

Optimizing the Performance of the Serdang Bedagai Police in Overcoming Traffic Incidents

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Abstract. *Traffic accidents are a serious problem that affects public safety and has a significant social and economic impact. This study aims to analyze the optimization of the performance of the Serdang Bedagai Police in overcoming traffic accidents in its jurisdiction. The research method used is qualitative with a descriptive approach. Data were obtained through interviews, observations, and documentation studies which were then analyzed in depth. The results of the study show that the main factors causing traffic accidents in Serdang Bedagai Regency are human factors, vehicle factors, and environmental factors. The Serdang Bedagai Police have made various efforts in dealing with traffic accidents, which include preventive, repressive, and rehabilitative approaches. Preventive efforts are carried out through socialization and driving safety education to the public. Repressive efforts are carried out through law enforcement such as electronic ticketing (ETLE) and vehicle raids, while rehabilitative efforts involve coordination with hospitals and psychological assistance for accident victims. Despite various efforts, this study found the main challenges faced, such as the lack of police personnel, low public awareness, and inadequate road infrastructure. Therefore, cooperation between the police, local governments, and the community is needed to improve traffic safety. With good synergy, it is hoped that the number of traffic accidents in Serdang Bedagai Regency can continue to decrease.*

Keywords: *Traffic Accident, Serdang Bedagai Police, Driving Safety, Law Enforcement, Road Infrastructure*

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INTRODUCTION

Orderly and safe traffic is an important factor in maintaining public safety on the highway. The high number of traffic accidents in various regions shows that optimal measures are still needed to reduce the incidents that occur (Sunaryo et al., 2020). As one of the law enforcement institutions, the Serdang Bedagai Police has a strategic role in ensuring traffic safety in its jurisdiction. Optimizing police performance in handling and preventing accidents is a crucial aspect in improving safety on the highway (Andilolo et al., 2024).

The Serdang Bedagai Police have carried out various efforts to overcome traffic accidents, ranging from preventive to repressive measures. Preventive efforts are carried out by increasing socialization of driving safety, increasing traffic signs, and conducting routine patrols at accident-prone points (Piliang & Madjid, 2025). In addition, law enforcement actions against traffic violators are also the main focus in reducing the risk of accidents that are often caused by driver negligence (Harun et al., 2024).

Traffic accidents in the Serdang Bedagai area are often triggered by various factors, such as lack of awareness of motorists, inadequate road conditions, and the lack of safety facilities at several vulnerable points. Therefore, the Serdang Bedagai Police continue to try to identify the main cause of the accident and find the best solution to reduce the number of incidents that occur.

As part of the performance optimization strategy, the Serdang Bedagai Police collaborated with various parties, including the local government, the Transportation Office, and the community. This collaboration aims to create a safer and more orderly traffic ecosystem. Counseling for motorists, the installation of surveillance cameras (CCTV), and the improvement of street lighting are some of the steps that have been implemented to reduce the number of accidents (Primary, 2022).

In addition, the education factor is also the main concern in efforts to optimize police performance (Shah, 2023). The Serdang Bedagai Police routinely hold traffic safety campaigns in schools and public places. Socialization about the importance of compliance with traffic rules is aimed at instilling a culture of discipline from an early age, so that the younger generation is more aware of the importance of safety on the highway (SYO et al., 2025).

Technology is also an important part of the performance optimization strategy of the Serdang Bedagai Police. By utilizing the electronic ticketing system (ETLE), law enforcement can be carried out more effectively without always relying on the physical presence of officers in the field (Putra et al., 2025). The implementation of this system is expected to be able to increase driver compliance and reduce the number of traffic violations that have the potential to cause accidents. In addition to the technological aspect, the presence of officers in the field remains one of the important elements in creating traffic safety (Darmansyah & Prasetyanto, 2019).

Therefore, the Serdang Bedagai Police increased the frequency of patrols, especially during accident-prone hours. The presence of officers at strategic points aims to provide a sense of security for the community and prevent violations that have the potential to endanger other road users (Abrahamsz, 2023). In dealing with accidents that have occurred, the Serdang Bedagai Police also has a quick response system to provide help to victims. Coordination with hospitals and medical teams is part of standard procedures so that the handling of accident victims can be carried out quickly and effectively. According Putri (2024), With a swift response, the fatality rate due to accidents can be minimized.

Not only focusing on motorists, the Serdang Bedagai Police also pay attention to external factors that affect traffic safety. One of them is road infrastructure which is often the main cause of accidents. Therefore, the police also provide recommendations to related parties to carry out road repairs and maintenance to reduce the risk of accidents due to poor road conditions. The level of public awareness in traffic is the main key in creating safety on the highway. Therefore, the Serdang Bedagai Police continues to invite the community to play an active role in creating a safer driving environment. Traffic safety campaigns involving various elements of society are one of the strategic steps in building a better traffic culture.

Optimizing the performance of the Serdang Bedagai Police in handling traffic accidents is not only limited to law enforcement and education, but also includes psychological aspects for accident victims. Support for victims' families and psychological assistance for those who have been traumatized by accidents are also part of the police's efforts to create safety and comfort for the community. Despite various efforts that have been made, challenges in overcoming traffic accidents are still being faced (Zainafree et al., 2022). The Serdang Bedagai Police must continue to adapt to the times, including in facing new challenges such as the increasing number of vehicles on the road and various forms of traffic violations that are increasingly complex.

Therefore, periodic evaluation of the policies and strategies that have been implemented is very important (Mahfud & Mulyani, 2017). In the long term, the success of efforts to optimize the performance of the Serdang Bedagai Police in overcoming traffic accidents depends heavily on the synergy between the police, the government, and the community. With a strong commitment from all parties, it is hoped that the number of accidents in this region can continue to decrease, so as to create a safer and more comfortable traffic environment for all road users.

Traffic safety is not only the responsibility of the police, but is a shared responsibility. Therefore, every individual needs to play an active role in creating more orderly and safe road

conditions (Ali et al., 2024). With awareness and compliance with traffic rules, it is hoped that the accident rate can be significantly minimized. In closing, optimizing the performance of the Serdang Bedagai Police in overcoming traffic incidents is a strategic step that continues to be developed to ensure the safety of the public on the highway. With a comprehensive approach, ranging from education, law enforcement, technology utilization, to infrastructure improvement, it is hoped that a safer, more efficient, and sustainable traffic system can be created.

METHODS

Type of Research

This research is a qualitative descriptive research that aims to provide a detailed description of the efforts of the Serdang Bedagai Police in handling and preventing traffic accidents (Krisnayana, 2024). Through this research, the data collected will be analyzed in depth to gain an understanding of the effectiveness of the strategies that have been implemented.

Location and Time of Research

This research was conducted in the jurisdiction of the Serdang Bedagai Police, North Sumatra. This location was chosen because of the high number of traffic accidents that require intervention from the police. The research time was carried out for several months to obtain valid and in-depth data.

Data Sources

The data sources in this study consist of two types, namely: (1) Primary Data, Obtained directly from resource persons related to the research topic, such as members of the Serdang Bedagai Police, traffic accident victims, the surrounding community, and other related parties; (2) Secondary Data: Obtained from official documents, police reports, traffic regulations, news, and previous research relevant to the research topic.

Data Collection Techniques

To obtain accurate and comprehensive data, this study uses several data collection techniques as follows (Rachmawati et al., 2022):

In-depth Interview

The researcher will conduct interviews with related parties, such as: (1) Serdang Bedagai Police Officer to find out the strategies and policies applied in handling traffic accidents; (2) The public and motorists to understand the level of awareness and compliance with traffic rules; (3) Accident Victims or Victims' Families to find out their experiences and the impact of the accident that occurred; (4) Transportation Agency or Regional Government to understand their role in improving traffic safety in the region.

Field Observation

Observations were made to see firsthand traffic conditions at several accident-prone points, driver behavior, and the presence and actions of police officers in maintaining road safety.

Documentation

Documentation is used to collect data from various sources, such as traffic accident reports issued by the Serdang Bedagai Police, accident statistics, and regulations governing traffic in the area.

Data Analysis Techniques

The data that has been collected will be analyzed using the thematic analysis method, namely by grouping the data based on the main themes that emerge from the results of interviews, observations, and documentation. The stages of data analysis include (Saleh, 2017): (1) Data Reduction – Filtering and sorting data relevant to the focus of the research; (2) Data Presentation – Organizing data in the form of a descriptive narrative to make it easier to

understand; (3) Drawing conclusions – Drawing conclusions based on the results of research findings, which will later be compared with existing theories and policies.

Data Validity

To ensure the validity of the data in this study, several data validation techniques were carried out, such as: (1) Source Triangulation – Comparing data from various sources, such as the police, the community, and traffic accident victims; (2) Triangulation Techniques – Verifying data using various data collection techniques, such as interviews, observations, and documentation; (3) Member Checking – Reconfirm the results of interviews with sources to ensure the accuracy of the information obtained.

Research Ethics

In this study, the principle of research ethics is maintained by ensuring that each participant interviewed gives permission and willingness to participate. The identities of respondents who do not wish to be named will be kept confidential to maintain their privacy and security. In addition, this research was carried out objectively without any data engineering or partiality towards certain parties.

RESULTS AND DISCUSSION

Traffic Law Rules in Laws and Regulations

Traffic regulations in Indonesia are regulated in various laws and regulations that aim to create safety and order on the highway. The main regulations on which the law is based are:

Table 1. Laws and Regulations Related to Traffic

No	Regulatory Name	Contents
1	Law Number 22 of 2009 concerning Road Traffic and Transportation (LLAJ)	Regulates traffic procedures, the rights and obligations of drivers, and sanctions for traffic law violators.
2	Government Regulation Number 79 of 2013 concerning Road Traffic and Transportation Network	Regulate the traffic network system that includes national, provincial, and district roads.
3	Regulation of the National Police Chief Number 10 of 2012 concerning Traffic Regulation	Regulate the technical traffic regulation carried out by the police, including ticketing and repressive measures against violators.
4	Regulation of the Minister of Transportation Number 111 of 2015 concerning Procedures for the Implementation of Traffic Signs	Regulate the use and installation of traffic signs to support the safety of road users.

The above rules are guidelines in the implementation of traffic policies in the jurisdiction of the Serdang Bedagai Police. Even though there are clear regulations, implementation in the field still faces various challenges, such as low public awareness in complying with traffic rules and the limitations of road infrastructure that has not fully supported driving safety. The results of the study show that the legal rules that regulate traffic in Indonesia, especially Law Number 22 of 2009 concerning Road Traffic and Transportation (LLAJ), have provided a strong legal basis in creating an orderly and safe traffic system (Ali et al., 2024). However, the implementation of this rule still faces challenges at the regional level.

This is in line with research conducted by (Ely, 2023), which stated that although traffic regulations in Indonesia are quite comprehensive, the effectiveness of their implementation is still influenced by the level of public awareness and the quality of supervision from the police. In addition, research by (Elfin, 2025) emphasizing that the success of traffic regulation does not only depend on law enforcement, but also on education and socialization to the public. This was also found in this study, where the Serdang Bedagai Police not only focused on law enforcement, but

also conducted socialization to the community, especially to students and public transportation drivers, in order to increase their awareness of traffic safety.

Factors Causing Traffic Accidents in Serdang Bedagai Regency

The results of the study show that there are several main factors that cause traffic accidents in Serdang Bedagai Regency. These factors can be categorized into three, namely human factors, vehicle factors, and environmental factors.

Table 2. Factors Causing Traffic Accidents in Serdang Bedagai Regency

No	Factor	Specific Causes
1	Human Factors	<ul style="list-style-type: none"> - Lack of traffic awareness - Driving in a tired or sleepy condition - Use of mobile phones while driving - Speed limit violations - Driving while intoxicated
2	Vehicle Factors	<ul style="list-style-type: none"> - Brakes and tires that are not working properly - The vehicle exceeds the payload capacity - Vehicle lighting that does not meet the standards
3	Environmental Factors	<ul style="list-style-type: none"> - Potholes and uneven road conditions - Lack of traffic signs - Lack of lighting in some accident-prone points - Extreme weather that affects rider visibility

From the results of observations and interviews with police officers, it is known that the human factor is the biggest cause of accidents in Serdang Bedagai Regency. Many motorists still ignore traffic rules, such as not wearing helmets, going against the flow, and violating red lights. In addition, vehicles that are not roadworthy are also a trigger for accidents, especially for freight transport vehicles that are often overloaded. Environmental factors also contribute to traffic accidents. Several roads in the Serdang Bedagai area are still in a damaged condition, increasing the risk of accidents, especially for two-wheeled riders. Lack of street lighting and lack of traffic signs at several points are also the cause of accidents, especially at night. This study found that the main factor causing traffic accidents in Serdang Bedagai Regency is the human factor, followed by vehicle factors and environmental factors. These findings are in line with Haddon's Matrix theory, which states that traffic accidents can be affected by three main factors: people, vehicles, and the environment (Runyan, 2015).

Based on interviews with police officers, it is known that many accidents occur due to driver negligence, such as driving in a tired state, ignoring traffic signs, or driving at high speed. This finding is in accordance with research conducted by (Setyowati et al., 2018), which found that more than 60% of traffic accidents in Indonesia are caused by human factors, mainly due to low compliance with traffic rules. Vehicle factors, such as brakes that do not work properly and vehicles that are not roadworthy, are also the cause of accidents in this region. This is supported by research by (Pobela et al., 2023), which states that vehicles that do not meet safety standards have a 30% higher risk of accidents than well-maintained vehicles. Meanwhile, environmental factors, such as potholes and lack of street lighting, also contribute to accidents. This condition is in accordance with the findings of the research by (Muchlis et al., 2024), which states that poor road infrastructure contributes to the high accident rate, especially in rural areas where road maintenance is still minimal.

Efforts of the Serdang Bedagai Police in Overcoming Traffic Accidents

The Serdang Bedagai Police has made various efforts to overcome traffic accidents, both in the form of preventive (prevention) and repressive (law enforcement) measures.

Table 3. Efforts of the Serdang Bedagai Police in Overcoming Traffic Accidents

No	Types of Efforts	Activities Carried Out
1	Preventive Efforts	<ul style="list-style-type: none"> - Socialization of traffic safety in schools - Helmet and seatbelt use campaigns - Installation of traffic signs at accident-prone points - Increased highway patrols, especially during accident-prone hours
2	Repressive Efforts	<ul style="list-style-type: none"> - Enforcement of traffic violators with electronic tickets (ETLE) - Vehicle raids to ensure vehicle eligibility - Sanctions for drivers who violate the speed limit or do not have a complete vehicle license
3	Curative and Rehabilitative Efforts	<ul style="list-style-type: none"> - Improved quick response in handling accident victims - Cooperation with hospitals for medical treatment of accident victims - Psychological assistance for trauma accident victims

The results of the study show that the preventive efforts carried out by the Serdang Bedagai Police are starting to show a positive impact in increasing public awareness of traffic safety. Regular safety campaigns, especially in schools, help instill a culture of traffic order from an early age. In addition, the installation of traffic signs at accident-prone points also has a positive effect in reducing accident incidents. In a repressive effort, electronic ticketing (ETLE) has been implemented at several strategic points to crack down on traffic violators without the need for the direct presence of officers on the road. This system is considered effective in reducing the number of violations, especially for motorists who often ignore traffic rules. In addition, the Serdang Bedagai Police also pay attention to accident victims through curative and rehabilitative efforts. Cooperation with local hospitals in handling accident victims has helped speed up the rescue process.

Psychological assistance for accident victims is also provided so that they can recover mentally after experiencing an incident. The results of the study show that the Serdang Bedagai Police have made various efforts in overcoming traffic accidents, which include preventive, repressive, and rehabilitative efforts. These findings are in line with the "3E" (Engineering, Education, and Enforcement) approach put forward by (McKnight & McKnight, 2003) where efforts to prevent traffic accidents must be carried out through infrastructure improvements (engineering), education to the community (education), and strict law enforcement (enforcement). In the preventive aspect, the Serdang Bedagai Police has carried out various socialization and education programs to the public about the importance of traffic safety. These findings support research by (Sugiyanto & Santi, 2015), which confirms that regular traffic safety campaigns are able to increase driver awareness by up to 40% within a period of five years.

In the repressive aspect, the Serdang Bedagai Police has implemented an electronic ticketing system (ETLE) to increase motorists' compliance with traffic rules. The implementation of ETLE has proven to be effective in reducing the number of traffic violations, as found in a study by Fauzan (2022), which shows that areas that implement ETLE have experienced a decrease in traffic violations by up to 35% in one year (Narullita, 2024). Meanwhile, in the rehabilitative aspect, the Serdang Bedagai Police has coordinated with hospitals to handle accident victims quickly, as well as provide psychological assistance for victims who have experienced trauma. This is in line with research by (Hatta, 2016), which states that psychosocial support for traffic accident victims can aid mental recovery and reduce the risk of prolonged trauma.

Critical Analysis of the Efforts of the Serdang Bedagai Police

Although the efforts made by the Serdang Bedagai Police have shown positive results, this study found several challenges that still need to be overcome, including: (1) Lack of traffic police personnel, especially at accident-prone points. This makes traffic supervision in some areas not optimal; (2) Public awareness is still low, especially among two-wheeled vehicle drivers who

often do not use helmets and violate traffic signs; (3) Road infrastructure is still inadequate, especially in rural areas with minimal lighting and traffic signs.

To address these challenges, the study recommends several steps, such as: (1) Increase the number of police personnel in the field to tighten traffic control; (2) Increasing cooperation with local governments in improving road infrastructure and installing traffic signs. Expanding the scope of the electronic ticketing system (ETLE) so that more traffic violators can be detected without having to rely on the presence of officers in the field.

CONCLUSION

Based on the results of the research that has been carried out, it can be concluded that efforts to optimize the performance of the Serdang Bedagai Police in overcoming traffic accidents have been carried out through various strategies that include preventive, repressive, and rehabilitative aspects. Regulations that regulate traffic in Indonesia, especially Law Number 22 of 2009 concerning Road Traffic and Transportation, have provided a strong legal basis in creating order and safety on the highway. However, the implementation of this rule still faces challenges, especially related to public awareness in complying with traffic rules and the limitations of road infrastructure that have not fully supported driving safety. This study also identified that the main factors causing traffic accidents in Serdang Bedagai Regency are human factors, which include driver negligence, lack of traffic awareness, and unsafe driving behaviors, such as driving in drowsy conditions or using mobile phones while driving. In addition, vehicle factors, such as roadworthy vehicles and improperly functioning braking systems, are also the cause of accidents. Meanwhile, environmental factors, such as damaged road conditions, lack of traffic signs, and lack of lighting on several roads, also contribute to the high number of accidents in this region. In dealing with these problems, the Serdang Bedagai Police have made various preventive efforts, such as traffic safety socialization, the installation of traffic signs, and increased patrols at accident-prone points. In addition, repressive efforts are also carried out through the electronic ticketing system (ETLE), vehicle raids, and enforcement of motorists who violate traffic rules. To support accident victims, the Serdang Bedagai Police also runs rehabilitation programs, such as cooperation with hospitals in handling accident victims and psychological assistance for victims who have experienced trauma.

SUGGESTION

Despite the various steps that have been taken, this study finds that there are still several challenges that must be overcome, such as the lack of traffic police personnel, low public awareness in obeying the rules, and road infrastructure that has not fully supported traffic safety. Therefore, closer synergy is needed between the Serdang Bedagai Police, the local government, and the community in improving driving safety in this area. Overall, this study emphasizes that success in reducing the number of traffic accidents does not only depend on strict law enforcement, but also on increasing education to the public and improving road infrastructure. With a comprehensive and sustainable approach, it is hoped that the number of traffic accidents in Serdang Bedagai Regency can continue to decrease, so as to create a safer, more orderly, and controlled traffic environment.

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