# RELATIONSHIP OF ACTION, SPEED AND ENVIRONMENT TOWARD TRAFFIC ACCIDENTS IN THE TYPE C TERMINAL OF MEULABOH, ACEH BARAT REGENCY

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### **ABSTRACT:**

Traffic accidents according to the World Health Organization are unforeseen events that cause injuries, damage, and also losses to their owners (victims) and can cause death or injuries both minor and severe injuries. The number of passenger car accidents from Aceh Barat to Banda Aceh via the Aceh Barat - Aceh Jaya crossing is high. From 2018 with 62 cases (63.86%) and 2019 with 64 cases (65.92%) from January to August. The high number of cases was influenced by driver action, speed, and environment in the type C terminal of Meulaboh. The purpose of study was determine to relationship Action, Speed and **Environment toward Traffic Accidents in the** Type C Terminal of Meulaboh, Aceh Barat Regency. The research method used analytic survey design with cross sectional approach. The sample method used is total sampling, that is, all populations used as research samples are 48 people. The statitiscal analysis used univariate and bivariate. The showed that there relationship between work period and vehicle feasibility with traffic accidents, P value> 0.05. There was a relationship between action, speed and environment toward traffic accidents that is P value < 0.05. Hereby traffic units. transportation organizations it is suggested the transportation department, to

cooperate with each other in providing information about factors related to traffic accidents as well.

KEYWORDS: action, speed, environment, vehicle feasibility, driver.

### **INTRODUCTION:**

Every traffic accident is usually caused by several factors that arise such as human factors, vehicle factors, road / environmental factors or a combination of these factors. The factors that determine the high number of accidents and the severity of accident victims are human factors that contribute as much as 80% -90%, vehicle factors as much as 4%, road factors as much as 3%, and environmental factors as much as 1% (Irianto. 2016).

Definition of Traffic is a movement of people or goods with or without movers from one place to another through public roads, not including air, sea and news traffic (Boediharto. 2013). Meanwhile, according to RI Law No. 22 of 2009 concerning Traffic and Road Transportation, the definition of Traffic is the movement of vehicles and people in the Road Traffic Room.

One of the human factors that cause traffic accidents is fatigue from the driver himself, and has been conveyed by several researchers related to the cause, where fatigue is divided into two groups of fatigue, mental fatigue and physical fatigue (Fajriza. 2014), in addition to human factor fatigue another is unsafety

condition and unsafety action of human itself as one of the elements causing traffic accidents and other supporting factors are vehicle condition, road conditions which are factors that influence traffic accidents (Lestantyo. 2018).

But the human factor still plays the biggest role in traffic accidents. The human factor contributes 94% and 95% respectively to traffic accidents that occur in the United Kingdom and America. National Highway Transportation Safety Board (NHTSA), states that there are 6 main causes of accidents, namely the driver loses concentration (55%), tired and sleepy (45%), under the influence of drugs or alcohol (30%), speed exceeds the limit (30%), weather (15%), and damaged components (10-14%) (Zuraida. 2015).

Based on Aribowo's research, in 2014, during 2012, the death rate was 20.4 out of 100,000 population where 91% of the deaths were due to traffic accidents and this happened mainly in low and middle income countries. Whereas according to WHO reports, in 2019 traffic accidents are the fifth leading cause of death worldwide and WHO estimates that around 1.9 million people died on the road towards 2020 (Divianta. 2019).

Based on data from Aceh Barat Regional Police Traffic Unit, the number of accidents in West Aceh from 2018 was 48 cases in passenger cars and in 2019 through September 39 cases of passenger cars were involved in traffic accidents (SATLANTAS, Aceh Barat Regency. 2019).

Unlike the case with Aceh Jaya, based on data from the Aceh Laka Lantas Police Unit, the number of passenger car accidents from West Aceh to Banda Aceh via the crossing of West Aceh - Aceh Jaya is high. from 2018 there were 62 cases (63.86%) cases of passenger cars from Aceh Barat and in 2018 it increased to 64 (65.92%) cases of accidents. And passenger transportation involved in traffic accidents in 2018 consists of 31 transportation where 19

people died, 6 people were seriously injured and 63 people were slightly injured. And in 2019 passenger transportation involved in accidents then increased to 37 transportation where 27 people died, 12 people were seriously injured and 91 people were slightly injured (SATLANTAS,Aceh Jaya. 2019).

Based on preliminary surveys of drivers, information was passenger car obtained that there was a possible cause of a traffic accident by contributing factors such as driver fatigue, unsafety condition, unsafety action, length of service and vehicle eligibility, where the initial survey was conducted for 8 drivers, out of 8 people 6 of them experienced fatigue while driving, driver fatigue at work can be the cause of traffic accidents, such as drivers who experience stiff pain in muscles and joints. unsafety \ action is the unsafe act of the driver in driving, if the unsafe act of the driver is present then it will disturb the safety of passengers such as playing games via mobile phone then it can damage the driver's concentration itself, in addition to unsafety action as for the environment which is very supportive to be a risk cause of a traffic accident.

In addition to public transportation drivers, researchers also interviewed the head of Aceh Barat ORGANDA (land transportation organization) to get a glimpse of the transportation of the passenger car. Where the number of public transport passengers has increased from the previous year due to road conditions in Aceh getting better, but please note that there is a risk of accidents that occur to the driver and passengers who if not doing things that are safe in driving a passenger car such as breaking traffic signs and others will be at risk of traffic accidents.

Based on the background above, the authors would like to research about "The Relationship Of Action, Speed and Environment toward Traffic Accidents In The Type C Meulaboh Terminal, Aceh Barat Regency"

### **METHODOLOGY:**

This research method was an analytic survey design with cross sectional approach to used a quantitative. The purpose of study was determine to relationship Action, Speed and Environment toward Traffic Accidents In The Type C Terminal Of Meulaboh, Aceh Barat Regency. The research was conducted in the Type C Terminal Meulaboh City, Johan Pahlawan sub-district savings as a place of arrival and departure of the driver and passengers located in Aceh Barat Regency of Aceh province November, 2 nd to 14 th 2019. The population of this study was all drivers, they are 48 drivers and using the total sampling

to take it of population. The independen variables of the study was action, speed and environment, while the dependent variable was traffic accident towards driver in the terminal type C of Meulaboh.

# **DISCUSSION/ ANALYSIS:**

Based on the result conducted relationship Action, Speed and Environment toward Traffic Accidents In The Type C Terminal Of Meulaboh, Aceh Barat Regency with 48 respondents involved in this study, the following results were obtained:

Table 1. Relationship Action toward Traffic Accidents In West Aceh C Type Terminal Meulaboh.

Action		Trafic a	ccident		Total			OR
	Ever		Never		-		$\mathbf{p}_{ ext{value}}$	(95%CI)
	F	%	F	%	F	%		
Good	1	5	19	95	20	100	0,000	0,050
Not good	28	100	0	0	28	100		

Based on table 1 it is known that there are as many as 19 (95%) drivers whose good actions have never experienced a traffic

accident, on the contrary among drivers whose actions were not good, there were 28 (100%) who had experienced a traffic accident.

Table 2. Relationship Speed toward Traffic Accidents In West Aceh C Type Terminal Meulaboh

Speed	Trafic accident					Total			
Specia	Ever		Never		_		Pvalue		OR (95%CI)
	F	%	F	%	F	%	_		
Normal	8	32	17	68	25	100	0,00	0,045	
Fast	21	91,3	2	8,7	23	100	=		

Based on table 2 it is known that there are as many as 17 (68%) drivers whose normal of speed have never experienced a traffic accident, on the contrary among drivers whose

speed were fast, there were 21 (91,3%) who had experienced a traffic accident.

Table. 3 Relationship environment toward traffic accident in west aceh Type C terminal Meulaboh

	Traffic accident							
Enviroment	Ever		Never		_ Total		pvalue	OR (95%CI)
	F	%	F	%	F	%	=	
Support	12	45	18	55	30	100	0,0367	1,704
Not Support	12	75	6	25	18	100		

Based on table 3 it is known that there are as many as 18 (45%) drivers whose support of environment have never experienced a traffic accident, on the contrary among drivers whose environment were not support, there were 12 (75%) who had experienced a traffic accident.

Based on the results of the chi square statistical test, the value of Pvalue of 3 variables is = 0.00 and this is smaller than  $\alpha$  = 0.05 (p value =  $0.00 < \alpha = 0.05$ ) so that there is a significant relationship between action, speed and the environment against traffic accidents on the driver (passenger car) in the type C meulaboh terminal. Based on the results of the odds ratio 0.050 on the action variable, 0.045 on speed variable and 1.704 on the environment variable. Based on the findings of researchers in the field that respondents whose actions are not good, their speed exceeds the threshold and the environment is not good, both physical and non-physical environment. Where unfavorable actions such as breaking traffic signs greatly affect traffic accidents, and precede other vehicles from the left lane and do not turn on the sign lights when they want to turn. And all of this has been regulated in Law No.22 of 2009 concerning Road Transportation Traffic. the speed of the driver greatly affects the occurrence of traffic accidents, where if the driver who is driving a passenger car that exceeds the speed limit, if something happens to do sudden braking, the driver will indirectly block the road and traffic accidents. Likewise

with the environment, if the environment is not supportive, it will cause traffic accidents such as very high rainfall and the presence of livestock roaming along the causeway. and this is a risk of traffic accidents.

Results of research on field investigations found that the action had a very big influence on the occurrence of traffic accidents, because according to the national highway transportation safety board (NHTSA), human factors contributed 80-90%, followed by the driver speed of 30% and the environment at 15%. (Boediharto, 2013).

The results of this study indicate that there is a relationship between action, speed and environment with traffic accidents on passenger car drivers in the Meulaboh C type terminal. The results of this study are the same as the results of research conducted by Tariono (2019), on a motorcycle taxi driver in the city of Bitung where there is a relationship between fatigue and work accident with a value of Pvalue = 0.001. As well as research conducted by Kairupan (2019), on online motorcycle taxi drivers where there is an unsafety action relationship with work accidents on online motorcycle taxi and base motorcycle taxi in the city of Manado with Pvalue = 0.006.

## **CONCLUSIONS:**

There is a significant relationship between actions toward traffic accidents on passenger car drivers in the Meulaboh type C terminal with

values = 0,000 and OR 0.050. There is a significant relationship between speed toward traffic accidents on passenger car drivers in the Meulaboh type C terminal with values = 0,000 and OR 0.018, and There is a significant relationship between the environment toward traffic accidents on passenger car drivers in the Meulaboh type C terminal with a value of = 0.036 and OR 0.045.

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