

The Effect of Access and Facilities of Drop Zone Area on Passenger Satisfaction at Sultan Hasanuddin International Airport Makassar

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Abstract

Access and drop zone facilities are very important things that must be considered by every airport, including Sultan Hasanuddin Makassar Airport. From the observations made by researchers, there are still passengers who complain about the distance to the drop zone access area to the terminal and the availability of trolley facilities in the Drop Zone Area which have not been provided by the management of Sultan Hasanuddin Makassar International Airport. This study aims to 1) determine the effect of access on passenger satisfaction at Sultan Hasanuddin International Airport Makassar, 2) determine the effect of Drop Zone Area facilities on passenger satisfaction at Sultan Hasanuddin International Airport Makassar Drop Zone Area services, 3) determine the effect of access and facilities Drop Zone Area on passenger satisfaction at Sultan Hasanuddin International Airport Makassar; 4) determine the influence of access and Drop Zone Area facilities on passenger satisfaction at Sultan Hasanuddin International Airport Makassar. This research uses quantitative methods. This research was carried out in the period 1 June - 1 July 2023 with the object of research in the departure area of Sultan Hasanuddin Makassar International Airport. The research sample was determined by 100 respondents. The research data were analyzed using multiple linear regression analysis with the help of IBM SPSS version 22 software. The results of this study indicate that there is a positive effect of access on passenger satisfaction at Sultan Hasanuddin International Airport. Meanwhile this study shows that there is a positive effect of the drop zone facility on passenger satisfaction at Sultan Hasanuddin International Airport. This research also shows that the provision of airport drop zone facilities is inseparable from passenger expectations, so this is a serious part of fulfilling passenger satisfaction. Meanwhile, together they have a positive and significant effect on passenger satisfaction at Sultan Hasanuddin Makassar International Airport. Then these results show that access and drop zone facilities affect passenger satisfaction at Sultan Hasanuddin Makassar Airport by 83.5%.

Keywords: Access, Drop Zone Facilities, Airport Passenger Satisfaction



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INTRODUCTION

Activities and activities of humans can not be separated from the mode of transportation. Transportation is the most important part in supporting various activities and human activities. This is evidenced by the dense flow of traffic on land, sea and air. This means that the need for transportation is increasing. The most popular mode of transportation today is air transportation using airplanes as a means of transporting passengers and goods. Air transportation has the advantage of time efficiency compared to land and sea transportation modes. Long distances can be reached by plane in a short time. Transportation activities can run smoothly with the support of the availability of facilities and infrastructure components. Aircraft as a means of transportation must meet airworthiness standards and meet safety elements based on the certification granted by the Directorate of Air Transport. While the airport is an infrastructure that must exist to support flight activities, because basically the airport is a gateway to carry out flight activities.

Based on Law no. 1 of 2009 concerning Aviation Airports are areas on land and/or waters with certain boundaries that are used as a place for aircraft to land and take off, take off passengers, load and unload goods, and place for intra and intermodal transportation, which are equipped with aviation safety and security facilities, as well as basic facilities and other supporting facilities. Meanwhile, airports according to Law no. 1 of 2009 is everything related to the operation of airports and other activities in carrying out the functions of safety, security, smoothness and orderliness of the flow of aircraft, passenger, cargo and/or postal traffic, intra and/or intermodal movement places and increasing growth. national and regional economy.

Along with the development of commercial activities, all organizers are trying to provide improvements in flight activities. Currently, the Ministry of Transportation assesses that air traffic continues to increase and strengthen. The Ministry of Transportation also assesses that the aviation industry is starting to revive after being significantly affected by the Covid-19 pandemic. Based on data from the global aviation industry by the International Air Transport Association (IATA), the momentum for the recovery of global aviation traffic is starting to strengthen. In June 2022, domestic and international flight traffic has reached an average of 70% compared to the pre-pandemic period (in 2019). In details, domestic flight traffic reaches 81% and international air traffic reaches 65%.

Airports are provided based on the level of need based on passenger capacity. Each airport is competing to provide service facilities that meet the Level of Service (LoS) standards. The Level of Service (LoS) standard is the most important thing in gaining the loyalty of airport service users through the satisfaction felt by each passenger in using the service. Therefore, each airport seeks to provide facilities based on the needs of service users. In the implementation of flight activities, passenger satisfaction is the most important part as a form of airport management performance. If the airport manager provides services for providing facilities according to the wishes of the service user, the passengers will feel satisfied. On the other hand, if the airport manager provides services that do not comply with the wishes of service users, the passengers will not be satisfied. In addition, the accessibility aspect is an inseparable part in the development of airport facilities.

Development of facilities on the land side and air side of an airport is a form of increasing passenger demand. Makassar Sultan Hasanuddin International Airport is a Hub Airport (Collector) which is currently developing passenger terminal facilities and drop zone areas. Based on the author's observations made at Makassar Sultan Hasanuddin International Airport, it is known that access from the Drop Zone Area to the departure terminal area is very far, so passengers have to take a trolley in the departure terminal area, because there are no trolleys in the Drop Zone Area area. Most passengers complain about the distance of the Drop Zone Area to the terminal area which is far away without a trolley provided so that passengers have to go to the arrival terminal area which is quite far away.

The location of the Drop Zone Area which was originally in front of the terminal was shifted farther towards the front of the Airport gate with the aim of efficiency of incoming traffic flow in the terminal area, but during the implementation of services in the Drop Zone Area no trolley has been provided right in the Drop Zone Area area, so passengers arriving everyone has to take a trolley far to the terminal area so that it takes time for each passenger, on the other hand the trolley is only provided for porters who provide goods transportation services at rates that make some passengers choose to take the trolley far to the passenger terminal area instead of using porter transportation services. This has made many passengers complain about the drop zone access distance to the terminal and the availability of trolley facilities in the Drop Zone Area which have not been provided by the management of Sultan Hasanuddin Makassar

International Airport. The purpose of this research is as follows: To find out the effect of access on passenger satisfaction at Sultan Hasanuddin International Airport, Makassar. Knowing the effect of the Drop Zone Area facility on passenger satisfaction at Sultan Hasanuddin International Airport Makassar Drop Zone Area services. Knowing the effect of access and Drop Zone Area facilities on passenger satisfaction at Sultan Hasanuddin Makassar International Airport. Knowing the influence of access and Drop Zone Area facilities on passenger satisfaction at Sultan Hasanuddin Makassar International Airport

Theoretical Basis

Airport

Based on Annex 14 (Aerodrome), an airport is an area located on land or water (consisting of buildings, installations, equipment) which is wholly or partly used for the arrival, departure and movement of aircraft on land. While Law no. 1 of 2009 concerning Aviation Airports are areas on land and/or waters with certain boundaries that are used as a place for aircraft to land and take off, take off passengers, load and unload goods, and place for intra and intermodal transportation, which are equipped with aviation safety and security facilities, as well as basic facilities and other supporting facilities. Then Law no. 1 of 2009 concerning Aviation states that airports are everything related to airport operations and other activities in carrying out the functions of safety, security, smoothness and orderliness of the flow of aircraft, passenger, cargo and/or postal traffic, intra and/or postal transfers. or intermodal as well as increasing national and regional economic growth. Based on the Regulation of the Director General of Civil Aviation Number: SKEP/77/VI/2005 Concerning Operational Technical Requirements.

Makassar Sultan Hasanuddin International Airport

Based on dephub.co.id 2019 Airport Authority for region V Class 1- Makassar city, Sultan Hasanuddin Airport Makassar is an airport that serves domestic and international flights to Makassar and its surroundings, this airport is located 30 km from the center of Makassar, South Sulawesi, and has two runways, the first is 3100m * 45m and the second is 2500m * 45m, this airport is operated by PT Angkasa Pura 1, this airport was formerly named Kerbang Kadien Field. Makassar Sultan Hasanuddin International Airport is the most luxurious airport in Eastern Indonesia (KTI), but its capacity is no longer able to keep up with the growth in passenger volume each year. The airport, which is located mostly in Maros Regency, has a capacity of 7.4 million passengers/year, currently serving 10.7 million passengers in 2019.

Access

Access is the ease of getting to or reaching an object and subject. Accessibility is a vital element in the implementation of transportation activities. Development in the transportation sector as a support for the development of other sectors in realizing national development goals in all regions, both in urban and rural areas, always pays attention to the feasibility and ease of access of its users. According to Triastuti (2017), solving transportation problems and rural accessibility will not be obtained if the perspective on transportation problems is still compartmentalized and the approach is still case-by-case problem solving. Improving the transportation system must be carried out through a broad spectrum, comprehensive, coordinated and of course consistent. For this reason, good coordination is needed from every policy determinant that directly or indirectly influences the performance of the transportation system and accessibility.

Drop Zone Area Access Measurement Indicator

According to PM 69 of 2013 cited by Sefaji et al., (2018) the level of accessibility can be measured by the availability of transportation and with a short distance to reach it. Indicators of accessibility consist of 2. namely: Access distance to the terminal, Access distance to the terminal is a measure of comfort for passengers based on the level of efficiency. Traffic flow Traffic flow is frequency management as stated in PM 69 of 2013, where the airport is a place of activity for switching modes of transportation, in the form of interconnection between modes that emphasizes aspects of safety, security, comfort and smooth operation.

Drop Zone Facility

Based on the Manual on Standard Aerodrome, drop zone is a complex operating environment (SKEP/77/VI/2005 Concerning Technical Requirements for Operation of Airport Engineering Facilities, 2005). The drop zone is intended for passengers who get off the vehicle or in other words as the place where passengers first drop off when entering the airport area. Many types of vehicles approach and stop in the drop zone area such as private cars, taxis, regional and shuttle buses, and shuttle buses for hotels and motels (SKEP/77/VI/2005 Concerning Technical Requirements for the Operation of Airport Engineering Facilities, 2005) .

Drop Zone Area Facility Measurement Indicator

Based on PM 178 of 2015, concerning Service Standards for airport service users, there are several indicators that are used as a source of assessing passenger satisfaction with the facilities provided in the departure area. The intended indicators are as follows: Availability of facilities in the departure area at the airport, Availability of facilities in the departure area at the airport including availability of trolley, FIDS, charge station, Wifi, appropriate temperature and light at the terminal building at the airport provider. Feasibility of markings on the curb side. One of the determining indicators in airport arrival area services is the availability of drop zone areas that are easily accessible to service users. The cleanliness of the facilities in the departure area at the airport, the cleanliness of the facilities in the departure terminal must be guaranteed to meet the elements of passenger comfort, this can be seen from the cleanliness of the toilets and the check-in room. Light conditioning, light conditioning is the most important factor to increase passenger comfort as stipulated in PM 178 of 2015, concerning Service Standards for airport service users.

Passenger Satisfaction

Regulation of the Minister of Transportation of the Republic of Indonesia number PM 178 of 2015 concerning Service Standards for Airport Service Users, airport service users are any person who enjoys airport services and/or has a work bond with the airport. According to Tjiptono (2014) satisfaction can be interpreted as an effort to fulfill something or make something adequate. While Kotler (2014) defines that customer/passenger satisfaction is a feeling of pleasure or disappointment that arises after comparing the performance (outcome) of the product in question with the performance (or result) expected.

Relevant Research

Tabel 1. Relevant Research

No	Name	Title	Year	Research Result
1	Okie Ananta	Facility Influence The waiting room	2022	The results showed that there was an effect of departure lounge facilities on passenger satisfaction at

	Setyawan	Departure Against Garuda Indonesia Passenger Satisfaction at UPBU Kalimantan Berau		the Garuda Indonesia airline Kalimantan Berau Airport, this was evidenced by the t table value of $1.984 < t$ count value of 15.154. In addition, it is known that the departure lounge facilities affect passenger satisfaction at the Garuda Indonesia airline, Kalimantan Berau Airport, by 70.1%.
2	Yuli Yarahman	The Effect of Service Quality for Aviation Security Officers (AVSEC) on Passenger Satisfaction at Kualanamu International Airport	2021	. The results of the study show that there is an influence on the quality of service from the Aviation Security Unit (AVSEC) on passenger satisfaction at Kualanamu International Airport. This is proven from the results of hypothesis testing, where the Significant value $< \alpha$ with T count > T table. The service quality of AVSEC officers contributed to passenger satisfaction at Kualanamu International Airport by 23.9% and by 76.1% passenger satisfaction at Kualanamu International Airport was influenced by other variables not included in the author's research

RESEARCH METHODS

Research Design

Research on the service drop zone area of Sultan Hasanuddin International Airport Makassar using quantitative methods. According to Sugiyono (2017), the quantitative research method is defined as a research method based on the philosophy of positivism, used to examine certain populations or samples, sampling techniques are generally carried out randomly, data collection uses research instruments, data analysis is quantitative / statistics with the aim of testing the hypotheses that have been set. The research was conducted by researchers at Sultan Hasanuddin International Airport Makassar is a survey research. According to Sugiyono (2017) the survey method is a method used to obtain data from certain natural (not artificial) places, but researchers carry out treatments in data collection, for example by distributing questionnaires, interviews, structured and so on. This research was conducted in the period June 1-July 1 2023 with the object of research in the departure area of Sultan Hasanuddin Makassar International Airport.

Population and Sample

The population in this study is the basis for determining the number of research samples. According to Sugiyono (2017) population is a generalized area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. The population in this study was determined as the first step in determining the research sample. The population in this study refers to Sultan Hasanuddin Makassar International Airport. Based on data from the South Sulawesi BPS recap, departures at Makassar Hasanuddin International Airport in January 2023 were 231,757 passengers who traveled using the airport's services. From these data, the authors determine the total population of 231,757 passengers. The sample in this study was determined from the number of research populations. According to Sugiyono (2017) population is a generalized area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. The sample in this study is part of the population that has been determined by the researcher. Determination of the sample in this study is needed to clarify the distribution of questionnaires that will be carried out at Sultan Hasanuddin Makassar International Airport. For sampling in this study, a sampling technique is needed. The sampling technique used in this study is Non Probability Sampling using Purposive

Random Sampling. The criteria used in determining the sample are passengers who make domestic departures with the age of 17 years -> 45 years. To determine the size of the research sample taken from the population at Sultan Hasanuddin Makassar International Airport, then the researchers used the slovin formula substitution. Based on the results of the substitution of the slovin formula above, it is known that the number of n (samples) in this study is 100. The distribution of this research questionnaire was only carried out to 100 respondents who used the services of Sultan Hasanuddin Makassar International Airport.

Data Source

Sources of research data obtained from primary data and secondary data with field research. Primary data includes questionnaires and documentation of pictures of access conditions and drop zone area facilities at the arrival of Sultan Hasanuddin International Airport, while secondary data includes documentation related to supporting documents for the number of departing passengers with the results of airport management surveys on service performance achievements.

Research Instruments

Research instruments are needed to measure the service standards of Sultan Hasanuddin Makassar International Airport service users. According to Arikunto (2013), a research instrument is a tool used by researchers to assist in their activities or in their research so that the activity or research becomes systematic. While Sugiyono (2017) suggests that a research instrument is a tool used to measure observed natural and social phenomena.

Method Of Collecting Data

1. Questionnaire. According to Hikmawati (2018) a questionnaire is a data collection technique that is carried out by giving a set of questions or in writing to the respondent to answer. In this study the questionnaire that will be given to passengers uses a Likert scale measurement which is used to measure attitudes, opinions and perceptions of respondents towards the drop zone area service at Sultan Hasanuddin Makassar International Airport. Questionnaires distributed in the form of written questions that will be filled out by passengers.
2. Documentation. This study uses documentation data collection whose contents are in the form of photos of objects that are observed directly. Data collection using this documentation is also used to provide a true picture and to strengthen the authenticity of the research.

RESEARCH RESULTS AND DISCUSSION

Effect of Drop Zone Access on Passenger Satisfaction at Sultan Hasanuddin Makassar International Airport

Based on the results of the hypothesis test (t test) conducted, it is known that the significant value is 0.00. This shows that the significant value is <0.05 . The calculated T value in the hypothesis test is 4.167 and the table T value is 1.984. This shows that $T_{count} > T_{table}$. With the results of testing the hypothesis, it can be concluded that the hypothesis that is accepted is H_a , and the hypothesis that is rejected is H_0 . The H_a hypothesis in this study shows that there is a positive effect of access on passenger satisfaction at Sultan Hasanuddin International Airport. The positive influence of access to passenger satisfaction at Sultan Hasanuddin International Airport has the meaning that when the airport operator provides good access services and according to the wishes of the passengers, the passengers will be satisfied, but vice versa if the airport organizers provide good access services and as desired

passengers, then passenger satisfaction will decrease. Provision of airport access is inseparable from passenger expectations, so this is a serious part of fulfilling passenger satisfaction.

Effect of Drop Zone Area Facilities on Passenger Satisfaction at Sultan Hasanuddin Makassar International Airport

Based on the results of the hypothesis test (t test) conducted, it is known that the significant value is 0.00. This shows that the significant value is < 0.05 . The calculated T value in the hypothesis test is 14.852 and the table T value is 1.984. This shows that $T_{count} > T_{table}$. With the results of testing the hypothesis, it can be concluded that the hypothesis that is accepted is H_a , and the hypothesis that is rejected is H_0 . The H_a hypothesis in this study shows that there is a positive influence of the drop zone facility on passenger satisfaction at Sultan Hasanuddin International Airport. The provision of airport drop zone facilities is inseparable from passenger expectations, so this is a serious part of fulfilling passenger satisfaction. The positive influence of access to passenger satisfaction at Sultan Hasanuddin International Airport has the meaning that when the airport operator provides good drop zone facility services and according to the wishes of passengers, the passengers will be satisfied, but vice versa if the airport organizer provides drop zone facility services that are good and according to the wishes of passengers, then passenger satisfaction will decrease.

Effect of Drop Zone Area Access and Facilities on Passenger Satisfaction at Sultan Hasanuddin Makassar International Airport

Based on the table above, it is known that the calculated F value of variable X1 (access) and variable X2 (drop zone facility) is 27.413. The calculated F value of the research is 27.413 $>$ the F table value (3.09) with a significant value of $0.00 < \alpha (0.05)$. This implies that access and drop zone facilities together have a positive and significant effect on passenger satisfaction at Sultan Hasanuddin Makassar International Airport. The provision of airport drop zone facilities is inseparable from passenger expectations, so this is a serious part of fulfilling passenger satisfaction. The positive influence of access to passenger satisfaction at Sultan Hasanuddin International Airport has the meaning that when the airport operator provides good drop zone facility services and according to the wishes of passengers, the passengers will be satisfied, but vice versa if the airport organizer provides drop zone facility services that are good and according to the wishes of passengers, then passenger satisfaction will decrease. The results of the author's research are the same as those of Maria Veronika Trisanti's research, where the results show that there is a simultaneous effect of the independent variable on the dependent variable

The Great Influence of Drop Zone Area Access and Facilities on Passenger Satisfaction at Sultan Hasanuddin Makassar International Airport

Based on the analysis of the coefficient of determination, it is known that the R Square value of this study is 0.835. This implies that access and drop zone facilities affect passenger satisfaction at Sultan Hasanuddin Airport Makassar by 83.5% and 16.5% passenger satisfaction at Sultan Hasanuddin Airport Makassar is influenced by variables that are not examined and are outside the concept in research researcher. Based on previous research, it is known that apart from access variables and drop zone facilities, there are several variables that affect passenger satisfaction, such as the Aviation Security Unit (AVSEC) service quality variable, departure waiting room facilities, service and availability of passenger terminal facilities. These variables are reviewed from the results of Yuli Yarahman's research in 2021 where the service quality of the Aviation Security (AVSEC) unit affects passenger satisfaction by 23.9%. In

addition, there are other variables that affect passenger satisfaction, such as the results of Oki Ananta Setyawan's research in 2022, where the departure lounge facility variable affects passenger satisfaction by 70.1%. Meanwhile there are other variables that affect passenger satisfaction based on the results of Maria Veronika's research, namely the service and availability of passenger terminal facilities by 36.1%.

CONCLUSION

This study shows that there is a positive effect of drop zone access on passenger satisfaction at Sultan Hasanuddin International Airport which is reinforced by the results of the T test on the hypothesis test which is $4.167 > T$ table of 1.984 and a significance value of $0.00 < 0.05$. The positive influence of access to passenger satisfaction at Sultan Hasanuddin International Airport means that when the airport operator provides good access services and according to the wishes of passengers. This is evidenced by this study showing that there is a positive influence of the drop zone facility on passenger satisfaction at Sultan Hasanuddin International Airport which is reinforced by the results of the T test on the hypothesis test which is $14.852 > T$ table of 1.984 and a significance value of $0.00 < 0.05$. The provision of airport drop zone facilities is inseparable from passenger expectations, so this is a serious part of fulfilling passenger satisfaction. Taken together, access and drop zone facilities have a positive and significant effect on passenger satisfaction at Sultan Hasanuddin International Airport, Makassar, which is reinforced by the results of the F count, which is $27.413 >$ the F table value of 3.09 and with a significant value of $0.00 < 0.05$. Access and drop zone facilities affect passenger satisfaction at Sultan Hasanuddin Makassar Airport by 83.5%. This is evidenced by the results of the coefficient of determination of 0.835 and if it is percentaged at 83.5%.

Based on the conclusions above, the authors obtain the following suggestions: For companies, a lot of trolleys are needed in the drop zone area to facilitate passenger access in transporting luggage where the distance between the drop zone to the departure terminal is far enough to walk. For Further Researchers The need for further research to examine further related variables contributing to passenger satisfaction at Sultan Hasanuddin Makassar International Airport.

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