

## The Effectiveness of Electronic Traffic Law Enforcement in Suppressing Traffic Violations: Soerjono Soekanto's Theory Analysis

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### Abstract

*Traffic violations remain a persistent problem reflecting the low level of public legal compliance and adversely affecting road safety and traffic order. Previous studies on Electronic Traffic Law Enforcement (ETLE) have generally been descriptive in nature and have focused primarily on the technical aspects of implementation, with limited discussion on the effectiveness of ETLE based on legal effectiveness theory. This study aims to analyze the effectiveness of ETLE implementation in reducing traffic violations within the jurisdiction of the Gorontalo District Court by employing Soerjono Soekanto's theory of legal effectiveness as the analytical framework. This research uses an empirical legal research method with a mixed-method approach through the analysis of traffic violation statistics from 2023–2025 and interviews with law enforcement officers and members of the public. The findings indicate that ETLE has been effective in the procedural aspect of law enforcement, particularly in improving transparency, objectivity, and administrative efficiency in handling traffic violations. However, substantive effectiveness in reducing the number of traffic violations has not yet been fully achieved due to several factors, including low public legal awareness, limited infrastructure and facilities, and technical constraints within the electronic system. This study contributes to the development of technology-based law enforcement effectiveness studies through an analysis of the factors influencing legal effectiveness according to Soerjono Soekanto, thereby providing a basis for a more comprehensive evaluation of ETLE policies aimed at enhancing sustainable public legal compliance.*

**Keywords:** ETLE, Law Enforcement, Traffic Violations, Legal Effectiveness, Legal Awareness.

### Abstrak

Pelanggaran lalu lintas masih menjadi permasalahan yang mencerminkan rendahnya kepatuhan hukum masyarakat dan berdampak pada keselamatan serta ketertiban berlalu lintas. Penelitian mengenai Electronic Traffic Law Enforcement (ETLE) sebelumnya umumnya masih bersifat deskriptif dan lebih menekankan aspek teknis penerapan, sehingga belum banyak mengkaji efektivitas ETLE berdasarkan teori efektivitas hukum. Penelitian ini bertujuan untuk menganalisis efektivitas penerapan ETLE dalam menekan pelanggaran lalu lintas di wilayah hukum Pengadilan Negeri Gorontalo dengan menggunakan teori efektivitas hukum Soerjono Soekanto sebagai pendekatan analisis. Metode yang digunakan adalah penelitian hukum empiris dengan pendekatan campuran



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(mixed method), melalui analisis data statistik pelanggaran lalu lintas tahun 2023–2025 serta wawancara dengan aparat penegak hukum dan masyarakat. Hasil penelitian menunjukkan bahwa penerapan ETLE efektif pada aspek penegakan hukum secara prosedural, terutama dalam meningkatkan transparansi, objektivitas, dan efisiensi administrasi penindakan pelanggaran. Namun, efektivitas substantif dalam menurunkan angka pelanggaran lalu lintas belum tercapai secara optimal karena dipengaruhi oleh faktor kesadaran hukum masyarakat yang masih rendah, keterbatasan sarana dan prasarana, serta kendala teknis sistem elektronik. Penelitian ini berkontribusi dalam pengembangan kajian efektivitas penegakan hukum berbasis teknologi melalui analisis faktor-faktor efektivitas hukum menurut Soerjono Soekanto, sehingga dapat menjadi dasar evaluasi kebijakan ETLE yang lebih komprehensif dan berorientasi pada peningkatan kepatuhan hukum masyarakat.

**Kata Kunci:** ETLE, Penegakan Hukum, Pelanggaran Lalu Lintas, Efektivitas Hukum, Kesadaran Hukum.

## INTRODUCTION

Traffic violations are one of the problems that continue to occur in the lives of modern society, especially in urban areas with a high level of mobility. The existence of an orderly and safe traffic system is the main need in supporting social and economic activities of the community. However, in practice, various forms of violations such as breaking through traffic lights, violating signs, not using driving equipment, and parking in prohibited places still often occur. This condition not only reflects the low legal awareness of the public, but also has an impact on the increased risk of accidents and traffic congestion.<sup>1</sup>

From a legal perspective, traffic violations are acts that are contrary to the provisions of laws and regulations, especially Law Number 22 of 2009 concerning Road Traffic and Transportation. The law provides a legal basis for law enforcement officials to take action against violations through the ticketing mechanism.<sup>2</sup> Traffic law enforcement basically aims to create order, safety, and legal certainty for all road users.

However, the conventional traffic violation enforcement system carried out through direct interaction between officers and violators often faces various obstacles. Problems such as lack of transparency, limited supervision, and the potential for deviant practices are challenges in realizing effective law enforcement and integrity. This condition shows that the success of law enforcement does not only depend on the existence of legal norms, but also on the implementation mechanism on the ground.

Along with the development of technology in law enforcement, the application of *Electronic Traffic Law Enforcement* (ETLE) has become a concern in various studies, both normatively and empirically.<sup>3</sup> ETLE is positioned as a technology-based law enforcement instrument that aims to improve traffic order through electronic surveillance

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<sup>1</sup> Muhamad Guntur Muntaha dkk., "Hukum Dan Ketertiban Lalu Lintas: Perspektif Sosiologi Hukum Pada Undang-Undang Nomor 22 Tahun 2009," *Gunung Djati Conference Series* 50 (Maret 2025): 5.

<sup>2</sup> Ubaidillah Arya Wahyu Airlangga and Pramukhtiko Suryokencono, "Legal Synchronization of the Regulation of Electronic Traffic Law Enforcement (ETLE) According to Law No. 22 of 2009 concerning Road Traffic and Transportation," *Indonesian Journal of Law and Justice* 1, no. 4 (March 2024): 9–9, <https://doi.org/10.47134/ijlj.v1i4.2278>.

<sup>3</sup> Habib Rayodin Alvi Lailatuz Zahro Fitriana, *Electronic Traffic Law Enforcement (ETLE) as a Social Engineering Tool for Traffic Order*, November 12, 2024, <https://doi.org/10.5281/ZENODO.14087455>.

systems. The transformation from a conventional enforcement system to an electronic system shows a shift in the paradigm of law enforcement towards a more transparent, accountable, and automation-based system.<sup>4</sup> The implementation of ETLE is also seen as a form of public service innovation in the field of traffic that aims to improve order and compliance of road users through a technology-based supervision system.<sup>5</sup>

The National Police of the Republic of Indonesia introduced the Electronic Traffic Law Enforcement (ETLE) system as a method of cracking down on electronic-based traffic violations through surveillance cameras (CCTV). The implementation of this system is supported by Government Regulation Number 80 of 2012 which recognizes the use of electronic devices as evidence in traffic law enforcement.<sup>6</sup> However, factors such as infrastructure and public awareness also play an important role. In Gorontalo, ETLE began to be tested in 2022 and covers several of the city's main intersections. Based on data from the Gorontalo Police in 2025, hundreds of thousands of traffic violations have been recorded by the ETLE system since its implementation.

This condition raises questions about the effectiveness of the ETLE system in suppressing traffic violations. An increase in the number of violations can be interpreted as an increase in violations committed by the community, but on the other hand it can also indicate an increase in the system's ability to detect violations more accurately. Therefore, a more in-depth analysis is needed to assess the extent to which the ETLE system is capable of functioning as an effective law enforcement instrument.<sup>7</sup>

From the perspective of law enforcement, the effectiveness of a system is not only measured by the formal application of rules, but also by the extent to which the system is able to create justice and benefits for the community.<sup>8</sup> According to Soerjono Soekanto, the effectiveness of law enforcement is influenced by legal factors, law enforcement officials, facilities and infrastructure, society, and legal culture. Therefore, the implementation of ETLE needs to be studied not only from a formal aspect, but also based on factors that affect the effectiveness of law enforcement in society.<sup>9</sup>

Research on Electronic Traffic Law Enforcement (ETLE) has been conducted with various focus studies. Papang Avianti Dirgantoro's research highlights aspects of human rights protection and public legal awareness in the implementation of e-ticketing.<sup>10</sup>

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<sup>4</sup> Lukman Oktavian Kadir, Lisnawaty W. Badu, and Jufryanto Puluhalawa, "Traffic Violations Based on Law No. 22 of 2009 concerning LLAJ in Gorontalo City through Electronic Traffic Law Enforcement (ETLE)," *Explained: Journal of Social, Political and Legal Sciences Studies* 1, no. 3 (June 2024): 147–58, <https://doi.org/10.62383/terang.v1i3.403>.

<sup>5</sup> Mochammad Rizky Ekandana and Badrudin Kurniawan, "IMPLEMENTATION OF THE ELECTRONIC TRAFFIC LAW ENFORCEMENT (E-TLE) PROGRAM AS AN EFFORT TO IMPROVE TRAFFIC ORDER IN THE CITY OF SURABAYA," *Publika*, 2023, 1605–16, <https://doi.org/10.26740/publika.v11n1.p1605-1616>.

<sup>6</sup> Airlangga and Suryokencono, "Synchronization of the Law on the Regulation of Electronic Traffic Law Enforcement (ETLE) According to Law No. 22 of 2009 concerning Road Traffic and Transportation."

<sup>7</sup> Oktara Roberto dan Yandriza, "Penerapan Electronic Traffic Law Enforcement (ETLE) Terhadap Pelanggaran Lalu Lintas Di Wilayah Hukum Polresta Padang," *Delicti* 1, no. 2 (Desember 2023), <https://delicti.fhuk.unand.ac.id/index.php/jdc/article/view/15>.

<sup>8</sup> Fence M. Wantu, *Introduction to Law* (Reviva Cendekia, 2015), 15.

<sup>9</sup> Zulfatun Ni'mah, "LAW ENFORCEMENT EFFECTIVENESS OF THE ELIMINATION OF DOMESTIC VIOLENCE," *OLD WEBSITE OF JURNAL JUMBAR HUKUM* 24, no. 1 (2012): 55–68, <https://doi.org/10.22146/jmh.16141>.

<sup>10</sup> PAPANG AVIANTO DIRGANTORO, "THE PERSPECTIVE OF HUMAN RIGHTS PROTECTION THROUGH E-TICKETING IN THE PREVENTION OF TRAFFIC VIOLATIONS IS ASSOCIATED WITH PUBLIC LEGAL AWARENESS" (undergraduate, DARUL ULUM ISLAMIC CENTRE SUDIRMAN GUPPI, 2023), chrome-

Meanwhile, Indri Cahyani's research focuses on the implementation of the e-ticketing program policy at the operational level of the police. Another study on the effectiveness of the E-Tilang policy at the Gorontalo Regional Police shows that the implementation of ETLE still faces various obstacles, such as low public understanding, lack of socialization, and limited supporting infrastructure so that the effectiveness of the policy has not been achieved optimally.<sup>11</sup> The findings show that the effectiveness of ETLE is not only determined by the existence of electronic systems, but also influenced by social and technical factors in the field. In addition, most of the previous research still focused on the descriptive aspects and technical implementation of ETLE and has not in-depth examined the effectiveness of ETLE based on the perspective of Soerjono Soekanto's legal effectiveness theory. According to Soerjono Soekanto, the effectiveness of law enforcement is influenced by five factors, namely the law itself, law enforcement officials, facilities and infrastructure, society, and legal culture.<sup>12</sup>

The problems in this study are focused on the practice of implementing ETLE and its effectiveness in traffic law enforcement based on the perspective of legal effectiveness theory. Therefore, this study aims to analyze the effectiveness of the Electronic Traffic Law Enforcement (ETLE) system in traffic law enforcement in the Gorontalo District Court area. This research is expected to make a theoretical contribution to strengthening the study of legal effectiveness based on Soerjono Soekanto's perspective on technology-based law enforcement, as well as practically an evaluation of the policy of implementing Electronic Traffic Law Enforcement (ETLE).

## RESEARCH METHODS

This research is an empirical legal research with a socio-legal approach and uses a mixed method. The approaches used include the statute approach, the case approach, and the sociological approach. The research was conducted in the jurisdiction of the Gorontalo District Court with a focus on the application of Electronic Traffic Law Enforcement (ETLE) in traffic law enforcement. A quantitative approach was used to analyze statistical data on traffic violations in 2022–2025 obtained from the Gorontalo Police Task Force and the Gorontalo District Court.

The data sources in this study consist of primary data and secondary data. Primary data was obtained through interviews and observations of Satlantas officers, Gorontalo District Court judges, prosecutors, and the public directly related to the implementation of ETLE. The determination of respondents was carried out by purposive sampling technique based on respondents' involvement and understanding of the implementation of ETLE. Meanwhile, secondary data was obtained through literature studies in the form of laws and regulations, scientific journals, books, and documents related to the implementation of ETLE. Data collection techniques are carried out through in-depth interviews, observation, documentation, and statistical data review of traffic violations.

Data analysis was carried out quantitatively and qualitatively. Quantitative data were analyzed using statistical descriptive methods to see the development of traffic violations before and after the implementation of ETLE. Meanwhile, qualitative data was

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<sup>11</sup> Mohamad Vito Rauf, Tety Thalib, and Jusrin Kadir, "The Effectiveness of the E-Tilang Policy at the Gorontalo Regional Police Directorate," *Journal of Innovative and Creativity* 5, no. 2 (July 2025): 11719–27, <https://doi.org/10.31004/joecy.v5i2.1548>.

<sup>12</sup> Indra Jaya, "Law Enforcement Against the Crime of Forced Marriage from a Legal Sociological Perspective," *Legal Advice Journal Of Law* 2, no. 4 (December 2025): 1–17, <https://doi.org/10.51454/4nsr8g76>.

analyzed through a thematic analysis approach to identify the perception patterns of law enforcement officials and the public on the effectiveness of ETLE and its implementation. The validity of the data is carried out through the triangulation technique of sources and data by comparing the results of interviews, observations, and documentation so that objective and comprehensive research results are obtained.

## **RESULTS AND DISCUSSION**

### **Practice of Implementing ETLE in Traffic Law Enforcement**

The implementation of *the Electronic Traffic Law Enforcement* (ETLE) system in the jurisdiction of the Gorontalo District Court is part of an effort to modernize traffic law enforcement based on information technology. This system utilizes surveillance cameras to record traffic violations automatically without the direct presence of officers in the field. Each recorded violation is then processed as legal electronic evidence in traffic law enforcement.

Based on the results of the study, the implementation of ETLE has brought changes in the traffic law enforcement mechanism which previously relied more on direct enforcement by officers in the field. The use of electronic systems in the enforcement process provides convenience in documenting violations and supports the process of proving traffic violations. These changes show that there are law enforcement efforts that take better advantage of technological developments without changing the main goal of law enforcement, which is to realize order and compliance in traffic.

Based on data obtained from the Gorontalo Police Traffic Directorate, the number of traffic violations processed through the ETLE system shows a fluctuating trend in recent years. In 2023, there were 316 cases of traffic violations, then increased significantly in 2024 to 1,915 cases, and in 2025 it decreased to 665 cases. This data is the number of cases that have been transferred to the Gorontalo District Court for further processing.<sup>13</sup>

The data shows that the implementation of ETLE has developed in its implementation. The increasing number of cases in 2024 shows that the ETLE system is starting to be used more optimally in detecting traffic violations. Meanwhile, the decrease in the number of cases in 2025 indicates a change in the number of violations recorded by the system. However, the data cannot be directly used as an indicator of increasing or decreasing community compliance levels, so it still requires analysis based on factors that affect the effectiveness of law enforcement.

Thus, to comprehensively assess the effectiveness of the implementation of ETLE, an analysis is needed that not only focuses on the number of violations recorded, but also considers factors that affect law enforcement. The analysis was carried out using Soerjono Soekanto's theory of legal effectiveness which focuses on legal factors, law enforcement officials, facilities and infrastructure, society, and legal culture.

### **The Effectiveness of ETLE Based on Soerjono Soekanto's Legal Effectiveness Theory**

At first glance, the decrease in the number of violations in 2025 can be interpreted as an indication of increasing public compliance. However, this interpretation needs to be studied more critically. The increase in the number of violations in 2024 can actually show the increased ability of the ETLE system to detect violations more accurately, not merely an increase in the level of violations committed by the community. Thus, the data

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<sup>13</sup> Interview with the Gorontalo Police Traffic Directorate

does not directly reflect the effectiveness of the system in suppressing violations, but rather describes the performance of the system in detecting and recording violations.<sup>14</sup>

The results of the study show that the implementation of *Electronic Traffic Law Enforcement* (ETLE) in the jurisdiction of the Gorontalo District Court has been carried out based on the provisions of the applicable laws and regulations. This is supported by Law Number 22 of 2009 concerning Road Traffic and Transportation which provides a legal basis for law enforcement officials to take action against traffic violations through the ticketing mechanism<sup>15</sup>, as well as Government Regulation Number 80 of 2012 which recognizes the use of electronic devices as evidence in traffic law enforcement. The regulation shows that normatively the implementation of ETLE already has a clear legal basis so as to provide legal certainty in its implementation.<sup>16</sup>

Based on the results of the interview with the judge of the Gorontalo District Court, it shows that the implementation of ETLE provides convenience in the process of proving traffic violation cases. Electronic evidence generated from the ETLE system can be used directly in trials, thus speeding up the process of handling cases. This shows a change in the proof mechanism compared to the conventional system. This condition shows that the implementation of ETLE has provided legal certainty and increased the efficiency of the evidentiary process in traffic law enforcement.

The findings show that the legal aspect has contributed to the effectiveness of the implementation of ETLE because there is certainty about the legal basis and the use of electronic evidence in the law enforcement process. The clarity of the regulation provides legitimacy for law enforcement officials in carrying out enforcement electronically while minimizing doubts about the validity of the evidence used in the judicial process.

Thus, the existence of clear regulations not only serves as a normative basis, but also supports the creation of more effective, transparent, and legal certainty law enforcement for parties. This condition is in line with Soerjono Soekanto's view that the effectiveness of law enforcement is greatly influenced by the quality of legal substance, where clear and enforceable rules are one of the prerequisites for achieving the goals of law enforcement.<sup>17</sup>

Based on the results of interviews with the police, the implementation of *Electronic Traffic Law Enforcement* (ETLE) allows more traffic violations that were previously difficult to reach through manual supervision to be identified and processed. However, in practice, there are still cases of traffic violations that are resolved through the manual ticketing mechanism. This shows that the implementation of ETLE has not completely replaced the conventional enforcement system, but is still running side by side in traffic law enforcement in the jurisdiction of the Gorontalo District Court.

The existence of ETLE shows a change in the role of law enforcement officials in the traffic law enforcement process. The apparatus no longer only plays a role in taking direct action in the field, but also ensures that the process of verifying violations and

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<sup>14</sup> Herri Setyawan Lamasi et al., "The Effectiveness of the Implementation of Criminal Sanctions of Fines in Traffic and Road Transportation Violations in Jayapura City," *Journal of Law Review* 4, no. 1 (February 2025): 25–36, <https://doi.org/10.55098/jolr.v4i1.173>.

<sup>15</sup> Airlangga and Suryokencono, "Synchronization of the Law on the Regulation of Electronic Traffic Law Enforcement (ETLE) According to Law No. 22 of 2009 concerning Road Traffic and Transportation."

<sup>16</sup> Elina Nurrohman dan Agus Machfud Fauzi, "The Urgency of Implementing E-Tickets as an Effort for Traffic Law Enforcement in the City of Surabaya," *Hasanuddin Journal of Sociology (HJS)*, 23 Juni 2023, 13–24, <https://doi.org/10.31947/hjs.v5i1.20764>.

<sup>17</sup> Yan Patmos, "Penegakan Pasal Tindak Pidana Pencucian Uang Dalam Rangka Pencegahan Dan Pemberantasan Korupsi," *Journal of Law and Policy Transformation* 2, no. 2 (2017): 103–24.

administrative follow-up runs according to the provisions. Thus, the effectiveness of the implementation of ETLE is not solely determined by technological sophistication, but also by the ability of the apparatus to operate the system and ensure that each stage of law enforcement is carried out consistently. The analysis shows that the factors of law enforcement officials still have an important role in supporting the effectiveness of the implementation of ETLE as stated by Soerjono Soekanto.<sup>18</sup>

The reduction in the number of traffic violations by 2025 to 665 cases cannot be separated from the technical factors that affect the performance of the *Electronic Traffic Law Enforcement* (ETLE) system. Based on the results of interviews with police officers, the limited number of active cameras and network disruptions are still obstacles that occur quite often. Under certain conditions, such interference causes the breach to not be optimally detected by the system. In addition, some informants also said that the ETLE system still has limitations, especially when surveillance cameras do not function optimally. The community also considers that the ETLE mechanism has not provided room for direct clarification as in manual tickets, so that the confirmation process can only be carried out after the violation notification is received.

This situation shows that the success of the implementation of ETLE is not only determined by the existence of electronic systems, but also highly depends on the readiness of the facilities and infrastructure that support its operations. The limitations of these facilities have the potential to reduce the optimization of law enforcement because not all violations can be detected and processed optimally. This analysis is in line with Soerjono Soekanto's view that places facilities and infrastructure as one of the factors that affect the effectiveness of law enforcement.<sup>19</sup>

From the public's side, the results of the interviews show that the understanding of the *Electronic Traffic Law Enforcement* (ETLE) mechanism is still limited. Some informants stated that they had never received direct socialization about the implementation of ETLE and only knew about the existence of the system through social media. In addition, there are still people who do not understand the procedure for confirming violations, paying fines, and completing administration after receiving a violation notification letter. In addition to technical factors, the practice of implementing ETLE is also influenced by the community's response to electronic-based enforcement mechanisms.<sup>20</sup> The low public understanding of the ETLE mechanism can affect the level of compliance and effectiveness of the implementation of electronic traffic surveillance.<sup>21</sup>

The results of interviews with police officers show that the level of confirmation of violations by the public is still low, namely only about 1-2 percent of violators voluntarily confirm recorded violations. The findings show that the implementation of ETLE has not

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<sup>18</sup> Aldy Putu Nagendra and Vera Rimbawani Sushanty, "THE EFFECTIVENESS OF THE IMPLEMENTATION OF E-TICKETING IN THE ENFORCEMENT OF TRAFFIC VIOLATIONS IN THE JURISDICTION OF THE SURABAYA POLICE," *Tatapamong Journal*, December 31, 2022, 143–54, <https://doi.org/10.33701/jurnaltatapamong.v4i2.2513>.

<sup>19</sup> Juliana Mas Kinanti Saragih, Putri Indah Sari, dan Adam Jamal, "Analisis Program Electronic Traffic Law Enforcement (E-TLE) Pada Pengendalian Lalu Lintas Di Kota Surabaya," *Indonesian Journal of Public Administration Review* 1, no. 2 (Mei 2024): 10–10, <https://doi.org/10.47134/par.v1i2.2466>.

<sup>20</sup> Mochamad Fridho Ardyansyah, Noenik Soekorini, and Sri Astutik, "The Application of Electronic Traffic Law Enforcement (ETLE) to the Crime of Traffic Violations," *JOURNAL OF SHARIA ECONOMICS* 4, no. 1 (2022), <https://doi.org/10.35896/4lhng52>.

<sup>21</sup> Ambar Adi Widyantara Widyantara et al., "The Effectiveness of the Implementation of Electronic Traffic Surveillance in Reducing Traffic Violations," *Journal Juridisch* 2, no. 1 (March 2024): 75–85, <https://doi.org/10.26623/jj.v2i1.8144>.

been fully followed by increasing public legal awareness in fulfilling obligations after committing violations. The low confirmation rate indicates that the public has not fully understood the mechanism for resolving violations through the electronic system, so the effectiveness of ETLE in encouraging legal compliance still faces obstacles.

The results of interviews with members of the Traffic Unit show that people still often commit traffic violations. In some cases, there is a tendency for the public to avoid ETLE camera surveillance points by choosing alternative routes in an effort to avoid the detection of violations. In addition, most violators only responded after being subject to administrative sanctions in the form of blocking the Vehicle Number Registration Letter (STNK). The findings show that public compliance with traffic rules is still driven by sanctions, not by awareness to comply with the law.

This phenomenon indicates that the implementation of ETLE has not been fully able to form a legal culture that encourages people to comply with the rules voluntarily. Although the ETLE system has provided changes in law enforcement mechanisms through the use of technology, these changes have not been followed by changes in people's behavior in a sustainable manner. In Soerjono Soekanto's perspective, legal culture is one of the factors that affect the effectiveness of law enforcement.<sup>22</sup> Therefore, the tendency of the public to only comply after the existence of administrative sanctions shows that legal cultural factors are still an obstacle in realizing the effectiveness of the implementation of ETLE in the jurisdiction of the Gorontalo District Court.

However, in terms of the substance of law enforcement, the effectiveness of ETLE in suppressing traffic violations has not been fully achieved. This can be seen from the fact that there are still traffic violations processed through the ETLE system and the use of the manual ticketing mechanism in law enforcement practices.<sup>23</sup> The findings show that ETLE currently plays more of a role as a supporting instrument in traffic law enforcement than as the main mechanism that is able to shape community law compliance in a sustainable manner.<sup>24</sup> Nonetheless, the implementation of ETLE remains an innovation in a technology-based traffic law enforcement system that improves the efficiency, transparency, and accountability of the enforcement process.

Based on the analysis of the five factors of legal effectiveness of Soerjono Soekanto, the implementation of ETLE in the jurisdiction of the Gorontalo District Court can be said to have been effective in improving the procedural aspects of law enforcement, especially transparency and administrative efficiency. However, this effectiveness has not been fully reflected in increasing community legal compliance because it is still influenced by limited facilities and infrastructure, low public understanding of the ETLE mechanism, and legal culture that has not been optimally formed. Thus, the effectiveness of ETLE cannot be judged only by the system's ability to detect violations, but also by the extent to which its implementation is able to build community legal compliance in a sustainable manner. Therefore, the assessment of the effectiveness of ETLE must be

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<sup>22</sup> Gitra Permata, "THE RELEVANCE OF THE PRINCIPLE OF JUSTICE IN LAW ENFORCEMENT IN INDONESIA: AN ANALYSIS IN THE PERSPECTIVE OF PROGRESSIVE LAW," *Journal of Law* 1, no. 1 (February 2026): 39–50.

<sup>23</sup> "INNOVATION OF THE ELECTRONIC TRAFFIC LAW ENFORCEMENT (E-TLE) PROGRAM IN THE CITY OF SURABAYA. | Request PDF," *ResearchGate*, t.t., <https://doi.org/10.33005/paj.v2i2.54>.

<sup>24</sup> Amelia Noviana Tiessa, Sri Jaya Lesmana, and Ratna Indayatun, "ANALYSIS OF THE EFFECTIVENESS OF ELECTRONIC TRAFFIC LAW ENFORCEMENT (ETLE) IN THE LAW ENFORCEMENT SYSTEM IN TANGERANG REGENCY," *SOSCIED* 8, no. 1 (May 2025): 5–14, <https://doi.org/10.32531/jsoscied.v8i1.829>.



carried out comprehensively by considering all factors that affect law enforcement as stated by Soerjono Soekanto.

## **CONCLUSION**

The implementation of Electronic Traffic Law Enforcement (ETLE) in the jurisdiction of the Gorontalo District Court has made a positive contribution to the procedural aspects of traffic law enforcement, especially in increasing transparency, objectivity, and administrative efficiency of case handling through the use of electronic evidence. However, this study found that the effectiveness of ETLE in suppressing traffic violations has not been fully achieved. The fluctuations in the number of recorded violations indicate that the increase in the number of violations does not necessarily represent low community compliance, but is also influenced by the system's increased ability to detect violations. The main findings of this study show that the effectiveness of ETLE is not only determined by the existence of electronic systems and legal rules, but is more influenced by social factors and the legal culture of the community.

In the perspective of Soerjono Soekanto's theory of legal effectiveness, the implementation of ETLE is influenced by legal factors, law enforcement officials, facilities and infrastructure, society, and legal culture. This study shows that social factors, especially low public legal awareness and a culture of compliance that is still external, have a more dominant influence than normative factors. In addition, the limitations of facilities and infrastructure, such as the number of surveillance cameras and technical problems of the system, also affect the optimization of the implementation of ETLE. These findings show that the effectiveness of technology-based law enforcement cannot be achieved only through administrative and technological approaches, but also requires the formation of public legal awareness in a sustainable manner.

Based on these findings, this study recommends that increasing the effectiveness of ETLE should not only be focused on technology development and infrastructure addition, but also accompanied by strengthening legal education and socialization to the community. In addition, it is necessary to optimize coordination between law enforcement agencies and integrate electronic-based law enforcement systems so that the implementation of ETLE can run more effectively and consistently. This study is still limited to the jurisdiction of the Gorontalo District Court and the relatively limited number of respondents, so the next study is recommended to conduct a study with a wider scope and use a comparative approach to obtain a more comprehensive picture of the effectiveness of ETLE.

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