

## OPTIMIZATION AND THE TIMELINESS OF THE AIRPORT TO THE QUALITY OF SERVICES

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**Abstract:** This study aims to analyze the relationship between optimization and timeliness of service quality on the garbarata. To fulfill this research goal, qualitative research in form of descriptive exploration was conducted. The data were collected from observation and interview techniques to Aviobridge employees. The results of this study indicate that the optimization of the aerodrome and the timeliness of the aerodrome has a positive effect on the quality of service. In short, those two aspects role prominent in improving the service quality of an airline.

**Keywords:** *Garbarata, Optimizing, Quality of Service, Timelines,*

### Introduction

All aspects provided to support human activities definitely requires parts as supporters to create the availability of good facilities, including airports (airports). These facilities are intentionally provided to support human activities or activities. In the travel scope, since there are airport facilities, humans are able to reach places that are very far from their origin to their destination. Airports also need certain parts which have been calculated to create a good airport in supporting human travel activities or activities. One part that supports the airport is Garbarata.

Garbarata is a hallway connecting the plane door with the terminal. Hence, the aerobridge serves as a passageway for passengers to walk from the terminal to the plane and vice versa. Some of the benefits are obtained by using this aerodrome such as protecting passengers and crew from air pollution generated by aircraft engines, protecting passengers and crew from the surrounding weather, such as heat, cold, wind, rain and easier as well as comfortable passenger access (Irawan et al, 2018).

Garbarata has been built with the mandatory equipment which must be installed in the *parking stand* at the airport. This construction is due to the position of the garbarata as a liaison

(bridge) in the form of a walkway for passengers from the terminal to the plane. Therefore, the aerodrome must be optimal in its operation in order to create a comfortable aerodrome facility for passengers. Not only that, the aerodrome must also be on time in its operation; therefore, it will not interfere the journey of the passengers. From these two things, optimization and timeliness will result in the quality of service provided by the aerodrome provider.

Punctuality is one of the trust factors for service users to make choices in traveling. On-time performance is a condition that is in accordance with the predetermined departure and arrival schedules. Because airplanes have value when they're in the air, the longer they're in the air, the more profit the airline will make. Therefore, the timeliness of flights is very much taken into account by airlines.

According to Law no. 1 of 2009, concerning Aviation, an airport is an area on land and/or waters with certain boundaries. This location is used a place for aircraft to land and take off, boarding passengers, loading and unloading goods. It is also utilized as a place for intra and intermodal transportation equipped with with aviation safety and security facilities, as well as basic facilities and other supporting facilities. (Fauzi, Setyawati, and Kurniawan 2021) The main airport facilities consist of air side facilities, land side facilities, flight navigation facilities, visual landing aids facilities, and flight communication facilities. Every commercial airline has a flight schedule. The aircraft operates according to the scheduled time. The daily flight schedule or commonly called as the minute schedule is the time that has been scheduled for an aircraft to take off in the city of origin and land in the city of destination. (Rahmawati et al. 2021) While, the actual minute is the actual time experienced by the aircraft during takeoff in the city of origin and landing in the city of destination.

When departing from the city of origin, the aircraft is said to be delayed at the time of departure if the actual minute when the aircraft takes off is later than the scheduled minute for the take-off schedule. The same thing happens when an airplane arrives late at the destination city. An airplane is said to be delayed if the actual minute for landing is later than the scheduled minute

schedule. Although there is a delay in departure or arrival, airlines usually set a certain time duration, for example 10 minutes, which is still acceptable and is said to be on time. Hence, if the departure delay or arrival delay is still smaller than the acceptable time, the aircraft service is still declared as on time.

### **Garbarata**

Garbarata is a hallway connecting the plane door with the terminal, so that the garbarata serves as a passageway for passengers to walk from the terminal to the plane and vice versa. Moreover, Some of the benefits obtained from the use of this aerodrome include: Protecting passengers and the crew from air pollution generated by aircraft engines, protecting passengers and crew from the surrounding weather, such as heat, cold, wind, rain and providing easier as well as comfortable passenger access.

Garbarata is a set of mechanically designed equipment with high technology that can provide convenience and comfort for passengers to get in and out of the plane to the terminal and vice versa and is useful for protecting from wind, jet blast, noise and dust. So the Garbarata is a kind of bridge or chimney extending and connecting the passengers from the terminal with aircraft on the apron. The movement of the aerodrome is controlled by the operator via console-mounted electrical controls in the aerodrome cabbay. A set of mechanically designed equipment with high technology provides the convenience and the comfort for passengers to get in and out of the plane to the terminal and vice versa. It is also useful for protecting from wind, jet blast, noise and dust. Hence, the Garbarata is a kind of bridge or chimney that extends and connects passengers from the terminal with aircraft on the apron. The movement of the aerodrome is controlled by the operator via console-mounted electrical controls in the aerodrome cab bay.

The aerodrome is controlled by the officer/operator through the control panel at the end of the tunnel. When the aircraft is properly parked, the aerodrome tunnel will be extended and attached to the aircraft door (docking). After the aerodrome is installed perfectly, the aerodrome officer will coordinate with the ground handling officer, who will then give a signal to

the flight attendant that the plane door is ready to be opened. Likewise, for the opposite, the Garbarata is released from the plane door (undocking). Garbarata Use Service is the provision and the use of aerobridge facilities provided to every air transportation business entity/airlines for boarding and disembarking passengers from the waiting room to the aircraft or vice versa. The aerodrome is also controlled by the officer/operator through the control panel at the end of the tunnel. When the aircraft is properly parked, the aerodrome tunnel will be extended and attached to the aircraft door (docking). After the aerodrome is installed perfectly, the aerodrome officer will coordinate with the ground handling officer giving a signal to the flight attendant that the plane door is ready to be opened. Likewise for the opposite when the garbarata is released from the plane door (undocking).

### **Optimization Garbarata**

According to the Big Indonesian Dictionary, optimization means to make perfect, make the highest, make the maximum. Optimization is the search for the best solution that is not always the most perfect or the best. This claim can be achieved if the goal is to maximize profits, or not always the least cost that can be reduced if the optimization goal is to minimize costs.

There are three elements of optimization problems that must be identified, namely goals, alternative decisions, and limited resources: 1. Goals can be in the form of maximization or minimization. As an example, the optimization objective relates to profit, revenue, and the like. The minimization form will be chosen if the optimization objective relates to cost, time, distance, and the like. Goal setting must pay attention to what is minimized or maximized. Next, Alternative Decisions Decision making is aimed at several options to achieve the stated goals. The available decision alternatives are of course alternatives that use the limited resources of the decision maker. In addition, Limited resources are sacrifices that must be made to achieve the goals set. The availability of these resources is limited. This involvement resulted in the need for an optimization process.

In the Law of the Republic of Indonesia Number 1 of 2009, it is explained that an airport is an area on land and/or waters with certain boundaries that is

used as a place for aircraft to land and take off, up and down passengers, loading and unloading of goods, places of intra-travel movement as well as inter-mode transportation. This site is equipped with aviation safety and security facilities, as well as basic facilities and other supporting facilities. Annex 14 of ICAO states that an airport is a facility where aircraft can take off and land. Airports also have at least one runway. However, large airports are usually equipped with various other facilities, both for flight service operators and for users.

### **Punctuality**

Punctuality has become one of the beliefs in determining services in traveling. Punctuality is a condition when the departure time and arrival time are in accordance with the stipulated time.

According to Law no. 1 of 2009, concerning Aviation, an airport is an area on land and/or waters with certain boundaries used as a place for aircraft to land and take off, boarding passengers, loading and unloading goods, and a place for intra and intermodal transportation equipped with with aviation safety and security facilities, as well as basic facilities and other supporting facilities.

The main airport facilities consist of air side facilities, land side facilities, flight navigation facilities, visual landing aids facilities, and flight communication facilities. (Hidayat et al. 2021) Moreover, every commercial airline has a flight schedule. The aircraft operates according to the scheduled time.

Aircraft daily flight schedule or commonly called minute schedule is the scheduled time for an aircraft to take off in the city of origin and land in the city of destination. While the actual minute is the actual time experienced by the aircraft during takeoff in the city of origin and landing in the city of destination. When departing from the city of origin, the aircraft is said to be delayed at the time of departure if the actual minute when the aircraft takes off is later than the scheduled minute for the scheduled takeoff. The same thing happens when the plane arrives late at the destination city.

An aircraft is said to be delayed if the actual minute for landing is later

than the scheduled minute schedule. Even though there are delays in departure and arrival delays, airlines usually set a certain time duration. As instance, for 10 minutes late can still be accepted and is said to be on time. Hence, if the departure delay or arrival delay is still smaller than the acceptable time, the aircraft service is still declared as on time.

### **Quality of Service**

According to (Kotler & Keller, 2008), service is an action or performance that can be given to others. Services can be divided into two. First, High contact service is a classification of a service where the contact between consumers and service providers is very high. The consumers are always involved in a process of these services. Second, Low contact service is a classification of services where the contact between consumers and a service provider is not too high. Physical contact with consumers only occurs at the front desk which is included in the low contact service classification.

### **Assumption**

From the theoretical basis and framework that has been described, the assumption in this research is set as follows.

1. Optimizing Garbarata has a significant effect on Service Quality
2. Timeliness of Garbarata has a significant effect on Service Quality
3. Optimizing Garbarata and Punctuality of Garbarata has a significant effect on Service Quality

### **Method**

Qualitative approach is a research and understanding process based on a methodology that investigates a social phenomenon and human problem. To examine the assumption as set above, qualitative research embracing descriptive exploration was employed.

#### **Research Participants**

According to (Sugiyono, 2010), population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. The research participants in this study is a group of Garbarata facility provider.

## Data Collection

### 1) Observation

The data were collected from Observations. Non-participant observations were chosen to obtain information about the aerodrome.

### 2) Interview

Another data collection is interview. This interview were conducted to find out the information related to research.

## RESULTS AND DISCUSSION

Based on interviews and observations made, the data is the description of the operation used by Garbarata employees who operate in the search for Garbarata information. In this study, the authors obtained results regarding the optimization of the aerodrome, the punctuality of the aerodrome and the quality of the aerodrome service. Pt, as a Garbarata operator from the Aviobridge field, said that the aerodrome he uses is a liaison between the receiving and the aircraft.

The following is the narrative of the interview.

The author began to interview one of the employees who operate the aerodrome, "How do you time each movement of the aerodrome?" PT answered "methods / access to the movement of passengers and baggage for arrival through three ways: garbarata / aviobridge, Bus and Walk. The findings of this study are the value of the variable  $\sim I X2 I X3$  and the significant change in the ANOV A value obtained by movement Volume25, Number, January 2013 \ access to aviobridge, bus and walking, each is

*0.000 with a 95% confidence degree or  $\alpha = 0,05$  which means that the four independent variables ( $X_1, X_2, Y$ ) have a significant effect on the Y variable (time). Duncan's test results can be seen the difference in the average time between the movement of passengers and baggage using 3 methods / access movements, namely: the smallest time difference between passengers and baggage occurs when using a bus, followed by aerobridges and a large difference in walking time, so it can be concluded that the use of buses is more effective in reducing delays in receiving baggage at the arrival station."*

In the results of the interview above, it is revealed that the use of Garbarata time is more effective with passengers using buses because it can reduce delays in receiving baggage at the arrival station.

*"Who is responsible for the timing of the use of the aerodrome? Pt answered "regulation of the minister of transportation regarding the implementation instructions for types and tariffs"*

The In addition to the optimization and regulations of the aerodrome, this study attempts to get the information about factors making passengers feel protected by the aerodrome service.

*"Why are the right and left sides of the garbarata given glass? PT replied "To protect passengers from air pollution produced by aircraft and the surrounding weather and to facilitate passengers' safety arrangements"*

From a respondent's statement, the presence of protective glass on the aerodrome can prevent air pollution from aircraft and the surrounding weather for passengers.

Indicator	Complaints	of Expected
Use of the Garbarata is calculated from the Garbarata installed on the fuselage until the Garbarata is removed from the fuselage.	The time of use is not appropriate when the aerodrome is installed until it is removed	. Appropriate for use <i>docking</i> to <i>undocking</i>



<p>The use of the aerodrome is calculated in tons of MTOW and or the amount of use according to the weight group of the aircraft.</p>	<p>The airline updating MTOW limitation</p>	<p>Update limitation on time</p>
<p>. The tariff for the use of the Garbarata is calculated based on the weight, duration of use and the number of the appropriate number of Garbarata used.</p>	<p>The tariff is not appropriate due to an error in the MTOW of use.</p>	<p>The tariff is in accordance with the service using the Garbarata.</p>
<p>The use of the Garbarata OASys system accordingly.</p>	<p>input OASys in accordance with AUS</p>	<p>Data is in accordance with OASys and AUS</p>
<p>The amount of unit fee paid by the airline for the use of Garbarata</p>	<p>Error amount of fee</p>	<p>fare and unit fee paid is in accordance with the use of</p>
<p>Input and responses from service users by submitting in writing the concept of airport service tariffs</p>	<p>Not implemented properly for provide input and feedback</p>	<p>from Provide input and feedback from service users regarding</p>
<p>the concept to associations of air transportation companies and at least 3 National Air Transport Business Entities which majority carry out national flights.</p>	<p>service users regarding the concept of tariffs</p>	<p>, the amount of tariffs is implemented and fulfilled.</p>

Use of the Garbarata if available and in accordance with the type of aircraft used.	is often not available, especially during peak hours.	Garbarata is available and in accordance with the type of aircraft.
Service Quality: is as expected.	Service quality is not as expected	quality Garbarata
service Perceived . Angkasa Pura II provides accuracy and satisfaction in services	The services provided by officers have not provided accuracy and satisfaction	Accuracy and satisfaction in services provided by units commercial
Brand Image: PT.Pura II Soekarno - Hatta International Airport carries out management best	service Angkasa the	quality
with	.	business andservices

## Conclusions

As has been previously mentioned, this study is an endeavor to discover the analyze the relationship between the optimization and timeliness of aerodrome to the service quality on the Garbarata from the eyes of Garbarata employees. The result reveals that the optimizing the airport is assumed positively significant to the service quality. So are the timelines, meaning that the timelines of the airport give the significant effect on the improving the service quality. Put differently, the airline company should put the aspect of optimization as well as timelines at the very first place since those contributes to improving the service quality.

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