THE EFFECT OF BAGGAGE HANDLING SYSTEM LEVEL 3 ON OPERATION OFFICER PERFORMANCE

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Abstract
Baggage handling has an important role in maintaining the comfort of passengers traveling by aircraft and security in processing baggage. Baggage Handling System (BHS) is a service in the form of a conveyor to transport passenger baggage after check-in and automatic sorting with Radio Frequency Identification (RFID) technology that reads radio frequencies contained in baggage to be sent to the aircraft according to its destination. This study aims to determine the effect of Baggage Handling System level 3 on the performance of operational officers at Kualanamu International Airport Medan with quantitative research methods that take data using questionnaire data and literature studies. The determination of the sample with the Slovin formula was 30 people and then the results of the respondents' answers were processed using SPSS with validity tests, reliability tests, normality tests, homogeneity tests and T tests. The calculation results obtained the results of the T test, which is a significant value of 0.000, meaning that the significance value is smaller than (0.05), so it can be concluded that there is a significant influence of the implementation of the Baggage Handling System level 3 (independent variable x) on the performance of operational officers (dependent variable y).

Keywords: Baggage handling system, baggage, operational officer.

INTRODUCTION

In the current era of globalization, people tend to want fast and safe means of transportation. Air transportation has a great opportunity to attract people's buying interest to use air transportation as a means of transportation to move from one place to another. This shows that there is an increase in the number of passengers at Kualanamu Airport Medan. With the increase in passengers, logging companies must make services at the airport more effective. One form of service is service in handling a baggage at the airport. Effective baggage handling services must be immediately implemented by each airline and airport to support the punctuality of flight schedules.

Broadly speaking, baggage handling has an important role in the airline service business because this section handles and is responsible for the baggage of all passengers of a flight [1]. Baggage handling has an important role in maintaining the comfort of passengers to travel using aircraft and security in processing the baggage until it can be transported on one plane with passengers [2].

Baggage handling, which handles baggage in the baggage sorting area and prepares delivery/delivery and ensures clarity of ownership information and safety of baggage to be loaded onto the aircraft, Determine the weight of the baggage arranged, Unload or remove baggage from tractors/wholesale/vehicles, unload and or empty the baggage bin, check incoming baggage, Separate transfer baggage and store transfer baggage for a period until departure/delivery time, Provide or arrange the transportation of baggage to the sorting area of the department that will receive, and Handle crew baggage, in accordance with mutual agreement [3]; [4].

To support the security and flight safety of an increasingly crowded airport, the application of automatic baggage or automated BHS (Baggage Handling System) / HBS (Hold Baggage Screening) really needs to be used to be able to perform fast service, minimize various baggage theft, so that Kualanamu International Airport no longer needs to involve porters' hands. Baggage Handling System (BHS) is a service in the form of a conveyor to transport passenger baggage after check-in and automatic sorting with Radio Frequency Identification (RFID) technology that reads radio frequencies contained in baggage to be sent to the aircraft according to its destination.

Many airports have implemented Baggage Handling Systems but have varying levels of effectiveness [5]. The implementation of BHS (Baggage Handling System) / HBS (Hold Baggage Screening) not only has an impact on passenger efficiency and airline operations, but also the implementation of the Baggage Handling System has

an impact on the performance of operational officers [6]; [7]; [8]. The Baggage Handling System has Radio Frequency Identification (RFID) technology which functions to sort passenger items by reading the radio frequency contained in the baggage even though the tag is overlapped by the baggage. With RFID, the baggage handling system must be labeled so that the baggage can be read by the system. In connection with the implementation of BHS (Baggage Handling System) / HBS (Hold Baggage Screening) at Kualanamu Airport Medan which helps the duties of operational officers during work, the author is interested in examining how the implementation of Baggage Handling System Level 3 affects the performance of operational officers at Kualanamu Airport Medan [9].

Performance is the result of work in quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him [10]. Performance is the overall result or level of success during a certain period in the implementation of tasks compared to various possibilities such as standards of work results, targets, objectives or criteria that have been determined and mutually agreed upon.

Badudu and Zain, in their book entitled General Dictionary Indonesian states "Influence is the force that causes something to happen, something that can form or change something else, submit or follow because of the power or power of others" [11]. Influence is a resource that can shape or change a state or condition of a positive or negative collar. So the influence referred to in this study is the influence of the Baggage Handling System on the performance of operational officers. So, after knowing the concept of the Baggage Handling System, it will be known whether there is an effect or not on the performance of operational officers.

Baggage Handling System is a service in the form of a conveyor to transport passenger baggage after check-in and automatically sort the baggage to be sent to the plane according to its destination and flight number [12]. Baggage handling system (BHS) is a type of conveyor system installed at airports that transports baggage from ticket counters to areas where bags can be loaded onto aircraft [13].

The most commonly used security systems around the world follow a general model based on a total of five levels of filtering, the first two levels are integrated into the operation of the baggage handling system [5]. BHS's security system is relatively new in Indonesia and only a few airports use this system for baggage handling. The implementation of the Baggage Handling System security system in Indonesia mostly uses Level 5 Security checks. The security system at Kualanamu International Airport is still up to level 3, not up to level 4 and level 5.

Operations are the limits of understanding that are used as guidelines for carrying out an activity or work. At Kualanamu International Airport has several units that are responsible for the Baggage Handling System, which are as follows [14].

Based on the background above, the formulation of the problem in this study is how the implementation of the Baggage Handling System level 3 (three) affects the performance of operational officers at Kualanamu International Airport Medan.

METHOD

Research Design

The type of research used in this study is quantitative descriptive. Descriptive research is research that describes the object of research at the time of the present situation based on facts as they are, then analyzed and interpreted, in the form of surveys and developmental studies. quantitative descriptive analysis techniques are data collection methods that appear in the form of words or symbols obtained through observation, surveys, questionnaires, interviews, literature studies compiled into expanded texts [15]. Quantitative data were analyzed by using an independent t-test, whereas qualitative data from the interview were analyzed descriptively to enrich the study results. [16]

Subject and Object of Research

In this Final Project research, the author uses variables (X), namely the Implementation of the Baggage Handling System Level 3, (Y) the performance of operational officers at Kualanamu International Airport Medan.

Population

Population is a generalized area consisting of objects / subjects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions [17]. 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 is operational officers at Kualanamu
International Airport Medan which amounts to 30 people.

Sample

The sample in this study uses the saturated sample method that saturated sampling is a sampling technique when all members of the population are used as samples [18]. The sample in this study amounted to 30 people. The object of this study is operational officers at Kualanamu International Airport Medan, including BHS security officers, operations officers, maintenance officers.

Data Collection Techniques

Observation

Observation is a complex process, a process composed of various biological and psychological processes. Two of the most important are the processes of observation and memory [19]. The purpose of using observations in this study is to analyze the Baggage Handling System facility at Kualanamu International Airport Medan.

Questionnaire

A questionnaire is a list that contains a series of questions about a problem or field to be studied, to obtain data in the form of opinions from research subjects outlined in a questionnaire to obtain results that can be assessed. The questionnaire used is a statement regarding the effect of the implementation of the Baggage Handling System level 3 on the performance of operational officers at Kualanamu International Airport Medan.

Data Analysis Techniques

Validity Test

The validity test is to measure the validity or absence of a questionnaire in the study. In a questionnaire it can be said to be valid if the questions on the questionnaire are able to reveal something that will be measured on the questionnaire. The validation test criteria on the questionnaire are said to be valid if the significance value is less than 0.05 [17].

Reliability Test

A reliable instrument is an instrument that if used several times to measure the same object, it will produce the same data. It can be said to be a reliable variable when the reliability of the variable is determined based on the alpha cronbanch value greater than 0.6.

Normality Test

The normality test aims to test whether in a regression model, the independent variable, the dependent variable, or both have a normal or close distribution. According to [17] to detect regression normally distributed or not, the Kolmogorov – Smirnov test is used.

Homogenity Test

The homogeneity test aims to find out whether several groups of research data have the same variance or not and the datasets we study have the same characteristics and to provide confidence that the data groups manipulated in a series of analyses come from populations that are not much different in diversity [20]. Provided that if the value of Levene Statistic > 0.05 then it can be said that the variation of data is homogeneous. A homogeneity test is a statistical test procedure intended to show that two or more groups of sample data come from populations that have the same variance. Provided that if the value of Levene Statistic > 0.05 then it can be said that the variation of data is homogeneous.

T Test

the T Test is used to show how far the influence of an individual explanatory variable in explaining the dependent variables [19]. The statistical test T shows how far one independent variable has an individual influence in explaining the variation of the dependent variable. This study is intended to determine the significant level of influence of the implementation of the Baggage Handling System on the performance of operational officers. The test was conducted using significance level 0.05 (a = 5%). Acceptance or rejection of the hypothesis is carried out with the following criteria:

1. If the significant value of t < 0.05 then H0 is rejected, meaning that there is a significant influence between one independent variable and the dependent variable.
2. If the significant value of t > 0.05 then H0 is accepted, meaning that there is no significant influence between one independent variable and the dependent variable.

RESULT AND DISCUSSION

This study used primary data. The primary data was obtained by the author by distributing questionnaires to obtain data related to the implementation of the Baggage Handling System level 3 on the performance of operational officers at Kualanamu International Airport Medan. The sample in this study amounted to 30 respondents. The results of the description analysis of respondents are divided into several parts, namely descriptions based on gender, and. This data description is done using Google Form to obtain the appropriate number of frequencies and percentages of data. The results of the description analysis of respondents obtained the results of respondents, namely, 26 men and 4 women and the results of respondents obtained for the percentage of operational officer positions, namely, 10 operation officers, 10 maintenance personnel, 10 security personnel.

Validity Test

The validity test is used to measure the validity or validity of a questionnaire. The validity test criteria that the questionnaire is said to be valid if the significance value is less than 0.05 [17]. The results of the validity test

of respondents' answers to questionnaires using IBM SPSS Statistic 26 are as follows:

Correlations

		X1	X2	X3	X4	X5	X6	X7	Total_X
X1	Pearson Correlation	1	.356	-.007	.094	.304	.243	-.074	.571**
	Sig. (2-tailed)		.053	.970	.621	.102	.195	.699	.001
	N	30	30	30	30	30	30	30	30
X2	Pearson Correlation	.356	1	.298	-.061	.000	.236	.124	.580**
	Sig. (2-tailed)	.053		.109	.749	1.000	.208	.514	.001
	N	30	30	30	30	30	30	30	30
X3	Pearson Correlation	-.007	.298	1	.135	-.198	-.005	.074	.422*
	Sig. (2-tailed)	.970	.109		.478	.295	.980	.698	.020
	N	30	30	30	30	30	30	30	30
X4	Pearson Correlation	.094	-.061	.135	1	-.129	.062	.151	.403*
	Sig. (2-tailed)	.621	.749	.478		.498	.743	.425	.027
	N	30	30	30	30	30	30	30	30
X5	Pearson Correlation	.304	.000	-.198	-.129	1	.558**	.047	.402*
	Sig. (2-tailed)	.102	1.000	.295	.498		.001	.806	.028
	N	30	30	30	30	30	30	30	30
X6	Pearson Correlation	.243	.236	-.005	.062	.558**	1	.098	.585**
	Sig. (2-tailed)	.195	.208	.980	.743	.001		.607	.001
	N	30	30	30	30	30	30	30	30
X7	Pearson Correlation	-.074	.124	.074	.151	.047	.098	1	.432*
	Sig. (2-tailed)	.699	.514	.698	.425	.806	.607		.017
	N	30	30	30	30	30	30	30	30
Total_X	Pearson Correlation	.571**	.580**	.422*	.403*	.402*	.585**	.432*	1
	Sig. (2-tailed)	.001	.001	.020	.027	.028	.001	.017	
	N	30	30	30	30	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Figure 1 Test Validity of Variable X

Correlations

		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Total_Y
Y1	Pearson Correlation	1	.304	.558**	1.000**	.380*	.207	.047	.812**
	Sig. (2-tailed)		.102	.001	.000	.038	.273	.806	.000
	N	30	30	30	30	30	30	30	30
Y2	Pearson Correlation	.304	1	.243	.304	.383*	.099	-.074	.567**
	Sig. (2-tailed)	.102		.195	.102	.036	.602	.699	.001
	N	30	30	30	30	30	30	30	30
Y3	Pearson Correlation	.558**	.243	1	.558**	.068	-.005	.098	.577**
	Sig. (2-tailed)	.001	.195		.001	.720	.980	.607	.001
	N	30	30	30	30	30	30	30	30
Y4	Pearson Correlation	1.000**	.304	.558**	1	.380*	.207	.047	.812**
	Sig. (2-tailed)	.000	.102	.001		.038	.273	.806	.000
	N	30	30	30	30	30	30	30	30
Y5	Pearson Correlation	.380*	.383*	.068	.380*	1	-.005	.098	.537**
	Sig. (2-tailed)	.038	.036	.720	.038		.980	.607	.002
	N	30	30	30	30	30	30	30	30
Y6	Pearson Correlation	.207	.099	-.005	.207	-.005	1	.185	.455*
	Sig. (2-tailed)	.273	.602	.980	.273	.980		.328	.011
	N	30	30	30	30	30	30	30	30
Y7	Pearson Correlation	.047	-.074	.098	.047	.098	.185	1	.369*
	Sig. (2-tailed)	.806	.699	.607	.806	.607	.328		.045
	N	30	30	30	30	30	30	30	30
Total_Y	Pearson Correlation	.812**	.567**	.577**	.812**	.537**	.455*	.369*	1
	Sig. (2-tailed)	.000	.001	.001	.000	.002	.011	.045	
	N	30	30	30	30	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Figure 2 Variable Y Validity Test

Based on the validity test image above, it is known that all significance values in column X total less than 0.05 so it can be concluded that the X variable questionnaire used is valid. Meanwhile, based on the validity test image for variable Y above, it is known that all significance values in column Y total less than 0.05 so it can be concluded that the questionnaire variable Y used is valid.

Reliability Test

A reliable instrument is one that, when used multiple times to measure the same object, will produce the same data. The reliability of the variable is determined based on the Cronbach alpha value greater than 0.6, so it is said that the variable is reliable. The reliability test results of respondents' answers to questionnaires using IBM SPSS Statistic 26 are as follows:

Reliability Statistics

Cronbach's Alpha	N of Items
.819	16

Figure 3 Reliability Test

Based on the figure above, it is known that Cronbach's alpha value is 0.819, meaning that the significance value is more than 0.6, so it can be concluded that the questionnaire used is reliable with a very reliable level.

Normality Test

Normality test to test whether in a regression model, the dependent variable, the independent variable, or both have a normal distribution or not. To detect regression normally distributed or not, the Kolmogorov – Smirnov test is used, provided that the data are normally distributed if the significance value is above 0.05. Here are the normality test results using IBM SPSS Statistic 26:

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		30
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.53456977
Most Extreme Differences	Absolute	.145
	Positive	.076
	Negative	-.145
Test Statistic		.145
Asymp. Sig. (2-tailed)		.109[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Figure 4 Normality Test

Based on the figure above, it is known that the significance value is 0.109 which means that it has a significance value of more than 0.05 so that it can be concluded that the data is normally distributed.

Homogeneity Test

The calculation of the homogeneity test with the Levene test is carried out using SPSS software provided that if the value of the Levene Statistic > 0.05 then it can be said that the variation of data is homogeneous.

T Test

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Hasil Kuisioner	Based on Mean	.650	1	58	.424
	Based on Median	.822	1	58	.368
	Based on Median and with adjusted df	.822	1	57.542	.368
	Based on trimmed mean	.584	1	58	.448

Figure 5 Homogeneity test

The value of t table is found in the distribution of table t values with the condition t table = t (a / 2 ; n – k - 1). The value of a is the significance level of 0.05, n is the number of samples, and k is the number of independent variables.

t table = t $(a/2 ; n - k - 1)$

t table = t (0,05/2 ; 30 − 1 − 1)

t table = t (0,025 ; 28)

t table = 2,048

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	9.229	5.365		1.720	.096
	BHS	.726	.165	.639	4.393	.000

a. Dependent Variable: Kinerja

Figure 6 T Test

From the data above, the calculated t value and significance obtained in the t test after being processed using the help of SPSS (Statistical Product and Service Solutions) software. It is known that the significance value obtained 0.000 means that the significance value is less than (0.05) from the t value of table 2.048. So it can be concluded that there is a significant influence between the influence of the independent variable on the dependent variable.

Data analysis in this study using validity and reliability tests for questionnaires obtained valid and reliable results. Then a normality and homogeneity test was carried out as a prerequisite test to perform the T test to obtain normal data distribution results and homogeneous data. Then a T test is carried out to determine the effect of a significant influence between the influence of the independent variable on the dependent variable. The results of the T test are obtained which is a significant value of 0.000, meaning that the significance value is smaller than (0.05), so it can be concluded that there is a significant influence of the implementation of the Baggage Handling System level 3 (independent variable x) on the performance of operational officers (dependent variable y).

CLOSING

In this section, the author briefly explains the conclusions of the development research results that have been carried out.

Conclusion

1. According to the discussion above, passengers at Kualanamu International Airport Medan have increased. Over time, people will find it easier to move from one place to another using airplanes because it is very effective and efficient. Therefore, baggage handling facilities with the BHS system are very influential for the performance of officers for the timeliness of inspection.
2. From the data taken, the results of the T test are obtained which is a significant value of 0.000 meaning that the significance value is smaller than (0.05), so it can be concluded that there is a significant influence of the implementation of the Baggage Handling System level 3 (independent variable x) on the performance of operational officers (dependent variable y).

Suggestions

Below are some suggestions given by the author to optimize this research:

1. It is recommended to the party from Angkasa Pura Aviasi as the manager to maintain facilities and improve the baggage handling system Baggage Handling System in line with the increasing number of passengers at Kualanamu International Airport Medan.

2. It is recommended to the party from Angkasa Pura Aviasi as the manager to carry out the continuous implementation of the Level 3 Baggage Handling System and improvements to maintain and improve the performance of operational officers at Kualanamu International Airport Medan by conducting training on the Baggage Handling System baggage handling system to operational officers.

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