INFLUENCE OF PROCESSING AND NON-PROCESSING SERVICE QUALITY ON PASSENGER SATISFACTION SEMARANG AIRPORT

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ABSTRACT

This study aims to examine the factors that influence Passenger Satisfaction. The determining factors considered are the Service Quality of Processing and Non-Processing. This study uses a quantitative research method with a purposive sampling technique, namely by distributing questionnaires to air service users who depart through Semarang Airport with 100 respondents. This data analysis method uses multiple linear regression analysis techniques, with the SPSS 26 statistical test tool. The results found that the Service Quality of Processing and Non-Processing has a positive and significant effect on Passenger Satisfaction. The magnitude of the coefficient of determination is 0.726, this means that 72,6% of Passenger Satisfaction can be explained by the Quality of Processing and Non-Processing Services while the remaining 27,4% is explained by other variables not examined in this study. This shows that Processing and Non-Processing Service Quality plays an important role in increasing Passenger Satisfaction.

Keywords: Non-Processing Service Quality; Passenger Satisfaction; Processing Service Quality

INTRODUCTION

In the globalized period, business and the economy are growing quickly, and consumer demand for goods is rising at the same time. In the business sector, organizations need to be able to comprehend the requirements and wishes of their clients in addition to using clever ways to maintain market share and boost market competitiveness. Clients who have their requirements met are typically more satisfied with the assistance they receive. (Riyanto, 2022:3)

The satisfaction felt by consumers will have a positive impact on the company, including: consumer satisfaction and the company's reputation will have a positive impact in the eyes of society in general and consumers in particular (Shao et al., 2020:4). On the contrary, the existence of low product quality will create a negative perception at a level that is less profitable for the company. Xu et al. (2017:21) The cause of the level of satisfaction generated by consumers starts from the first time they consume a product which results in the creation of value from the consumer's mindset.

PT Angkasa Pura I can also be called a company operating in the transportation sector. The transportation sector plays a very important role for individuals or business organizations to support all their activities to reach a certain area or place in a relatively short time. Indonesia's geographical condition, which is an archipelago, means that the air transportation sector plays a role in spurring economic growth. The support of the aviation sector in the construction and development of the national economy is very significant. Not only does it support the tourism sector, but the smooth transportation of residents and the flow of goods and services is one of the supporting factors for successful development. Air transportation services cannot stand

alone and require airport support which is included in one of the elements of tourism, namely accessibility.

The 2021 period had a total of 884,979 arriving, departing and transit passengers and increased in the 2022 period to a total of 1,631,485 passengers. Fluctuations in demand for air transportation services have made airports as a sub-system of air transportation into strategic places that must be managed professionally.

The development ratio shows that there is an inconsistency in the data resulting from a comparison of the number of passengers and votes of service users, however, if we look at the whole, there has been a significant increase from 0.1906% to 0.4957% (2018-2022). There was an increase in the ratio of service user votes from 2018-2020 respectively, however in 2021 there was a significant decrease in the ratio. This decline was due to the government's lockdown regulations. In 2022 the ratio will increase again to its peak point in the last 5 years of 0.4957%. This ratio increased due to the behavior of the public who felt that the regulations limiting community activities were no longer relevant in 2022, so this was conveyed by service users through the platform provided by the airport.

Meeting the needs of travelers in terms of amenities and services offered by airport administrators is becoming more and more difficult as the number of people using air travel rises. By taking corrective action, preventing future incidents to reduce the number that occur, improving continuously, and designing new products and services with the ease of service users in mind, good service is maintained.

Research Problem
1. Does the quality of processing services affect passenger satisfaction at Semarang Airport?
2. Does the quality of non-processing services affect passenger satisfaction at Semarang Airport?

Research Purpose
1. Analyse the influence of processing service quality on passenger satisfaction at Semarang Airport.
2. Analyse the influence of non-processing service quality on passenger satisfaction at Semarang Airport.

Research Benefit
The benefit of this research is as additional information, reference materials and library materials in the library to help Semarang State Polytechnic students, especially Business Administration majors who are preparing final assignments and theses regarding the quality of processing and non-processing services and passenger satisfaction.

LITERATURE REVIEW
Passenger Satisfaction
Satisfaction is the level of a person's feelings after comparing the perceived performance/results with expectations (Supranto, 2006:233). Winardi (2016:2) states that satisfaction is achieved when quality meets and exceeds consumer expectations, desires and needs. Conversely, if the quality of performance does not meet and exceed consumer expectations, desires and needs, then satisfaction will not be achieved.

The passenger satisfaction indicators in this research were taken based on research conducted by Gumussoy & Koseoglu, 2016:4 namely:
1. Feel satisfied with the services provided
2. Feel satisfied with the decision to use the service
3. The very right choice in using the service

4. Customers get good service

Processing Service Quality

Processing is all mandatory activities that need to be completed in an orderly manner at the airport passenger terminal (Kirk et al., 2012:3; Popovic et al., 2010:3). Processing activities are activities that must be completed by passengers sequentially on at the airport, which consists of check-in, security screening, immigration, and boarding (Popovic et al., 2009:3, 2010:3)

Service quality indicators: processing in this research is taken based on research conducted by Antwi et al., 2020:8 quoted from Wiredja et al., 2015:4, namely:
1. Prime Service
2. Queuing or Waiting Time
3. Helpfulness and Communication

Non-Processing Service Quality

Non-processing activities are various optional passenger activities at all stages of the passenger journey (departure, transit and arrival) (Kirk et al., 2012:3; Popovic et al., 2010:3). Non-processing (discretionary) activities are optional and non-sequential activities carried out by passengers as desired (Popovic et al., 2009:3, 2010:3). Non-processing activities that passengers can carry out include accessibility, facilities and retail areas while at the airport.

Service quality indicators: non-processing in this research were taken based on research conducted by Antwi et al., 2020:8 quoted from Wiredja et al., 2015:4, namely:
1. Main Facilities
2. Value Addition

Theoretical Thinking Framework Based on the background and research problem that has been presented, to make this research easier, the following framework was created.
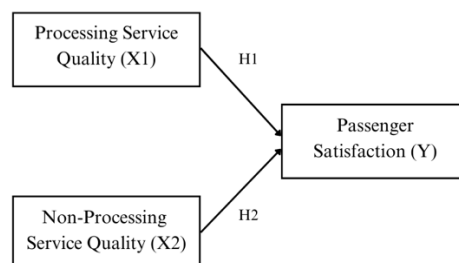

Figure 1. Theoretical Thinking Framework

METHODS

The research method in this study uses quantitative research methods because it asks about the relationship between two or more variables. The population size is taken from the number of passengers in 2022 who depart from the Semarang Airport, amounting to 800,888 people. This research uses a Non-Probability Sampling technique with Purposive Sampling technique. Based on calculations using the Slovin formula above, the sample size (n) in this study was rounded up to 100 passengers using purposive sampling who had departed from the Semarang Airport. The data collection techniques used in this research are observation, literature study, and questionnaires with a Semantic Differential measurement scale.

Table 1. Semantic Differential Numeric Scale

Scale	Desc.
1	Strongly Disagree
2	Disagree
3	Quite Agree

4	Agree
5	Strongly Agree

RESULT AND DISCUSSION

Data processing in this research used SPSS version 26. The analytical tools used to test the questionnaire were instrument testing, classical assumption testing, multiple linear regression analysis, and hypothesis testing obtained from the t test, F test, and coefficient of determination test.

Validity Test

The validity test is carried out by comparing the calculated r value with the r table at a significance level of 5% or 0.05. Based on the r table value, for n = 30, df = 28, and a significance of 5% or 0.05, the value obtained is 0.3610 and the calculated r value is obtained in the corrected item total correlation column.

Table 2. Validity Test Results

Indicator	r count	r table	Desc.
X1.1	0,853	0,361	Valid
X1.2	0,828	0,361	Valid
X1.3	0,699	0,361	Valid
X1.4	0,713	0,361	Valid
X1.5	0,693	0,361	Valid
X1.6	0,555	0,361	Valid
X1.7	0,807	0,361	Valid
X1.8	0,800	0,361	Valid
X1.9	0,777	0,361	Valid
X2.1	0,697	0,361	Valid
X2.2	0,737	0,361	Valid
X2.3	0,826	0,361	Valid
X2.4	0,658	0,361	Valid
X2.5	0,870	0,361	Valid
X2.6	0,672	0,361	Valid
Y.1	0,775	0,361	Valid
Y.2	0,812	0,361	Valid
Y.3	0,644	0,361	Valid
Y.4	0,815	0,361	Valid

Table 2 shows that all indicators have a calculated r value > r table so that the statements in the questionnaire used meet the validity criteria and the analysis used can be continued.

Reliability Test

The reliability test of an indicator or statement on a questionnaire can be seen from Cronbach's Alpha (α). A variable is said to be reliable if the Cronbach's Alpha (α) value is > 0.60. The results of this research's reliability test as in Table 3 below show a Cronbach's Alpha value above 0.60 so that the indicators or statements in the questionnaire are declared reliable and reliable.

Table 3. Reliability Test Results

Variable	(α) count	(α) Standard	Desc.

Processing Service Quality (X1)	0,927	0,60	Reliable
Non-Processing Service Quality (X2)	0,883	0,60	Reliable
Passenger Satisfaction (Y)	0,874	0,60	Reliable

Normality Test

Pandjaitan & Aripin (2017: 75) The data normality test is a distribution test that will be analysed, whether the distribution is normal or not, so it can be used in parametric analysis. The way to determine whether a model is normally distributed or not, usually only looks at the shape of the residual histogram, which is shaped like a bell or not.
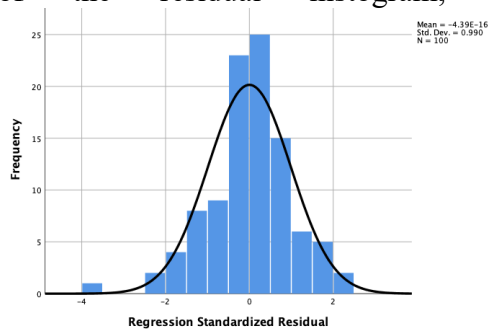

Figure 1. Normality Test Results

Figure 2 shows a histogram shaped like a bell, which means the residual data is normally distributed.

Multicollinearity Test

Pandjaitan & Aripin (2017: 75) Multicollinearity is a condition where there is a strong correlation or relationship between the independent variables included in the formation of linear regression. The regression model is good and it is said that there is no multicollinearity if the calculation results produce a VIF (Variance Inflation Factor) value < 10 and a Tolerance value > 0.01.

Table 4. Multicollinearity Test Results

Independent Variables	Collinearities Statistic	
	Tolerance	VIF
Processing Service Quality	,275	3,640
Non- Processing Service Quality	,275	3,640

Table 4 shows that the VIF value is < 10 and the Tolerance value is > 0.01, which means there is no correlation between the variables Service Quality: Processing and Service Quality: Non-Processing in this study, which means this regression model is free from symptoms of multicollinearity.

Heteroscedasticity Test

Pandjaitan & Aripin (2017: 75) Heteroscedasticity means that the residual variation is not the same from one observation to another, so that the residual variance is homoscedastic, that is, one observation is the same as another observation in order to provide a more accurate model estimate. If the points are spread randomly and spread both above and below the number 0 on the Y axis, then it can be concluded that there is no heteroscedasticity.
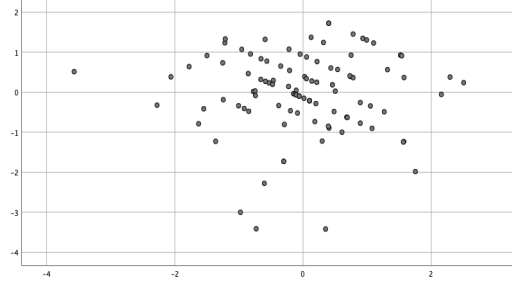

Figure 2. Heteroscedasticity Test Results

Figure 3 shows a random distribution of points both above and below the number 0 both on the vertical axis and on the horizontal axis (not collected), so it can be concluded that there are no symptoms of heteroscedasticity.

Linearity Test

Pandjaitan & Aripin (2017: 75) The simple concept of the linearity test is to see whether the regression model can be approximated by a linear equation. Two variables are said to have a linear relationship if they are significant < 0.05.

Table 5. Linearity Test Results

Independent Variables	Significance	
	Linearity	Deviation from Linearity
Processing Service Quality	0,000	0,182
Non-Processing Service Quality	0,000	0,223

Table 5 shows that the two independent variables have a significance value of linearity < 0.05 and a significance value of deviation from linearity > 0.05, which means there is a linear relationship between Service Quality: Processing and Service Quality: Non-Processing on Passenger Satisfaction.

Multiple Linear Regression Analysis

According to Pandjaitan & Aripin (2017: 80) Multiple regression analysis is a statistical analysis that connects two or more independent variables with the dependent variable Y. This analysis is used to determine the effect of the independent variables, namely Service Quality: Processing and Service Quality: Non-Processing on the dependent variable Passenger Satisfaction.

Table 6. Multiple Linear Regression Analysis Results

Model	Standardized Coefficients
	B
(*Constant*)	

Processing Service Quality	0,580
Non- Processing Service Quality	0,310

The regression equation formed based on Table 6 is $Y = 0,580 X_1 + 0,310 X_2$

t Test

The t test basically shows how far the independent variables individually influence the dependent variable (Ghozali, 2018:98). If we look at the t table with a significance of 0.05 and degree of freedom (df) = n – 2 = 100 – 2 = 98, we get a t table of 1.984. The basis for decision making in the t test is that Ho is accepted and Ha is rejected if t count < t table or significance value > 0.025, while Ho is rejected and Ha is accepted if t count > t table or significance value < 0.025.

Table 7. t Test Results

Model	t count	t table	Sig.
Processing Service Quality	6,092	1,984	0,000
Non- Processing Service Quality	3,260	1,984	0,002

Table 7 shows that both models have a significance value < 0.025 and the calculated t value > t table which means that Ho1 is rejected and Ha1 is accepted so that Service Quality: Processing (X1) has a significant effect on Passenger Satisfaction (Y) and Ho2 is rejected and Ha2 is accepted. Service Quality: Non-Processing (X2) has a significant effect on Passenger Satisfaction (Y).

F Test

The F statistical test is used to find out whether the regression model can be used to predict the dependent variable (Ghozali, 2018: 179). The F statistical test aims to find out whether it meets the goodness of fit test (model feasibility test). If we look at the F table with a significance of 0.05 and degrees of freedom (df1) = k – 1 = 3 – 1 = 2 and (df2) = n – k = 100 – 3 = 97, we get an F table of 3.09. The basis for decision making in the F test is that the model is suitable for research or is accepted if calculated F > F table or significance value < 0.025.

Table 8. Table of F Test Results

Model	df	F	Sig.
Regression	2		
Residual	97	132,438	0,000
Total	99		

Table 8 shows the calculated F value of 97.034 > F table 3.09 with a significance value of 0.000 < 0.025, meaning that the model that connects the variables Service Quality: Processing, Service Quality: Non-Processing and Passenger Satisfaction meets the model feasibility test or goodness of fit test. This means that the model in this research is accepted.

Coefficient of Determination Test

The coefficient of determination test essentially measures how far the model's ability to explain the dependent variables. The value of the coefficient of determination itself is zero and one. A small R^2 value means that the ability of the independent variable to explain dependent

variations is very limited. The coefficient used is Adjusted R Square which is according to Ghozali (2018:97).

Table 9. Coefficient of Determination Test Results

R	R Square	Adjusted R Square	Std. Error of the Estimate
0,856	0,732	0,726	0,37701

Table 9 shows R2 of 0.660. This shows that the variables Service Quality: Processing and Service Quality: Non-Processing contribute to the Passenger Satisfaction variable by 72.6% while the remaining 27.4% is another variable not examined in this research. The variables Service Quality: Processing and Service Quality: Non-Processing have a very strong relationship with Passenger Satisfaction because the R value is 0.856 (Very Strong).

CONCLUSION
Summary
Based on the research results, it can be concluded as follows:
1. Respondents in this study are air service users who have departed from the Semarang Airport, the majority of whom are women of productive age with work categories dominated by students and private employees with non-business travel purposes.
2. Hypothesis test results show that Service Quality: Processing (X1) and Service Quality: Non-Processing (X2) partially have a significant effect on Passenger Satisfaction (Y).

Suggestion
Based on the research results, it can be recommended for companies as follows:
1. Maintaining effective interaction in providing services is related to improving the communication skills of human resources who provide direct service/communication with passengers and always assisting passengers in finding the information they need.
2. Always check the cleanliness of the airport area regularly to maintain passenger comfort.
3. Continues to develop its superior service, namely Media Social Listening, which functions to monitor digital conversations via online media in order to understand the voices of service users, especially towards the Semarang Airport. Service users prefer digital media to convey suggestions and complaints and obtain information from airport managers, so as to give a good impression of the airport to passengers, namely by providing good, fast and thorough responses to anticipate events that have the potential to go viral on social media and provide answers and feedback in accordance with service user expectations which has an impact on service user satisfaction.

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