Impact of Service quality, On time performance and Customer satisfaction with Lion Air's image

R Nurpiyanti¹, K Rizqiana², D Apryadi³, Muhammad Iqbal Firdaus⁴, Yuliantini⁵

¹,²,³,⁴ Institute of Transportation and Logistic Trisakti, Jakarta, Indonesia
³ Corresponding author: riskanurpiyanti98@gmail.com

Abstract. Every time a company provides services, it opens an opportunity for the company to build up its image. An airline’s image could measure the weaknesses and strengths of the airline itself so that it could maintain the passenger’s perceptions of the airline. The purpose of this study is to explain on how the supporting factors of service quality, on time performances and customer satisfactions in Lion Air can be a determining factor for the creation of an airline’s image and whether these factors are also interconnected to create an airline image, in this case. This study uses a quantitative approach with the primary data collected through distribution of questionnaires to 59 Lion Air passengers. A regression analysis is conducted to test the hypothesis of the study. The results show that 1) service quality has a significant effect on airline image 2) on time performance has a significant effect on airline image 3) customer satisfaction has a significant effect on airline image 4) service quality, on time performance and customer satisfaction simultaneously have a significant effect on airline image.

1. Introduction
Aviation industry is an industry that is highly competitive. This can be proven from the many companies or airlines that serve flight services to various routes both cosmetically and internationally. Therefore, the presence of various flight routes will affect the increasing number of aircraft passengers who will directly increase profits for airlines. However, competition between airlines is also getting tougher, therefore airlines must optimize services provided to passengers so that passengers increase every year and old passengers remain loyal to use services from airlines. The company's image is one part of the whole which is an important factor for airline support to keep airlines able to compete with other airlines. The company image is the precedence and the rationale for companies engaged in marketing services, because a good image will provide quality added value for a company to achieve customer satisfaction which focuses on the company's goals, the company's ability to determine the perspective of consumers of services provided by the company. Perception of service quality will be the manufacturing process of the company's brand image [1].

Image companies are formed and can be influenced by several factors, the first is service quality, according to [2] service quality refers to "the function of things that make the difference between expected services and customer views about services provided to customers ". Airline companies pour a lot of resources into providing businesses to service the needs of their passengers by taking into account the high and low quality provided so that it will have an impact on increasing customer satisfaction and ultimately will also affect the increase in revenue to be received by airlines [3]. According to [4] good service quality will enhance the brand image of an airline. To assess the views of Lion Air passengers regarding service quality using the SERVQUAL scale as a basis for assessing the quality of airline services. The SERVQUAL pattern has been generally recognized by many researchers and practitioners in various fields and countries [5] SERVQUAL consists of five dimensions, namely physical evidence, reliability, responsiveness, assurance, and empathy [6] The second factor is on time performance wherein the community uses the time factor to choose which airline to use as a means of transportation to be used to achieve the purpose and purpose of the trip [7] On Time Performance (OTP) is indeed closely related to the designation delayed or late where, timeliness becomes one of the things that can be a clue to the ability of the airline to work. Flights that depart more than 15 minutes can be called late [8]. The third factor is customer satisfaction according to [9] satisfaction based on "a person's feelings of pleasure or disappointment
resulting from comparing the ability of a product that relates to his expectations". That customer satisfaction leads to word of mouth that has a positive impact that is widely recognized comes from the conditions that determine the success or failure of marketing to build a brand [10].

With very rapid progress in a competitive business environment, something that is expected and what is demanded by customers also increases, leading to a situation where many companies, especially airlines feel that it is difficult to maintain their customers [11]. Because the good and bad of a service are the main influences that can be decisive for airlines and this has been widely investigated [12]. The aviation industry traditionally has an effort to show the superiority of each company with a high level, a situation that makes airlines make an effort to find ways to improve the quality of their services in order to gain profit competitiveness [13]. However, an important part of a good and a bad level of service and customer satisfaction is often disrupted [14]. If work ability can meet expectations, it means that the customer is satisfied. But if the work ability does not match the customer's expectations, then this is not satisfied customers [15] as well as the timeliness if an airline is unable to obtain an OTP, so the airline can be classified as an airline that is delayed or delayed. The purpose of this study is to prove and analyze the influence of service quality, on time performance and customer satisfaction on Lion Air's image.

2. Research Methodology
2.1 Research Instrument
This study uses a quantitative approach by covering primary data collection by distributing questionnaires to Lion Air passengers, the final questionnaire received 23 items of indicators which from service quality had five dimensions and had several indicators of each dimension [16] three items from tangibles dimension (1) the appearance of a neat officer (2) the convenience of the place of service (3) the ease in the service process. Three items from the reliability dimension (1) the officers' ability to serve (2) have good service standards (3) the expertise of officers in serving well. Three items from the responsiveness dimension (1) respond to each customer (2) the officer performs the service quickly (3) the officer performs the service carefully. Three items from the assurance dimension (1) the officer gives a guarantee on time (2) the officer guarantees the certainty of costs in the service (3) the officer provides legality in the service. Three items from the empathy dimension (1) the officer serves kindly (2) the officer serves and respects each customer (3) prioritizes the interests of the customer. Four items of timeliness [17] (1) Estimated time of departure (2) Estimated time of arrival (3) Actual departure time (4) Time of actual arrival. Three items of customer satisfaction [18] (1) Conformity of expectations (2) Performance perceptions (3) Customer assessment. And the last four items from the company image (1) Advertising (2) Public relations (3) Physical image (4) Actual experience.

2.2 Data Collection Procedures
The target population is all passengers who have traveled using Lion Air in the past one year. The sample in question is all Lion Air passengers and at least one trip using Lion Air in the past year and aged over 17 years. Sampling uses probability sampling techniques with a simple random sampling method. Sample calculation uses Isaac and Michael's calculation method by assuming that Lion Air passengers are 33%, and 59 respondents are obtained.
2.2.1 Variable Classification

Explanation:
\(X_1 = \text{Service Quality}\)
\(X_2 = \text{On Time Performance}\)
\(X_3 = \text{Customer Satisfaction}\)
\(Y = \text{Airline Image}\)
Where service quality, on time performance, and customer satisfaction become independent variables (independent variables) and company image becomes a dependent variable (dependent variable) which will be influenced by independent variables.

2.2.2 Hypothesis

\(H_1 = \text{Service quality has a significant effect on airline image}\)
\(H_2 = \text{On Time Performance has a significant effect on airline image}\)
\(H_3 = \text{Customer Satisfaction has a significant effect on airline image}\)
\(H_4 = \text{Service Quality, On Time Performance and Customer Satisfaction has a significant effect on airline image}\)

2.2.3 Data Analysis Techniques

To answer the formulated problem and test the proposed hypothesis, the data obtained will then be processed according to the needs of the analysis. For the purpose of discussion, data is processed and presented based on statistical principles, while for analysis and testing of hypotheses, multiple linear regression methods use software Microsoft Excel 2016, SPSS v.24, which later will produce level of influence of the independent variable against dependent variable to proof the hypothesis correctness.

This analysis is to find out the direction of the relationship between the independent variable and the dependent variable whether each is positively or negatively and this model assumes the existence of a straight line relationship between the dependent variable and each predictor and also to predict the value of the dependent variable if the value of the independent variable increases or decreases [19].

3. Result

<table>
<thead>
<tr>
<th>Table 1. Descriptive Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>Service quality</td>
</tr>
<tr>
<td>On time performance</td>
</tr>
<tr>
<td>Customer satisfaction</td>
</tr>
<tr>
<td>Airline image</td>
</tr>
</tbody>
</table>

Source: Processing Data
From the results of the descriptive analysis in Table 1, the average variable obtained: Airline Image = 18.76, Service Quality = 18.47, On Time Performance = 13.36 and Customer Satisfaction = 18.07

**Table 2. Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficient</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.035</td>
<td>1.593</td>
<td></td>
<td>0.022</td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.343</td>
<td>0.134</td>
<td>0.298</td>
<td>2.556</td>
</tr>
<tr>
<td>On Time Performance</td>
<td>0.466</td>
<td>0.195</td>
<td>0.314</td>
<td>2.384</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.341</td>
<td>0.149</td>
<td>0.311</td>
<td>2.282</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Airline Image

Regression Equation = Y = 0.035 + 0.343X₁ + 0.466X₂ + 0.341X₃

Hypothesis 1:

H₀ = β₁ ≤ 0
H₁ = β₁ > 0

From the results of the analysis presented in table 2 above, it is obtained t₁ = 2.556, db = 55, p-Value = 0.0065 <0.05 or H₀ rejected. Thus, Service Quality has an influence on Airline Image of Lion Air

Hypothesis 2:

H₀ = β₂ ≤ 0
H₁ = β₂ > 0

From the analysis presented in table 2 above, it is obtained t₂ = 2.338, db = 55, p-Value = 0.0105 <0.05 or H₀ rejected. Thus, On Time Performance has an influence on Airline Image of Lion Air

Hypothesis 3:

H₀ = β₃ ≤ 0
H₁ = β₃ > 0

From the results of the analysis presented in table 2 above, it is obtained t₃ = 2.282, db = 55, p-Value = 0.013 <0.05 or H₀ rejected. Thus, Customer Satisfaction has an influence on Airline Image of Lion Air.

**Table 3. ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1122.717</td>
<td>3</td>
<td>374.239</td>
<td>49.722</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>413.961</td>
<td>55</td>
<td>7.527</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1536.678</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Airline Image
b. Predictors (constant): CUSTOMER SATISFACTION, SERVICE QUALITY, ON TIME PERFORMANCE
Hypothesis 4:

\[ H_0: \beta_1 \cdot \beta_2 \cdot \beta_3 = 0 \]
\[ H_1: \beta_1 \cdot \beta_2 \cdot \beta_3 \neq 0 \]

From table 3, the price of \( F_0 = 49.722 \), \( df = (3, 55) \), p-value = 0.00000 < 0.05, \( H_0 \) is rejected. Thus: Service Quality, On Time Performance and Customer Satisfaction simultaneously have an influence on Airline Image of Lion Air.

### Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>( R )</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.855+a</td>
<td>0.731</td>
<td>0.716</td>
<td>2.743</td>
<td></td>
</tr>
</tbody>
</table>

**a. Predictors:** (constant), Customer Satisfaction, Service Quality, On Time Performance

From the results of the analysis presented in the table 4 above, the price is obtained: \( R^2 = 0.731 \), \( F_0 = 49.722 \), \( df = (3, 55) \), p-value = 0.0000000 < 0.05 or \( H_0 \) is rejected. Thus, the influence of Service Quality, On Time Performance and Customer Satisfaction variables on Airline Image of Lion Air is 0.731 or 73.1% and influenced by other factors of 26.9%

### 4. Discussion

Based on the findings above, the discussion of the results of the study is as follows: (1) Data shows that Service Quality has an influence on Airline Image of Lion Air. Therefore, the better of service quality in Lion Air, the higher image of Lion Air as a company, this result is in accordance with the hypothesis proposed. (2) On Time Performance has an influence on Airline Image of Lion Air, data shows that On Time Performance has an influence on Airline Image for Lion Air. Therefore, the better the timeliness carried out by Lion Air, the higher the image of the Lion Air, which the result is in accordance with the hypothesis proposed. (3) Customer Satisfaction has an influence on Airline Image of Lion Air, data shows that Customer Satisfaction has an influence on Airline Image of the Lion Air. Therefore, the better in terms of satisfying of what the customer expects, the higher the image of the Lion Air, which the result is in accordance with the hypothesis proposed. (4) Service Quality, On Time Performance and Customer Satisfaction have an influence on the Airline Image of Lion Air, data shows that Service Quality, On Time Performance, and Customer Satisfaction have an influence on Airline Image for Lion Air. Therefore, the better of service quality, the timeliness and also in terms of satisfying the customer accordingly, the higher the image of the Lion Air, this result is in accordance with the hypothesis proposed.

### 5. Conclusion

Based on the discussion above, it can be concluded as follows: (1) Service Quality has a significant and strong effect on Airline Image for Lion Air. (2) On Time Performance has a significant and strong effect on Airline Image for Lion Air. (3) Customer Satisfaction has a significant and strong effect on Airline Image for Lion Air. (4) Service Quality, On Time Performance and Customer Satisfaction simultaneously have a significant and strong effect on Airline Image from Lion Air airlines.

### 6. References
