



#### **Conference Paper**

# Electronic Governance in the Implementation of Electronic Traffic Law Enforcement (ETLE) in the City of Makassar

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#### Abstract.

Electronic Traffic Law Enforcement (ETLE) refers to the enforcement of traffic violations by applying electronic tickets using cameras installed at central traffic points, to supervise violations committed by the public in the form of digitizing tickets. Egovernment is an effort to reduce accident rates and traffic violations through Electronic Traffic Law Enforcement (ETLE) in Makassar. This study uses a literature review with a primary focus on the literature. The literature review achieves an ongoing dialogue in the literature, fills gaps, and expands upon previous studies. The results of this study address e-government as an application of information technology, a broader topic of the use and application of information and communication technology for the management of relationships and networks in society to achieve effective, efficient, sustainable, and quality governance. The application of ETLE focuses on the integration of vehicle data, which must be updated, and the confirmation process for offenders and police is carried out by digitalization. E-government is a transformative application of information technology. E-government is closely related to the realization of values that reflect good governance by prioritizing a thorough digitization process starting from the ticket process, confirmation process, and online ticket payment. This is in addition to the efforts of the police of the Republic of Indonesia to make efforts to update data on a regular basis so that the optimization of ETLE can run well.

Keywords: digitalization, electronic traffic law enforcement, governance

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## 1. Introduction

In various parts of the world, along with the development of information technology, there have been changes in mindset that directly affect human behavioral patterns. In addition, governance is heavily influenced by the technological developments adopted to improve the efficiency and effectiveness of government programs. Bhatnagar stated that Electronic Governance with the use of ICT can change the pattern between government and citizens, with a focus on empowering citizens, improving the quality of public services, and increasing government accountability. The assessment of citizens' needs is critical for making these services available in the way they want and at the time they want [1]. The needs of the community are very important in the context of

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assessing and observing policies because the effectiveness of government tasks can be maximized by observing needs. The same was expressed by Mimicopoulos and Quarato, Pini, and Positano; efficiency, transparency, and participation are accepted as three essential dimensions of good governance. Efficiency has become a government's ability to determine predictability in institutional and policy environments [2].

In implementing Electronic Governance, one of the efforts made by the traffic police on highways has used electronic equipment in the form of CCTV cameras that can detect the activity of motorized vehicle drivers on highways, which has implications for traffic violations. The CCTV camera can capture photos of motorized vehicles to commit traffic violations. In addition to causing traffic jams, news is often found in various mass media, both print and electronic, about vehicles that are becoming increasingly prevalent. This is accompanied by an increase in the number of traffic violations on highways, which is inversely proportional to the addition of existing road sections for motorized vehicles.

Traffic violations are one of the factors that cause traffic accidents on the highway which can cause human casualties and material losses for drivers and other people involved in traffic accidents, of course everyone never wants to experience a traffic accident [3]. By migrating the enforcement of traffic violations from the use of manual ticketing to the application of electronic ticketing by using cameras installed at certain points that are considered to be traffic central points to supervise traffic violations committed by the public with enforcement in the form of tickets with the following types of violations: odd-even violations, road marking violations, traffic light violations, flow violations, violations of using a cell phone while driving, violations of not wearing a helmet, violations of valid vehicle registration, violations of three pillion motorcycles, violations of not using seat belts, violations of certain vehicle type restrictions, and use of a noisy muffler. Regulations regarding internal traffic are regulated in Article 243 paragraph (3) letters d and 272 of Law Number 22 of 2009 concerning Road Traffic and Transportation, and further regulated in Article 14, paragraph (3), Article 23, and Article 28 Regulation Government Number 80 of 2012 concerning Procedures for Inspecting Motorized Vehicles on the Road and the Enforcement of Traffic and Road Transportation Violations. Based on the data, it is known that the number of accidents in South Sulawesi is still fairly high, which can be seen as follows:

Based on the data released by the Makassar Polrestabes, it shows a very high accident rate every year with the number of cases in 2019 totaling 1376 the number of accidents, then increasing very rapidly in 2020 with the number of cases 1617 or experiencing an increase of 241 cases for one year, then in 2021 with a total of 1280 cases; from 2019 to 2021 there were 4273 cases recorded. Of course, this is a very high



TABLE 1: Accident Data in Makassar City.

Year	Number of Cases / Year
2019	1376
2020	1617
2021	1280
Amount	4.273

Source: Makassar City Police

number, although in general, the roads in the city of Makassar are in a good category with fairly good road infrastructure. However, the use of ETLE is expected to reduce the number of accidents in the city of Makassar by building awareness in traffic, with the assumption that 24-hour surveillance using CCTV monitors potential traffic violations. Of course, the most important aspect of the implementation of ETLE is the establishment of awareness of traffic rules.

To reduce the number of accidents and orderly traffic, the Republic of Indonesia National Police through the National Police Traffic Corps issued regulations regarding the implementation of traffic violations based on telegram number ST/1044/V/HUK.6.2/2023, dated May 16, 2023, while simultaneously emphasizing that the police are optimizing their enforcement measures. Electric-based tickets, policy steps that are directed at changing institutional and management systems through the use of Information and Communication Technologies (ICT), namely, e-government or Electronic Government, with the application of ETLE with the aim of implementing e-government, is to reduce the number of accidents and traffic violations by increasing citizen awareness.

In the application of E-tickets, what is noted in the application based on the author's study is the electronic ticketing mechanism for vehicles owned by second parties, because in the transaction process, vehicles from the first owner to the second owner are not identified by the police in terms of the identity of the owner of the second-hand vehicle, which can be the cause of first-hand vehicle owners getting traffic violation notifications in the form of electronic tickets, while traffic violators second-hand vehicle owners do not receive notifications because the vehicle owner's data are still registered as the first hand of the vehicle owner. Thus, in this paper, the formulation of the problem is described: the Study of Electronic Governance literature in the application of Electronic Traffic Law Enforcement (ETLE) in the city of Makassar.



#### 2. Methods

This type of research is a literature review with a focus on the literature. The literature review has several objectives. It links the study to a larger, ongoing dialogue in the literature, filling in gaps and expanding on previous studies [4] [5]. Generally, a literature review can take several forms. Cooper [4]discusses four types of literature review: (a) integrating what others have done and said, (b) criticizing previous scientific work, (c) building bridges between related topics, and (d) identifying issues central to a field. With the exception of critiquing earlier scholarly work, most dissertations and theses serve to integrate the literature, organize it into a series of related topics (often from general to narrower topics), and summarize the literature by indicating central issues [6]. This method collects information or data through books, research materials, seminars, journals, or articles relevant to the issue being studied.

Steps in conducting a literature review/literature review involve finding and summarizing studies on a topic. Often, these are research studies (since you are conducting a research study), but they can also include conceptual or opinion articles that provide a framework for thinking about the topic. There is no single way to conduct a literature review, but many scholars proceed in a systematic manner to capture, evaluate, and summarize the literature. This is the method we recommend [6].

#### 3. Results and Discussion

### 3.1. Electronic Governance Concept

Like most concepts in the social, economic, and political sciences, governance is not a new concept. In fact, the term governance was first used in France in the 14th century to mean "center of government." The term became much more popular when the World Bank 'reinvented' governance in its 1989 World Bank Report. The World Bank's use of the term governance signifies a new approach to development based on the belief that economic prosperity is impossible without a minimum level of the rule of law and democracy. At the same time, the seemingly apolitical use of the term "governance" has been invaluable in warding off criticism that the World Bank tries to interfere with the political decisions made by debtor countries [7]. The concept of governance has been discussed in political science and public administration research for several decades. Governance is broadly defined as the framework of the rules, institutions, and practices through which authority is exercised. It is the key foundation of a well-functioning market

economy and a key ingredient for growth and equitable development [8]. Indeed, governance can be tackled analytically by describing institutions as 'patterns arising from the activities of organizing social, political, and administrative actors, but also by emphasizing processes intended to guide, direct, control, or manage a sector or aspect of society [9].

The initial concept of e-government was the transformative application of information technology. Business institutions have many experiences when implementing electronic systems. The main aspect that can be felt is management, which is faster and easier. In the government, the implementation of an electronic system can create openness (transparency) as a service provider to the community. A theoretical study on the application of technology and good governance concluded that e-government encourages the creation of effective, efficient, transparent, and accountable governance [10]. Electronic governance is a broader topic in the use and application of information and communication technologies for the management of relationships and networks in society. Electronic Indonesia is a broader concept and one that articulates the impact of technology on government practices and relations between civil servants and the wider community such as elected bodies non-profit organizations or private sector NGOs commercial entities companies and international organizations [11].

E-government not only deals with issues of cost efficiency and technological sophistication, but is also closely related to the realization of values that reflect good governance, such as transparency, openness, policy accuracy, improving the quality of public services, and increasing community participation [12]. In simple terms, we can interpret that the success of e-government is not only related to the use of the latest technology, but also to the big purpose of implementing the technology [13].

In the development of Electronic Governance, Indrajit said that when viewed from the history of his journey, the concept of e-government developed because of 3 (three) backgrounds, namely:

1. The era of globalization that came sooner than expected has caused issues such as democratization, transparency, corruption, cisociety, good corporate governance, and others, which must be considered by every nation if the concerned does not want to be removed from the society world. In this format, the government must reposition its role within a country, from being internal and focusing on domestic needs to being more externally oriented and focusing on how to position its people and country in a global association.



- Advances in information technology (computers and telecommunications) are happening so rapidly that data, information, and knowledge can be created very quickly and immediately disseminated to all levels of society in various parts of the world in a matter of seconds.
- 3. Improving the quality of life of people worldwide is inseparable from the increasingly improved performance of the private industry in carrying out its economic activities. The closeness between the community (as customers) and economic actors (traders, investors, companies, and others) has resulted in the formation of a service standard that has improved over time. This acceleration of performance improvement in the private sector was not followed by the same acceleration in the public sector, so the public could see a gap in the quality standards of service delivery.

#### 3.2. Electronic-Based Government System in Indonesia

The Electronic-Based Government System (SPBE) is the administration of a government that utilizes information and communication technology to provide services to SPBE Users. SPBE Governance is a framework that ensures the implementation of regulation, direction, and control in the implementation of SPBE in an integrated manner. SPBE Management involves a series of processes to achieve effective, efficient, and sustainable SPBE implementation, as well as quality SPBE services. SPBE is carried out with the principles of: a. effectiveness; b. cohesiveness; c. continuity; d. efficiency; e. accountability; f. interoperability; and g. security. Implementing an Electronic-Based Government System prioritizes Integration, Sustainability and Efficiency. Integration is the integration of resources that support the SPBE is a continuation of the SPBE in a planned, gradual, and continuous manner in accordance with its development. Efficiency is the optimization of the utilization of resources that support an effective SPBE.

The implementation of the electronic-based government in Indonesia was explained by the Ministry of Empowerment of the State Apparatus and Bureaucratic Reform that the objectives of the SPBE are:1. realization of effective and efficient SPBE governance and management; and 2. realization of integrated and user-oriented SPBE services; and 3. implementation of an integrated SPBE infrastructure, and a 4. By increasing the capacity of the SPBE's HR, the objectives of the SPBE are described as follows:1. Realizing clean, effective, efficient, transparent, and accountable governance. 2. realizing quality and reliable public services, and 3. Realizing an integrated electronic-based government system.



The implementation of ETLE is the government's effort to implement an electronic-based government system by applying the principles of good governance. According to the United National Development Program (UNDP), the principles of good governance are divided into 14 categories:1. Community Participation, 2. Foresight, 3. Openness and Transparency 4. Democracy 5. Professionalism and Competence 6. Partnerships with the Private Business World and the Community; 7. Decentralization, 8. commitment to the environment, and 9. Commitment to Reducing Gaps 10. Professionalism and competence, 11. Efficiency and Effectiveness, 12. Responsiveness [14].

# 3.3. Study of the Implementation of Electronic Traffic Law Enforcement (ETLE) in Makassar City

The Electronic Traffic Law Enforcement (ETLE) implemented by the Republic of Indonesia Police is an effort to digitize traffic tickets that were previously manual to close and minimize the faults of the police apparatus in carrying out manual fines such as collusion, nepotism, and even the practice of bribery, which is rife by traffic violators to police officers working on the roads. In addition to efforts to minimize these corrupt actions, the steps to implementing Electronic Traffic Law Enforcement (ETLE) are to streamline police officers' performance in taking action against traffic offenders and reducing the number of traffic accidents with an approach to building awareness of traffic rules. In this case, the author observes two things that are important to note in the implementation of Electronic Traffic Law Enforcement (ETLE), namely: Socialization and Mechanisms for the implementation of Electronic Traffic Law Enforcement (ETLE) and Indication of Problems in the Implementation of Electronic Traffic Law Enforcement (ETLE).

## 3.3.1. Socialization and Mechanism of Electronic Traffic Law Enforcement (ETLE)

Socialization is a process that is carried out after a policy is made and is carried out before the policy enters the implementation stage. This can be explained by the following figure:

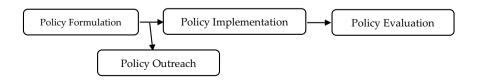


Figure 1: Policy Stages.



Based on Figure 1, socialization is not a series of public policy processes, where the public policy process, as expressed by Jones (1984) and Winarno (2008), consists of the stages of policy formulation, implementation, and evaluation. This is based on the understanding that socialization is not part of the urgency of policy; without socialization, the policy process cannot work [15].

The application of the e-ticket system is a policy to replace the manual ticket system that uses blanks/tickets, where motorists who violate will be recorded through an application owned by police personnel. After being recorded, the driver will receive a notification in a short time in the form of a code that contains exactly the same information as a ticket, accompanied by a code to make payment of fines through BRI. E-tickets provide an opportunity for violators to deposit fines directly at the bank with the facilities they have, perhaps by e-banking, ATM, or by coming to the teller in person. Furthermore, the driver is required to pay the maximum fine according to an article that was violated. If the violator has paid a ticket fine through Bank BRI, the officer giving the ticket will receive a notification on their cell phone. Violators can take letters or vehicles confiscated by officers by simply submitting proof of payment from Bank BRI or pick them up at the place mentioned in the notification [16].

From the same research conducted in the Special Region of Yogyakarta, it was hoped that the police would further promote socialization to the community again, so that people would be more familiar with using the E-Tilang system so that in the future, people would know and understand more about E-Tilang itself, and it is hoped that in the future, E-tickets can develop better for the completeness of the system, such as adding CCTV, speakers, and so on, so that e-tickets are not only called electronic because the payment process is through an electronic system [17].

## 3.3.2. Indication of Problems in the Implementation of Electronic Traffic Law Enforcement (ETLE)

In terms of the application of Electronic Traffic Law Enforcement (ETLE) referring to data on the high accident rate in the city of Makassar, it can be explained that the problem of accident rates in the city of Makassar is still a serious problem. Efforts to implement ETLE in Makassar City are, of course, running without any problems overshadowing it, especially in terms of vehicle data, which is an important factor. Based on an analysis of the mechanism for implementing ETLE using CCTV in the city of Makassar, the authors provide a number of things that need to be evaluated by Indonesian police, such as:1. The application of ETLE must pay attention to important factors in efforts to digitize



ticket tickets, namely the integration of vehicle data that must be updated so that the validity of vehicle data is in accordance with the data (addresses) of traffic violators, 2. In the confirmation process between the traffic violators and the police, digitalization efforts must also be carried out, which prioritizes the principle of information disclosure and the continuity of the electronic system from the ticket process to the confirmation process (if the violator attempts self-defense) until the payment of fines.

#### 4. Conclusion

Electronic Governance with the use of ICT can change the pattern between the government and citizens, with a focus on empowering citizens, improving the quality of public services, and increasing government accountability. Efficiency, transparency, and participation are three essential dimensions of good governance. E-government is a transformative application of information technology. In Indonesia, it is known as the SPBE application. This was welcomed by the implementation of ETLE by the Indonesian National Police. In this study, the authors conclude that the problem of implementing ETLE is still a significant problem with data accuracy that has not been updated regularly and must be fixed. The author advises the police of the Republic of Indonesia to prioritize the entire digitization process, starting with the ticket process, the confirmation process, and finally, paying the ticket online. As well as the efforts of the Republic of Indonesia Police to make efforts to update data regularly so that the optimization of ETLE can run well.

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