

Effect of Ground Handling Services on Arrival Baggage for Passenger Satisfaction

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Abstract: Numerous airline firms are fighting to raise the standard and reputation of their operations in response to the rising demand for air transportation services. The pre-flight and post-flight stages of an aircraft's operation require assistance from ground handling agents, affecting customer satisfaction with air transportation services. Passenger satisfaction is the expression of enjoyment or satisfied with the assistance received from the staff. This study's goal is to ascertain how much ground handling services offered by airlines during arrivals at General Ahmad Yani Semarang International Airport have an impact on passengers. This quantitative study aims to test the predetermined objectives on travelers from five airlines who employ PT. Kokapura's ground handling services. This study employed observation, questionnaires, and literature reviews as data collection methods. T-tests and the coefficient of determination are used to analyze the data (R²). With a calculated t-value of $21.182 > t\text{-table } 1.985$, the study's findings demonstrate that the arrival baggage service offered by PT. Kokapura's ground handling significantly effects traveler satisfaction at General Ahmad Yani Semarang International Airport. The remaining 17.9 percent is influenced by other factors, with a correlation coefficient of 0.821 and an 82.1 percent coefficient of determination.

Keywords: Ground Handling, Service, Passenger

A. Introduction

With regard to passengers, luggage, cargo, mail, equipment assisting the movement of aircraft on the ground, and the aircraft itself while on board airport, both for departure and for arrival, ground handling is the handling or service of loading goods before the aircraft makes a flight (loading) and activities to unload goods after the aircraft has flown (unloading) (Suprapto, 2015). Management of Ground Support Equipment (GSE) and Human Resources (HR) is needed to fulfill the requirements for ground handling services on the air side(Yarlina et al., 2020). Scopeground handling is divided into two phases, namely pre-flight and post flight. In activities post-flight. Ground handling carry out activities with the term departure handling. Objects handled by staff ground handling in essence are passengers (pax), luggage (baggage), delivery goods (cargo), postal objects (mail), ramps, and planes (aircraft). As a handling process, the term emergedpassenger handling, bagagge handling, cargo and

mail handling, and ramp handling. InInternational Air Transport Association (IATA) sets 14 standard ground handling service activities (Susanti, 2016). Airport ground handling activity will expand as there is a greater demand for air travel. Increased activity of this will impact the mental workload experienced by those who perform it (Poerwanto & Gunawan, 2017).

Ground handling has a vital role in the world of aviation. One of the Ground Handling service companies at Ahmad Yani Airport is PT. Kokapura. PT. Kokapura handles almost all airlines operating at General Ahmad Yani Airport, Semarang. Of the eight airlines actively operating, PT. Kokapura handles six-passenger, baggage, cargo, and postal service airlines, including Lion Air, Batik Air, Wings Air, Super Air Jet, Sriwijaya Air and Nam Air. The busy flight schedule is accompanied by short intervals between flight stake off and landing one plane to another, sometimes makes officers ground handling PT. Kokapura has not been able to carry out its duties as stated in PM 178 of 2015 concerning Service Standards for Airport Service Users as in the process claim baggage which states that the standard for first baggage delivery is <20 minutes from when the plane arrives-block on. Implementation of services carried out by parties ground handling existing ones influence the level of satisfaction passengers give especially when handling post-flight to passenger baggage. Service ground handling, the good and bad in handling arrival baggage at Jendral Ahmad Yani International Airport Semarang. Such as speed in handing over baggage to passengers, accuracy in handling baggage, friendliness and communication of personnel ground handling, as well as safety and security in the baggage handling process. It is vital in providing a travel experience for passengers.

After comparing perceived performance or results with expectations, someone's level of customer satisfaction is determined. Today, customer satisfaction serves as the primary yardstick for assessing a company's interactions with the market, a constant objective of their operational policies, a key element in enhancing the company's reputation, as well as a fundamental principle to guide operational processes for all businesses. (Hohenberg & Taylor, 2021). The level of customer satisfaction depends on the quality of a product or service. Measuring customer satisfaction is essential in providing better, more efficient, and more effective services. If customers are dissatisfied with a service provided, the service will be ineffective and inefficient.

Based on research (Oktyaninoor, 2022) baggage handlers significantly influence passenger satisfaction at Juanda International Airport in Surabaya with a correlation of 69.25% with the remainder influenced by other factors that were not examined. Research (Pratiwi, 2020) shows that there is a significant influence between the quality of officer servicecheck-in counter The satisfaction of Batik Air airline passengers at Abdurachman Saleh Airport in Malang was 84.3%, whilother variables outside the research model influenced the remaining 15.7%.

This research was carried out using quantitative methods based on the description above. It was presented as a final assignment entitled "Impact of Service Ground Handling Pt. Kokapura in Handling Arrival Baggage Regarding Passenger Satisfaction at General Ahmad Yani International Airport Semarang". This research shows a positive correlation between service and passenger satisfaction regarding service ground handling in handling arrival baggage at General Ahmad Yani International Airport Semarang. It is hoped that these research results can become PT recommendations. Kokapura to improve the quality of their services, identify areas that need improvement, and implement better strategies in handling arrival baggage to improve their level of service.

B. Methods

The author made direct observations at General Ahmad Yani International Airport, Semarang, carried out during the implementation On the Job Training in unit Airport Operation and Landside Terminal Improvement on breakdown area and baggage claim area of arrival hall regarding service ground handling PT. Kokapura. PT. Kokapura serves five airlines at Semarang's General Ahmad Yani International Airport: Lion Air, Batik Air, Wings Air, Sriwijaya Air and Nam Air. Research time begins at the time of conducting it On the Job Training That was carried out from 1 October 2022 to 28 January 2023.

Research methods

This study used quantitative research, in line with the opinion of (Sugiyono, 2022), an approach to positivist research methodology used to examine particular populations or samples. In order to test the proposed hypotheses, data were collected using research equipment and analyzed quantitatively and statistically.

Population & Sample

According to (Nugraha, 2022) in this context, just one individual can be considered a population. This is since each individual has unique characteristics, including speaking style, personality, and other things. The population in this study is all passengers on one day's flight who travel to Jendral Ahmad Yani International Airport. The sample represents a subset of the overall population composition. A population sample is a selection of individuals from a larger group according to several criteria established for research or monitoring purposes. The author will use the Slovin formula to collect samples for this article.

$$n = \frac{N}{1+Ne^2} (1)$$

Information

n = Number of Samples

N = Number of Population

e = Precision Value 10% (0.1)
of the number of daily passengers, s

$$\begin{aligned} n &= 32771 + 3277 \cdot 0.12 \\ n &= 32771 + 3277 \cdot 0.01 \\ n &= 32771 + 32,77 \\ n &= 327733,77 \\ n &= 97,03 \end{aligned}$$

Assuming that not all passengers carry luggage when flying, a sample of 97.03 was obtained, and rounding was done so that the total number was 100 respondents.
Data Collection Techniques

Observation

According to (Hasibuan, 2019) that the observation, namely how to obtain it by directly looking at the object. Observation also means careful observation or review. The point of seeing something is to report what happened, who participated, and what it all means from an eyewitness perspective.

Questionnaire

In this research, data was collected through a questionnaire using a Likert scale. (Sugiyono P. D., 4th ed, 2019) States that individuals' or groups' opinions, thoughts and feeling can be measured using the Likert scale method (Harland et al., 2015). Five options were used on the Likert scale instead of three because of the larger response range. This is a more effective way to highlight differences of opinion among respondents.

Table 1. Likert scale

Answer	Information	Score
SS	Strongly agree	5
S	Agree	4
N	Neutral	3
TS	Don't agree	2
STS	Strongly Disagree	1

Table 2. List of Questions

No	Statement
Baggage Service Variables	
1.	Handling of arrival baggage by the airline's Ground Handling upon arrival is fast.
2.	Baggage collection at the arrival terminal by the airline's Ground Handling is well informed
3.	Officers have a fast response in handling lost/damaged baggage.

- 4. Officers have a good response in listening to passenger complaints
- 5. Ground handling provides good service

Passenger Satisfaction Variable

- 6. You feel that the service provided is fast and responsive
- 7. You receive your baggage in good and suitable condition before departure
- 8. The service provided is satisfactory so you don't have to worry about baggage handling.
- 9. Baggage claim service by airline ground handling officers is good.
- 10. You feel like using this airline because the speed and responsiveness of the officers in handling baggage is good.

Test Research Instruments

Validity test

According to (Sugiyono, 2022), the validity of a study can be measured by how closely the data obtained by the researcher corresponds to what happened in the study (S. C. Wong & Gordon, 2006). The value of degrees of freedom in the validity test by researchers using 100 samples is $100-2 = 98$. At a 5% confidence level, the r table value is 0.1654. In the validity test results, the calculated r value (correlation value calculated from the collected data) is more than the r table value obtained from the distribution table (Wong et al., 2006).

Table 3. Validity

Indicator	R(Count)	R(Table)	Status
Baggage Service (X)			
X1.1	0.775	0.1654	Valid
X1.2	0.714	0.1654	Valid
X1.3	0.829	0.1654	Valid
X1.4	0.603	0.1654	Valid
X1.5	0.470	0.1654	Valid
Passenger Satisfaction (Y)			
Y1.1	0.905	0.1654	Valid
Y1.2	0.660	0.1654	Valid
Y1.3	0.690	0.1654	Valid
Y1.4	0.905	0.1654	Valid
Y1.5	0.892	0.1654	Valid

Reliability Test

According to Evaluation of the Stability and Consistency of Data or Results (Reliability Test) if the measurement findings are stable over time, we say the measurement is reliable (de Rezende & de Medeiros, 2022). Data that is consistently reliable or reliable

will often, but not always, be valid (Bonett et al., 2014; Newsletter, 2022). Reliable research variables are those with an α value > 0.60 .

Table 4 Reliability

Research variable	Cronbach's Alpha	Cronbach's Alpha requirements	Information
Baggage Service (X1)	0.707	0.600	Reliable
Passenger Satisfaction (Y)	0.874	0.600	Reliable

T-Test

According to (Frey, 2023; Horn, 2009) The T statistical test reveals the degree to which a variable has an effect on a particular variation in the dependent variable. A significance level of $\alpha = 5\%$ is employed in this T test. The alternative hypothesis is supported when evaluating the hypothesis using the T test since it shows that an independent variable effects the dependent variable significantly and separately if the significance value of $t > 0.05$. When a question about the relationship between two or more variables is posed, the T test offers an initial response. (Gerald, 2018) state test criteria with a significance level of 0.05 are determined by:

- $T \text{ count} > T \text{ table} (\alpha = 0.05)$ then H_0 is rejected and H_a is accepted
- $T \text{ count} < T \text{ table} (\alpha = 0.05)$, then H_0 is accepted and H_a is rejected

Coefficient of Determination Test

according to R Test² is used to measure the extent to which the model is able to explain the observed data for a particular dependent variable. The Coefficient of determination has a value range between 0 and 1, including these two values. When the R value² is low, the independent factors cannot adequately explain the variance in the dependent variable. According to the Coefficient of determination formula, namely:

$$R^2 = (\text{adjusted R square})^2 \times 100\%$$

Information:

R^2 = Coefficient of determination.

C. Results and Discussion

This research has 2 variables: question variable (X) baggage service variable (Y) Passenger Satisfaction Questionnaire. The author distributed the questionnaire to 100 respondents, Sourced from 5 airlines: Batik Air, Lion Air, Wings Air, Sriwijaya Air, and Nam Air. The questionnaire consists of 10 questions, with five from variable (X) and five from variable (Y).

Table 5. T test

Research variable	t (count)	t (table)	Significant value (Sig.)	Status
Variable X	to 21,182	2,048	0,000	H0 is rejected, Ha is accepted
Variable Y				

Based on the basis for making the first decision per the table above, a significant t-test value of $0.00 < 0.05$ is obtained, so it can be said that the results of this research H0 are rejected, and H1 is accepted. The second basis for decision-making is comparing the calculated t and t table values. Based on the t-test, the calculated t-value is 21.182, with the t-table value obtained based on the following formula:

$$\frac{\alpha}{2}; n - k - 1 \quad (2)$$

Information: = research confidence level = 0.05 (5%)

n = number of samples (100 respondents)

k = number of independent variables (free)

Then, the t table calculation result is 0.025;97, which is then distributed to the t table, so the t table value is 1.985 (Appendix). If we compare the calculated t value of 21.182 with the t table value of 1.985, it can be stated that in this research, H0 is rejected, and Ha is accepted. This shows a significant impact between variable X (baggage handling) and variable Y (passenger satisfaction).

Table 6. Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
.906 ^a	0.821	0.819		1.896+

Based on the linear regression model formed, it is known that the close relationship between the Baggage Service and Passenger Satisfaction variables is 0, 821 or 82.1%. This means that baggage service is closely related to the level of passenger satisfaction of 82.1%.

From the research results, the author can answer the problem formulation that has been created, namely: 1) Is there an influence of service Ground Handling PT. Kokapura handling arrival baggage on passenger satisfaction at Semarang Ahmad Yani International Airport? Based on the basis for making the first decision per the table above, a significant t-test value of $0.00 < 0.05$ is obtained, so it can be said that the results of this research H0 are rejected, and Ha is accepted. The second basis for decision-making is comparing the calculated t and t table values. Based on the t-test, the calculated t-value is 21.182 with a t-table value of 1.985. It can be stated that in this research, H0 is rejected, and Ha is accepted. This shows that there is a significant

impact between variable X (baggage handling) and variable Y (passenger satisfaction); 2) How big is the influence of the service round Handling PT. Kokapura in handling arrival baggage on passenger satisfaction at Ahmad Yani International Airport Semarang? Based on the linear regression model formed, it is known that the close relationship between the Baggage Service and Passenger Satisfaction variables is 0, 821 or 82.1%. This means that baggage service is closely related to the level of passenger satisfaction of 82.1%.

D. Conclusion

After conducting research related to the title and problems that have been described, the research results can be concluded that the Service arrival baggage by ground handling PT. Kokapura influences passenger satisfaction at General Ahmad Yani Semarang International Airport, improving service-arrival baggage by ground handling PT. Kokapura can, therefore, increase passenger satisfaction at Semarang's General Ahmad Yani International Airport. Based on the Coefficient of determination results, it can be concluded that service-arrival baggage influences a strong relationship level of 82.1% on passenger satisfaction at Ahmad Yani International Airport, and the remaining 17.9% is influenced by factors not examined by the author. To improve services, it would be better if the officer's ground handling improved, starting from the distribution of the number of personnel, changing the flow in baggage distribution to be more efficient. There is a need for personnel ground handling who carry out the checks and baggage claim tag to reduce lost and mixed baggage cases when passengers collect their baggage at General Ahmad Yani International Airport, Semarang.

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