Implementation of Ministry of Transportation Regulation Number 45 of 2020 concerning Certain Vehicles with Electric Motors: A Case Study of Underage Riders in Medan City from the Perspective of Siyasah Dusturiyah

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Abstract

This study examines the implementation of the Ministry of Transportation Regulation Number 45 of 2020 concerning certain vehicles powered by electric motors, focusing on the phenomenon of underage drivers operating these vehicles on public roads in Medan City. The main objective of this research is to evaluate the effectiveness of the regulation and identify the obstacles faced in its implementation. Using a qualitative approach with a case study design, data were collected through interviews, field observations, and document analysis. The findings reveal that although the regulation provides a clear legal framework, its enforcement remains ineffective, particularly in preventing underage drivers from using electric vehicles on public roads. The contributing factors to this ineffectiveness include low legal awareness among parents and children, weak supervision, and limited public socialization regarding the regulation. From the perspective of fiqh siyasah (Islamic political jurisprudence), government policies should prioritize the public interest and the protection of life (hifz al-nafs). This study recommends stricter law enforcement and more intensive public education to improve legal awareness and ensure the safety of children.

Keywords: Implementation, Electric Motor Vehicles, Underage Drivers, Traffic Regulations, Fiqh Siyasah.



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INTRODUCTION

The development of transportation technology in Indonesia has shown a rapid upward trend, in line with increasing public awareness of the importance of environmentally friendly vehicles. One notable innovation is the emergence of specific vehicles powered by electric motors, which are considered more energy-efficient, practical, and environmentally sustainable compared to conventional fossil fuel-powered vehicles. In response to this development, the Indonesian government issued the Minister of Transportation Regulation (Permenhub) Number 45 of 2020 as a specific regulation governing the use of electric vehicles, including provisions on driver age requirements, operational areas, and safety standards (Kementerian Perhubungan RI, personal communication, 2020).

In its implementation, the authority for regulating, controlling, and supervising transportation including electric vehicles lies with the Ministry of Transportation. According to Presidential Regulation Number 40 of 2015 concerning the Ministry of Transportation, Article 2, the Ministry is responsible for administering transportation affairs within the government in order to assist the President in managing the state administration (Puteri, 2024). This authority

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is delegated to the local Transportation Agency at the regional level to carry out regulation, supervision, and enforcement in the field, including regulating electric vehicle users in the city of Medan.

Minister of Transportation Regulation Number 45 of 2020, Articles 4 and 5, explicitly stipulate the obligations and requirements for electric vehicle users. The full text of the relevant provisions is as follows:

Article 4 paragraph (1) letter b:

- (1) Users of specific vehicles as referred to in Article 2 paragraph (1) must meet the following requirements:
 - b. The minimum age of users is 12 (twelve) years;

Article 5 paragraph (1) letters a and b:

- (1) Specific vehicles as referred to in Article 2 paragraph (1) may be operated on:
 - a. Special lanes; and/or
 - b. Certain designated areas.

These provisions clearly stipulate that the use of electric vehicles on public roads is restricted to individuals aged 12 years and above, provided that they have sufficient control over the vehicle and comply with safety standards, including the mandatory use of SNI-standard helmets and adherence to the maximum speed limits (L. A. M. Putri & Malau, 2024).

Although a clear legal framework is already in place, field observations reveal significant deviations from these regulations, particularly in the city of Medan. A serious and growing issue is the widespread practice of underage children operating electric vehicles on public roads without supervision and in violation of safety standards. Many of these children do not wear helmets, exceed speed limits, or even carry passengers all of which constitute clear violations of Article 4 paragraph (1) of Minister of Transportation Regulation No. 45 of 2020. This phenomenon points to a serious discrepancy between legal norms and their practical implementation in the field (Anisa et al., 2025).

This condition signifies a breach of the substance of these regulatory provisions, which are intended to serve as the basis for controlling and supervising the use of electric vehicles. The inconsistency also highlights the weakness of oversight by the Department of Transportation and related authorities in enforcing the clearly established rules under Regulation No. 45 of 2020.

The city of Medan has become one of the regions facing serious challenges related to this phenomenon. According to data from the Medan Metropolitan Police (Polrestabes Medan), there has been a significant increase in traffic violations involving underage electric vehicle riders between 2022 and 2024. This situation reflects a gap between normative policy and field realities, which has the potential to cause social harm and poses a threat to the safety of children as a vulnerable group (Polrestabes Medan, 2024).

The phenomenon of children operating electric vehicles on public roads raises concerns not only in terms of safety but also from social and legal perspectives. In fiqh siyasah (Islamic political jurisprudence), the government plays a crucial role in safeguarding public welfare (maslahah) and preventing harm (mafsadah) within society. When regulations are not

implemented effectively, they may lead to broader and more severe consequences (Ariyani et al., 2024).

In the context of maqashid al-sharia (the objectives of Islamic law), the protection of life (hifz al-nafs) is one of the primary goals of Islamic teachings. Policies that fail to protect lives, particularly those of children, represent a fundamental failure to realize the aims of sharia. Therefore, public policy must always be directed toward ensuring the safety and well-being of all societal groups, especially vulnerable populations such as children (Cicilia, 2025).

The gap between regulations and actual practice in the field indicates that the existing rules have not yet been effectively binding. In many cases, parents allow their children to operate electric vehicles on public roads without proper safety equipment and without an understanding of the associated risks. This phenomenon reveals a deficiency in legal education and inadequate supervision by the relevant authorities (Hutasuhut et al., 2022).

According to Imam al-Mawardi in Al-Ahkam al-Sulthaniyyah, a leader bears full responsibility for ensuring the safety and welfare of the people. A government that neglects the enforcement of regulations is failing in the trust it has been assigned. Al-Mawardi emphasized, "Indeed, an imam is appointed to uphold religion and to protect life and property" (Ismail et al., 2025)

The use of electric vehicles by children also produces psychological and social impacts. On one hand, children who grow accustomed to driving without age restrictions may come to perceive traffic violations as normal behavior. If this issue is not addressed promptly, such a culture of lawbreaking may become entrenched and develop into a deeply rooted habit that is difficult to change in the future (Ismail et al., 2021).

Several previous studies, such as the one conducted by Fitriani (2021), have highlighted that weak supervision and the lack of dedicated lanes for electric vehicles are among the main causes of widespread violations. In addition, the absence of early traffic education results in children's lack of understanding of the risks associated with operating vehicles on public roads. This reinforces the importance of both education and the family unit in fostering early legal awareness.

In Islam, parents bear a significant responsibility in nurturing and guiding their children to behave in accordance with sharia and the laws of the state. The Prophet Muhammad (peace be upon him) said, "Each of you is a shepherd, and each of you is responsible for his flock" (Narrated by Bukhari and Muslim). This hadith serves as a strong foundation for positioning the family as the first line of defense against unlawful behavior (Rinaldo & Pradikta, 2021).

The control of electric vehicle usage by underage children is not solely the responsibility of the government, but also a broader social responsibility involving families, schools, and the surrounding community. Synergy between educational institutions, law enforcement authorities, and the public is essential for cultivating a culture of orderly traffic behavior and enhancing compliance with the law (Maramis, 2024).

This study is important to develop, as the phenomenon of electric vehicle usage by children continues to rise in line with the increasing ease of access to purchasing such vehicles. By examining this issue from the perspective of fiqh siyasah dusturiyah (Islamic constitutional political jurisprudence), it is expected to contribute significantly to the formulation of policies

that are oriented toward public welfare (maslahah) and the protection of the younger generation (U. L. Putri & Caniago, 2021).

The research questions formulated in this study are as follows: (1) How is the implementation of Minister of Transportation Regulation Number 45 of 2020 in Medan City concerning underage riders?, (2) What are the obstacles in enforcing the regulation?, (3) How does figh siyasah view this phenomenon within the framework of maqashid al-sharia?

RESEARCH METHODS

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This study employs a qualitative approach with a case study research design (Bahder Johan Nasution, 2008). The qualitative approach is selected due to its ability to provide an indepth depiction of the phenomenon of underage children using electric vehicles in Medan City something that cannot be fully explained through statistical data alone. The strength of this approach lies in its capacity to capture meaning, social context, and the perspectives of direct actors in the field. However, this approach also has certain limitations, particularly in terms of generalizability. Because it focuses contextually and specifically on the case in Medan City, the findings of this research cannot be readily generalized to other regions. Nevertheless, the results of this study offer a deep understanding and serve as a valuable basis for reflection among policymakers in similar contexts.

The data used in this study consist of primary and secondary sources (Diantha, 2016). Primary data were obtained through in-depth interviews with five key informants, including two underage electric vehicle riders, two parents, and one traffic police officer from Medan City. The informants were selected using purposive sampling, as they were considered knowledgeable about and directly involved in the phenomenon under investigation. Interviews were conducted in person using a semi-structured interview guide prepared in advance. These interviews aimed to explore the informants' experiences, perceptions, and the challenges they encountered. The information gathered was then verified and cross-referenced with other data to ensure validity. Secondary data were obtained through document analysis, including Minister of Transportation Regulation Number 45 of 2020, Law Number 22 of 2009 on Road Traffic and Transportation, traffic accident data from Medan Metropolitan Police (Polrestabes Medan) from 2022 to 2024, and academic literature related to figh siyasah and maqashid al-sharia.

The data collection techniques employed in this study include interviews, observation, and document analysis (Anto et al., 2024). The researcher used purposive sampling to select informants individuals with direct experience and high relevance to the phenomenon under investigation. The criteria for selecting informants are as follows: (1) children who actively use electric vehicles on public roads, (2) parents of these children as the parties granting permission and providing supervision, and (3) traffic police officers as those responsible for monitoring and enforcing the law. The selection of these three groups aims to capture perspectives from different angles: users, authorizers, and law enforcers. Field observations were conducted directly at several strategic locations in Medan City, including densely populated residential areas (Medan Denai and Medan Tembung sub-districts), major roads frequently used by students (Jamin Ginting Street and Iskandar Muda Street), as well as public areas such as town squares and shopping centers. The observations were carried out in three time waves over a two-month period (March–April 2025), specifically during the morning (school hours),

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afternoon (dismissal hours), and weekends. Through this approach, the researcher was able to identify patterns of violations, high-risk time periods, and the actual level of field supervision.

The researcher also employed the member check technique by requesting confirmation from informants regarding interview results to ensure data accuracy. Data analysis in this study utilized a thematic analysis method with a descriptive approach. The researcher identified patterns, themes, and categories that emerged from the interviews, observations, and document reviews. The data were analyzed inductively to explore the relationship between the field phenomena and the concepts of figh siyasah and maqashid al-sharia. The data analysis process involved several stages: data reduction, data presentation, and conclusion drawing. Data reduction was carried out by filtering relevant data, which were then presented in a systematic narrative format (Imam, 2013). Following this, the researcher conducted interpretation and meaning-making of the data to address the research questions and achieve the study's objectives. This research prioritizes academic integrity and transparency throughout every stage of data collection and analysis. Information obtained from informants is reported objectively, including instances where some informants declined to provide information or held differing perspectives. With this structured research method, the findings are expected to provide an accurate depiction of the implementation of Minister of Transportation Regulation Number 45 of 2020 in Medan City, as well as offer practical recommendations from the perspective of figh siyasah dusturiyah.

A distinctive strength of this study lies in its integration of social analysis with the framework of maqāṣid al-sharī'ah, particularly in relation to ḥifz al-nafs (protection of life) and maṣlaḥah 'āmmah (public welfare). In this context, all findings are analyzed not only from a juridical-formal perspective but also through the lens of Islamic ethics concerning the responsibilities of the state and family in preventing social harm. The concept of maqāṣid al-sharī'ah serves as a normative foundation for assessing the extent to which existing policies are genuinely oriented toward child protection and social safety.

This research also emphasizes the principles of academic honesty and methodological transparency. The researcher documented the entire process of interviews and observations systematically, including recording challenges faced such as difficulties accessing child respondents outside of school hours, limitations in the availability of informants willing to be interviewed, and varied public understanding of the term "electric vehicle." All information gathered is presented objectively, including instances where informants provided contradictory data or avoided certain questions. This approach was adopted to maintain the integrity of the research findings and to offer a realistic portrayal of conditions in the field.

RESULTS AND DISCUSSION

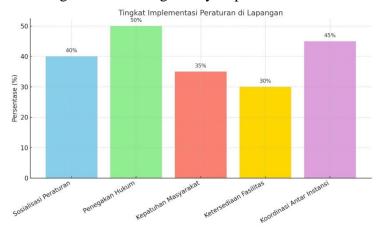
Implementation of Minister of Transportation Regulation Number 45 of 2020

Based on field research findings, the implementation of Minister of Transportation Regulation Number 45 of 2020 concerning Certain Vehicles with Electric Motor Propulsion still faces various challenges. Interview data indicate that although the regulation has been disseminated through traffic signs and social media, public understanding of its contents remains limited. Many community members are unaware of the age restrictions and technical requirements stipulated in the regulation. Interviews with traffic police officers revealed that

field supervision remains suboptimal, particularly on weekends and in residential areas where children frequently operate electric vehicles without adequate supervision. This poses a significant challenge to law enforcement efforts within the community.

As part of the effort to obtain a more measurable overview of the implementation of Minister of Transportation Regulation Number 45 of 2020 in the field, a quantitative approach is necessary to visualize the level of implementation across various relevant aspects. Graphical visualization serves not only as a complement to descriptive data but also as a critical indicator in identifying both the effectiveness and challenges faced in policy enforcement. Through these graphs, one can observe to what extent components such as regulatory oversight, legal compliance, public awareness, availability of supporting facilities, and the intensity of socialization efforts have been proportionally implemented within the community in Medan City. Presenting such visual data is essential to highlight disparities among variables that directly impact the low effectiveness of the regulation in practice. Accordingly, the following graphs make a significant contribution to clarifying the issues surrounding policy implementation and serve as a rational basis for formulating more targeted policy recommendations.

Below is a graph illustrating the level of regulatory implementation in the field:

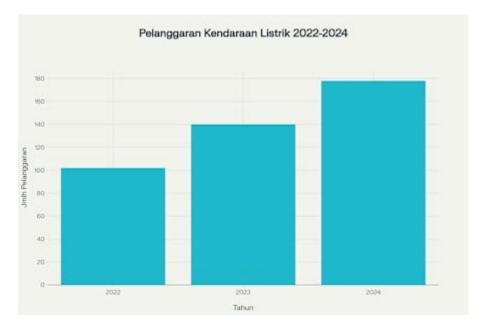


(**Source**: Data (Dinas Perhubungan Kota Medan, 2024)

The graph indicates that the aspect of law enforcement shows the highest level of implementation; however, it still falls below the desired optimal standard. Public outreach and inter-agency coordination also require further improvement. This aligns with interview findings from officials at the Medan City Department of Transportation, who stated that limited resources remain a major obstacle to full-scale implementation in the field.

Furthermore, these indicators have direct consequences, contributing to both traffic violations and accidents involving underage electric vehicle users. The following graph illustrates the increasing trend in the number of traffic violations committed by underage electric vehicle riders in Medan City over the past three years (2022–2024):

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(Source: Data Satlantas Polrestabes, Medan 2024)

This graph visually illustrates a significant year-on-year increase in the number of violations, highlighting the need for improved supervision and public outreach efforts in the field in order to effectively reduce the number of infractions (Polrestabes Medan, 2024).

There has been a dramatic rise in the number of violations involving electric vehicle use by underage riders over the past three years. In 2022, a total of 102 cases were recorded, which increased to 140 in 2023, and surged to 178 cases in 2024 (Polrestabes Medan, 2024). These data reveal a concerning upward trend, serving as a clear indicator that existing socialization and supervision efforts have yet to yield optimal results in reducing such offenses.

The rise in the number of violations reflects the weak effectiveness of field supervision and the low level of public legal awareness. Interviews with several parents revealed that most of them were unaware that underage individuals are prohibited from using electric vehicles on public roads. Many believed that electric vehicles are safer than conventional motorcycles, and therefore permitted their children to use them. This misconception underscores the lack of effective public education efforts by authorities aimed at informing the broader community (Nazam et al., 2024).

In addition, field observations revealed that traffic signs installed on several road segments do not cover areas where violations frequently occur, such as small roads within residential neighborhoods. Police officers also acknowledged that personnel shortages hinder efforts to conduct uniform supervision across all areas of Medan City. Due to these limitations, enforcement tends to be concentrated on major roads, while violations more often occur on smaller streets and in residential zones with minimal oversight (G. G. M. S. P. NIM, 2023)

The limited supervision in the field is also attributed to the lack of strict and consistent sanctions applied to violators, particularly to parents who allow their children to operate electric vehicles on public roads. According to interviews with officials from the Department of Transportation, sanctions are often limited to verbal warnings without adequate follow-up

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measures. This has led to a lack of deterrence among the public, resulting in continued disregard for the applicable regulations (L. T. NIM, n.d.).

Furthermore, the police acknowledged that there is still a lack of internal training and socialization regarding the technical aspects of monitoring and enforcing regulations related to electric vehicles. Many field officers do not fully understand the procedures for handling violations committed by electric vehicle users, resulting in confusion during law enforcement efforts. These limitations further complicate the effective implementation of Minister of Transportation Regulation Number 45 of 2020.

The study also found that the public has not yet received adequate access to information about the regulation. Social media, which serves as one of the primary channels for dissemination, does not reach all segments of society particularly parents who are less active on digital platforms. Moreover, the use of technical language in the regulation, which is difficult for the general public to comprehend, presents another barrier to improving public understanding of the regulation's content (Nurkholbi, 2019).

Interview findings from school representatives revealed that there is currently no integration of content related to road safety and understanding of traffic regulations for electric vehicles within the educational curriculum. As a result, legal awareness from an early age has not yet been developed among children. In fact, early education on road safety and compliance with traffic regulations can serve as an effective preventive measure in reducing future violations (A. Lubis, personal communication, May 16, 2025).

The Medan City Department of Transportation also acknowledged that budget constraints are a key factor hindering broader outreach efforts and the installation of additional traffic signs in high-risk violation areas. Due to limited budget allocations, monitoring efforts are prioritized for conventional motor vehicles, while electric vehicles especially those operated by children have not yet become the primary focus (Pramudya, 2024).

This study also found that most parents believe their children's use of electric vehicles is a solution to the lack of public transportation in their neighborhoods. This indicates an unmet transportation need that compels parents to permit their children to operate electric vehicles, even if doing so violates existing regulations. This condition highlights the urgency for the government to provide child-friendly transportation infrastructure as a long-term solution (A. Yusuf, personal communication, June 2, 2025).

Based on field observations, violations involving the use of electric vehicles by underage riders frequently occur during school dismissal hours and on weekends. Children use electric vehicles as a form of recreation and as a means of transportation for daily activities, often without parental supervision. The lack of oversight from both authorities and parents creates opportunities for children to continue using electric vehicles on public roads without fear of sanctions (D. Putra, personal communication, April 22, 2025).

In-depth interviews with several parents revealed that, in addition to the lack of public outreach, the absence of strict regulations governing the sale of electric vehicles to minors exacerbates the problem. Electric vehicle vendors do not impose age restrictions or provide educational information to buyers, allowing children to easily access and purchase these

vehicles without adequate control (Dinas Perhubungan, personal communication, May 12, 2025).

This study also found that public perception of the risks associated with electric vehicles remains low. Most parents and children believe that electric vehicles are not dangerous due to their limited maximum speed. This perception leads to indifference toward the regulations prohibiting minors from operating electric vehicles on public roads (E. Siregar, personal communication, April 30, 2025).

In response to these conditions, several police and Department of Transportation officers have proposed the establishment of a special task force focused on monitoring the use of electric vehicles by children. This task force is expected to conduct regular patrols in residential areas and on smaller roads that have so far been overlooked in intensive monitoring efforts. Additionally, strengthening cooperation with schools and local communities is considered essential for expanding the reach of educational campaigns (F. Rahmadani, personal communication, April 24, 2025).

From a juridical perspective, the implementation of this regulation requires the support of more detailed derivative rules concerning sanctions, enforcement procedures, and stricter oversight mechanisms. These measures are intended to provide clarity for field officers in enforcing the law and to serve as a deterrent for potential violators. There is also a need to develop standard operating procedures that are accessible and practical for all stakeholders involved (H. Simanjuntak, personal communication, April 28, 2025).

In conclusion, this study demonstrates that the implementation of Minister of Transportation Regulation Number 45 of 2020 in Medan City remains ineffective. Contributing factors include low public awareness, weak enforcement, insufficient technical regulations, and a lack of comprehensive education. An integrated effort involving government authorities, law enforcement, schools, and the broader community is essential to improve the effectiveness of this regulation. Such efforts must include widespread public outreach, equitable supervision, and the consistent application of firm sanctions to ensure the regulation is properly enforced and yields a significant impact on traffic safety in society.

Challenges in Regulatory Implementation

The primary challenges in implementing Minister of Transportation Regulation Number 45 of 2020 on Certain Vehicles with Electric Motor Propulsion in Medan City include a lack of public education and low legal awareness. Based on field observations conducted in 2025, it was found that most parents still allow their children to operate electric vehicles on public roads without considering safety aspects or compliance with applicable legal regulations. This indicates that outreach efforts carried out by the Department of Transportation and the police have not been effective in reaching all segments of the community (I. Nasution, personal communication, April 20, 2025).

The low level of legal awareness among the public particularly among parents and young riders represents a significant barrier to effective regulatory enforcement. According to Suparman in the Journal of Law and Society (2022:45), the public's tendency to disregard traffic regulations reflects a lack of awareness and insufficient legal education from an early age. Education, which ideally begins within the family and is reinforced by formal educational

institutions, has not been implemented optimally. Slamet Santoso, in Social Psychology (2017:137), emphasizes that the development of legal behavior requires synergy between continuous formal and informal socialization efforts (Saliro et al., 2025).

On the other hand, supervision by the relevant authorities has not been carried out optimally. Interviews with traffic police personnel in Medan City in 2025 revealed that a shortage of personnel and monitoring equipment in the field presents a serious challenge in enforcing regulations related to the use of electric vehicles by minors. Police officers stated that most violations receive only verbal warnings without firm follow-up actions, due to limited resources and the prioritization of conventional traffic violations.

The lack of dedicated lanes for electric vehicles also poses a significant obstacle to the effective implementation of the regulation. Based on the 2025 infrastructure documentation of Medan City, the availability of safe and segregated lanes for electric vehicles remains very limited. As a result, underage electric vehicle users are often forced to share the road with high-speed motor vehicles, thereby increasing the risk of accidents. Interviews with several electric vehicle users indicated that they are compelled to use main roads because no adequate alternative lanes are available.

In addition, the sanctions imposed on violations involving the use of electric vehicles by underage individuals have not had a sufficient deterrent effect. According to interviews with police personnel in Medan City, the penalties imposed are mostly limited to warnings and counseling, without strict legal enforcement. This situation leads the public to perceive such violations as minor and without serious consequences, resulting in repeated infractions with little effective control.

The lack of synergy between schools, parents, and government institutions also hampers the effectiveness of the regulation's implementation. Interviews with school principals in Medan in 2025 revealed that road safety awareness programs are not yet a routine or structured part of the school agenda. As formal educational institutions, schools have not fully utilized their role as strategic partners in enhancing legal awareness among children and their parents regarding the regulations on electric vehicle use.

The outreach activities conducted by the Medan City Department of Transportation thus far remain incidental and have not reached all levels of society. According to the Department's 2024 outreach report, most campaigns have focused on select schools and have failed to cover wider public spaces. As a result, many parents remain uninformed about the regulations on electric vehicle use by minors, leading to continued violations.

Economic factors also contribute to the widespread use of electric vehicles among children in Medan City. Based on field observations and interviews with parents of electric vehicle users conducted in 2025, many parents choose electric vehicles because they are perceived as affordable, convenient, and easily accessible. Safety considerations and legal compliance are often overlooked, as parents tend to prioritize convenience and cost efficiency without adequately considering the long-term risks to their children's safety.

The limited involvement of community institutions such as neighborhood associations (RT/RW) and religious organizations in monitoring the use of electric vehicles by minors also presents a significant challenge. Interviews with community leaders in Medan City revealed

that there are no existing monitoring or educational programs involving local community structures. In fact, these social institutions play a strategic role in shaping communal norms and behaviors, including those related to compliance with traffic regulations.

Moreover, local media have not yet fully utilized their potential to educate the public on the issue of electric vehicle use by minors. According to a 2025 content analysis of local media coverage, reports have tended to focus on general traffic accidents, with little attention given to the specific phenomenon of underage electric vehicle use. Yet, the media plays a crucial role in shaping public opinion and raising collective awareness about the importance of road safety.

The permissive cultural attitudes prevailing in society further exacerbate this issue. Interviews with several parents of electric vehicle users revealed that, within the context of local culture, children are often perceived as capable of operating vehicles even though they do not meet the age and safety requirements. This permissive stance contradicts the principle of parental responsibility for ensuring their children's safety, as emphasized in both national law and Islamic law. Yusuf al-Qaradawi, in Fiqh al-Daulah (1997:58), asserts that child protection is a shar'i obligation that must not be neglected.

From the perspective of fiqh siyasah, the state holds full responsibility for ensuring the safety of its citizens, including children. Imam al-Mawardi, in Al-Ahkam al-Sultaniyyah (1994:17), explains that the government is obliged to enforce laws for the sake of public welfare and to prevent harm within society. Governmental negligence in supervising and enforcing sanctions against violations involving underage electric vehicle users can be considered a dereliction of the public trust entrusted to the authorities.

The absence of integrated data concerning traffic violations involving underage electric vehicle users also hinders effective policy evaluation. Interviews conducted in 2025 with the Medan City Department of Transportation and the Police Department indicated that the data held by each institution is often poorly coordinated. This fragmentation makes it difficult to formulate data-driven policies and undermines the effectiveness of law enforcement and educational programs.

Curative efforts through stricter law enforcement will not yield optimal results unless complemented by comprehensive preventive strategies. The 2024 Traffic Safety Education Program Report by the Medan City Department of Transportation underscores the importance of mass education involving schools, families, communities, and media to foster collective awareness. The integration of both educational and repressive approaches is key to cultivating a culture of traffic discipline, particularly among underage electric vehicle users.

In conclusion, the challenges in implementing the regulation on electric vehicle use in Medan City indicate that even well-formulated regulations will not be effective without adequate education, strong enforcement, firm sanctions, and synergy among all relevant stakeholders. Interviews with transportation law academics in 2025 emphasized that the successful implementation of such regulations requires the active participation of government agencies, the community, educational institutions, the media, and families. The government must also ensure the availability of supporting infrastructure and enhance the capacity of field officers so that monitoring and enforcement can be carried out optimally and sustainably.

The Perspective of Figh Siyasah Dusturiyah in Policy Regulation

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In figh siyasah, the state bears a fundamental obligation to safeguard and protect the lives (hifz al-nafs) of its citizens as part of implementing the maqāsid al-sharī'ah (the higher objectives of Islamic law). Al-Māwardī emphasizes that rulers are responsible for managing the affairs of the people for the sake of their welfare (maslahah):

The policies of a ruler toward the people must always be bound to their welfare." (Al-Māwardī, 1994).

This means that any policy enacted by the government must be grounded in the protection of public interest, particularly in ensuring the safety of children who are increasingly operating electric vehicles without proper supervision. This phenomenon clearly contradicts the fundamental principle of figh siyasah, which places the safety and well-being of the people as a top priority.

Ibn Qayyim al-Jawziyyah also emphasized that all state policies must be guided by justice and the public interest (maslahah al-ummah):

"The Shari'ah is founded upon the realization of benefit (maslahah) and the prevention of harm (mafsadah)." (Ibn Qayyim, 1997).

This statement underscores that the government is not only authorized to formulate regulations but is also obligated to eliminate all forms of potential social harm, including traffic violations committed by minors. The state must implement firm policies that restrict children's access to electric vehicles on public roads without supervision.

In an interview with community leaders in Medan, it was conveyed that weak enforcement by authorities is the primary factor behind the widespread violations involving underage users (T. Harahap, personal communication, May 1, 2025). Within the framework of figh siyasah, such negligence is unjustifiable, as it contravenes the foundational principle of governance that mandates the prevention of mafsadah. The state is required to be actively present in protecting its citizens and averting all forms of danger whether through strict law enforcement or by raising public legal awareness.

Figh siyasah grants the government the authority to enact ta'zīr-based policies that are suited to the prevailing social conditions. Al-Māwardī affirms that rulers possess the right to impose sanctions for the sake of maintaining public order:

"The ruler has the right to determine discretionary punishments (ta'zīr) in accordance with what he deems appropriate for the betterment of his people." (Al-Māwardī, 1994).

Therefore, in this context, the government is justified in imposing social or administrative sanctions on parents who fail to supervise their children while operating electric vehicles. This is a form of siyāsah shar'iyyah that emphasizes the pursuit of public welfare (maslahah).

Yuliawati's (2020) research further reinforces this argument by asserting that the use of electric vehicles by underage children significantly increases the risk of accidents. She emphasizes that current regulations remain weak and insufficiently effective in restricting such

use. Thus, a more stringent legal approach and broader legal education are urgently required to raise public awareness about the associated dangers.

An interview with the Medan City Traffic Police revealed that many parents are unaware of the legal provisions governing the use of electric vehicles, particularly by minors (Tokoh, personal communication, May 2, 2025). In fiqh siyasah, the dissemination of legal knowledge (tablīgh al-aḥkām) is a governmental duty, ensuring that every citizen understands their rights and responsibilities. The state must ensure that legal education is delivered widely to strengthen public legal consciousness.

Furthermore, the Medan City Department of Transportation acknowledged that personnel shortages and the lack of dedicated lanes for electric vehicles pose major obstacles to effective policy implementation (Dinas Perhubungan, personal communication, May 12, 2025). Therefore, a collaborative policy approach is needed, involving police, schools, and the community in joint supervision. This aligns with the principle of siyāsah shar'iyyah, which allows the government to cooperate with various social elements in pursuing collective welfare (maslahah).

Figh siyasah also emphasizes the importance of preventive measures through early legal education. Mandatory traffic and road safety education in schools serves as an effective preventive solution for fostering legal awareness from a young age (Pramudya, 2024). Accordingly, the application of figh siyasah is not limited to punitive measures but also encompasses social development and the strengthening of public legal understanding.

CONCLUSION

Based on the research findings, the implementation of Minister of Transportation Regulation Number 45 of 2020 in Medan City regarding the use of electric vehicles by underage children has not been carried out optimally. The continued prevalence of children operating electric vehicles without supervision and without safety equipment indicates a low level of public awareness, particularly among parents. Therefore, a massive educational program involving schools, families, and social media is necessary to raise awareness of the importance of road safety from an early age.

The main obstacles in implementing this policy also stem from weak field supervision and the lack of strict sanctions for violations. Many offenses are addressed only with verbal warnings and without clear legal consequences. Thus, it is recommended that the police and the Department of Transportation increase patrol frequency, deploy sufficient personnel, and impose educational yet firm administrative sanctions to create a deterrent effect within the community.

From the perspective of fiqh siyasah, particularly siyasah dusturiyyah, the state bears the responsibility of safeguarding lives (hifz al-nafs) and maintaining public order. Ibn Qayyim al-Jawziyyah emphasized that government policies must always be rooted in the public interest (maṣlaḥah al-ummah). In this context, the government must conduct a comprehensive evaluation and tighten regulations on the use of electric vehicles, especially by underage children. A proposed recommendation is the enforcement of a policy restricting access to the purchase and use of electric vehicles by underage individuals, as well as requiring a riding training certificate for young users.

Overall, synergy between parents, educational institutions, the government, and law enforcement is key to the effective implementation of this policy. Strategic recommendations that should be promptly adopted include enhancing education, strengthening supervision, and applying proportional and targeted sanctions. These efforts align with the objectives of maqāṣid al-sharī'ah and fiqh siyasah, which emphasize the importance of protecting life and ensuring the welfare of society as a whole. Through the implementation of such measures, it is hoped that traffic violations and accidents involving children can be significantly reduced in the future.

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