The Effect of Discipline on the Performance of Firefighters (PKP-PK) at Adi Sumarmo Airport in Solo

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Abstract

Airports have long been considered as the entrance to an area, region, and even a country, besides that airports also have officers according to their respective units. Flight Accident and Fire Fighting Assistance (PKP-PK) is part of the crisis management unit at the air terminal which has a special office for PKP-PK vehicles, functional devices and PKP-PK supporting materials as well as faculty supplies on each flight. terminal to provide accident assistance. The type of examination used in this research is a special research using a quantitative methodology. The results of this study show that the consequences of the speculation test results in the review show that the effect of variable X (reasonable) on factor Y (execution) shows solid results by obtaining a connection coefficient of 0.677 in the form of a guarantee coefficient of 45.8% with a remainder of 52, 8% is influenced by various factors that are not checked by specialists such as possibility, responsibility, climate and other components. As a result, PKP-PK officers at Adi Soemarmo Solo Airport are disciplined to ensure that their performance in the field is always maintained and improved.

Keywords: Influence, Discipline, Performance, PKP-PK Officers, Adisoemarmo Airport



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INTRODUCTION

Human resource management is part of management or in other words it can be said that human resource management is a management field that specifically studies human relationships and roles in organizations. Human resource management focuses more on discussing the role of humans in realizing optimal goals. It is clear that human resource management regulates the human workforce in such a way as to achieve organizational goals. One of the most important aspects of human resources is discipline. According to (Affandi, 2018). Performance is the result of work that can be achieved by a person or group of people in a company in accordance with the authority and responsibility of each in an effort to achieve organizational goals illegally, does not violate the law and does not conflict with morals and ethics.

Aviation accident relief and fire fighting (PKP-PK) is a unit part of emergency management at airports which has facilities namely PKP-PK vehicles, PKP-PK operational equipment and supporting materials as well as personnel provided at each airport to provide accident assistance. aviation and fire fighting (Yusuf & Kusumawati, 2013). To fulfill this obligation, the government requires airport operators that serve international flights or domestic flights with certain levels of flight operations. Other airport operators that only serve domestic flights can provide Aviation Accident Assistance and Fire Fighting (PKP-PK) services by alternative level of service.

Literature Review

Adi Soemarmo International Airport

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, take off passengers, load and unload goods, and place for intra

and intermodal transportation, which is equipped with aviation safety and security facilities., as well as basic facilities and other supporting facilities (Ministry of Transportation, 2014). Adisumarmo International Airport (English: Adisumarmo International Airport) (IATA: SOC, ICAO: WAHQ) is an airport located in Boyolali Regency, Central Java, Indonesia. The airport is located about 14 km north of Surakarta City (Indonesia K. P., 2023).

Human Resource Management

According to (Bangun, 2017) defines human resource management as a process of planning, organizing, staffing, mobilizing and supervising procurement, developing compensation, integrating, maintaining and segregating workforce to achieve organizational goals. Meanwhile, according to (Sedarmayanti, 2017). Human Resource Management is the art of planning, organizing, directing, supervise the activities of human resources or employees in order to achieve organizational goals. Based on the opinion above, it can be concluded that human resource management is planning, organizing, directing and supervising the activities of procurement, development, compensation, integration of maintenance and release of human resources in order to achieve various individual, organizational and societal goals.

Discipline

Discipline is related to the ability to comply with all applicable rules and regulations, obey orders and the ability not to violate established prohibitions.

Performance

Etymologically the word performance in English terms is called performance. Performance according to (Rivai, 2018) is a real behavior that is raised by every human being as work performance produced by employees or employees according to their part or role in an organization and is a function of ability and motivation.

Aviation Accident Assistance and PKP-PK Fire Fighting

PKP-PK officers are officers who are in one of the work units contained in the airport organizational structure. PKP-PK officers are part of the field of ground operations who have the task of carrying out rescue, fire fighting, handling emergencies, carrying out rescue and protection of people and goods threatened by fire or fire either from aircraft or other things. In general, the PKP-PK Unit is structurally led by a division head who oversees 3 (three) departments, namely the PKP-PK Operations and Training Office, the PKP-PK & Salvage Equipment Service and the Medical Emergency Department. In addition, the PKP PK Unit is also supported by other PKP-PK Division staff (Kustoro, 2018).

Hypothesis

The hypothesis in this study is:

Ho: There is no influence of discipline on the performance of PKP-PK officers at Adi Sumarmo Solo International Airport.

Ha: It is suspected that there is a significant influence between discipline on the performance of PKP-PK officers at Adi Sumarmo Solo International Airport.

RESEARCH METHODS

The type of research used in this research is descriptive research using a quantitative approach. This research was carried out at Adi Soemarmo Solo International Airport. This research was conducted from 01 October to 30 November 2022. The population taken from this study was the population of PKP-PK officers at Adi Soemarmo Solo International Airport. While

the sample in this study were PKP-PK officers at Adi Soemarmo Solo International Airport, totaling 20 respondents. Data collection techniques used in research are:

- 1. Questionnaire. Questionnaires in this study were sent directly to the respondents, namely PKP-PK officers at Adi Sumarmo Solo International Airport. The questionnaire used in this study uses a Likert scale. The results of the questionnaire were given a score to determine the results of discipline as a variable (X) and the performance of PKP-PK firefighters as a variable (Y) on sample performance. The Likert scale contains five levels of answers regarding respondents' agreement with statements or questions raised by researchers, namely Strongly Disagree (STS), Disagree (TS), Neutral (N), Agree (S), and Strongly Agree (SS).
- 2. Observation. This study used the documentation data collection method, which is one way of collecting data by collecting documents and records related to this research.

Data analysis used in research are:

- 1. Test Instruments. The research instrument used in this study was a questionnaire (questionnaire). Therefore, the research instrument development process consists of two parts, namely the validity and reliability tests used to test each statement item contained in the questionnaire made by the researcher.
- 2. Validity Test. Validity test is used to measure whether a questionnaire is valid or not. Determining the feasibility of a data to be tested usually uses a significant test correlation coefficient significant level of 0.05, meaning that a data is considered valid if it has a significant correlation with the total score, if the significance value is > 0.05 then the validity test is declared invalid and if the significance value is <0.05 then the validity test is declared valid.</p>
- 3. Reliability Test. The instrument reliability test was carried out with the aim of knowing the consistency of the instrument as a measuring tool, so that the results of a measurement can be trusted. The Statistical Product and Service Solution (SPSS) provides facilities for measuring reliability with the Cronbach Alpha (α) statistical test. If the alpha coefficient value is greater than 0.70, it can be concluded that the research instrument is reliable or reliable, but if the alpha coefficient value is less than 0.70, it can be concluded that the research instrument is not reliable.
- 4. Hypothesis Test. According to (Sugiyono, 2017) hypothesis testing is used to find out the truth of temporary allegations. The hypothesis is basically interpreted as a temporary answer to the formulation of the research problem.

Simple Linear Regression Analysis

According to (Muhidin & Maman, 2017) Regression analysis is used to examine the relationship between two or more variables, especially to trace patterns of relationships whose models are not perfectly known or to find out how variations of several independent variables affect the dependent variable in a complex phenomenon. Based on the purpose of conducting this research, the variables analyzed are independent variables, namely work discipline as a variable (X) while the dependent variable is the performance of PKP-PK firefighters (Y).

T test

The t test proposed in this study is the discipline variable (X), partially having an influence or not on the performance of PKP-PK firefighters (Y). Testing this hypothesis is done by comparing the calculated t value of each independent variable with the t table using the specified degree of error at 5% or 0.05. So if the t count > t table, the independent variable has an influence on the dependent variable.

R Square Determination Test

According to (Ghozali, 2018) the coefficient of determination R Square basically measures how far the model's ability to explain the variation of the dependent variable. The value of the coefficient of determination is between zero and 1 (one). A small R2 value means that the ability of the dependent variables is very limited. A value close to 1 (one) means that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

RESEARCH RESULTS AND DISCUSSION Characteristics of Respondents Based on Gender

Table 1. Respondents by Gender					
Gender	Total	Percentage			
Male	20	100%			
Female	0	0%			
Total	20	100%			

Source: Data processed by researchers in 2023

Based on table 1 the results of the answers from the questionnaire distributed to 20 respondents obtained as many as 20 people in the male sex with a presentation of 100%, while for the female gender there was none.

Characteristics of Respondents Based on Education

Table 2. Respondents by Education						
Education	Total	Percentage				
Senior High School	13	65%				
D3	2	10%				
S1	5	25%				
Total	20	100%				

Table 2. Respondents by Education

Source: Data processed by researchers in 2023

Based on table 2 the results of the answers from the questionnaire distributed to respondents as many as 20 people obtained as many as 13 people in the type of education SMA/SMK with a presentation obtained 65%, 2 people in the type of education at the D3 level with a presentation obtained 10%, while 5 people for this type of education S1 level with a presentation of 25%.

Characteristics of Respondents Based on Position

Table 3. Respondents by Position					
Position	Total	Percentage			
Squad Leader	3	15%			
executor	3	15%			
officers	13	65%			
Maintenance	1	5%			
Total	20	100%			

Source: Data processed by researchers in 2023

Based on table 3 the results of the answers from the questionnaire distributed to respondents as many as 20 people obtained as many as 3 people in the Squad Leader position with a presentation obtained 15%, 3 people in the executive position with a presentation

obtained 15%, 13 people for the type of officer position with a presentation obtained 65 % and 1 person for the type of maintenance position with a presentation of 5%

Characteristics of Respondents Based on Length of Work

able 4. Respondents based on length of service					
Length of working	Total	Percentage			
4-7 Years	13	65%			
8-11 Years	4	20%			
>11 Years	3	15%			
Total	20	100%			

Table 4. Respondents based on length of service

Source: Data processed by researchers in 2023

Based on table 4 the results of the answers from the questionnaire distributed to respondents as many as 20 people obtained as many as 13 people at 4-7 years of work with a presentation of 65%, 4 people at 8-11 years of work with a presentation of 20%, and 3 people for length of work> 11 years with a presentation obtained 15%.

Validity Test

The results of calculating the validity test using IBM SPSS 25 Statistics for Windows regarding the validity of the question items given by the researcher or the instrument items from the researcher are as follows:

Tuble 5. Valuery Test Results for Variable X (Discipling					
Question	R Count	R Table	Result		
X1	0.797	0.444	Valid		
X2	0.626	0.444	Valid		
X3	0.685	0.444	Valid		
X4	0.514	0.444	Valid		
X5	0.602	0.444	Valid		
X6	0.550	0.444	Valid		
X7	0.635	0.444	Valid		
X8	0.631	0.444	Valid		
X9	0.528	0.444	Valid		

Table 5. Validity Test Results for Variable X (Discipline)

Source: Data processed by researchers in 2023

From the results of testing the validity of the table above on the variable X (discipline) it is obtained that each question item has an r count greater than r table. So it can be concluded that all questions from variable X (discipline) are declared valid. Thus, these question items can be used as a measuring tool for the variables studied.

Table 0. Valuaty	lest Results Iol	variable i (F	er for mance j
Question	R Count	R Table	Result
Y1	0.577	0.444	Valid
Y2	0.514	0.444	Valid
Y3	0.532	0.444	Valid
Y4	0.716	0.444	Valid
Y5	0.577	0.444	Valid
Y6	0.606	0.444	Valid
Y7	0.605	0.444	Valid
Y8	0.613	0.444	Valid
Y9	0.593	0.444	Valid
Y10	0.750	0.444	Valid

Table 6. Validity Test Results for Variable Y (Performance)

Source: Data processed by researchers in 2023

From the results of testing the validity of the table above on the variable Y (performance) it is obtained that each question item has an r count greater than r table. So it can be concluded that all questions from variable Y (performance) are declared valid. Thus, these question items can be used as a measuring tool for the variables studied.

Reliability Test

In this reliability test using IBM SPSS 25 Statistics For Windows to be able to find out whether or not a question item or instrument is reliable whether it has been distributed to 20 respondents. The results of the reliability calculation of variable X (discipline) and variable Y (performance) are as follows:

Table 7. Reliability Test Results						
Question	Cronbach's Alpha if Item Deleted	Nunnally Scale	Information			
X1	0,851	0.70	Reliable			
X2	0,851	0.70	Reliable			
X3	0,851	0.70	Reliable			
X4	0,851	0.70	Reliable			
X5	0,851	0.70	Reliable			
X6	0,851	0.70	Reliable			
X7	0,851	0.70	Reliable			
X8	0,851	0.70	Reliable			
X9	0,851	0.70	Reliable			
Y1	0,862	0.70	Reliable			
Y2	0,867	0.70	Reliable			
Y3	0,867	0.70	Reliable			
Y4	0,864	0.70	Reliable			
Y5	0,862	0.70	Reliable			
Y6	0,861	0.70	Reliable			
Y7	0,868	0.70	Reliable			
Y8	0,862	0.70	Reliable			
Y9	0,871	0.70	Reliable			
Y10	0,866	0.70	Reliable			

Source: Data processed by researchers in 2023

The table above shows that the results of the reliability test with composition using 19 questions with 9 questions each using the X variable (discipline) and 10 questions from the Y variable (performance) yield the result that each question item from each variable is Reliable.

Descriptive Analysis Test

In testing this descriptive analysis using IBM SPSS 25 Statistics For Windows which will display the results of a statistical descriptive test with two variables X (Discipline) and variable Y (performance) to determine the effect of descriptive values - average, maximum, minimum, standard deviation, range, quantity and variety. Here are the results of the test:

Tuble of Deberiptive Intaryots rest								
	Descriptive Statistics							
N Range Minimum Maximum Sum Mean Std. Deviation Variance						Variance		
Discipline	20	17	28	45	784	39,20	4,150	17,221
Performance 20 16 34 50 878 43,90 4,241 17,98						17,989		
Valid N (listwise)								

|--|

Source: Data processed by researchers in 2023

The test results in the table above can be concluded that the variable X (discipline) has

the smallest (minimum) value at 28 and the largest (maximum) value is 45. The difference or range between the data with the largest and smallest values is 17 with a total of 784. The average the mean for variable X is 39.20 with a standard deviation of 4.150 and a variance of 17.221. Whereas for variable Y (performance) the smallest (minimum) value obtained reaches 34 with the largest (maximum) value of 50. The difference or range between the data with the largest and smallest values is 16 with a total of 878. The average for variable Y is 43.90 with a standard deviation of 4,241 and a variance of 17,898.

Simple Linear Regression Test

The simple linear regression test in this study was tested using IBM SPSS 25 Statistics For Windows, with the following test results:

Madal		Unstandardi	zed Coefficients	Standardized Coefficients	+	Sia
	Model	В	Std. Error	Beta	l	Sig.
1	(Constant)	10,122	7,484		1,352	,193
1	Performance	0,662	,170	,677	3,903	,001

Table 9. Results of Simple Linear Regression Analysis Coefficients

Source: Data processed by researchers in 2023

The results of the linear regression test in the coefficients table above show that the model of the simple linear regression equation for predicting the effect of discipline on the performance of PKP-PK officers at Adi Sioemarmo Solo International Airport is as follows: Y = 10.122 + 0.662X. From the above equation it can be concluded that:

- 1. A constant of 10.122 means that the value of the consistent performance variable or dependent variable is 10.122.
- 2. The regression coefficient X of 0.662 means that the independent variable describes the direction of influence between the variables X and Y is positive or unidirectional, where each increase in the feasibility variable unit makes the performance variable as much as 0.662.

Correlations						
Discipline Performance						
	Pearson Correlation	1	.677**			
Discipline	Sig. (2-tailed)		,001			
	Ν	20	20			
	Pearson Correlation	.677**	1			
Performance	Sig. (2-tailed)	,001				
	N	20	20			
_			2.2			

 Table 10. Results of Simple Linear Correlation Regression Analysis

Source: Data processed by researchers in 2023

It can be concluded that the correlation table above shows as many as 20 respondents producing a correlation value of 0.677. Concluded that there is a strong influence due to the correlation value of 0.677 between the X variable of discipline on the Y performance variable.

Table 11. Simple Linear Regression Analysis Results Summary

Ī	Model Summary						
Ī	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
Ī	1	.677ª	,458	,428	3,138		

Source: Data processed by researchers in 2023

The table above explains that the magnitude of the correlation value or relationship R is a number of 0.677. From these results, the coefficient of determination or R square is 0.458,

which means that the effect of the independent variable (feasibility) on the dependent variable (performance) is 45.8%.

	ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.	
	Regression	149,962	1	149,962	15,230	.001 ^b	
1	Residual	177,238	18	9,847			
	Total	327,200	19				

Table 12. Results of Anova Simple Linear Regression Analysis

Source: Data processed by researchers in 2023

From the test table above, it can be seen that the calculated F value is 15.230 with a significance level of 0.000 < 0.05, meaning that the regression model in this study can be used to estimate the feasibility of the X variable, in other words, there is an influence of the x variable on the y variable.

Hypothesis testing

T test

Table 13. Test Results t							
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
Model		В	Std. Error	Beta			
1	(Constant)	10,122	7,484		1,352	,193	
L I	Performance	,662	,170	,677	3,903	,001	
- D	11	1	1 0000				

Table 12 Test Desults t

Source: Data processed by researchers in 2023

The results of the t test above are used to compare the value of t count and t table. Therefore it can be analyzed from several points as follows:

1. Hypothesis Formulation

H0: There is no influence of discipline on the performance of PKP-PK officers at Adi Sumarmo Solo International Airport.

H1: There is a significant influence between discipline on the performance of PKP-PK officers at Adi Sumarmo Solo International Airport.

- 2. Determination of Criteria The value of the t table for a significant rate of 0.05 or 5% df = df = n-2 = 20-2 = 18, namely 1,734.
- 3. The results of t arithmetic The results are obtained using SPSS 25 with the number 3,903.
- 4. Decision Making If t count > t table, then H1 is accepted because there is influence between variable X on variable Y and the above results show that the figure obtained from t count is 3,903 compared to t table 1,734 in other words rejecting the hypothesis H0 and accepting the hypothesis H1 for testing both variables.
- 5. The conclusion from the test results above and some of the statistical data that has been described, it can be concluded that the disciplinary variable has a significant effect on the performance of PKP-PK officers at Adi Sumarmo Solo International Airport.

Determination Coefficient Test

Table 14. Determination Coefficient Test Results						
Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.677ª	,458	,428	3,138		

Table 14 Determination Coofficient Test Desults

Source: Data processed by researchers in 2023

The test results in the table above show that the correlation coefficient is known to be 0.677. To find out how much influence the feasibility variables X and Y performance variables have, use the following calculations:

 $\begin{array}{l} \text{KD} &= (\text{R}^2) \ge 100\% \\ &= (0.677) \ge 100\% \\ &= 0.458 \ge 100\% \\ &= 45.8\% \end{array}$

From the calculation results above, it can be concluded that there is an influence of variable X on variable Y of 45.8% and the remaining 54.2% is influenced by other factors.

Discussion

Work Discipline and Performance of PKP-PK Firefighters at Adi Sumarmo Solo Airport

Discipline is an attitude of respect for a rule set by the organization, which is stated in the officer who requires the officer to be able to adapt to the rules and regulations of the organization. Based on research conducted on the PKP-PK unit at Adi Soemarmo Solo International Airport, there are several points to assess the discipline of PKP-PK officers regarding their performance in carrying out a task and authority that must be carried out, which include:

- 1. Punctuality. Timeliness in work for PKP-PK officers is very important, especially in terms of timeliness when entering work and timeliness in dealing with a problem or incident that occurs which requires PKP-PK unit officers to participate in carrying out the handling. Adi Soemarmo International Airport PKP-PK officers adhere to punctuality in carrying out their performance which is proven by always being precise when arriving or leaving at work and always estimating the correct time when an incident occurs in the airport area in accordance with applicable rules and regulations for PKP-PK officers.
- 2. Respect the rules. Rules are a reference that can regulate all activities carried out, PKP-PK officers have rules and conditions that must be carried out in carrying out their duties as PKP-PK officers at an airport. When researchers conducted research, it was found that PKP unit officers PK Adi Soemarmo Solo International Airport always obeys the applicable rules which regulate how to dress, how to be ethical and the rules in carrying out work.

Based on the results of data processing from the answers of 20 respondents, researchers can draw conclusions that there is an influence of discipline between disciplines on the performance of PKP-PK officers. This can be proven by the results of processing and also data analysis using a simple linear regression test where the results show a correlation table analysis of 0.677 using an interpretation of the value of r is> 0.5 - 0.75 = strong correlation, it means that the hypothesis H0 is rejected and H1 is accepted so that the results show that the discipline on the performance of PKP-PK officers is influenced by discipline.

With the results of the analysis of the coefficient table, the regression coefficient X of 0.662 illustrates that the direction between the feasibility variable and the performance variable is positive or unidirectional, where every increase of one unit of performance variable will cause an increase in the disciplinary variable by 0.662. This can be interpreted that if discipline can increase or be in line with expectations, the performance of PKP-PK officers at Adi Sumarmo Solo International Airport will also increase, and vice versa. One of the factors that affect performance is the supporting facilities, including in this case the discipline of PKP-PK officers at Adi Sumarmo Solo International Airport itself.

Work Discipline Affects the Performance of PKP-PK Firefighters at Adi Sumarmo Solo Airport

PKP-PK officers have the main tasks and main tasks stipulated in the Regulation of the Director General of Civil Aviation Number KP.14 of 2015 concerning Technical Standards and Operations of Civil Aviation Safety Regulations, flight accident rescue services and fire fighting (PKP-PK), among others, Duties The main task, namely saving lives and assets from incidents and accidents at the airport and its surroundings. Main tasks, namely carrying out operational activities including administration, preparedness, rescue, prevention and blackout, training, maintenance.

Researchers carried out research directly on the performance of PKP-PK officers when carrying out simulated activities in operating support equipment to anticipate when an incident or problem occurred that had to be resolved or handled by PKP-PK officers. According to the observations of researchers, PKP-PK officers in carrying out their duties, namely when operating support equipment and operating special vehicles, PKP-PK officers looked professional. incidents or problems and so on.

Based on the research that has been done, it can be proven through the results of hypothesis testing using the t test with the results of the coefficient table, it can be seen that there is a significant influence between the X variable of discipline and the Y variable of performance. This is evidenced by the results of the t test of 3.903 while the t table is 1.734 at a significance level of 0.05 which means that the hypothesis H0 is rejected and H1 is accepted thus explaining that the performance of PKP-PK officers is influenced by discipline. Then from the results of the hypothesis test using the coefficient of determination test shows that the R value is 0.677 with the results of calculating the coefficient of determination (R^2) value of 0.458 which implies that the influence of the independent variable (discipline) on the dependent variable (performance) is 45.8%.

CONCLUSION

Based on the results of testing the hypothesis in the study, it gave the result that H0 was rejected and H1 was accepted, producing positive data that the performance of PKP-PK officers was influenced by discipline. This means that if the discipline of PKP-PK officers at Adi Soemarmo Solo International Airport increases, the performance of operators will increase and vice versa if the discipline of PKP-PK officers worsens, it is certain that the performance of PKP-PK officers will also decrease. Based on the results of testing the hypothesis in the study, the result was that the influence of the X (feasibility) variable on the Y (performance) variable showed strong results by obtaining a correlation coefficient of 0.677 with a determination coefficient of 45.8% with the remaining 52.8% being influenced by other factors not examined by researchers such as feasibility, commitment, weather, and other elements. Therefore, the discipline of PKP-PK officers at Adi Soemarmo Solo International Airport always maintain and improve their performance in the field.

Based on the results of research testing and discussion obtained above, the researcher intends to provide suggestions that hopefully can be useful for institutions, companies, and further researchers as outlined in the following points: Work unit officers of PKP-PK officers must always pay attention to and maintain work discipline standards in accordance with applicable regulations in order to improve professional performance and to fulfill several aspects of safety and smooth flight operations. When on duty in the field, you should always comply with the existing provisions in the Standard Operational Procedure or PKP-PK officers owned by the company for PKP-PK officers. In addition, PKP-PK officers before serving in the

field should prepare matters relating to the handling of aircraft accidents on the ground so that they can prevent problems from occurring in the field.

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