

## Conference Paper

# Ignoring Safety Aspects that Could Reduce Traffic Accidents

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### Abstract

Safety on the road is an important consideration for every road user. There are various kinds of traffic signs that can be employed, all of which are intended to discipline road users and improve their safety. However, Indonesian drivers frequently ignore these safety signs. This is particularly significant given the growing volume of vehicles in Indonesia – and as the number of vehicles has increased so has the number of accidents. This study uses quantitative research methods to explore this correlation and consider the consequences.

**Keywords:** Safety Aspects; Accident; Traffic.

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## 1. Introduction

Discipline in traffic is a process of a series of behaviors that show the values of obedience, obedience, loyalty, regularity and order regarding traffic signs, vehicle registration certificates (STNK), proof of motor vehicle ownership (BPKB), and SIM. Traffic violations are actions that are contrary to traffic laws or traffic regulations which cause loss of life or property and can disturb security and public order in the traffic sector.

Humans are indeed complex individuals, so their behavior is not simple. Human behavior does not just take into account profits and losses. It could be that behavior that seems detrimental to someone's eyes will be considered beneficial to others. How a person behaves can be broadly explained through contingency of reinforcement. Human behavior involves three main components, namely the environmental conditions in which the behavior occurs, the behavior itself and the consequences of the behavior. Repetition or non-recurrence of a behavior is influenced by the state of these three components.

Where traffic space means infrastructure designated for moving vehicles, people, and / or goods in the form of roads and supporting facilities. From some of the above meanings it can be concluded that traffic is the movement of people or goods from one place to another using a facility.

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Safety on the road is very important for every road user to pay attention to. There are various kinds of traffic signs that are installed either on markings or on the road, all of which are intended to discipline road users, and are directly aimed at maintaining the safety of road users. However, most of the Indonesian people's way of driving tends to be bad, they violate many of the rules (signs) on the highway. The existence of transportation is a very important requirement today for the community. The importance of transportation cannot be separated from the mobility needs that must be carried out by the community. In this case the need for high mobility is closely related to urban areas. (Haryanto, H. C. (2011). Kepatuhan terhadap peraturan lalu lintas para pengendara di perkotaan. *Jurnal Inquiry*: p. 39-46) This high need for transportation is evident from the increasing number of motorized vehicles that are currently available. The increase in the number of vehicles today is closely related to the number of accidents that have occurred. The number of accidents that occur in land transportation is still a serious problem today. The definition of traffic, according to Poerwadarminta in the general Indonesian dictionary. Stating that traffic is going back and forth, back and forth and about traveling on the road and so on and is related between one place to another. Meanwhile, in Act No. 22 of 2009 concerning road traffic and transportation, traffic means the movement of vehicles and people in traffic spaces.

The occurrence of cases of traffic violations on the highway by road users which tends to result in accidents, road user indiscipline and perceived increased traffic jams. This is because the lack of public awareness to obey traffic regulations is the frequent occurrence of fatal accidents. That the level of obedience is stereotypically different, not only due to temperament, environmental and cultural factors, but also because of different levels of education. From this relatively low level of legal awareness, it causes a reduction in the authority of law and legislation in the traffic sector.

Furthermore, talking about accidents and driving behavior basically cannot be separated from the conditions of error and violation. The concept of error in this case leads to the context of a driver's error relating to the extent to which a driver's ability to control the vehicle properly and provide the right decision to act when in a condition while driving. In this case, the existence of the concept of error is closely related to cognitive function. The concept of violation is related to the violation of driving behavior which is closely related to the social context. The concept of violation is related to how things are rules, implementation procedures, norms, and the like.

Accidents and driving behavior (errors and violations) that have been previously described in several studies that have been carried out cannot be separated from

the existence of internal and external factors. Internal factors in this case are related to the existence of the driver's own factors and external factors closely related to the driver's environment. The author in this case will explore further as a predictor of traffic accidents. (Juneman, A. (2010). Masalah transportasi kota dan pendekatan psikologi sosial. Psikobuana: p. 1 (3), 173-189) Several studies related to the occurrence of accidents in driving, in this case, are not a few that relate to the existence of age and gender in these drivers. The age factor cannot be separated from the risk of accidents. (Lam, L. T. (2002). Distraction and the risk age. *Journal of Safety Research*: p.33, 411-419) In line with this, it also provides research results that illustrate the factors that can influence the risk of driving accidents in both developed and developing countries. (Perepjolkina, V & Renge, V. (2013). *Journal of Pedagogy and Psychology "Signum Temporis"*: p.4 (1), 62–72) Also explained that the existence of age has a correlation with the emergence of aggressive driving behavior that leads to accidents. Apart from age, the existence of gender also affects the risk of accidents for motorists. In a study conducted by the results of research which illustrates that the gender factor is one of the factors that can lead to the risk of driving accidents in both developed and developing countries. (Al-Balbissi, AH (2003). *Role of gender Prevention*: p. 4 (1), 64-7)

Certain traffic violations or what is often referred to as a speeding ticket are cases within the scope of the criminal law regulated in Act No. 14 of 1992 Criminal law regulates actions that are prohibited by law and results in the imposition of penalties for those who commit them and fulfill the elements of the elements of the act mentioned in the criminal law. The purpose of criminal law is to frighten people from committing bad deeds and to educate someone who has committed a bad act to be good and acceptable.

Certain traffic violations or frequent tickets are violations of Article 54 regarding the completeness of SIM and STNK vehicle certificates as well as Article 59 regarding the excessive load of transport trucks then violations of Article 61 such as incorrectly entering vehicle traffic lanes. In short, traffic case trials are Quick Check Procedures, in this process the defendants of the offense were placed in a room. Then the judge will call the names of the defendants one by one to read out the fine. After the fine is read out, the judge will knock the hammer as a sign of the issuance of a court decision.

## 2. Research Methods

This study uses a quantitative approach. The quantitative research approach is used because there are clear elements in the research, such as indicators or variables to be

searched for. Indicators or variables are the result of a literature review synthesis process. So at the beginning of the study, several variables or indicators will be determined which will be used to achieve the research objectives. On the other hand, this research also has clarity of detailed elements, from the objectives to the research objectives. This is the basis for using a quantitative research approach. Research with a quantitative approach is a systematic scientific study of the parts of a phenomenon and looking at the relationships that occur in them. (Creswell, J. W. (2002). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. London: Sage Publications, Inc. p. 222) This approach uses measured data. Specifically quantitative methods are used to generalize (generalizability), predict (prediction), and explain causal explanations. Quantitative research departs from existing theories and hypotheses that have been compiled by researchers. Theory and hypothesis are the basis for determining the research variables which are the main components of the analysis.

### 3. Results and Discussion

Road users must have courtesy on the road and must obey and enforce traffic rules, for example going left of the road or going left to follow the lights, parking is prohibited, nor littering on the road. The speed in driving a vehicle must be adjusted to road conditions, whether the road is busy or quiet, morning, afternoon, evening, or night. Public transportation should not raise or lower passengers carelessly. In utilizing the path, we must realize that not only are we using the path, but everyone has the right to use it. Even though it is the right of everyone, everyone is obliged to maintain courtesy on the road, one of which is by obeying the existing traffic rules.

People in obeying traffic regulations still have a low level of awareness. The low level of awareness in obeying the rules causes an individual to commit violations in traffic behavior. Lack of self-awareness in traffic results in many losses incurred both to safety for oneself and for others. The higher the violation, the greater the number of victims.

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use it. Even though it is the right of everyone, everyone is obliged to maintain courtesy on the road, one of which is by obeying the existing traffic rules.

### 3.1. Definition of traffic violations

Certain traffic violations or what is often referred to as a ticket are cases within the scope of the criminal law regulated in Act No. 14 of 1992. ([www.transparency.or.id](http://www.transparency.or.id). Accessed on November 17. (2020)) Criminal law regulates actions that are prohibited by law and results in the imposition of penalties for those who commit them and fulfill the elements of the acts mentioned in the criminal law. ([www.id.wikipedia.org](http://www.id.wikipedia.org) accessed on 17 November. (2020)) The purpose of criminal law is to frighten people from committing bad deeds and to educate someone who has committed a bad act to be good and acceptable.

Certain traffic violations or frequent tickets are violations of Article 54 regarding the completeness of SIM and STNK vehicle licenses and Article 59 regarding excessive cargo of transport trucks then violations of Article 61 such as incorrectly entering vehicle traffic lanes. In short, a traffic case trial is a Quick Check Procedure In the process, the accused violations were placed in a room. Then the judge will call the names of the defendants one by one to read out the fine. After the fine is read out, the judge will knock the hammer as a sign of the issuance of a verdict. (Op.cit)

### 3.2. Kinds of traffic violations

Types of violations in traffic on the highway include:

1. Not using SNI standard helmets for motorcyclists

Students tend to prefer to follow trends rather than safety themselves. As with not wearing SNI standard helmets but preferring to use non-SNI standard helmets or also known as "Shell" helmets (article 57 paragraph 2 and article 106 paragraph 8 and article 291).

2. Underage rider (not having a SIM)

This violation may be the main problem that often occurs on the road. Most students are determined to ride motorbikes without a driver's license on the grounds that they want to get the highest possible education but in an effort to get there are no public transportation or homes that are far away, therefore students choose to use private vehicles. This violation has also been regulated

in Article 281 with a fine of one million rupiah or a maximum imprisonment of 4 months.

### 3. The rider violates the traffic light

This is what we often see at every junction or T-junction where there are traffic lights, most of the riders break traffic lights because they are in a hurry or are lazy to wait because they are too long.

### 3.3. The impact of traffic violations

Surely every thing that violates will have an impact including the impact of traffic violations, here are the effects of traffic violations:

1. The high number of accidents at intersections or intersections or roads
2. The safety of motorists who use the road is threatened even by river pedestrians crossing the road or walking on the sidewalk
3. Traffic jams are getting worse because the drivers do not comply with traffic rules or signs
4. The habit of motorists who violate traffic so that the culture violates traffic rules

### 3.4. Causes of traffic violations

The following are my opinions about the causes of traffic violations that often occur in Indonesia:

#### 1. Student culture in going to school

Why this can be used as an obstacle in fostering a culture of orderly traffic. This is because the majority of students have a culture of going to school that is tight with their school entry time. Shadowed by the sanctions they will receive at school, students pay less attention to road signs. So that the safety of students themselves and other road users is threatened.

#### 2. Student ego is still unstable

Why this can be an obstacle in realizing a culture of orderly traffic on the road. Because the student's unstable ego threatens their safety. When the condition of road users, namely students, as well as their unstable mental condition, they

will not pay attention to existing traffic signs. In fact, they often daydream when driving, do not see red lights, drive at high speed, and many more. They act like that because they want to blow all their egos on the road without considering their safety. So that this obstacle often occurs among adolescents. They don't feel confident about themselves yet. This unstable ego does not only harm itself but also harms other road users.

(a) Since childhood, a child has been allowed to carry a motorized vehicle whose age should not be sufficient to drive so they often violate traffic regulations because they do not know traffic rules.

(b) Only obey when there is news that there will be a raid or when there is a police presence. This is something we often see on the streets.

### **3.5. The forms of traffic violations include the following:**

1. Use the road in a way that obstructs endangerment of traffic order or safety or which may cause damage to the road.
2. Driving a motorized vehicle that cannot show a valid driving license (SIM), STNK, Vehicle Test Certificate (STUK) or other evidence according to applicable regulations or can show but the validity period has expired.
3. Allowing or allowing a motorized vehicle to be driven by another person who does not have a SIM.
4. Failure to comply with the provisions of the road traffic legislation concerning numbering, lighting, equipment, equipment, vehicle loading and other vehicle coupling requirements.
5. Allowing a motorized vehicle on the road without a valid vehicle number plate, in accordance with the relevant vehicle registration certificate.
6. Violation of orders given by road traffic controllers, signs or signs on the road surface
7. Violation of the provisions regarding allowable sizes and loads, how to load and unload passengers and / or how to load and unload goods.
8. Violation of the route permit, the type of vehicle allowed to operate on the specified road.

Emphasis on the context of driving safety is also directed at the level of danger that will be faced later. Safety in this case directs the behavior of a driver who avoids dangerous conditions on the road. This is very much influenced by the level of driving experience they have. Explain the context of driving safety by emphasizing the efforts of motorists to avoid road accidents. The level of safety for a driver cannot be separated from the ability to make decisions when on the road. (Fuller, R. (2005). *Towards a general theory Accident Analysis and Prevention*: p.37, 461-472) The ability to make this decision is influenced by the driver's perception of the difficulty of driving and the actual demands of the task in avoiding accidents on the road. provides an overview of safety practices in driving in the form of driving according to aggressive limits in driving, maintaining a safe distance, using a safety belt, avoiding driving when in unfavorable conditions such as under the influence of alcohol, drowsiness and others. Based on the driving safety concept that has been described previously, it can be concluded that driving safety is a safe condition when driving by promoting driving behaviors that avoid the risk of accidents in driving. (Strecher, V. J., Bauermeister, J, A., Shope, J., Chang, C., Newport-Berra, M., Giroux, A., & Guay, E. *Intervention to promote safe driving behaviour: Lesson learned from other health-related behaviours*. Diakses dari [http://deepblue.lib.umich.edu/bitstream/handle/2027.42/85185/BEHAV\\_RES\\_IN\\_ROAD\\_SAF](http://deepblue.lib.umich.edu/bitstream/handle/2027.42/85185/BEHAV_RES_IN_ROAD_SAF))

### 3.6. Benefits of obeying traffic rules on the road

Some of the benefits we will get when we have an orderly traffic culture, including:

1. Arrived safely

If everyone, especially students, has a culture of orderly traffic, safety is guaranteed. Because students understand each other and understand their position as road users. The culture of orderly traffic includes being a good road user, obeying traffic signs and regulations concerning traffic. So that they arrive at their destination safely.

2. Reducing the accident rate among students

According to the records of PT Jasa Raharja, East Java Branch, it was revealed that 70 percent of the total 4,286 accident victims from January to March 2014 were of productive age. Most of them are students, university students, and private employees. So that with the awareness of having a culture of orderly traffic, it can reduce the accident rate among students.



### 3. Reducing the rate of traffic violations

With the traffic culture on the road among students, the level of traffic violations will be reduced. So that the peace of road users will increase. For example, using a national standard exhaust engine means that other road users will not be disturbed by an exhaust sound that does not have a national standard.

In general, traffic safety is influenced by 3 factors, namely factors of road users, vehicles and road infrastructure (Camacho-Torregrosa, F. J., Pérez-Zuriaga, A. M., Campoy-Ungría, J. M. & García-García, A. (2013). New geometric design consistency model based on operating speed profiles for road safety evaluation. *Journal Accident Analysis and Prevention*) that road safety components are road users or driving behavior factors, vehicle factors, road factors and the environment around the road. Traffic safety has a close relationship with traffic accidents; traffic controllers; vehicle and road user factors. (Elvik, R. Høy, A. Vaa, T. & M. Sørensen. (2009). *The Handbook of Road Safety Measures*. Bingley: Emerald Group Publishing Limited. p.22) These factors increase the likelihood of an accident occurring, but not all factors are considered to be the cause of an accident.

Traffic accidents are the leading cause of death from various causes, ranking as the tenth cause of all deaths and ninth as the leading contributor to global death. The incidence of traffic accidents has increased in number and type with an estimated death rate from 5.1 million in 1990 to 8.4 million in 2020 or an increase of 65%. ([www.Depkes.id](http://www.Depkes.id) accessed on November 17, (2020)) According to WHO, every day nearly 16,000 people die from injuries (injury). Several thousand more are permanently disabled. In 1998, road accidents were the leading cause of death in the world. In 2002 this motor vehicle accident was ranked eleventh in the data on causes of death in the world. From an analysis conducted by WHO in 2002, in countries with high capita levels, the incidence of road accidents ranks 14th in the data on causes of death. Meanwhile, in countries with low capita levels, road accidents rank 10 in the data on causes of death. ([www.ih.gov](http://www.ih.gov)) The WHO report states that the current rate of road transportation accidents in the world has reached 1.2 million deaths and more than 30 million people injured / disabled due to traffic accidents per year (2,739 people and injured 63,013 people per day). 85% of the victims who died due to this accident occurred in developing countries where the number of vehicles was only 32% of the total number of vehicles in the world. ([www.dephub.go.id](http://www.dephub.go.id))

Motorcycle users continue to increase from year to year even though the number of accidents on motorbikes is the highest, this happens because according to consumers,

these vehicles are economical, cheap and nimble moving in the midst of congestion, even since the monetary crisis and the increase in the price of fuel oil. Motorbikes are the most favorite means of daily transportation. The flood of motorbike users is also driven by the ease with which the vehicle is purchased. Without giving any down payment, one can easily own a motorbike on credit. ([www.liputan6.com](http://www.liputan6.com)) Accidents that occur in motor vehicles cause death, injury or disability to the sufferer. Injury is a physical damage that occurs when the human body experiences or is subjected to acute (sudden) contact of an unbearable energy level. Injury can be in the form of injury to the body caused by exposure to large amounts of energy and suddenly exceeding the physiological threshold of the body or it can be a damage or weakening of physical function (tissue or organ) caused by a lack or excess of an element (such as: water, air, temperature) which is implemented in the event of flooding, economic crisis, or extreme cold temperatures.

Traffic accidents have also had an impact on increasing poverty, because they cause maintenance costs, loss of productivity, loss of breadwinner in the family which causes trauma, stress and prolonged suffering. It is estimated that, roughly, costs due to accidents account for 1-1.5% of gross national product in low-income countries, and higher in developed countries. Disruption due to accidents and injuries has also become one of the public health problems in Indonesia due to the high number of disabilities and deaths. (Op.cit)

The number of victims and the losses incurred, both due to lost working hours, as well as costs required for treatment and rehabilitation of sufferers, injuries due to traffic accidents are a public health problem and require serious attention from the government and the community. Meanwhile, information regarding the description of traffic accidents in Indonesia, especially information about injuries suffered by motorbike users when an accident occurs, is not yet available to the public so that the public does not care (unaware) that the number of traffic accidents, especially in two-wheeled motorized vehicles, is ranked first in traffic accidents. When you don't see the data and evidence of this, the public's awareness is still lacking in maintaining safety when driving on the highway.

## 4. Conclusion

The occurrence of cases of traffic violations on the highway by road users which tends to result in accidents, indiscipline of road users and perceived increased traffic jams.

This is because the lack of public awareness to obey traffic regulations is the frequent occurrence of fatal accidents. That the level of obedience is stereotypically different, not only due to temperament, environmental, and cultural factors, but also because of different levels of education. From this relatively low level of legal awareness, it causes a reduction in the authority of laws and regulations in the traffic sector. Road users must have courtesy on the road and must comply with and enforce traffic regulations, for example to the left of the road continue or to the left follow the lights, it is prohibited to park and not to litter on the road The speed in driving a vehicle must be adjusted to road conditions, whether the road is busy or quiet, morning, afternoon, evening, or night.

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