The Relationship between Service Failure and Service Recovery with Airline Passenger Satisfaction

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Abstract. Service failure and service recovery of a firm can greatly influence on customer satisfaction as well as the relationship quality with the firm, regardless of other firm’s efforts to establish the strong relationships with its customers in the long run. Airline companies particularly struggled with numerous obstacles regarding their continuity to survive. One of the problems is they are accountable to service failures which is unavoidable to evade. This research aims to recognize the relationship of service failure and service recovery with AirAsia passenger satisfaction. The data was gathered from 361 domestic passengers departing from Sultan Ismail Petra Airport, Kelantan. The convenience sampling has been employed as the sampling approach for this study. The findings indicated that the service failure has negative significant relationship with passenger satisfaction while the service recovery has positively influenced passenger satisfaction. The implications of this study are the management team and staff should plan effective recovery instruments to correct the failures such as well-planned corrective actions, effective apologies, willing to be responsible for failure occurred and other actions. The frontline employees should be aware of the customers’ emotions when the service failure happens, and the excellent recovery effort can thus prevent negative emotion of customers.

1. Introduction
Marketers concern about enhancing customer satisfaction nowadays. The importance of satisfaction in the service industry has been highlighted by many studies [2]. The customer satisfaction is influenced by a service quality. The service failures are common barriers towards customer satisfaction and within the service delivery process, it is hard to evade [25]. Resulting from the rising expectations of customers and rapid growth in business environment rivalry, it is tough for many companies especially airlines to hold their customers [26].

Likewise, another difficulty to deliver excellent services are unable to identify the real wants and needs of customers [14]. Demonstrating disappointment, leaving the service, keeping support the same brand or negative words dispersion are some of the result of customers’ actions after going through the service failures. Hence, to gain positive sight from customers, the struggle must be placed through the outstanding service recovery [9]. Studies in service failure of various industries have been conducted by a great number of researchers. Still, an extensive number of researches that emphasis on service failure and recovery effects and influence in the airline also gain consideration from scholars.
Furthermore, the negative effects of service failure on the customer satisfaction affect company’s reputation [2].

To date, service failure seems to occur in any firm which can lead to unsatisfied customers. Numerous airlines including international ones such as Champion Air and Aloha Airgroup, British regional airline Flybmi, and a few other famous airlines cease their operation or have gone out of business [4]. Also, a vast number of airline companies collapsed over during 2018-2019 fiscal year for instance Air2there (A New Zealand Carrier), Air Costa Rica, NextJet and a few more others [14]. This is due to many difficulties experiences including poor management of operations in which the management cannot control the service failure happened and is unable to take effective corrective actions in handling problems. Apart from this reason, the labor cost and jet fuel have led to immense headache for many carriers [14]. Not left behind, Malaysia national carrier (MAS) was not doing well since many years. The aviation expert stated that MAS has another major issue which is internal management problem with the lost of two high profile planes MH370 as well as MH17 [18].

[8] stated that customers have more favorable when they are satisfied with the recovery effort than those who do not. It is imperative in the airline operation to have an effective recovery from failure. It is also critical for managers to comprehend the customer feedback towards the failures and recovery [8]. Even with the fact that the service quality has added extensive number of studies, yet the service failure and the recovery of airline industry in Malaysia is still less unexplored and needs an additional investigation [25] [22]. Since the unique nature of airline service industry which is substantially different from other service industries, it permits further studies to explore the service failure and recovery and its impact on customer satisfaction [22].

The prior studies have discovered a number of reasons which is leading to service failures in the airline business for instance, the problems in booking process, staffs’ attitude problems, trip cancellations, double-booking flights and changes or delays [22]. The Increasing number of failure indications have arisen in the airline industry which recommends that the productive service recovery will make encouraging replies from customers. To plan real service recovery efforts, a study concerning this matter must be done so that unnoticed problems can be discovered, and additional actions can be done to meet this issue.

2. Literature Review

2.1. Service Failure

When the service quality does not happen as expected by the customers, the service failure occurs [5]. For many businesses, service failure develops the main causes of customers’ attrition. Subsequently, this will decrease customer satisfaction if the matter is not given much attention in which leads to negative dispersion by unhappy customers [3].

Several reasons of service failure in the airline industry have been pointed out by previous studies including discourteous staffs, flight delays, reservation difficulties, overbookings, diversions and many more [22]. The decrease of service failure incidences was focused by few studies. As suggested by [5], in organised service settings, the service failure is less likely to happen. [7] further suggested that the chance of failures will decrease with favourable communication style and employees’ empowerment.

Further, [23] has connected the causes of service failure into two factors; customer and organization. Customer is facing service failure when there are mistakes made by the service provider, related firm or customer itself [25]. Some consequences might arise when a failure happens. The failure affected customers’ emotions and mood changes for instance disappointment, frustration and boredom.

Majority of customers simply leave the service or change their preferences to other competing company, and they do not speak out about the failure they have experienced before. There is a low possibility for the customer repurchase intention when they do not inform to the company about the failure encountered.
2.2 Service Recovery
A vital step for transforming unhappy customers into satisfied ones refers to service recovery [11]. As stated by [25], even if the service failures cannot be eliminated, the good service recovery instruments and successfully dealing with failures can hold and perhaps even it can improve customer satisfaction and loyalty in the future. Some researches have stated that numerous approaches can be used by organizations to rectify failures including communicating with customers to gain response, offering to clarify their failures [5] and apologizing for their failures [12].

Numerous service quality researchers have given substantial consideration in exploring the effects of recovery action on customer satisfaction and their intention to repurchase. Amongst the important effects is, it changed disappointed and irritated customer to loyal ones through excellent service recovery [7].

2.3 Customer Satisfaction
The experience which a customer has with a service that it encounters in reference to what was expected can be described as customer satisfaction. Thus, satisfaction created on the capability of service provider to meet or exceed the expectations of a customer. Numerous studies have been led to determine whether the satisfaction is influenced by the service quality or vice versa.

Scholars found that there is a strong relationship between service quality and customer satisfaction, and all services encountered should be managed to increase consumer satisfaction [1]. Customers’ response when their expectancy are rewarded can be described as satisfaction [13]. The result of satisfaction is either positive or negative feeling of fulfilment. In today’s competitive market environment, the customer satisfaction becomes one of the valuable assets for airline industry [18]. To survive in the competitive airline industry nowadays, most airline establishments feel distressed and need to take fast response to survive [23].

Customer satisfaction with airline services influenced by varied selection of services including exceptional customer service [17], proper baggage handling and all-in-one centre for check-in [22], greater safety performance and in-flight entertainment [21], luggage lost and flight cancellation, inappropriate baggage handling [6], flight frequency, on time departures and arrivals, prompt luggage delivery on arrival, hygiene of cabin, food quality and the quantity of food in-flight [7]. [25] in their study discovered that, in response to service failure, passenger needed appropriate clarification and better services to the state of their satisfaction.

![Conceptual Framework of the Relationship between Independent and Dependent Variables](image)

**Figure 1.** Conceptual Framework of the Relationship between Independent and Dependent Variables

2.4 Hypotheses formulated
Hypothesis 1

H⁰: There is a negative relationship between service failure with passenger satisfaction.

H¹: There is a positive relationship between service failure with passenger satisfaction.
Hypothesis 2
H$_0$: There is a negative relationship between service recovery with passenger satisfaction
H$_1$: There is a positive relationship between service recovery with passenger satisfaction.

3. Methodology
This study aims to identify the relationship between service failure and service recovery on airline customer satisfaction. The population of this study was the domestic passengers of Air Asia flying from Sultan Ismail Petra Airport, Kota Baharu Kelantan. The total population is approximately between 5000-6000 per month. Therefore, the population are considered to be 6000. Convenience sampling technique was applied in this study.

A table for Determining Sample Size [16] was used in selecting the sample size. According to the table, the sample size should have consisted of 361 respondents. Hence, 372 questionnaires were distributed.

The survey questionnaire was adopted as the instrument for this study. The way questionnaire disseminated was by approaching the passengers at the departure hall and they were collected on the same day upon completion. The questionnaire was designed to answer the research questions specified in the study which were highlighted on the types of service failure, service recovery efforts and passenger satisfaction.

4. Findings

4.1 Survey Return Rate
Out of 372 questionnaires distributed, 361 were returned which is equivalent to 97% response rate.

Table 1. Reliability Analysis of Variables

| Variables         | No. of items | Cronbach's Alpha |
|-------------------|--------------|------------------|
| Service Failure   | 20           | 0.724            |
| Service Recovery  | 10           | 0.86             |
| Passenger Satisfaction | 10       | 0.756            |

The reliability analysis was established to test whether the items in the questionnaire were grouped under a factor which are consistent and stable. Generally, according to Sekaran (2010), reliabilities less than 0.6 are poor, those in the 0.7 are range satisfactory and those over 0.8 are good. Table 4.1 presents the Cronbach’s for service failure, service recovery and passenger satisfaction ranges from .7 to .8, which are acceptable and good.

Table 2. Major types of service failure (n=361)

| Major SF    | Frequency | Percentage (%) |
|-------------|-----------|----------------|
| Flight problems | 134       | 37.1           |
| Customer service | 68       | 18.8           |
| Baggage     | 64        | 17.7           |
| Reservations | 53        | 14.7           |
| Refunds     | 20        | 5.5            |
| Fares       | 22        | 6.1            |
| TOTAL       | 361       | 100.0          |
The major type of service failure experienced by the respondents is flight problems which contributed 37.1% of the findings and the least is fares which contributed only 6.1%.

4.2 Correlation Analysis

Table 3. Correlation between service failure and passenger satisfaction (n=361)

| Service Failure | Pearson correlation | Sig. (1tailed) | N |
|-----------------|---------------------|----------------|---|
|                 | .228                | .001           | 361 |

*. Correlation is significant at the 0.01 level (1-tailed).

Table 4. Correlation between service recovery and passenger satisfaction (n=361)

| Service Recovery | Pearson correlation | Sig. (1tailed) | N |
|------------------|---------------------|----------------|---|
|                  | .726                | .001           | 361 |

**. Correlation is significant at the 0.01 level (1-tailed).

The relationship for this study shows in Table 4.3 and 4.4 respectively. As the result disclosed, the relationship between service failure and passenger satisfaction is significant and has negative correlation. Though, service recovery and passenger satisfaction relationship positively linked, highly correlated and significant.

4.3 Multiple Regression

In order to explore the relationship between one continuous dependent variable and a number of independent variables or predictors, multiple regression was used. Multiple regression was conducted in this study to identify the greatest predictor or most significant influence between service failure and recovery towards passenger relationship.

Table 5. Table of Summary and ANOVA (Passenger Satisfaction)

| Summary | ANOVA |
|---------|-------|
| R       | R Square | F | Sig |
| .726    | .528     | 200.066 | .000 |

R Square specifies the percentage variance in the dependent variable (passenger satisfaction) that is clarified by the variation in the independent variables (service failure and service recovery). The r square of 0.528 suggests that 52.8% of the difference or changes in the dependent variable can be predicted from the variables of service failure and service recovery. The remaining 47.2% is not explained by the independent variables in this study. The R value represents the simple correlation and it is 72.6%. It means there is a great deal of variance shared by the observed and predicted value of dependent variable which is passenger satisfaction. The F-value is 200.066 and it is significant base on the value of 0.00 which is p < 0.05. If the Sig-value, p, is greater than 0.05, it implies that the independent variables are not significantly explained the dependent variable. Hence, the independent variables which are service failure and service
recovery significantly explained dependent variable which is passenger satisfaction. Furthermore, it also implies that the questions are good fit for the data.

Table 6. Table of Coefficients

| Model          | Standardized Coefficients | T   | Sig. | Collinearity Statistics |
|----------------|---------------------------|-----|------|-------------------------|
|                | Beta                      |     |      | Tolerance               | VIF  |
| 1 (Constant)   | 7.492                     | .000|      | .880                    | 1.136|
| Service Failure| .026                      | .676| .500 | .880                    | 1.136|
| Service Recovery| .735                     | 18.990| .000 | .880                    | 1.136|

Table 4 presents the information about the effects of independent variables. ANOVA table above shows that p-value is significant at .000. Service recovery has the highest beta coefficient which is 0.735. This makes the variable is the strongest influence on the dependent variable. Meanwhile, the service failure has slightly lower beta value (0.26) demonstrating less contribution to the dependent variable (passenger satisfaction). Thus, it can be concluded that the independent variable comprises of the service failure is less significant whereas the service recovery is more consistently predicted the dependent variable.

5. Discussion
This study aims to examine the relationship between the service failure and the service recovery with the passenger satisfaction. Findings revealed that the flight problems were the main reason of service failure which the passengers faced with AirAsia at Sultan Ismail Petra Airport. The result also concluded that there is significant and negative relationship between service failure and passenger satisfaction while the service recovery leads to the positive relationship with the passenger satisfaction. Thus, the hypothesis 1 was rejected and accepted null hypothesis while hypothesis 2 was accepted. The service recovery seems to be the most influential factor that affects the passenger satisfaction.

6. Conclusion
It can be concluded that the passengers at Sultan Ismail Petra Airport will perceive unpleasantly when the service failure occurs, and they are expecting greater efforts or assistances by the service provider to correct the failure. In addition, passenger satisfaction or disappointment after experiencing service failures also were influenced by the greater recovery efforts shown by the airline company. Since the service recovery found to be highly linked with passenger satisfaction, this shows that it is crucial for airline establishments to have a great recovery mechanism to strengthen their customer relationship. This study also disclosed that the flight problems become the recurrent failure at Sultan Ismail Petra Airport instead of a few other problems. Therefore, the airline management should consider these failures to improve the service distribution process in the future. The passengers feel better sense of trust and increase their commitment to the relationship when AirAsia managed to implement service recovery from failures effectively.

7. Recommendation
A few recommendations have been recognized. It is recommended that the airline companies to upgrade their recovery satisfaction and repurchase intentions by putting a good recovery mechanism in the place. The feedback and complaint management is also imperative to be considered by the
companies. Additional research should be carried out to other service areas such as industrial or hospitality where the service failures are likely to occur. For the purpose of determining cultural influences, further research can be conducted to the international airlines as well.

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