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ORIGINAL ARTICLE

Determinan of Safety Riding on Gojek Rider Community at the Jember Regency

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ABSTRACT

Introduction: Safety riding is a behavior to minimize the level of danger as well as safety and security in riding that accordance with laws and regulations system in our country. Safety riding is very important, especially for online motorcycle taxi drivers who have a high risk of having a traffic accident at work. Gojek is one of the largest online transportation companies in Indonesia. **Method:** This research was conducted on Gojek driver partners in three sub-districts of the Jember urban areas Sumbersari, Patrang and Kaliwates. A study that aims to analyze factors related to safety riding on the Gojek Rider community in the urban area of Jember Regency. This study is a quantitative study using an observational analytical research type with a cross-sectional research design with a sample of 75 drivers. Data collection used interview instrument adopted from previous research, observations and documentations. Analysis of the correlation data used the Chi-Square test. **Result:** This research the majority of Gojek drivers had 2 years of service (72%), good riding knowledge (68%), mobile phone usages usage on the road without pulling over (74,7%), moderate work fatigue (64%), roadworthy vehicles (82.7%) and unsafe riding (61.3%). **Conclusion:** There is no correlation between length of service and safety riding. There is a correlation between driving knowledge, work fatigue, cell phone use and vehicle factors.

Keywords: behaviour, gojek, human factors, mobile phone usage, safety riding

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INTRODUCTION

Online transportation is one of the best innovations from technology development that is widely used today (Wahyusetyawati, 2017). In Indonesia, there are several online transportation technology companies that attract people to take advantage of them, some of which are Gojek, Grab and Uber. This online transportation causes traffic congestion and the number of accidents to increase.

Based on the World Health Organization (2018), it is stated that every year traffic accidents occur worldwide with more than 1.25 million deaths and 50 million serious injuries, of which 90% of traffic accidents occur in developing countries including Indonesia. According to Statistic Indonesia data in 2019, the number of traffic accidents in Indonesia was 116,411 people (Statistic Indonesia, 2019). Meanwhile in Jember Regency, based on data from the Traffic Police Unit (SATLANTAS) in 2021 (January - August) there were 555 cases of traffic accidents, with 204 deaths and 602 serious injuries and minor injuries involving 837 types of motorized vehicles.

The high number of traffic accidents is due to the increasing number of motorized vehicles. In 2019, this type of vehicle was the largest contributor to traffic accidents in Indonesia with 35,980 people. According to Heinrich, 88% of accidents are caused by workers' unsafe actions (Mahawati *et al.*, 2021). Research conducted by Manopo, Kandou and Suoth (2018) shows that 52 drivers (51.5%) have unsafe driving behavior, 37 drivers (36.6%) have quite safe driving behavior and 12 drivers (11.9%) have safe driving behavior. In an effort to reduce the potential for traffic accidents due to human behavior, it is necessary to implement safety riding with training or socialization through mass media publications, electronics, and print media.

Safety riding is behavior to minimize the level of danger in driving in accordance with the applicable laws and regulations. Safety riding is very important for online motorcycle taxi drivers who

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have a high risk of having a traffic accident at work. There are still many online motorcycle taxi drivers who do not do safety riding and violate traffic such as breaking through traffic lights, going against the flow, using sidewalks, driving at high speeds, not using personal protective equipment (helmets, gloves) and vehicle accessories driving license and vehicle registration certificate (SIM, STNK) (Wang *et al*., 2020).

It is necessary to implement a program in the workplace as a promotion of hazardous behavior in accordance with the Behavior Based Safety (BBS) theory which is an effort to improve safety in the workplace through changes and improvements in dangerous behavior (Ramadhani, Kurniawan and Jayanti, 2018). The behavior change is carried out through a behavioral approach described in the ABC behavior model (Antecedent, Behavior, Qonsequence) so that the causes and impacts of a person's behavior can be known, where the antecedent or activator is a driver or supporter of a person in behavior which includes human factors such as driving knowledge, work fatigue, cell phone use and working period as well as external human factors such as vehicle conditions, road factors and weather factors. Then behavior can be in the form of safe behavior and unsafe behavior (Gunawan and Waluyo, 2015). Consequences include positive and negative consequences (Saud, 2016).

In 2017, Jember Regency was one of the areas that had Gojek services. Gojek drivers in Jember City mostly operate in three sub-districts, namely Sumbersari, Kaliwates and Patrang. The three sub-districts are strategic areas located in the city center. Based on the results of a preliminary survey using a previous research questionnaire on 20 Gojek drivers in Jember City, as many as 12 riders (60%) have unsafe behavior when driving because they often experience fatigue and lack of rest in carrying out their work and sometimes get demands on arrival time by customers, disturbed concentration, chasing targets or bonuses until working late at night and lack of knowledge regarding the vehicle's condition. When interviewed regarding traffic accidents, as many as 14 drivers (70%) stated that they had experienced a traffic accident.

Based on the results of observations of Gojek drivers in Jember passing on the road, it was found that Gojek drivers did not use full PPE such as gloves, shoes, went against the flow, drove using cellphones and smoked, talked while driving with friends, broke through traffic lights. Based on this, researchers feel the need to conduct research on factors related to safety riding in the Gojek rider community and are expected to provide awareness regarding the problems found.

METHODS

This type of research is an analytical observational study with a cross-sectional research design. This study was conducted on Gojek driver partners in three sub-districts in the Jember urban area with a population of 14 Gojek communities consisting of 116 driver members and a sample of 75 drivers. This study uses a simple random sampling technique. The variables in this study consist of two types, namely independent variables and dependent variables. The independent variables in this study are human factors including driving knowledge, length of service, work fatigue and use of mobile phones and vehicle factors while the dependent variable in this study is safety riding in the Gojek driver community in the Jember Regency urban area. The data collection technique used interview instruments adopted from previous studies, observation and documentation. The instrument used in the knowledge variable was a questionnaire that had been used previously by previous researchers, namely Rizal Khakim with the title Relationship Between Age, Education Level, Driving Period and Knowledge with Safety Riding Behavior (Study on Motorcycle Taxi Riders in Kedungmundu Village, Semarang City) (Khakim, 2016)Vehicle and safety riding factors also used research from Shofa Devi Erviani with the title Determinants of Traffic Accidents in Jember University Students Who Ride Motorcycles in Jember Regency (Erviani, 2016). The questionnaire on the work fatigue variable used a standard questionnaire, namely the Work Fatigue Feeling Measurement Tool Questionnaire (KAUPK2) which was specifically designed by Lientje Setyawati in 1994 and has been tested for validity and reliability to measure feelings of fatigue intended for Indonesian workers (Hastuti, 2015:36). Data collection is carried out when drivers are resting at the Gojek base or community. Data collection takes 20 minutes for each community. Correlation data analysis uses the Chi-Square test with a significance level (α) of 0.05. The code of ethics for this study is No. 170 / KEPK / FKM-UNEJ / IV / 2022.

RESULTS

Below are the results of research explaining factors related to safety riding in the Gojek driver community in the urban area of Jember Regency.

Univariate Analysis

Human Factor

Based on table 1, it is known that the majority of Gojek drivers had good driving knowledge (68%). In addition, the majority of Gojek drivers had 2 years of work period (72%). The majority of Gojek drivers using mobile phone usages on the road without pulling over which is almost homogeneous (74.7%) and most experience moderate work fatigue (64%).

External Human Factors

Based on table 2, it is known that of the 75 Gojek drivers in the urban area of Jember Regency, the majority had Good Vehicles (72%). However, there are some Gojek drivers who own vehicles in the Bad Vehicles category (28%), this is because they rarely service vehicles and change oil according to schedule, the condition of the front brakes and light reflectors is not optimal.

Tabel 1. Distribution of Human Factors on Gojek Rider Community at the Urban Area of Jember Regency on Juni 2022

Human Factor	Frequency (n)	Percentage (%)
Quesionnaire of Riding		
Knowledge		
Good Knowledge	51	68
Bad Knowledge	24	32
Work Period		
< 2 years	21	28
≥ 2 years	54	72
Questionnaire for Measuring Feelings of Work Fatigue (KAUPK2)		
High	0	0
Medium	48	64
Low	27	36
Mobile phone usage (without pulling over)		
Yes	56	74.7
No	19	25.3
Total	75	100

Safety Riding

Based on table 3, it is known that of the 75 Gojek drivers in the urban area of Jember Regency, the majority had Good Behavior (61.3%).

Bivariate Analysis

Based on the cross tabulation between Riding knowledge and safety riding (table 4), it can be seen that of the 51 Gojek drivers in Jember with good knowledge, the majority had safe behavior (34.7%). Meanwhile, of the 32 Gojek drivers with less knowledge, the majority had unsafe action (28%).

Based on the results of the analysis of the correlation between riding knowledge and safety riding using the chi-square test, a p-value of 0.003 or smaller than is 0.003 <0.05, meaning that H0 is rejected, meaning that there is a significant correlation between riding knowledge and safety riding on Gojek drivers in the urban area of Jember regency. In addition, it is known that the OR value of 0.137 < 1 means that the variable knowledge of driving in a good category is a protective factor for unsafe action on Gojek drivers.

Based on the cross tabulation between working period and safety riding (table 4), it can be seen that of the 21 Gojek riders in Jember with working periods < 2 years, the majority had unsafe action as many as 15 riders (20%). While of the 54 Gojek riders with a working period of ≥ 2 years, the majority had unsafe action as many as 31 riders (41.3%).

Tabel 2. Distribution of Vehicle Factors on Gojek Rider Community at the Urban Area of Jember Regency on Juni 2022

Vehicle Faktors	Frequency (n)	Percentage (%)
Good Vehicle	54	72
Bad Vehicle	21	28
Total	75	100

Tabel 3. Distribution of Safety Riding on Gojek Rider Community at the Urban Area of Jember Regency on Juni 2022

Safety Riding	Frequency (n)	Percentage (%)
Good Behavior	46	61.3
Bad Behavior	29	38.7
Total	75	100

Based on the results of the analysis of the correlation between service life and safety riding using the chi-square test, a p-value of 0.392 > 0.05 means that H0 is accepted, meaning that there is no significant correlation between service life and safety riding in Gojek riders in the urban area of Jember Regency. In addition, it is known that the OR value of 1.855 > 1 means that the variable length of service is a risk factor for safety riding in Gojek riders, so that the work period of ≥ 2 years is 1.855 times more risk of behaving unsafely in driving compared to the work period of < 2 years, although these results are not statistically significant.

Based on the cross tabulation between work fatigue and safety riding (table 4), it can be seen that of the 48 Gojek riders in Jember with moderate work fatigue, the majority had unsafe action (48%). Meanwhile, of the 27 Gojek riders with mild work fatigue, the majority had safe action as many as 17 riders (22.7%).

Based on the results of the analysis of the correlation between work fatigue and safety riding using the chi-square test, a p-value of 0.003 or smaller than α, namely 0.003 < 0.05 means that H0 is rejected, meaning that there is a significant correlation between work fatigue and safety riding in Gojek riders in urban areas of Jember Regency, so moderate work fatigue is 5.100 times more at risk of behaving unsafely in driving compared to mild work fatigue.

Based on the cross tabulation between mobile phone usage use and safety riding (table 4), it can be seen that of the 54 Gojek riders in Jember with mobile phone usage use without pulling over, the majority had unsafe action (56%). Meanwhile, of the 21 Gojek riders who used cellphones pulled over first, the majority had safe action as many as 15 riders (20%).

Based on the results of the analysis of the correlation between mobile phone usage use and safety riding using the chi-square test, a p-value of < 0.00001 or smaller than α, namely 0.00001 < 0.05 means that H0 is rejected, meaning that there is a significant correlation between cellphone use and safety riding in Gojek riders in urban areas of Jember Regency. In addition, it is known that the OR value of 11.250 > 1 means that the variable use of mobile phone usages is a risk factor for safety riding in Gojek drivers, so that the use of a cellphone without pulling over risks 11.250 times the risk of behaving unsafely in riding compared to the use of a mobile phone usage pulling over first.

Based on the cross tabulation between vehicle factors and safety riding (table 4), it can be seen that of the 54 Gojek drivers in Jember with good vehicle conditions, the majority have safe action as many as 28 drivers (37.3%). Meanwhile, of the 21 Gojek drivers with bad vehicle, the majority had bad behavior as many as 20 drivers (26.7%).

Tabel 4. The Correlation Between Riding Knowledge, Work Period, Work Fatigue, Mobile phone usage Usage (without pulling over), Vehicle Factor and Safety Riding

Variable	Safety Riding				Total		p value	OR (95% CI)
	Unsafe Action		Safe Action					
	n	%	n	%	N	%		
Riding Knowledge								
Good	25	33.3	26	34.7	51	68	0.003	0.137 (0.036-0.519)
Bad	21	28	3	4	24	32		
Work Period								
< 2 years	15	20	6	8	21	28	0.392	1.855 (0.624-5.515)
≥ 2 years	31	41.3	23	30.7	54	72		
Work Fatigue								
Medium	36	48	64	0.003	48	64	0.003	5.100 (1.842-14.119)
Low	10	13.3	17	22.7	27	36		
Mobile phone usage Usage (without pulling over)								
Yes	42	56	14	18.7	54	74.7	< 0.00001	11.250 (3.198-39.578)
No	4	5.3	15	20	21	25.3		
Vehicle Factors								
Worth the Road	26	34.7	28	37.3	54	72	< 0.00001	0.046 (0.006-0.371)
Not Worth the Road	20	26.7	1	1.3	21	28		

Based on the results of the analysis of the correlation between vehicle factors and safety riding using the chi-square test, a p-value of < 0.00001 or smaller than α, namely 0.00001 < 0.05 means that H0 is rejected, meaning that there is a significant correlation between vehicle factors and safety riding in Gojek drivers in the urban area of Jember Regency. In addition, it is known that the OR value of 0.046 < 1 means that the variable factor of a vehicle with a roadworthy category is a protective factor of bad behavior in Gojek drivers.

DISCUSSION

Riding Knowledge

Knowledge is information obtained by a person through sensing by a certain object. Knowledge is one of the factors that influence a person in acting or changing their behavior (Pakpahan *et al*., 2021). This is in accordance with Benjamin Bloom's theory that knowledge or cognitive becomes the cause of a person's behavior. A person who has extensive knowledge can easily make wise decisions (Aulia, Kurniawan and Wahyuni, 2020). In this study, the knowledge of Gojek drivers was measured based on interviews instrument adopted from previous research related to driving safety standards including understanding, traffic regulations, preparation and equipment of safety riding, road markings and the function of vehicle papers.

Based on the results of research conducted on Gojek riders in the urban area of Jember Regency, the majority of Gojek riders have good knowledge, namely as many as 51 respondents answered questions correctly. Most Gojek motorists answer correctly to the questions of driving with drowsiness, fatigue and against the flow causing accidents, the importance of checking vehicles before, during and after driving, functions and laws related to compliance with carrying vehicle papers, obeying traffic regulations and the function and importance of using personal protective equipment. Riders who have less knowledge are 2,143 times at risk of behaving unsafely when riding than motorists with good knowledge (Rahmah *et al*., 2021). A person who had good knowledge will be wiser when deciding a problem or action for example in driving will think about the risks or impacts if riding unsafely (Aulia, Kurniawan and Wahyuni, 2020). The majority of this good knowledge is likely due to technological developments such as electronic media or smartphones that can make it easier for someone to obtain information through various kinds of social media, especially Gojek riders.

In addition, the majority of Gojek riders have a long working life, it is likely that these Gojek riders also have a lot of driving experience so that they can increase the knowledge of Gojek riders. According to Rusuli *et al*. (2015) knowledge is obtained based on the experience of each individual or the experience of others. Based on research by (Aulia, Kurniawan and Wahyuni, 2020). that riders with good knowledge are based on motivation and experience so that they act on the basis of their knowledge while riders with insufficient knowledge due to the absence of training on safety riding.

Work Period

Working Period is the amount of work time of the driver which is calculated from the first time he became a motorist until the study was carried out. In this study, the driver's working period has two categories, namely < 2 years (new working period) and ≥ 2 years (old working period). According to the research of Puteri dan Nisa (2020) it is stated that rider who have high experience tend to behave safely and safely in driving.

Based on the results of research conducted on Gojek riders in the urban area of Jember Regency, the majority of Gojek riders have a working period of ≥ 2 years, namely as many as 42 respondents have worked for 4 years, this is in accordance with the existence of Gojek in Jember City which was established in 2017. Therefore, most Gojek riders in Jember Regency have had a lot of driving experience. According to research by Elmayanti, Nuddin and Majid (2019) a long work period has high experience or driving skills as well, so as to prevent or minimize the occurrence of traffic accidents while driving. Similarly, Gojek riders in Jember, the majority of whom have a long service life, are expected to have a lot of driving expertise and experience so that they can behave safely in driving and prevent traffic accidents.

Work Fatigue

Work fatigue is a condition of reduced energy or enthusiasm from a person's body due to excessive activity (Elmayanti, Nuddin and Majid 2019). Work fatigue can occur if workers have abnormal working hours or lack of rest time. Gojek riders have the possibility of experiencing work fatigue due to

work late at night, the demands of time arriving by customers and chasing bonuses or targets. In this study, work fatigue was measured based on questions related to the symptoms of fatigue including symptoms that cause weakening of activity or activity, symptoms that cause weakening of motivation as well as symptoms that cause images of physical fatigue due to general exhausting situations.

Based on the results of research conducted on Gojek riders in the urban area of Jember Regency, the majority of Gojek riders have moderate work fatigue, which is 48 respondents. This is evidenced by the respondents' answer, namely that most of them feel symptoms of work fatigue such as lack of concentration and tend to forget something. Based on several statements from Gojek riders that this is because they often work late at night and irregular rest periods that cause drowsiness. This drowsiness causes a person's concentration to be reduced and if the condition is felt by Gojek drivers while driving, it can endanger the safety of the driver so that it can trigger traffic accidents. The next symptom of fatigue is physical fatigue such as feeling tired all over the body, acting sluggishly and anxiously towards something. Gojek's dominant job of riding a motorcycle causes hands to feel sore, the back feels stiff and the body is always bent. According to research by Puteri and Nisa (2020) that online motorcycle taxi drivers who have more than 8 hours of work time can reduce concentration and tend to experience work fatigue which can have an impact on unsafe driving behavior.

Mobile Phone Usage

A mobile phone usage or smartphone is a cell phone that provides many features to get information quickly. Along with the development of increasingly sophisticated technology, every job can be completed with the existence of a cellphone or smartphone, for example Gojek in working the main thing needed is a cellphone or smartphone. However, Gojek riders in operating mobile phone usages or smartphones are very threatening to driving safety, because most Gojek riders use smartphones without pulling over or stopping for a moment (Joddy, Wahyuni and Kurniawan, 2021). In this study, cellphone use was measured based on answers related to receiving orders, calling customers and replying to massages on the road without pulling over for a moment and seeing the destination address route when driving.

Based on the results of research conducted on Gojek riders in the urban area of Jember Regency, the majority of Gojek riders in using cellphones without pulling over first were 56 respondents. In this study, there were 51 Gojek riders who did not have a support or used their hands and as many as 19 Gojek riders had a support attached to the speedometer in the operation of mobile phone usages on the road. According to several statements from Gojek motorists, this behavior is because they often get demands on arrival time by customers, do not know the area by heart and do not understand the travel route referred to by the customer. This can lead to loss of concentration of the driver and endanger driving safety to the risk of traffic accidents. According to the research of Setyowati Firdaus and Rohmah (2019) who stated that the use of mobile phone usages is six times more risky of having a traffic accident. Intentional use of mobile phone usages while driving is included in traffic violations because it can interfere with driving activities and other road users (Saputra, 2019). This has been regulated in UU No. 22 Tahun 2009 concerning Road Traffic and Transportation article 106 paragraph (1) which states that "everyone who drives a motor vehicle on the road must drive his vehicle reasonably and with full concentration".

Vehicle Factors

The condition of the vehicle is an important factor that must be considered before driving to ensure the airworthiness of the vehicle when used. Each vehicle can be ensured to have been tested properly in accordance with predetermined standards because vehicles that lack maintenance and inspection will have the potential for accidents. In addition, vehicle inspection aims to avoid potential threats that suddenly occur while on the road (Manurung, Sitorus and Rinaldi, 2019). According to UU No. 22 Tahun 2009 , vehicles that are roadworthy with technical requirements are brake and gas conditions, tires, rearview mirrors, horns, headlights (long and near distance), brake lights, design lights (directional indicators), exhaust emissions.

Based on the results of the study using observations made on Gojek driver vehicles in the urban area of Jember Regency, the majority of Gojek drivers have good vehicles, namely 62 respondents. Most Gojek driver vehicles have tire conditions with normal air pressure or not deflated, have two complete rearview mirrors, rear brakes, hand

gas, steering system (steering wheel / handlebar), directional lights (turn signals) function properly. Based on statements from several Gojek riders, it became a requirement when first registering as a Gojek driver that the Gojek office asked to have a vehicle with a maximum year of manufacture of 8 years. This is in accordance with the research of Manurung, Sitorus and Rinaldi (2019) which states that Gojek drivers in Medan City mostly have a complete vehicle condition of 72 drivers compared to the incomplete condition of the vehicle as many as 28 drivers.

Safety Riding

Safety riding in this study has two categories, namely good and bad driving behavior. Based on the results of research conducted on Gojek riders in the urban area of Jember Regency, the majority of Gojek riders have bad behavior in driving as many as 46 respondents. In addition, direct observations were also made to Gojek drivers who passed by to see their driving behavior. It is known that there are still Gojek riders who go against the current, use cellphones when driving, smoke on the road and run red lights when the streets are quiet. This study is in accordance with the results of a study by Rahmah *et al*. (2021) which states that most online motorcycle taxi drivers have unsafe behavior in driving as many as 65 riders. Research by Rahmah *et al*. (2021) also states that driving with unsafe behavior will have the potential to experience traffic accidents compared to driving with safe behavior.

The unsafe behavior in this study is that the majority of Gojek drivers before driving have never checked fuel, checked hand gas, brakes, turn signals and headlights and rear and taillights. In addition, Gojek riders sometimes heat the motorcycle engine and check the condition of the tires. This behavior is not in accordance with the Ditjen Perhubungan Darat (2009) which requires every driver before driving to check control devices such as front and rear brakes must be able to stop the vehicle properly, hand gas must function smoothly when removed and the cables are ensured to be in good condition and there are no decomposed and tangled wires. Then check the tire pressure when the tire condition is still cold, make sure the tire tread or tire surface is flat because it can be dangerous when driving on slippery roads, check for damage to the tire such as fragments on the tire surface due to pieces of sharp objects (nails, glass etc.) (Aris, Yuniar and Pratiwi, 2021). Furthermore, it is ensured that the turn signal can flash normally, check the headlights and brakes by placing your hands in front of the lights when the lights are on so that they can be ensured that the lights are working properly, make sure the fuel and oil are safe to use until they are safe to the destination (Lumente, Telew and Bawiling 2021).

Based on (Permenhub No. PM 12 tahun 2019, 2019) it is stated that drivers are required to wear jackets, use trousers, shoes, gloves and bring raincoats and use an Indonesian National Standard (SNI) helmet. However, in this study, the behavior when driving in Gojek riders mostly sometimes wears PPE (gloves, jackets, shoes), even though the Personal Protective Equipment has its own function. Gloves serve to protect the fingers from possible injury as well as from rain and the scorching sun. The helmet serves to protect the head from the scorching sun and the impact of objects that can result in head injury. The jacket serves to protect the body from limb injuries as well as weather conditions on the road. Shoes serve to protect the feet from injury, falling objects and scorching sunburn.

In addition, when driving, Gojek riders also sometimes do not keep their distance from other motorists, run red lights if the road is quiet, sometimes turn on the headlights during the day. In UU Nomor 22 Tahun 2009, (2009), it has been explained regarding the prohibition of breaking traffic lights because it can endanger drivers and other road users. The law also explains fines and penalties if there are drivers who violate the regulations, namely a maximum penalty of 2 months or a maximum fine of Rp. 500,000.00. After driving, the majority of Gojek drivers never service the vehicle according to a predetermined schedule, they service the vehicle only when damage is found to their vehicle.

The Correlation between Driving Knowledge and Safety Riding

One example of Gojek riders, if Gojek riders have good knowledge they will act according to their knowledge and vice versa.

The results of this study in accordance with the theory above obtained a p-value < 0.05 meaning that there is a significant correlation between knowledge and safety riding in Gojek riders in the urban area of Jember Regency. In this study, it was known that most Gojek riders were well-informed with safe driving behavior. In addition, some Gojek riders said that the Gojek office had held safety riding training

several times. This possibility is also a factor for most Gojek drivers to be well-informed, which is then followed by safe driving behavior as well. The existence of safety riding training can increase the knowledge and awareness of Gojek riders in driving.

The research is in line with the research of Rahmah *et al*., (2021) which shows that there is a correlation between knowledge and safety riding behavior of online motorcycle taxis in Jambi City. The research is also in line with the research of Aulia, Kurniawan and Wahyuni (2020) which states that there is a correlation between knowledge and safety riding of online motorcycle taxi drivers in the city of Semarang. In addition, this research is also supported by Ramadhani, Indah and Ernadi (2020) which states that there is a correlation between knowledge and the behavior of online motorcycle taxi drivers in 2020. Riders who have less knowledge are 2,143 times at risk of behaving unsafely when riding than motorists with good knowledge (Rahmah *et al*., 2021). A person who had good knowledge will be wiser when deciding a problem or action for example in driving will think about the risks or impacts if riding unsafely (Aulia, Kurniawan and Wahyuni, 2020).

The Correlation between Work Period and Safety Riding

The working period in this study is the amount of work time of the driver which is calculated from the first time he became a driver until the study was carried out. The length of service can determine a person's performance either positively or negatively. Driving behavior is supported by a person's high experience in driving. If someone has high driving experience, they tend to behave safely in driving because with a lot of experience can add skills, knowledge and insight in driving (Prasetya, Kurnaiwan and Wahyuni, 2016).

In this study, most Gojek riders who have a long service life tend to behave unsafely when driving. Based on the results of the correlation analysis, a p-value of > 0.05 is obtained, which means that there is no significant correlation between working period and safety riding in Gojek riders in the urban area of Jember Regency. This research is in line with the research of Wulandari, Jayanti and Widjasena (2017) which states that there is no correlation between the length of service and the safety riding behavior of pt. Pos Indonesia Erlangga Semarang Branch. The length of work cannot be used as a reference for a person's behavior in driving because a long period of work does not always have positive behavior. This is because it is possible for others to be an example of behaving unsafely or they are already accustomed to behaving in this way.

The longer the working period a person should have safe driving behavior, but research conducted on Gojek riders in Jember that the working period of < 2 years or > 2 years tends to both behave unsafely in driving. This is because they have become accustomed to committing traffic violations and someone with a long work period often ignores their driving knowledge and insight, because they feel that their driving knowledge is good, which is likely that Gojek drivers have never felt the impact of unsafe driving. In addition, the co-worker factor can influence other motorists to follow his behavior by driving unsafely. According to research (Puteri and Nisa, 2020) working period has a correlation with safety driving, because workers with long working periods have a lot of experience and knowledge, so they tend to pay attention to behavior when driving (Puteri and Nisa, 2020).

The Correlation between Work Fatigue and Safety Riding

Work Fatigue is a condition of reduced energy or enthusiasm from a person's body due to excessive activity (Elmayanti,Nuddin and Majid., 2019). Based on research by Nurhafizhah *et al*. (2018) that fatigue is the most influential factor in safe driving behavior in online motorcycle taxis by 62.85%, the fatigue is caused by the lack of rest in online motorcycle taxi drivers.

Based on the results of the correlation analysis, a p-value of < 0.05 is obtained, which means that there is a significant correlation between work fatigue and safety riding in Gojek riders in the urban area of Jember Regency. In this study, it was found that most Gojek riders experienced moderate work fatigue and tended to behave unsafely while driving. with unsafe driving behavior. Riders experiencing moderate levels of work fatigue are at 5,100 times risk behaving unsafely in driving compared to mild work fatigue. Gojek riders experience work fatigue due to working late at night, customers give a time limit to get to their destination and chase bonuses or targets. In addition, it is known that This Gojek job has flexible working hours. Based on the narrative of some Gojek riders that the majority of them have working hours of more than 8 hours, namely from morning – night or night – morning so they tend to

experience work fatigue so that they risk behaving unsafely on the road. According to research Puteri dan Nisa (2020) that online motorcycle taxi drivers who have more than 8 hours of work time can reduce concentration and tend to experience work fatigue which can have an impact on unsafe driving behavior. And then, This study is in line with the research of Puteri and Nisa (2020) that the length of work is related to safety driving behavior because drivers work more than 8 hours which tends to cause fatigue and impaired driving concentration.

This study in line with Pratama (2017) also has an association between fatigue and aggresive driving. This is due to insufficient rest time, having working hours of 6-10 hours per day and irregular sleep which can reduce response time to excitatory (lack of concentration) so that it tends to behave unsafely and risks accidents on the road (Pratama, 2017). Based on UU Nomor 22 Tahun 2009,(2009), states that everyone who drives on the road is required to drive his vehicle reasonably and with full concentration.

The Correlation between Mobile Phone usage and Safety Riding

The use of mobile phone usages is the cause that most contributes to traffic accidents. According to research by Nurhafizhah *et al*. (2018) reported that out of 70 drivers as many as 13 drivers were known to use mobile phone usages on the road. The use of mobile phone usages used to receive orders, reply to messages, view travel routes and call customers includes unsafe driving behavior that can result in traffic accidents. According to the US National Safety Council (NSC), an estimated 28% or 1.6 million traffic accidents each year result from the use of mobile phone usages.

The results of this study are in accordance with the theory above because based on the results of the correlation analysis, a p-value of < 0.05 is obtained, which means that there is a significant correlation between cellphone use and safety riding in Gojek riders in the urban area of Jember Regency. In this study, it was found that the majority of Gojek riders use their mobile phone usages without pulling over and tend to behave unsafely while driving. Motorists who use their phones without pulling over risk 11,250 times behaving unsafely in driving compared to motorists with cell phone use pulling over first. In this study, it was found that most motorists who use cellphones without a buffer have unsafe behavior when driving. Based on research by Joddy, Wahyuni and Kurniawan (2021) stated that as many as 17 motorists (56.57%) often use cellphones while driving and 3 motorists have had accidents due to the use of these cellphones. This research is in accordance with research conducted by Inggriani dan Nugraha (2018) that the use of smartphones affects safety riding behavior in online motorcycle taxi drivers in Tegal. The use of mobile phone usages in online motorcycle taxi drivers is a job demand, because mobile phone usages are among the main tools needed in this job. If the use of cellphones is continuously used while driving, it can interfere with the driver's concentration so that he tends to behave unsafely and risks accidents on the road. However, PT Gojek prohibits motorists from operating mobile phone usages while driving. Based on GOJEK, 2021, PT Gojek has an order and its sanctions, namely with the type of driving violations when sleepy, using a cellphone when driving, or violating traffic rules including level IV violators, meaning that Gojek drivers get a 7-day suspension or break up partners with PT Gojek. Based on UU Nomor 22 Tahun 2009 (2009), states that everyone who drives a motor vehicle on the road is required to drive his vehicle reasonably and with full concentration.

The Correlation between Vehicle Factors and Safety Riding

The condition of the vehicle must meet the proper test in accordance with predetermined standards so that it can avoid potential road accidents. According to H.W. Heinrich that 88% of accidents can occur due to unsafe behavior in humans (Mahawati *et al*., 2021). Unsafe behavior is caused by humans making mistakes or omissions in work (Tim K3 FT UNY, 2014). One of the negligence of the driver is to use a motor vehicle that is not roadworthy. Based on the Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 33 of 2018 article 9 paragraph 1 states that "every motor vehicle operating on the road must meet the technical requirements and roadworthy vehicles".

Based on the results of the correlation analysis, a p-value of < 0.05 is obtained, which means that there is a significant correlation between vehicle factors and safety riding in Gojek drivers in the urban area of Jember Regency. In this study, it was known that most Gojek drivers have vehicles with good conditions and good behavior when driving. This research is directly proportional to the

research of Manurung, Sitorus and Rinaldi (2019) which states that there is a correlation between the condition of the vehicle and safety riding behavior on online motorcycle taxis in Medan City. In addition, research (Aulia *et al*., 2020) also states that there is a correlation between the condition of the vehicle and safety riding on online motorcycle taxis in Semarang. Most online motorcycle taxis that have complete vehicle conditions behave good behavior when driving while online motorcycle taxis that have incomplete vehicle conditions tend to behave bad behavior in driving.

Working as a Gojek driver requires that they always carry out regular maintenance on their vehicles to prevent unwanted things, because the condition of the vehicle that is suitable for use becomes a separate regulation from the Gojek office (GOJEK, 2021). From the results of this study, the majority of Gojek driver vehicles have components that function very well starting from the condition of the tires (normal), rearview mirrors complete with rear brakes, hand gas, steering system (steering wheel / handlebar), directional lights (turn signals) which make Gojek drivers tend to behave safely when driving so as to avoid unwanted things. However, there are still components of Gojek driver vehicles that do not function properly, such as light reflectors, front brakes and brake lights as a clue that the vehicle stops. In addition, only 11 Gojek riders routinely service and change engine oil. According to UU Nomor 22 Tahun 2009, vehicles that are roadworthy must meet technical requirements, namely brake and gas conditions, tires, rearview mirrors, horns, headlights (long and near distance), brake lights, design lights (pointers).

CONCLUSION

The majority have a working period of ≥ 2 years, are knowledgeable in driving well, use mobile phone usages on the road without pulling over, experience moderate work fatigue, have a good vehicle and behave bad behavior in driving. There is no correlation between length of service and safety riding. There is a correlation between driving knowledge, work fatigue, cell phone use and vehicle factors. Gojek drivers are expected to be able to regularly check the condition of their vehicles before, during and after driving, diligently service their vehicles according to the schedule in the book issued by the agent holding the vehicle brand and get enough rest if they feel tired after work and deactivate their Gojek account during breaks.

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REFERENCES

Adinugroho, N., Kurniawan, B. and Wahyuni, I. (2014) 'Faktor Yang Berhubungan Dengan Praktik Safety Driving Pada Pengemudi Angkutan Kota Jurusan Banyumanik-Johar Kota Semarang', *Semarang: Jurnal Kesehatan Masyarakat (e-Journal)*, 2(6), pp. 332–338.

Aris, A., Yuniar, N. and Pratiwi, A. D. (2021) 'Faktor Yang Berhubungan Dengan Kecelakaan Lalu Lintas Pada Pengemudi Ojek Online (Gojek) Di Kota Kendari Tahun 2020', *Jurnal Kesehatan dan Keselamatan Kerja Universitas Halu Oleo*, 1(3), pp. 75–84.

Aulia, S. N., Kurniawan, B. and Wahyuni, I. (2020) 'Faktor-Faktor Yang Berhubungan Dengan Perilaku Safety Riding Driver Ojek Online di Kota Semarang', *Jurnal Kesehatan Masyarakat (e-Journal)*, 8(5), pp. 625–631.

Statistic Indonesia (2019) Jumlah Kecelakaan, Korban Mati, Luka Berat, Luka Ringan dan Kerugian Materi 2017-2019.

Ditjen Perhubungan Darat (2009) Buku Petunjuk Tata Cara Bersepeda Motor Di Indonesia. Jakarta: Departemen Perhubungan Republik Indonesia.

Elmayanti, E., Nuddin, A. and Majid, M. (2019) 'Analisis Kondisi Internal-Eksternal Pengemudi Mobil Tangki Dalam Peningkatan Safety Driving PT Elnusa Petrofin Di Kota Parepare', *Jurnal Ilmiah Manusia Dan Kesehatan*, 2(2), pp. 269–283.

Erviani, S. D. 2016. *Determinan Kecelakaan Lalu Lintas Pada Mahasiswa Universitas Jember Pengendara Sepeda Motor Di Wilayah Kabupaten Jember*. Undergraduate Thesis. Jember: Faculty of Public Health, Universitas Jember.

GOJEK (2021) Tata Tertib Gojek 2021 : Pilar, Pelanggaran, Sanksi & Banding.

Gunawan, F. A. and Waluyo (2015) *Risk Based Behavioral Safety*. Jakarta: PT Gramedika Pustaka Utama.

Hastuti, D. D. 2015. *Hubungan Antara Lama Kerja Dengan Kelelahan Pada Pekerja Konstruksi Di PT . Nusa Raya Cipta Semarang*. Undergradiate Thesis. Semarang: Faculty of Sports Science , Universitas Negeri Semarang.

Inggriani, K. and Nugraha, M. R. A. (2018) 'Pengaruh Penggunaan Smartphone Terhadap Perilaku Safety Riding Pada Pengendara Transportasi Online Roda Dua di Kota Tegal', *Prosiding Simposium Forum Studi Transportasi antar Perguruan Tinggi ke-21*, pp. 19–20.

Joddy, S. A., Wahyuni, I. and Kurniawan, B. (2021) 'Hubungan Antara Perilaku Safety Riding Dan Stres Kerja Terhadap Kecelakaan Kerja Pada Pengendara Ojek Online Komunitas X Tembalang', *Jurnal Kesehatan Masyarakat*, 10(2), pp. 213–218.

Khakim, R. (2016) *Hubungan antara Umur, Tingkat Pendidikan, Masa Berkendara dan Pengetahuan dengan Perilaku Safety Riding*. Undergraduate Thesis. Semarang: Faculty of Public Health, Universitas Muhammaduyah Semarang.

Lumente, D. I., Telew, A. and Bawiling, N. (2021) 'Faktor-Faktor Yang Mempengaruhi Perilaku Aman Berkendara (Safety Riding) Pada Pengemudi Ojek Online Di Kota Manado', *PIDEMIA: Jurnal Kesehatan Masyarakat UNIMA*, 02(02), pp. 7-13.

Mahawati, E. *et al.* (2021) K*eselamatan Kerja dan Kesehatan Lingkungan Industri*. Edited by R. Watrianthos and J. Simarmata. Medan: Yayasan Kita Menulis.

Manopo, S. E., Kandou, G. D. and Suoth, L. F. (2018) 'Hubungan Antara Pengetahuan, Tingkat Pendidikan dan Masa Berkendara dengan Perilaku Safety Riding Pada Tukang Ojek di Kecamatan Langowan Utara Kabupaten Minahasa', *Jurnal KESMAS*, 7(5).

Manurung, J., Sitorus, M. E. and Rinaldi, R. (2019) 'Faktor-Faktor yang Berhubungan dengan Perilaku Safety Riding Pengemudi Ojek Online (Go-Jek) di Kota Medan Sumatera Utara', *Journal of Health Science and Physiotherapy*, 1(2), pp. 91–99.

Nurhafizhah, T. *et al*. (2018) 'Safety and Fatigue Risk Factors among Online Motorcycle Drivers in Depok City, Indonesia', *KnE Life Sciences*, 4(5), p. 702.

Pakpahan, M. *et al*. (2021) *Promosi Kesehatan dan Perilaku Kesehatan*. Edited by Ronal Watrianthos. Jakarta: Yayasan Kita Menulis.

Permenhub No. PM 12 tahun 2019 (2019) 'Peraturan Menteri Perhubungan Republik Indonesia Nomor PM 12 Tahun 2019 Tentang Perlindungan Keselamatan Pengguna Sepeda Motor yang Digunakan Untuk Kepentingan Masyarakat', Menteri Kesehatan Republik Indonesia Peraturan Menteri Kesehatan Republik Indonesia, (879), pp. 2004–2006.

Prasetya, A., Kurnaiwan, B. and Wahyuni, I. (2016) 'Faktor-Faktor Yang Berhubungan Dengan Safety Driving Pada Pengemudi Bus Ekonomi Trayek Semarang – Surabaya Di Terminal Terboyo Semarang', *Jurnal Kesehatan Masyarakat (e-Journal)*, 4(3), pp. 292–302.

Pratama, A. (2017) *Hubungan antara Kelelahan Mengemudi dengan Aggresive Driving Pengemudi PO. Sumber Group*. Undergraduate Thesis. Malang: Faculty of Psychology, UIN Maulana Malik Ibrahim. Malang.

Puteri, A. D. and Nisa, A. M. (2020) 'Faktor-Faktor Yang Berhubungan Dengan Perilaku Safety Driving Pada Supir Travel Di Pt. Libra Wisata Transport', *PREPOTIF : Jurnal Kesehatan Masyarakat*, 4(1), pp. 1–10.

Rahmah, A. *et al*. (2021) 'Determinan Perilaku Safety Riding Pengemudi Ojek Daring di Kota Jambi Online Motorcycle Taxis in Jambi', *Jurnal Ilmu Kesehatan*, 5(1), pp. 103–110.

Ramadhani, A. S. N., Kurniawan, B. and Jayanti, S. (2018) 'Analisis Faktor Yang Berhubungan Dengan *Safety Behavior* Pada Pekerja Bagian Line Produksi Di PT Coca Cola Bottling Indonesia', *Jurnal Kesehatan Masyarakat (e-Journal)*, 6(1), pp. 607–615.

Ramadhani, R., Indah, M. F. and Ernadi, E. (2020) 'Hubungan Antara Pengetahuan, Sikap, dan Masa Berkendara Dengan Perilaku Safety Riding Pada Pengemudi Ojek *Online* Di Kota Banjarbaru Tahun 2020', Scientific Article.

Rusuli, I., Zakiul, D. and Daud, F. M. (2015) 'Ilmu Pengetahuan Dari John Locke Ke Al-Attas', *Aceh: Jurnal Pencerahan*, 9(1), pp. 12–22.

Saud, I. M. (2016) 'Pengaruh Sikap dan Persepsi Kontrol Perilaku Terhadap Niat Whistleblowing Internal-Eksternal dengan Persepsi Dukungan Organisasi Sebagai Variabel Pemoderasi', *Jurnal Akuntansi dan Investasi*, 17(2), pp. 209–219.

Setyowati, D. L., Firdaus, A. R. and Rohmah, N. R. (2019) 'Faktor Penyebab Kecelakaan Lalu Lintas Pada Siswa Sekolah Menengah Atas Di Kota Samarinda', *The Indonesian Journal of Occupational Safety and Health*, 7(3), pp. 329-338.

Tim K3 FT UNY (2014) *Buku Ajar Keselamatan dan Kesehatan Kerja*. Yogyakarta: Universitas Negeri Yogyakarta.

UU Nomor 22 Tahun 2009 (2009) Lalu Lintas dan Angkutan Jalan. Jakarta: Lembaran Negara Republik Indonesia Nomor 5025.

Wahyusetyawati, E. (2017) 'Dilema Pengaturan Transportasi Online', *Jurnal RechtsVinding*, (April), pp. 1–4.

Wang, T. *et al*. (2020) 'Analyzing E-Bikers' Risky Riding Behaviors, Safety Attitudes, Risk Perception, and Riding Confidence with the Structural Equation Model', *International Journal of Environmental Research and Public Health*, 17(13), pp. 1–17.

World Health Organization (2018) Global Status Report On Road Safety 2018: Summary. Geneva: World Health Organization.

Wulandari, S., Jayanti, S. and Widjasena, B. (2017) 'Faktor-Faktor Yang Berhubungan Dengan Perilaku Berkendara Aman (Safety Riding) Pada Kurir Pos Sepeda Motor Di Pt. Posindonesia Cabang Erlangga Semarang2017', Jurnal Kesehatan Masyarakat, 5(5), pp. 346 - 355.