheduled flight is cancelled, or delayed for two hours or more, within 48 hours of the original scheduled departure time [6] and is part of common airline service failure types [7][8]. Efthymiou et al., (2019) defined service failure as "a service or product that cannot reach expected level in the service delivery process", which may result in complaints, reduced customer satisfaction, as well as loyalty, if it is not handled appropriately. Furthermore, [10] found that service failure can lead to negative repurchase intention and negative word-of-mouth against the brand. In many industries, service failures are very common, but airlines are particularly more vulnerable to these due to the nature of their service. Generally, service failure can cause negative responses from customers and therefore affect customer loyalty negatively. Thus, we offer the following first and second hypothesis:

H1 : Service failure negatively affects customer loyalty

H2 : Service failure negatively affect repurchase intention

Service quality (SERVQUAL) is defined as the comparison of what customers feel a company should offer them with the company's actual service performance [11]. Indirectly, customer perception has been shown to affect the customers' repurchase intention [12] because perception affects the level of satisfaction, which will then impact the tendency to commit repeat buying (repurchase intention). It is also proved that the same concept holds true to SERVQUAL's impact on customer loyalty: a high service quality rating will affect customers' satisfaction positively, which in turn will increase the true loyalty of the customers to the same brand [13]. Based on the above explanations, we propose the following third and fourth hypothesis:

H3 : Service quality affects customer loyalty

H4 : Service quality affects customer's repurchase intention

Customer loyalty is a sense of trust from customers in purchasing products or services that a company provides. It can be also described as the *commitment* to consistently repurchase a certain product [14]. Many studies found that passengers' loyalty to an airline brand is highly influenced by passenger satisfaction and others [15], [16] found that loyalty is influenced by airline service quality including the amount of disrupted flights (canceled or rescheduled). Businesses (airlines) which are able to provide better services than their competitors are found to be able to build a strong foundation to increase their customer's loyalty [17]. Hence, we propose the next hypothesis as:

H5 : Customer loyalty affects the repurchase intention of customers

Finally, repurchase intention is a customer's judgement or intention on repeatedly purchasing products or services from the same company as a result of his/her prior experience with the company [18]. A customer that experiences positive engagement with a company is more likely to repeat the purchase, while a negative experience will deter the customer from repeating purchase. High repurchase intention is desired because it is much cheaper to retain a loyal customer than to attract new ones [19]. Multiple previous studies have established that product quality, customer loyalty, and customer satisfaction are the factors that influence a customer's repurchase intention [12].

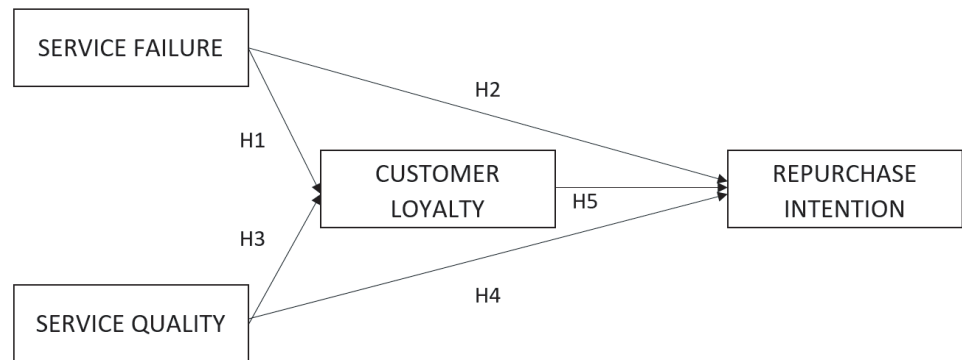


Figure 1: Theoretical Framework.

3. Research Methodology

This study uses quantitative method. The population is all passengers who have booked tickets with Lion Air, Batik Air Indonesia, and Wings Air during the COVID-19 pandemic (March 2, 2020 – July 16, 2021). The sampling frame is all passengers who had their tickets either rescheduled or canceled by the aforementioned airlines. Boomsma [20] suggested a minimum sample size of either 100 to 200 for safe and valid evaluation, as sample size lower than 100 may lead to failures and errors in analysis. Due to time constraints, total sample size of this research is 100 passengers (mixed between all three airlines) to ensure valid results. SEM SmartPLS 3 software was used for the analysis of the SEM-PLS method. The online questionnaire used a 5-point Likert scale, with the following response options: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

4. Discussion and Result

According to [25], items are considered valid (reliable) when the outer values are at least 0.708. Table 4 shows all values are above 0.708. All items of the constructs in this study thus have achieved a satisfactory reliability level.

Hair (2018) and Sarstedt (2014) recommend 0.7 as the minimum value for both Cronbach's alpha and composite reliability tests for a good result. Both values of all latent variables have exceeded the minimum value, meaning all variables are considered reliable.

According to [26], convergent validity is present when the AVE test value is above 0.5. The calculated value of AVE for all constructs exceed the minimum value of 0.5. This

TABLE 2: Research Indicators.

Variables	Indicators	Code
Service Failure Jones and Robertson (2012) in [9]	The flight cancellation announcement is too close to the passenger's original departure schedule	SF1
	The flight reschedule announcement is too close to the passenger's original departure schedule	SF2
	The airline cancels/reschedule flight unilaterally	SF3
	The flight cancellation information provided by the airline is complete enough to help change passenger's itinerary	SF4
Service Quality [21]	The reschedule flight information provided by the airline is complete enough to help change passenger's itinerary	SF5
	The airline carries passenger according to the originally booked flight schedule	SQ1
	The airline often cancels or reschedules the booked flight	SQ2
	The airline offers alternative options to passengers whose flights have been cancelled/rescheduled	SQ3
	The airline has already informed which flight will or will not be operated before passenger books a ticket	SQ4
Customer Loyalty [22]	The airline is punctual in informing flight cancellations/reschedule	SQ5
	I will regularly travel again with the airline	CL1
	I will keep the airline as my first choice when traveling	CL2
	I will book a flight with the airline again	CL3
	I will encourage others to travel with the airline	CL4
Repurchase Intention [23], [24]	I will not choose another airline in the future	CL5
	I have experienced similar cancellations/reschedule flight by the airline	RI1
	I feel that the cost and effort I put in booking is worth the service I receive from the airline	RI2
	I wish to book a flight with the airline again	RI3
	I will use the airline's services again in the future	RI4
	I will recommend the airline to others	RI5

means all constructs are considered valid (able to explain at least 50% of the variance of its items).

TABLE 3: Outer Loading Test Results.

Item Code	Constructs				Result
	Service Failure	Service Quality	Customer Loyalty	Repurchase Intention	
SF1	0.709				Valid
SF2	0.743				Valid
SF3	0.742				Valid
SF4	0.821				Valid
SF5	0.784				Valid
SQ1		0.774			Valid
SQ2		0.739			Valid
SQ3		0.703			Valid
SQ4		0.870			Valid
SQ5		0.817			Valid
CL1			0.867		Valid
CL2			0.893		Valid
CL3			0.778		Valid
CL4			0.762		Valid
CL5			0.706		Valid
RI1				0.709	Valid
RI2				0.916	Valid
RI3				0.717	Valid
RI4				0.884	Valid
RI5				0.832	Valid

TABLE 4: Composite Reliability and Cronbach's Alpha Tests Results.

Construct	Cronbach's Alpha	Composite Reliability	Result
Service Failure	0.820	0.873	Reliable
Service Quality	0.841	0.887	Reliable
Customer Loyalty	0.851	0.901	Reliable
Repurchase Intention	0.872	0.908	Reliable

TABLE 5: AVE Tests Results.

Construct	AVE	Result
Service Failure	0.579	Valid
Service Quality	0.613	Valid
Customer Loyalty	0.647	Valid
Repurchase Intention	0.666	Valid

TABLE 6: HTMT Ratio Results.

	Service Failure (X1)	Service Quality (X2)	Customer Loyalty (X3)	Repurchase Intention (X4)
Service Failure (X1)				
Service Quality (X2)	0.852			
Customer Loyalty (X3)	0.483	0.693		
Repurchase Intention (X4)	0.503	0.659	0.897	

The HTMT results above suggest that discriminant validity has been achieved. The HTMT test has a maximum value of 0.9 and all the HTMT values of the constructs do not pass this value, meaning that the constructs are valid (discriminant validity is present). The HTMT test results are already enough to demonstrate discriminant validity, thus we can forgo the conventional Fornell-Larcker Criterion and cross-loading result analyses [25].

TABLE 7: R² Calculation Result.

Endogenous Variables	R ²	Explanatory Power
Customer Loyalty (Y)	0.353	35.3%
Repurchase Intention (Z)	0.639	63.9%

The calculations indicate that 35.3% of the customer loyalty concept is explained by this study and the rest (64.7%) of the concept can be explained by other variables not present in this study. The calculation also shows that 63.9% of the repurchase intention concept can be explained by the model of this study, and the rest (36.1%) of the concept can be explained by other variables not present in this study. The Z-variable thus has a higher explanatory power (being closer to 1.000).

TABLE 8: Hypothesis Significance.

Paths	Path Coeff.	Sample Mean	Standard Deviation	T- statistics	P-Values	Decision
X1 - Y	-0.025	-0.011	0.123	0.206	0.837	Rejected
X1 - Z	0.047	0.054	0.095	0.490	0.624	Rejected
X2 - Y	0.612	0.610	0.118	5.185	0.000	Accepted
X2 - Z	0.104	0.100	0.109	0.950	0.343	Rejected
Y - Z	0.710	0.709	0.076	9.301	0.000	Accepted

Hypothesis testing is used to assess whether the hypotheses (represented by SEM-PLS “paths”) are accepted through t-statistics value comparison. For a 95% confidence level, the corresponding t-value in the statistics t-table is ± 1.984 . In the table, three paths (X1 - Y, X1 - Z, and X2 - Z) are rejected because their t-statistics values are lower than +1.984 (0.837, 0.624, and 0.343, respectively). This means that hypotheses H1, H2, and H4 do not have mutually supportive relationships (service failure does not negatively affect customer loyalty and repurchase intention, and service quality does not affect repurchase intention). However, the remaining two paths (X2 - Y and Y - Z), have t-statistics values are larger than +1.984 (5.185 and 9.301, respectively) and are accepted based on the criteria. This means that hypotheses H3 and H5 are considered to have mutually supportive relationships (service quality affects customer loyalty, and customer loyalty affects repurchase intention).

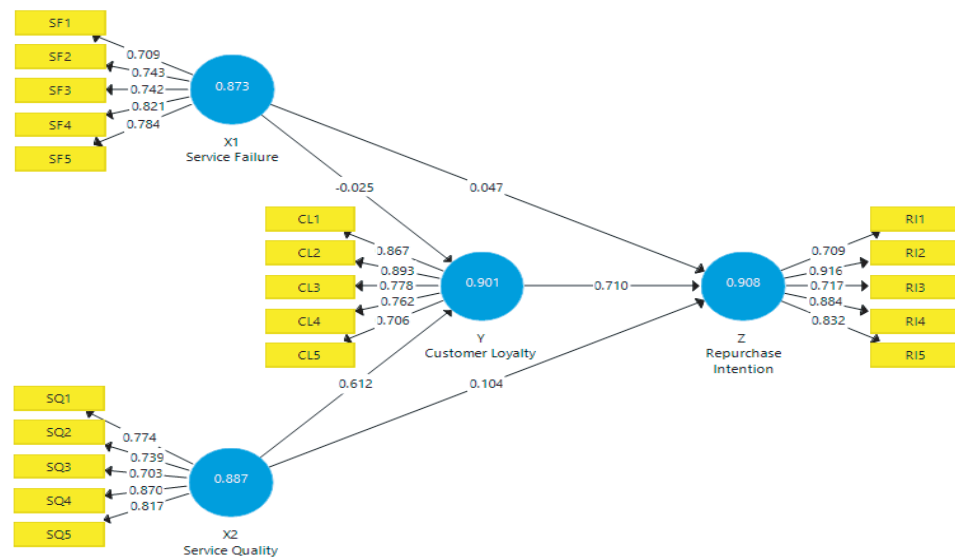


Figure 2: PLS Calculation Result.

5. Conclusion and Recommendations

Based on the three validity tests for the SEM-PLS analysis, all models are considered valid and reliable. The outer model analyses show that the outer model is valid and the indicator items are able to correctly and reliably represent the variables. The inner model analyses show that the relationship between each variable is declared valid and reliable. From the hypothesis testing, two hypotheses and three were rejected. Analysis on the items of the service failure and service quality variables also revealed that respondents

were unsatisfied with the sudden, late, frequent flight cancelation and rescheduling by the airline. Respondents were also unsatisfied with the information provided by the airline group regarding the information of flights scheduled to be operated and not to be operated by the airlines, which the respondents considered were insufficient.

The analyses conclude that the service quality of Lion Air Group during the COVID-19 pandemic influences passenger loyalty, and passenger loyalty influences the repurchase intention of its passengers. Hypothesis testing showed that passengers do not consider the service failures they experienced with Lion Group as a factor that influence their loyalty and repurchase intention. This is most likely because they prefer that the service quality is improved to handle service failures they experience. A good service quality indirectly influences repurchase intention by offering a service that is considered better by the passengers so that they become more loyal and tend to fly again with Lion Group. The study also shows that customers who consider the service quality they received is good do not necessarily decide to fly again with the airline in the future. Rather, those customers need to be loyal customers of the airline group first. Loyalty is built through lasting customer trust: for passengers whose flights are very frequently canceled or rescheduled, they may see the airline group as inconsistent. In conclusion, the repurchase intention of Lion Group customers is influenced by their loyalty, and the loyalty is influenced by the airline group's service quality.

Through this study, researchers recommend that Lion Air Group should invest more in improving certain aspects of service quality while also trying to minimize the occurrence of service failures. Researchers feel that providing clear information of guaranteed operated flight is a good starting point to begin offering a more consistent flight schedule to potential customers as this was the second lowest rated item in the study. Consistent performance between the guaranteed flight schedule and the actually operated flights (reducing cancels and reschedules) will improve both the airline's service quality and reduce its potential service failure simultaneously. The airline should also create or modify their flight cancelation/reschedule announcement policy so that the announcement is not sudden and passengers will have more time to readjust their travel plan in case their flights are canceled or rescheduled. These recommendations are in addition to standard service measures such as compensation, future travel options/credits, refund options, and good customer service.

Researchers believe that this research will be useful as a reference for future researches aimed at understanding and/or improving the transportation system during

the pandemic, especially in the case of airline service in Indonesia. As stated in the analysis and conclusion, this study has preliminarily proven that service quality, in particular, plays an important factor for passengers deciding whether to repurchase the airlines' transportation services and products. This can be further researched or be used as a reference for future studies involving the topic, theme, or the company being researched.

Researchers also acknowledge that this research can still be improved in aspects such as in the research sample size, which was just above the minimum number for such study using SEM-PLS. Given more opportunity to increase the sample size and conduct a deeper, more detailed analysis, the research may come to a more valid conclusion that better represents the entire population being researched. Other factors that may influence customer loyalty and repurchase intention should can be examined and taken into account to explore more of this topic of research.

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