

Knowledge, Attitude, and Perception: Impact on Online Ojek Driving Safety

Siska Amonalisa Silalahi ¹, Asep Ali Thabah ², Novembriani Irenita ³

¹ ITL Trisakti, Cipinang Besar Selatan, Jakarta Timur, Indonesia.

¹ siska.silalahi@gmail.com, ² alee.thabah@gmail.com, ³ novembriani@gmail.com

* corresponding author

ARTICLE INFO

Article history

Received : 13-03-2024

Revised : 23-03-2024

Accepted : 29-03-2024

Keywords

Attitudes ;

Behaviors ;

Knowledge ;

Online Motorcycle Taxis ;

Perceptions ;

Safety Riding ;

ABSTRACT

The high number of accidents for ojek online motorcycle users cannot be separated from the behavior of the riders. Motorist behavior factors have an important contribution in determining the occurrence of road user traffic accidents. Thus, the purpose of this study is to ascertain how knowledge, attitudes, and perceptions will affect motorcycle safety riding behavior in Jakarta in 2023 when it comes to ojek online. This study used survey method with quantitative research data. The population in this study was all ojek online motorcycle drivers in Jakarta and the sample used amounted to 100 respondents. The results of the analysis, computations, and talks demonstrate that knowledge, attitudes, and perceptions all work together to influence Jakarta ojek online motorbike riders' safety riding behavior positively and significantly. Where partially the variable knowledge has a positive and significant influence on the safety riding behavior of ojek online motorcycle taxis in Jakarta. The same thing with attitude variables that have a positive and significant influence on ojek online motorcycle safety riding behavior in Jakarta. Similarly, the perception variable significantly and favorably affects Jakarta motorbike riders' safety-riding habits (Ojek Online).

1. INTRODUCTION

One of the global problems is traffic accidents, which are ranked as the 9th leading cause of death in the world. In 2021 in Indonesia, 25,266 people died in traffic accidents with material losses of IDR 246 billion, 10,553 people were seriously injured, and 117,913 were slightly injured. When viewed from the type of vehicle, the most accident cases occur in two-wheeled vehicles [1]. Therefore, two-wheeled accidents, especially in online motorcycle taxi drivers, are the focus of this research. In the "Global Road Safety State Report", the World Health Organization reports that Southeast Asian countries and the Asia-Pacific region have the highest potential mortality from motorcycle accidents, each with 34%. Indonesia is among the top ten countries with the highest potential for traffic accidents, ranking sixth out of 185 countries [2].

The driver factor is the main factor causing a traffic accident. The Ministry of Transportation noted that 85% of traffic accidents are caused by driver factors. Other contributing factors are the vehicle at 4%, infrastructure at 3%, other road users at 3%, the environment and other causes at 5%. Drivers are the main factor in accidents due to impatience and unwillingness to yield (52%), cutting the road or preceding (17%), high speed (11%), and other factors such as violation of traffic signs, physical condition of the driver, and other causes (0.5% to 5%) [3].

By knowing the magnitude of the potential for online motorcycle ojek accidents caused by drivers, it is necessary to take preventive action. Preventive measures that can be taken, one of which is by implementing safe driving for online motorcycle taxi drivers. Safe driving is a safe driving behavior to avoid accidents that occur in traffic. The online ojek profession is a profession that requires expertise, energy, concentration, and balance in driving two-wheeled vehicles. On the other hand, online ojek drivers also need safety support facilities, namely helmets and motorcycle driver safety attributes. Where

these supporting facilities are important equipment in driving two-wheeled vehicles to create safety and prevent driving accidents [4].

The high accident rate for online motorcycle taxi users is inseparable from the behavior of the driver. Driver behavior factors have an important role in encouraging traffic accidents for road users. Human factors contribute very high to the risk of driving. This is influenced by several factors, namely the driver's lack of understanding of the rules or regulations on traffic procedures, less owned by the driver such as indiscipline, unskilled driving. Tired physical factors are also one of the causes of accidents. The high number of accident victims from minor injuries, serious injuries, to death. About 90% of accidents are caused by human factors as drivers, the rest are due to road conditions, traffic signs, and vehicle factors [5]

An example of traffic violations committed by motorcycle taxi drivers, one of which is the driver playing gadgets while driving. The behavior of playing gadgets while driving a motorcycle ended in an accident and almost took his life [6]. Violation of traffic rules is an aggressive driving behavior where the driver acts intentionally or tends to increase the risk of an accident. A driver's aggressive driving behavior is caused by feelings of impatience, hostility, and aggravation, or by the driver's attempt to restore his driving behavior. Aggressive driving behavior is driven by perceived crash risk. Crash risk perception is a subjective evaluation of an accident and the extent to which drivers care about its consequences [7]. So, this research wants to learn more about driver knowledge, driver attitudes, driver perceptions, and their influence on online motorcycle taxi driving safety behavior.

2. METHOD

This research is a type of quantitative research where survey methods are used to collect various data. The quantitative method is an objective approach, covering data collection and quantitative analysis using statistical testing methods [8]. The data obtained from the survey were processed using simple and multiple linear regression analysis techniques using questionnaires as research instruments distributed to research samples. Then the results were processed using SPSS (Statistical Package for the Social Science) Version 24.0.

In conceptual definition, the first variable in this study is driver knowledge (X_1). The driver's knowledge referred to here is how much information the driver has regarding driving safety. Where knowledge has several indicators, namely age, education, experience, and vehicle condition. The second variable in this study is the attitude of the rider (X_2). That is, the willingness of the rider to respond to cognitive, affective, and cognitive factors that interact with each other to improve understanding of driving two wheels online. This rider attitude variable has two indicators, namely Behavior Belief and Evaluation Outcome. Then there is perception as the third variable (X_3). Where perception is a person's view of something. This view is present after a person obtains information or stimulus from what was previously experienced to serve as a reference in effect. The indicators of perception are perceived safety, perceived time, perceived cost, perceived ease of service, and perceived congestion related to online transportation facilities. Although in the end, perception appears can be consciously or unconsciously by a person.

While the fourth variable or independent variable (Y) in this study is safety driving behavior. Safety driving behavior is an effort made to reduce the number of traffic accidents and the impact of these traffic accidents. This safety driving behavior has several indicators, namely predisposing factors, enabling factors and driving factors. Driving safety is very important in driving to maintain the smooth flow of transportation. The purpose of driving safety is to avoid and reduce the impact of accidents. Residents are legal subjects who are required to obey and discipline the driving safety standards that have been instructed by the government.

Tabel 1. Penelitian Terdahulu

No.	Research Title	Author	Method	Result
1	Faktor yang Berhubungan dengan Perilaku Safety Riding Pengemudi Ojek Online (GoJek) di Kota Medan Sumatera Utara	Jasmen Manurung, Mido Ester Sitorus, Rinaldi, 2019 [9]	Quantitative Descriptive	The results showed that factors related to safety riding behavior factors were age (p-value = 0.000), driving period (p-value = 0.000), vehicle condition (p-value = 0.000), driving completeness (p-value = 0.000). The unrelated variable is knowledge (p-value = 0.420), from the results obtained, it is expected that there will be a role for various parties, both government, police, educational institutions, and companies to create safe driving safety training programs, and further socialize the use of motorcycle equipment.
2	Pengetahuan Sebagai Faktor Penentu Perilaku Safety Driving Pada Pengemudi Truk	Desi Rusmiati, Nur Aini, Ririn Indrawati, 2021 [10]	Quantitative Descriptive	The results of the study found variables that have an influence on unsafe behavior are knowledge (p = 0.014), education (0.001) and vehicle conditions (p = 0.049). Work experience (p = 0.190) Age (p = 0.865) with confounding variables are education and vehicle condition. Drivers behave unsafely such as driving high speed on slippery roads because they do not know the safe limits of speed and driving distance. Thus the most influential factor is knowledge, therefore the company needs to provide periodic training and evaluation of knowledge, driver health
3	Keselamatan Pengemudi Go-Jek di Jakarta Timur	Atit Setiani, Suharto Abdul Majid, Zeinyta	Quantitative Descriptive	The results showed that there is a total influence of driver attitude towards

No.	Research Title	Author	Method	Result
		Azra Haroen, 2019 [11]		Go-Jek driver safety through driver experience and there is a total influence of driver behavior on Go-Jek driver safety through driver experience.
4	Faktor-Faktor Yang Berhubungan Dengan Perilaku Safety Driving Pada Supir Travel Di PT. Libra Wisata Transport	Ade Dita Puteri, Azimah Mardiyatun Nisa, 2020 [12]	Quantitative Descriptive	The results of the study can be a relationship between age, length of work, education, length of work, knowledge and completeness of driving with Safety Driving behavior.
5	Hubungan Pengetahuan Berkendara Selamat Dengan Kecelakaan Pengemudi Transportasi Roda Dua Berbasis Online Di Kota pekanbaru	Raihanatu Binqalbi Ruzain, Yulia Herawati, Daniel Christofa, 2020 [13]	Quantitative Descriptive	In the study there was significant relationship between driving knowledge with accidents transportation drivers, transportation drivers based online. Drivers are advised to improve driving knowledge knowledge by reading, attending seminars and training
6	Faktor- Faktor Yang Berhubungan Dengan Perilaku Safety Riding Driver Ojek Online Di Kota Semarang	Salsabila Nur Aulia, Bina Kurniawan, Ida Wahyuni, 2020 [14]	Quantitative Descriptive	There is a relationship between knowledge, vehicle conditions, and the use of PPE on safety riding behavior; There is no relationship between driving time, riding training, and motivation with safety riding behavior.
7	Perspektif Masyarakat Pengguna Jalan Atas Ojek Online: Sudut Pandang Kemacetan	Ibram Pinondang, Dalimunthe, Nofryanti, 2020 [15]	Quantitative Descriptive	The results showed that public perception of online motorcycle taxis is able to make safety and comfort for customers, can facilitate goods delivery activities, can take the initiative to find alternative ways to shorten the mileage, and affordable online motorcycle taxi costs for customer.

Hypothesis Development

Hypothesis is a temporary answer to the formulation of the problem. It is said temporarily because the answer is still based on relevant theory and has not been based on the empirical facts obtained, so it needs to be proven true through the collected empirical data. The hypotheses in the study are:

Hypothesis 1:

Ho : $\beta_{123} = 0$ there is no significant influence on knowledge, attitudes and perceptions together on online motorcycle taxi safety riding behavior in Jakarta.

Ha : $\beta_{123} > 0$ there is a significant influence on knowledge, attitudes and perceptions together on the safety riding behavior of online motorcycle taxi in Jakarta

Hypothesis 2:

Ho : $\beta_1 = 0$ there is no significant influence of knowledge on online motorcycle taxi safety riding behavior in Jakarta

Ha : $\beta_1 > 0$ there is a significant influence of knowledge on the safety riding behavior of online motorcycle taxi in Jakarta

Hypothesis 3:

Ho : $\beta_2 = 0$ there is no significant influence on attitudes towards online motorcycle taxi safety riding behavior in Jakarta

Ha : $\beta_2 > 0$ there is a significant influence on attitudes towards online motorcycle taxi safety riding behavior in Jakarta

Hipotesis 4

Ho : $\beta_3 = 0$ there is no significant influence on perception of online motorcycle taxi safety riding behavior in Jakarta

Ha : $\beta_3 > 0$ there is a significant influence of perception on the safety riding behavior of online motorcycle taxi in Jakarta.

In conclusion, the hypothesis is likely to be that there is a positive correlation between knowledge, attitude, and perception of traffic safety regulations and safe driving practices among ojek online drivers.

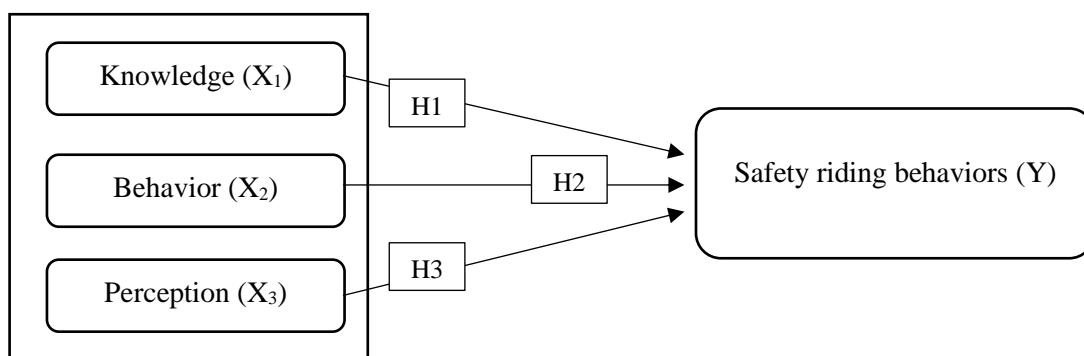


Fig 1. Research Framework

Operational Definition of Variables:

1. Knowledge Variable (X1)

Knowledge is information or information that a person knows or realizes [16]. Knowledge includes, but is not limited to descriptions, hypotheses, concepts, theories, principles and procedures that Bayesian probability is correct or useful using the Likert scale set based on 5 (five) or the Likert scale implemented in five options, namely Strongly Disagree (STS), which always has a score of 1, Disagree (TS), which always has a score of 2, Undecided (R), who

always has a score of 3, Agree (S), who has a score of 4 and Strongly Agree (SS), which has a score of 5 [17]. With indicators of education, age, experience, and vehicle condition.

2. Attitude Variable (X2)

Attitude is an evaluative statement towards an object, person, or event [18] This reflects how a person feels about something. Afterwards, the indicator of attitude are behavior belief and evaluation outcome.

3. Perceptual Variable (X3)

Perception is the act of arranging, recognizing, and interpreting sensory information to provide an overview and understanding of the environment [19]. Perception includes all signals in the nervous system, which are the result of physical or chemical stimulation of the sensing organs. Indicator of the perception variables are safety, time perception, cost perception, ease of service perception, and congestion perception related to online transportation facilities.

4. Safety riding behavior Variable (Y)

Safety driving or can also be known as safety riding is a program to reduce the number of traffic accidents [20]. The target of the safety riding program is to equip vehicles with mirrors, turn signals, and brake lights (vehicle equipment). Indicators of driving safety behavior variables are predisposing factors, probable factors and driving factors.

The population in this study is estimated at 2 million online motorcycle taxi drivers in the Jakarta area. While the sampling technique in this study is non-probability sampling, which aims to reduce costs, time, and energy. However, sampling is still required to explain the population in the field. The nonprobability sampling technique used is purposive sampling technique. Sampling in this study must have criteria, namely online motorcycle taxi drivers on the Gojek and / or Grab platform who are at least 17 years old. The margin of error formula is used in determining the number of samples.

$$n = \frac{z^2}{4(moe)^2} \quad (1)$$

Description:

n = total sample

Z = the level of confidence required at 95% sample setting at Z equal to 1.96

moe = Margin of error, which is the maximum acceptable error level and, in this research, used moe 10%

So, by using this formula, the results are obtained, namely 100 samples or respondents. While the questionnaire score technique used is a Likert scale with 5 alternative answers [8].

Table 2. Likert Scalet

Answer Options	Abbreviations	Value Weighting
Strongly Agree	SS	5
Agree	S	4
Neutral	RG	3
Disagree	TS	2
Strongly Disagree	STS	1

Source : [21]

Validity and Reliability Testing

a) Validity Test

The validity test is used to determine whether a questionnaire is valid. A questionnaire is said to be valid if the questions on the questionnaire can reveal something that will be measured by the questionnaire [22]. The validity test is carried out by comparing the $r_{\text{calculate}}$ value with the table r count, which is 0.30. If $r_{\text{calculate}}$ is greater than r of the table and the value of r is positive, then the item or question is said to be valid. The results of the analysis can be seen in the reliability test output in the corrected item total correlation section. In decision making to test the validity of the indicator:

- (1) If $r_{\text{calculate}}$ positively and $r_{\text{calculate}} > r_{\text{table}}$ then the item or variable is valid.
- (2) If $r_{\text{calculate}}$ is not positive and $r_{\text{calculate}} < r_{\text{table}}$ then the item or variable is invalid [23]

b) Reability Test

Reliability Test is a tool to measure a questionnaire which is an indicator of variables or constructs [23]. A questionnaire is said to be reliable if a person's answers to statements are consistent or stable over time. The method used to test the reliability of the questionnaire in this study is to measure reliability with the Cronbach Alpha statistical test. To find out that the questionnaire is reliable, testing the reliability of the questionnaire will be carried out with the help of the SPSS computer program. The basis for making this reliability test decision is as follows:

If Cronbach's Alpha coefficient $\geq 0,6 \rightarrow$ then Cronbach's Alpha acceptable (construct reliable).

If Cronbach's Alpha $< 0,6 \rightarrow$ then Cronbach's Alpha poor acceptable (construct unreliable).

Research Instrument Test Results

This study used primary data. Data was collected by questionnaire distribution techniques, namely by providing written statements to respondents. Furthermore, respondents respond to the statements given. This questionnaire is closed where answers are readily available. The filling of this questionnaire is expected to be completed quickly. Before the questionnaire was distributed to the research sample, a trial was first carried out on 30 respondents outside the research sample. to measure the validity and reliability of the measuring instrument.

a) Validity Test

Testing the validity of the instrument is to determine the degree of accuracy of the instrument to collect research data. The type of validity used in this study is construct validity, which includes understanding the theoretical arguments that underlie the measurements obtained. For validity testing in this study calculated by computer using the Statistical Product and Service Solutions (SPSS) program, the results for making decisions are by comparing $r_{\text{calculate}}$ with r_{table} ($n = 30, \alpha = 5\%$). The calculated value can be obtained using the value of the Product Moment Correlation Coefficient. If the value of the Product Moment Correlation Coefficient $> r_{\text{table}}$, then the statement item is said to be valid or if the calculation is positive, and the calculation is $> r_{\text{table}}$, then the item or variable is valid. If the count is not positive, and the calculation is $< r_{\text{table}}$, then the item or variable is invalid. Where r_{table} uses 0.394. The validity test results for each statement can be seen in the table below:

Table 3. Overall Results of Validity Test

No.	Statement	$r_{\text{calculate}}$ variable X_1	$r_{\text{calculate}}$ variable X_2	$r_{\text{calculate}}$ variable X_3	$r_{\text{calculate}}$ variable Y	r_{table}	Information
1	Q1	0,696	0,547	0,842	0,761	0,394	Valid
2	Q2	0,693	0,576	0,92	0,701	0,394	Valid
3	Q3	0,769	0,647	0,92	0,715	0,394	Valid
4	Q4	0,834	0,715	0,9	0,749	0,394	Valid
5	Q5	0,919	0,639	0,683	0,747	0,394	Valid
6	Q6	0,834	0,728	0,842	0,726	0,394	Valid

No.	Statement	$r_{\text{calculate}}$ variable X_1	$r_{\text{calculate}}$ variable X_2	$r_{\text{calculate}}$ variable X_3	$r_{\text{calculate}}$ variable Y	r_{table}	Information
7	Q7	0,919	0,639	0,617	0,729	0,394	Valid
8	Q8	0,771	0,702	0,9	0,879	0,394	Valid
9	Q9			0,75	0,798	0,394	Valid
10	Q10			0,77	0,581	0,394	Valid
11	Q11				0,581	0,394	Valid
12	Q12				0,715	0,394	Valid
13	Q13				0,623	0,394	Valid
14	Q14				0,685	0,394	Valid
15	Q15				0,729	0,394	Valid
16	Q16				0,879	0,394	Valid
17	Q17				0,715	0,394	Valid
18	Q18				0,648	0,394	Valid

Based on the results of the validity test, it was concluded that all items of the tested statement all have a calculated value greater than the r_{table} . Based on these results, it can be said that all points of statement in this study are valid.

b) Reliability Test

Reliability tests are used to determine the consistency or stability of measuring instruments, whether the tools used are reliable and remain consistent if the measurements can be repeated. For reliability testing of the same instrument, Cronbach's Alpha formula is used. This formula is used to see the extent to which measuring instruments can give relatively different results when re-measuring the same symptoms at different times. So reliability measurement is concerned with the consistency and accuracy of measurements.

Tabel 4. Overall Results of Reliability Test

Variable	Alpha Cronbach	>/<	Constanta	Information
Knowledge (X_1)	0,914	>	0,6	Reliable
Attitude (X_2)	0,801	>	0,6	Reliable
Perception (X_3)	0,937	>	0,6	Reliable
Safety riding behavior of online motorcycle taxis (Y)	0,919	>	0,6	Reliable

3. RESULT AND DISCUSSION

In the era of rapid technological advances and the internet of things (IoT) many things are developing including in the field of transportation which is experiencing rapid progress such as online or online transportation. Online transportation is a transportation activity where consumers order transportation advice through application technology on their smartphones. When consumers order transportation services through the application, the booking details can be known immediately. The detailed information in question is price, mileage, driver identity, trip duration, and information about company management. Information about the identity of online ojek drivers can be ascertained directly and accurately. This is because the organizing company has conducted a validation process first when prospective ojek drivers (partners) want to cooperate with the organizing company. In Indonesia, there

are two largest online transportation companies, namely Gojek and Grab. As explained, the focus of this research is two-wheeled vehicles, so this research focuses on motorcycle online transportation services provided by Gojek and Grab. Gojek itself has operated in 50 cities throughout Indonesia, while Grab only serves 19 cities in Indonesia.

1) Descriptive Statistics

This study took samples of online motorcycle taxis in Jakarta, following a tabulation of respondents' identities from 100 sample respondents.

Table 5. Research Respondent Data

No	Gender	Number of People	Percentage
1	Man	71	71%
2	Female	29	29%
Total of People		100	100%

Data from this study was taken from the distribution of questionnaires given to online motorcycle taxis totaling 100 people. In this study, the author submitted a set of questionnaires to respondents totaling 100 people. This questionnaire consists of 44 statement items representing 4 variables studied. The three research variables in the form of questionnaires are knowledge variables (X_1) and attitude variables (X_2), perception variables (X_3) and driving safety behavior variables (safety riding) online motorcycle taxis (Y). Data distribution of respondents' answers according to knowledge variables, attitude variables and perception variables as well as online motorcycle taxi safety riding behavior variables are as follows (according to SPSS 24.0).

Table 6. Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation
Perilaku Riding Safety	100	51,00	34,00	85,00	6352,00	63,5200	14,42184
Pengetahuan	100	21,00	16,00	37,00	2939,00	29,3900	5,36900
Sikap	100	25,00	14,00	39,00	2914,00	29,1400	7,74338
Persepsi	100	30,00	20,00	50,00	3530,00	35,3000	8,01829
Valid N (listwise)	100						

2) The influence of knowledge, attitudes, and perceptions together on online motorcycle taxi safety riding behavior

(1) Multiple Linear Regression Equations

Table 7. Multiple Linear Regression Knowledge variables (X_1) attitude variables (X_2) and perceptions (X_3) in parallel with online motorcycle taxi safety riding behavior variables (Y)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5,153	2,468		-2,087	,039
	Knowledge	,501	,096	,187	5,209	,000
	Attitude	,392	,087	,210	4,492	,000
	Perception	1,205	,083	,670	14,546	,000

Dependent Variable: Safety Riding Behavior

$$\hat{Y} = a + bX_1 + bX_2 + bX_3 \tag{2}$$

$$\hat{Y} = -5,153 + 0,501 X_1 + 0,392 X_2 + 1,205 X_3$$

The constant -5.153 states that there is no value of Knowledge (X_1), attitude (X_2) and perception (X_3), then the safety riding behavior of online motorcycle taxis (Y) is worth -5.153 while the regression coefficient value is 0.501 X_1 indicates that each increase of one value in the knowledge variable (X_1) can add to the variable safety riding behavior of online motorcycle taxis (Y) worth 0.501 times at a constant value of -5.153; regression coefficient worth 0.392 X_2 shows that each increase of one number in the attitude variable (X_2) will increase the variable safety riding behavior of online motorcycle taxis (Y) by 0.392 times at a constant value of -5.153; regression coefficient worth 1.205 X_3 shows that the addition of one value in the perception variable (X_3) will increase the number on the variable safety riding behavior of online motorcycle taxis (Y) by 1.205 times at a constant of -5.153.

(2) Correlation Coefficient (R)

Through multiple regression analysis, where SPSS 24.0 is used as a calculation tool, it can be seen that the correlation coefficient (R) value is 0.958, which means that the influence of knowledge variables (X_1), attitude variables (X_2) and perception variables (X_3) together with online motorcycle taxi safety riding behavior variables (Y) is very strong and positive.

Table 8. Correlation Coefficient (R) and Coefficient of Determination (R Square) of Knowledge Variables (X_1) Attitude variables (X_2) and perceptions (X_3) with online motorcycle taxi safety riding behavior variables (Y) Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of The Estimated
1	,958a	,918	,915		4,19749

a. Predictors: (Constant), Perception, Knowledge, Attitude

Source: SPSS processed data (2023)

(3) Coefficient Determination (R^2)

The coefficient of determination or R Square of 0.918 is the square of the correlation coefficient. R Square states 91.8% of the online motorcycle taxi safety riding behavior variable (Y) is influenced by variable factors of knowledge (X_1), attitudes (X_2) and perceptions (X_3) while the remaining 8.2% is influenced by other factors such as road conditions, number of vehicles, vehicle type, and others.

(4) Anova Test (F Test)

Then in the F test which has to evaluate the significance of the regression model of knowledge (X_1), attitudes (X_2), and perceptions (X_3) on the online motorcycle taxi safety riding behavior variable (Y). The F test results are as follows, Table 4.

Table 9. Fhitung Knowledge variables (X_1), attitude variables (X_2) and perceptions (X_3) in parallel with online motorcycle taxi safety riding behavior variables (Y) ANOVA^a

Model		Sum of Square	df	Mean Square	F	Sig.
1	Regression	18899,543	3	6299,848	357,561	,000b
	Residual	1691,417	96	17,619		
	Total	20590,960	99			

a. Dependent Variable: Safety Riding Behavior

b. Predictors: (Constant), Perception, Knowledge, Attitude

Source: SPSS processed data (2023)

The F test is carried out in testing the hypothesis:

$H_0 : \beta_{123} = 0$; there is no significant positive effect of knowledge, attitude and perception in parallel / together on safety behavior perceptions in parallel / together on safety behavior driving behavior of online motorcycle taxis in Jakarta in 2023.

$H_a : \beta_{123} > 0$; there is a significant positive effect of knowledge, attitudes and perceptions together on the safety behavior of online motorcycle taxi driving in Jakarta in 2023.

Decision-making is based on:

- a. If $F_{count} < F_{table}$ then H_a is rejected and H_o is accepted
- b. If $F_{count} > F_{table}$ then H_a is accepted and H_o is rejected

$$\begin{aligned}
 F_{table} &= F_{(1-\alpha)\{(dk=k),(dk=n-k-1)\}} & (3) \\
 &= F_{(1-\alpha)\{(dk=3),(dk=100-3-1)\}} \\
 &= F_{(1-0,05)(3,96)}
 \end{aligned}$$

How to get F_{table} = 3, as the numerator
 = 96, as the denominator
 F_{table} = 2,70

By using the SPSS 24.0 application, the F_{count} is $357.561 > F_{table}$ 2.70, so it is confirmed that H_o is rejected and H_a is accepted. F_{count} states that there is a significant positive effect of knowledge, attitudes and perceptions together on the safety riding behavior of online motorcycle taxis in Jakarta in 2023.

The t test is used to evaluate the regression significance of the knowledge variable (X_1) with the online motorcycle taxi driving safety behavior variable (Y). Decisions that can be taken:

- $H_o : \beta = 0$; There is no significant positive effect of knowledge on the safety behavior of online motorcycle taxi drivers in Jakarta in 2023.
- $H_a : \beta > 0$; there is a significant positive effect of knowledge on the safety behavior of online motorcycle taxi drivers in Jakarta in 2023.

Decision making is based on comparing t_{count} with t_{table}

- a. If $t_{count} < t_{table}$ then H_a is rejected and H_o is accepted
- b. If $t_{count} > t_{table}$ then H_a is accepted and H_o is rejected

From the calculation of SPSS 24.0, the t_{count} of the knowledge variable obtained is 5.209 with df $100-2 = 98$ at α (0.05), the t_{table} is 1.98.

$$\begin{aligned}
 t_{tabel} &= t_{(\alpha)(n-2)} & (4) \\
 &= t_{(0,05)(100-2)} \\
 &= t_{(0,05)(98)} \\
 &= 1,98
 \end{aligned}$$

So that the t_{count} is $5.209 > t_{table}$ (1.98), then H_o is rejected, and H_a is accepted. This shows that there is a significant positive effect of the knowledge variable on the safety riding behavior of online motorcycle taxis in Jakarta in 2023.

3) The Influence of Knowledge on Online Ojek Safety Riding Behavior

The t test was conducted to test the regression significance of the knowledge variable (X_1) with the driving safety behavior variable (Y). The decision taken is as follows:

- $H_o : \beta = 0$; there is no significant positive influence of knowledge on online motorcycle taxi safety riding behavior in Jakarta in 2023
- $H_a : \beta > 0$; there is a significant positive influence of knowledge on the safety riding behavior of online motorcycle taxis in Jakarta in 2023.

Decision making is based on comparing t_{count} with t_{table}

- a. If $t_{\text{count}} < t_{\text{table}}$ then H_a is rejected and H_o is accepted
- b. If $t_{\text{count}} > t_{\text{table}}$ then H_a is accepted and H_o is rejected

4) The Influence of Attitudes Towards Online Ojek Safety Riding Behavior

The t test is also applied in evaluating the regression significance of the attitude variable (X_2) with the online motorcycle taxi driving safety behavior variable (Y).

The decision taken was

- $H_o : \beta = 0$; There is no significant positive influence between perceptions on the safety behavior of online motorcycle taxi driving in Jakarta in 2023.
- $H_a : \beta > 0$; There is a significant positive influence between perceptions on the safety behavior of online motorcycle taxi driving in Jakarta in 2023.

Decision making is based on comparing t_{count} with t_{table}

- a. If $t_{\text{count}} < t_{\text{table}}$ then H_a is rejected and H_o is accepted
- b. If $t_{\text{count}} > t_{\text{table}}$ then H_a is accepted and H_o is rejected

5) The Influence of Perception on Online Ojek Safety Riding Behavior

The t test was conducted to test the regression significance of the perception variable (X_3) with the driving safety behavior variable (Y). The decisions taken are as follows:

The decision taken was

- $H_o : \beta = 0$; there is no significant positive influence between perceptions of online motorcycle taxi safety riding behavior in Jakarta in 2023.
- $H_a : \beta > 0$; there is a significant positive influence between perceptions of online motorcycle taxi safety riding behavior in Jakarta in 2023.

Decision making is based on comparing t_{count} with t_{table}

- a. If $t_{\text{count}} < t_{\text{table}}$ then H_a is rejected, and H_o is accepted
- b. If $t_{\text{count}} > t_{\text{table}}$ then H_a is accepted, and H_o is rejected

6) The influence of knowledge, attitudes and perceptions together on online motorcycle taxi safety riding behavior

Through multiple linear regression analysis, it can be seen that the correlation coefficient (r) = 0.958. This figure shows that the effect of the knowledge variable (X_1) and the attitude variable (X_2) together with the online motorcycle taxi driving safety behavior variable (Y) is very strong and positive.

The coefficient of determination (R Square) of 0.918 is the square of the correlation coefficient. This states that 91.8% of the online motorcycle taxi safety riding behavior variable (Y) is influenced by variable factors of knowledge (X_1) and attitude variables (X_2) while the remaining 8.2% is influenced by other factors. These other factors such as road conditions, number of vehicles, vehicle types, and others. Through the calculation of SPSS 24.0, it is obtained that the F_{count} is 357.561. On the other hand, the F_{table} value with an independent degree of numerator 2 and denominator 47 at α (0.05) is 2.70.

Therefore, $F_{\text{count}} (357.561) > F_{\text{table}} (2.70)$, it is clear that H_o is rejected and H_a is accepted. This states that the model of regression of knowledge, attitude and perception variables is significant with the variable safety driving behavior of online motorcycle taxis in Jakarta.

7) The influence of knowledge on online motorcycle taxi safety riding behavior

Based on SPSS 24.0, the t_{count} obtained is 5.209 with df 98 at α (0.05), the t_{table} is 1.98. So, the t_{count} is $5.209 > t_{\text{table}} 1.98$, it is clear that H_o is rejected, and H_a is accepted. Thus, the knowledge variable

(X₁) has a significant positive effect on the safety behavior of online motorcycle taxi driving (Y) in Jakarta.

8) The influence of attitudes towards the safety riding behavior of online motorcycle taxis

By using SPSS 24.0, the t_{count} obtained is 4.492. With df 98. At α (0.05) it is 1.98. Therefore, t_{count} 4.492 > t_{table} 1.98, it is clear that H_0 is rejected and H_a is accepted. This states that the regression coefficient of the attitude variable has a significant positive effect on the safety behavior of online motorcycle taxi driving in Jakarta.

9) The influence of perception on online motorcycle taxi safety riding behavior

Through the calculation tool SPSS 24.0, the t_{count} obtained is 14.546 with df 98. At α (0.05) it is 1.98. Therefore, t_{count} 14.546 > t_{table} 1.98, then H_0 is rejected, and H_a is accepted. This shows where the regression coefficient of the perception variable has a significant positive effect on the safety behavior of driving an online motorcycle taxi in Jakarta.

Based on the facts, it is known that respondents who have good knowledge are respondents who understand general driving knowledge, driving rules and policies, completeness of driving documents, preparation both before driving, during, and after driving. On the other hand, respondents who have less, and sufficient knowledge are respondents who do not understand driving safety which includes general knowledge of safety riding, rules and policies when driving, completeness of driving documents, preparation both before driving, during, and after driving.

The results of this study prove the theory of one's knowledge can have an impact on one's behavior. The better one's knowledge, the better the motorcycle taxi driving behavior. So it can be concluded when someone who has good knowledge, it will also behave well in driving. But it is different if someone has less knowledge. People who have less driving knowledge can behave less or not well in driving. So that drivers with poor knowledge tend to behave unsafely when driving a motorcycle.

Examples of some motorcyclists who do not show a disciplined attitude when passing traffic include using a cell phone while driving, motorcycle maintenance is carried out only when damage occurs, not using the right and left sign lights before turning, not wearing closed shoes or footwear when driving. This is in line with Law Number 22 of 2009 article 203 paragraph 2 on the national program for traffic safety and road transportation on how to drive safely (safety riding). The safe driving method in question is not allowed to listen to music when driving a two-wheeled vehicle, not allowed to communicate via mobile phone while driving a motorcycle, not allowed to change the color or appearance of the motorcycle because it must be the same as the color information listed on the STNK, must turn on the lights during the day and also at night, not allowed to smoke when driving a motorcycle, and must wear a helmet with the Indonesian National Standard (SNI), and always carry complete documents namely SIM and STNK.

Online motorcycle taxi drivers of two-wheeled vehicles actually already have a positive perception of traffic safety factors, but it needs to be maintained continuously so that perceptions become stronger and behavior in driving safety will be better. Perceptions can have an impact on drivers when making decisions that can have an effect on driver actions. A person's behavior is influenced by perceptions that can trigger a real action.

4. CONCLUSION

The results of data analysis of each knowledge variable, attitude variable and perception variable and online ojek driving safety behavior in Jakarta are good. Likewise, the results of data analysis on the variables of knowledge, attitude and perception in parallel have a positive and significant effect on the safety behavior of online motorcycle taxi driving in Jakarta where F_{count} (357.561) > F_{table} (2.70), so it is clear that H_0 is rejected and H_a is accepted. Where knowledge has a positive and significant influence on the safety behavior of online motorcycle taxi driving in Jakarta where t_{count} 5.209 > t_{table} 1.98, it is clear that H_0 is rejected and H_a is accepted. Followed by attitudes that have a positive and significant influence on the safety behavior of online motorcycle taxi driving in Jakarta where t_{count} 5.209 > t_{table} 1.98, so it is clear that H_0 is rejected and H_a is accepted. Likewise, the perception variable has a positive

and significant influence on the safety riding behavior of online motorcycle taxis in Jakarta where $t_{count} 14,546 > t_{table} 1.98$, so it is clear that H_0 is rejected and H_a is accepted.

The theoretical implications of this study indicate that the safety driving behavior of online motorcycle taxis in Jakarta is influenced by variables of knowledge, attitude and perception. While the practical implication is that the safety driving behavior of online motorcycle taxis in Jakarta can be improved by continuing to enrich the knowledge, attitudes and perceptions of online motorcycle taxi drivers in safety riding. Therefore, online ojek companies, both Grab and Go-Jek can hold regular socialization or training on safety riding, make policies regarding routine inspection of motor vehicle feasibility. Thus undoubtedly the safety of online ojek driving can be created.

REFERENCE

- V. A. Dihni, "Angka Kecelakaan Lalu Lintas Di Indonesia Meningkatkan Di 2021, Tertinggi Dari Kecelakaan Motor | Databoks." Accessed: Nov. 30, 2023. [Online]. Available: <https://Databoks.Katadata.Co.Id/Datapublish/2022/03/24/Angka-Kecelakaan-Lalu-Lintas-Di-Indonesia-Meningkat-Di-2021-Tertinggi-Dari-Kecelakaan-Motor>
- World Health Organization, Global Status Report On Road Safety 2018. Geneva: World Health Organization, 2018. Accessed: Nov. 30, 2023. [Online]. Available: <https://Iris.Who.Int/Handle/10665/276462>
- M. Muhaz, "Kematangan Emosi Dengan Aggressive Driving Pada Mahasiswa," *Cognicia*, Vol. 1, No. 2, Art. No. 2, 2013, Accessed: Nov. 30, 2023. [Online]. Available: <https://Ejournal.Umm.Ac.Id/Index.Php/Cognicia/Article/View/1642>
- F. A. Darmawan And N. B. Puspitasari, "Analisis Pengaruh Persepsi Resiko Dan Persepsi Pada Driving Task Terhadap Perilaku Keselamatan Berkendara," *Industrial Engineering Online Journal*, Vol. 8, No. 3, Art. No. 3, Aug. 2019, Accessed: Dec. 04, 2023. [Online]. Available: <https://Ejournal3.Undip.Ac.Id/Index.Php/Ieoj/Article/View/24269>
- C. Basumerda, R. Dharmastiti, And A. R. Wijaya, "Pengaruh Jenis Edukasi Keselamatan Berkendara Terhadap Pemahaman Calon Pengendara Mobil Dalam Menghadapi Konflik Lalu Lintas," *Teknoin*, Vol. 20, No. 4, Art. No. 4, 2014, Doi: 10.20885/V20i4.7446.
- B. A. Farisi And D. Prabowo, "Gara-Gara Main Gawai Saat Berkendara, Pengemudi Ojek Online Di Sunter Tabrak Mobil Dan Hampir Terlindas," *Kompas.Com*. Accessed: Dec. 01, 2023. [Online]. Available: <https://Megapolitan.Kompas.Com/Read/2023/03/25/20522331/Gara-Gara-Main-Gawai-Saat-Berkendara-Pengemudi-Ojek-Online-Di-Sunter>
- H. Halim, M. I. Ramli, S. A. Adisasmita, And S. H. Aly, "Kecelakaan Sepeda Motor Di Kota Makassar," *Jurnal Transportasi*, Vol. 17, No. 2, Art. No. 2, 2017, Doi: 10.26593/Jtrans.V17i2.2728.%P.
- F. Laurent, "Pengaruh E-Service Quality Terhadap Loyalitas Pelanggan Go-Jek Melalui Kepuasan Pelanggan," *Agora*, Vol. 4, No. 2, Art. No. 2, Jul. 2016.
- J. Manurung, M. E. Sitorus, And R. Rinaldi, "Faktor-Faktor Yang Berhubungan Dengan Perilaku Safety Riding Pengemudi Ojek Online (Go-Jek) Di Kota Medan Sumatera Utara," *Jhsp*, Vol. 1, No. 2, Pp. 91–99, 2019, Doi: 10.35893/Jhsp.V1i2.18.
- N. Aini, R. Indrawati, And D. Rusmiati, "Pengetahuan Sebagai Faktor Penentu Perilaku Safety Driving Pada Pengemudi Truk," *Jurnal Ayurveda Medistra*, Vol. 3, No. 1, Feb. 2021, Doi: <https://Doi.Org/10.51690/Medistra-Jurnal123.V3i1.33>.
- A. Setiani, S. A. Majid, And Z. A. Haroen, "Keselamatan Pengemudi Go-Jek Di Jakarta Timur," *Jurnal Manajemen Transportasi & Logistik (Jmtranslog)*, Vol. 6, No. 1, Art. No. 1, Mar. 2019, Doi: 10.54324/J.Mtl.V6i1.285.

- A. D. Puteri And Azimah M. Nisa, “Faktor-Faktor Yang Berhubungan Dengan Perilaku Safety Driving Pada Supir Travel Di Pt. Libra Wisata Transport,” *Prepotif: Jurnal Kesehatan Masyarakat*, Vol. 4, No. 1, Art. No. 1, 2020, Doi: 10.31004/Prepotif.V4i1.555.
- R. B. Ruzain, Y. Herawati, And D. Christofa, “Hubungan Pengetahuan Berkendara Selamat Dengan Kecelakaan Pengemudi Transportasi Roda Dua Berbasis Online Di Kota Pekanbaru,” *Jurnal Islamika*, Vol. 3, No. 1, Art. No. 1, May 2020, Doi: 10.37859/Jsi.V3i1.1706.
- S. N. Aulia, B. Kurniawan, And I. Wahyuni, “Faktor-Faktor Yang Berhubungan Dengan Perilaku Safety Riding Driver Ojek Online Di Kota Semarang,” *Jurnal Kesehatan Masyarakat*, Vol. 8, No. 5, Art. No. 5, Aug. 2020, Doi: 10.14710/Jkm.V8i5.27937.
- I. P. Dalimunthe And N. Nofryanti, “Perspektif Masyarakat Pengguna Jalan Atas Ojek Online: Sudut Pandang Kemacetan | Dalimunthe | Media Ekonomi,” *Media Ekonomi*, Vol. 20, No. 1, Accessed: Mar. 11, 2024. [Online]. Available: <https://Jurnalnasional.Ump.Ac.Id/Index.Php/Medek/Article/View/9513>
- W. Zarman, “Information And Knowledge In Epistemology Perspective,” *Iop Conf. Ser.: Mater. Sci. Eng.*, Vol. 407, No. 1, P. 012121, Aug. 2018, Doi: 10.1088/1757-899x/407/1/012121.
- G. Decrouez And A. Robinson, “Measuring The Inspectorate: Point And Interval Estimates For Performance Indicators,” *J. Agric. Biol. Environ.*, Vol. 21, No. 2, Pp. 382–401, 2016, Doi: 10.1007/S13253-016-0248-3.
- D. Yustiarini, “Safety And Health Study Of Construction Workers To Improve Work Productivity,” Presented At The 5th Upi International Conference On Technical And Vocational Education And Training (Ictvet 2018), Atlantis Press, Feb. 2019, Pp. 468–470. Doi: 10.2991/Ictvet-18.2019.107.
- R. Firdayanti, “Persepsi Risiko Melakukan E-Commerce Dengan Kepercayaan Konsumen Dalam Membeli Produk Fashion Online,” *Journal Of Social And Industrial Psychology*, Vol. 1, No. 1, Art. No. 1, 2012, Doi: 10.15294/Sip.V1i1.2660.
- A. Fahmi, N. Saputra, And M. Fauziah, “Faktor-Faktor Yang Berhubungan Dengan Pengetahuan Keselamatan Berkendara Ojek Online Di Kabupaten Bogor Tahun 2018,” *Environmental Occupational Health And Safety Journal*, Vol. 1, No. 1, Art. No. 1, Jul. 2020, Doi: 10.24853/Eohjs.1.1.9-16.
- F. Kupfer And F. Lagneaux, “Trust In Courier Services As A Determinant Of Service Quality,” P. 117, Mar. 2009, Doi: 10.21203/Rs.3.Rs-39174/V1.
- D. Iskanto Et Al., “Analysis Of Relationship Between Leadership And Employee Performance At Manufactur Company In Indoenesia,” In *Proceedings Of The International Conference On Industrial Engineering And Operations Management*, Singapore, Singapore: Ieom Society International, Mar. 2021. Doi: 10.46254/An11.20210593.
- R. Ardista, “Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pelanggan Pt. Langit Membiru Wisata Bogor,” *Parameter*, Vol. 6, No. 1, Pp. 38–49, Jul. 2021, Doi: 10.37751/Parameter.V6i1.160.