INFLUENCE APRON MOVEMENT CONTROL (AMC) SUPERVISION OF GROUND SUPPORT EQUIPMENT (GSE) ORDER IN THE AIRSIDE AREA OF ADI SOEMARMO BOYOLALI AIRPORT

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Abstract

During the author's observations at Adi Soemarmo Airport in Boyolali, he frequently encountered disorderly ground support equipment (GSE). This was due to a lack of Apron Movement Control (AMC) oversight. Therefore, research is needed into the behavior of ground support equipment (GSE) that frequently commits violations in the apron area. The research methodology used is quantitative, which describes the current situation at the research site. Data were obtained through direct observation, literature review, and questionnaires distributed to Apron Movement Control (AMC) and ground handling personnel, with a sample size of 36. Data analysis used validity tests, reliability tests, and simple linear regression. The results of this study indicate that supervision by Apron Movement Control (AMC) at Adi Soemarmo Airport, Boyolali, still needs to be improved to achieve optimal orderliness in the operation of Ground Support Equipment (GSE) in the airside area.

Keywords: *AMC, GSE, Supervision, Order, Airside.*

INTRODUCTION

Airports are one of the most important infrastructures in the aviation industry and require optimal operational management to ensure the safety and efficiency of flight safety. [1] One important aspect in airport operations is the orderliness of *Ground Support Equipment* (GSE) in *the Airside area* , especially on the *Apron* . [2] GSE includes various flight support equipment, including *towing tractors, baggage carts, fuel trucks, passenger stairs, and Ground Power Units* (GPUs), which are used to support aircraft departures and arrivals .

To realize and ensure good flight safety services on the air side, *an Apron Movement Control* (AMC) unit is needed. This unit is responsible for flight service operations by monitoring aircraft movements, vehicle traffic, airspace cleanliness, and supervision of *Ground Support Equipment* (GSE) vehicles in *the Apron area* . [4.] At Adi Soemarmo Boyolali Airport, there are 2 companies engaged in ground service services, namely *Ground Support Equipment* (GSE), which serves passengers, baggage, cargo/mail, and aircraft, namely PT Gapura Angkasa and PT. Natra Aircraft Support. The large number of *Ground Support Equipment* (GSE) equipment or vehicles needed in *the Apron area* . So that the supervision carried out by *Apron Movement Control* (AMC) is increased to avoid violations and *incidents* that can endanger flight safety on the air side. [5]

KP 326 of 2019, where one of the duties of *Apron Movement Control* (AMC) personnel is to supervise and regulate traffic movements on *the Apron* . [6] Disorder in the placement and movement of GSE in *the Apron area* can cause various operational risks, such as obstruction of aircraft movement, accidents on *the Apron* , and flight delays. Therefore, *Apron Movement Control* (AMC) plays a crucial role in overseeing the movement of GSE in *the Airside area in accordance with applicable regulations. AMC personnel are responsible for conducting inspections, providing guidance, and enforcing regulations related to GSE management to create* [a] more orderly and safe work environment in the *Apron area* .

Along with the increasing number of flight schedules at Adi Soemarmo Airport, the number of *Ground Support Equipment* (GSE) and vehicles is also increasing, as is the operation of *Ground Support Equipment* (GSE) and vehicles. Where *the Ground Support Equipment* (GSE) vehicles themselves have established rules and regulations, including the placement of *Ground Support Equipment* (GSE) vehicles and speed limits for the use of *Ground Support vehicles. Equipment* (GSE) operating on *the apron* . [3]

Order is a condition or situation where everything runs according to the applicable rules. [8] Based on the researcher's observations during *On The Job Training* in the field at Adi Soemarmo Boyolali Airport, it was found that there was still a lack of supervision carried out by the *Apron Movement Control* (AMC) unit regarding the orderliness of *Ground Support Equipment* (GSE) vehicles on the airside. If the orderliness of GSE vehicles does not comply with applicable regulations, *the Apron Movement Control* (AMC) unit should provide guidance to GSE vehicle personnel. [9]

GSE disorder in *the airside area* of Adi Soemarmo Airport, Boyolali, included GSE personnel carrying more passengers than the designated capacity. Baggage transport, loaded on *baggage carts,* exceeded the designated capacity. [10]

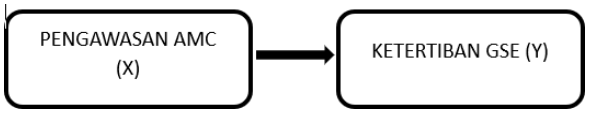
This study aims to analyze how important the supervision of *Apron Movement Control* (AMC) personnel is in monitoring the order of *Ground Support Equipment* (GSE) in *the airside area* to prevent *incidents* or *accidents* in its operation.

METHOD

The word method comes from the Greek, "methods," which means a way or a path. A method is a scientific activity related to a systematic way of working to understand an object or research object. [11] In conducting research, research planning is necessary. Based on the purpose of this writing, the researcher aims to enrich the research. knowledge as well as outlook for the author. So that in its implementation the author applies a deep research method collect the data done rationally, systematically and empirically. [12] Therefore, rather than That, later writer will Obtain valid data that aligns with what was found in the field based on existing facts. Next , the author analyzes the data and seeks effective and efficient solutions to the problems identified.

In this study, the method applied was quantitative. According to Sugiyono (2010), quantitative research [is] a method for testing a particular theory by examining the correlation between variables.

This research uses independent variables (X) and dependent variables (Y). The following is a picture of the research variables.



RESULTS AND DISCUSSION

The data collection method used was a questionnaire distribution method for 36 respondents, namely 6 *Apron Movement Control (AMC) personnel and 30 Ground Handling* personnel at Adi Soemarmo Boyolali Airport. Questionnaire Distribution use media Google Form and filled by respondents on each statement that the respondent considers most appropriate.

Table Questionnaire:

NO	Pernyataan	SS	S	KS	TS	STS
1.	Petugas Apron Movement Control (AMC) wajib melakukan pengawasan secara rutin di area airside.					
2.	Pengawasan yang dilakukan oleh petugas Apron Movement Control (AMC) bersifat menyeluruh dan mencakup semua area apron.					
3.	Jadwal inspeksi pengawasan oleh Apron Movement Control (AMC) harus sesuai dengan waktu operasional Ground Support Equipment (GSE)					
4.	Pengawasan oleh petugas Apron Movement Control (AMC) membantu mencegah pelanggaran prosedur oleh kendaraan Ground Support Equipment (GSE)					
5.	Koordinasi antara Apron Movement Control dan ground handling harus berjalan dengan baik dalam hal pengawasan.					
6.	Petugas Apron Movement Control (AMC) wajib memberikan teguran terhadap operator Ground Support Equipment (GSE) yang melanggar aturan.					
7.	Apron Movement Control (AMC) wajib memiliki SOP yang jelas dalam mengawasi kegiatan di apron.					
8.	Kendaraan Ground Support Equipment (GSE) harus selalu diparkir pada area yang telah ditentukan.					
9.	Operator Ground Support Equipment (GSE) tidak diperkenankan membawa penumpang berlebih.					
10.	Pelanggaran Ground Support equipment (GSE) selalu dilaporkan kepada Apron Movement Control (AMC)					
11.	Operator Ground support Equipment (GSE) harus mematuhi instruksi dari petugas Apron Movement Control (AMC) selama di area airside.					
12.	Operator Ground Support Equipment (GSE) menjalankan kendaraan harus sesuai dengan kecepatan yang ditentukan.					
13.	Kendaraan Ground Support Equipment (GSE) yang beroperasi harus seusai dengan keselamatan.					
14.	Ketertiban Ground Support Equipment (GSE) menciptakan lingkungan kerja yang aman dan efisien.					

Results Test Validity And Reliability

Tabel Hasil Uji Validitas

Variabel	Indikator	R Hitung	R Tabel	Keterangan
Pengawasan AMC	X1	0,915	0,329	Valid
	X2	0,912	0,329	Valid
	X3	0,905	0,329	Valid
	X4	0,876	0,329	Valid
	X5	0,917	0,329	Valid
	X6	0,926	0,329	Valid
	X7	0,899	0,329	Valid
Ketertiban GSE	Y1	0,880	0,329	Valid
	Y2	0,916	0,329	Valid
	Y3	0,976	0,329	Valid
	Y4	0,882	0,329	Valid
	Y5	0,917	0,329	Valid
	Y6	0,920	0,329	Valid
	Y7	0,952	0,329	Valid

Based on on table Which There is, found The overall calculated r value for each question item is > r table (0.329). So the existing results mean that all grains enter in category valid, and the questionnaire in the research can be used for the next stage of analysis.

Tabel Hasil Uji Reliabilitas

Variabel	Cronbach's Alpha	Nilai Kritis	Keterangan
Pengawasan AMC	0,963	0,6	Reliabel
Ketertiban GSE	0,969	0,6	Reliabel

From the table above, the overall *Cronbach Alpha coefficient value* of the variables studied was > 0.6. This indicates that all questions fall into the reliable category according to the theory presented by Suharsimi Arikunto (2017) in [15] .

Results Test Regression Linear Simple

In this research, regarding conducting simple linear regression analysis, the author uses an application program system called SPSS, namely A device computer software Which help in data processing, both parametrically and non-parametrically. The results are shown in the following table:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.872[a]	.760	.752	3.58260

a. Predictors: (Constant), Pengawasan AMC

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.671	2.058		1.298	.203
	Pengawasan AMC	.884	.085	.872	10.363	.000

a. Dependent Variable: Ketertiban GSE

Based on the table, the results can be interpreted as follows, where from the equation:

Y = 2.671 + 0.884 X

1. Constant = 2.671 This means that if there are no AMC Supervision variables that influence, so GSE order 2,671 units.
2. The regression coefficient value of variable X is 0.884. This indicates that every one-digit increase in variable X will have an impact on increasing the value of variable Y by 0.884.

CLOSING

Conclusion

Based on results analysis as well as Also The discussion resulted in the following conclusions:

a. Validity test found all indicator variables own mark validity > 0.361 (r > 0.361). Where matter This shows that instrument study fall into the valid category.

b. The reliability test of the AMC Supervision Variable (X) resulting from data processing is considered reliable because the value of *Cronbach's Alpha* is above 0.6 (**0.963** > 0.6) and the reliability test of the GSE Order Variable (Y) resulting from data processing is reliable because the value of Cronbach's Alpha is above 0.6 (**0.969** > 0.6).

c. The results of the Simple Linear Regression Analysis, Stated that the R square value showed 760. Indicating that 76% of the Ground Support Equipment (GSE) order variable is influenced by Apron Movement Control (AMC) supervision, while the remaining 24% is influenced by other factors outside the study. Therefore, there is an influence of Apron Movement Control (AMC) supervision on the order of Ground Support Equipment (GSE) in the airside area. This decision was also obtained based on the results of a simple linear regression test between variables X and Y which showed a significance value of 0.000 <0.05.

Suggestion

Based on the results of research conducted at Adi Soemarmo Boyolali Airport, the author can provide suggestions for *Apron Movement Control* (AMC) personnel. This is to improve airside surveillance and optimize the operation of *Ground Support Equipment* (GSE), particularly on the *apron* . This impacts flight safety, particularly on the *airside* of Adi Soemarmo Airport in Boyolali.

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