

Legal Reform of Online Fiduciary Registration: Toward Transparent and Reliable Secured Transaction Governance

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ABSTRACT

This study discusses legal reform of online fiduciary registration as an effort to realize safe, transparent, and reliable transaction governance in Indonesia. The switch from a manual to an electronic system has provided ease of service, accelerated administrative processes, and cost efficiency. The implementation of the system still faces various legal problems, including inaccuracies in data, weak system integration, low level compliance, limited information transparency, and cybersecurity risks. This condition raises an urgent need to update regulations so that the online fiduciary registration system is able to provide legal certainty and increase public trust. The formulation of the problems in this study includes: first, what are the main legal challenges in the implementation of online fiduciary registration in Indonesia; Second, how an improved regulatory model can strengthen transparency and public trust in fiduciary registration. This study uses normative legal research methods with a statutory approach, a conceptual approach, and a comparative approach. The analysis was carried out using the Legal System Theory from Lawrence M. Friedman to answer the formulation of the first problem and the *Good Governance Theory* to answer the formulation of the second problem.

The results of the study show that the main legal challenge in online fiduciary registration lies in the lack of optimal elements of legal structure, legal substance, and legal culture. The legal structure still faces institutional capacity constraints and digital infrastructure. The substance of the law still needs to be harmonized with the development of information technology and personal data protection. The legal culture still shows low compliance for some system users. An ideal regulatory model should be built on the principles of transparency, accountability, effectiveness, legal certainty, personal data protection, and public participation. Regulations also need to regulate the integration of national databases, cybersecurity standards, digital complaint mechanisms, and proportionate disclosure of fiduciary status information.

Keywords: Legal, Reform, Online, Fiduciary, Registration, Toward, Transparent, Reliable, Secured, Transaction, Governance.

INTRODUCTION

Background

The development of a national financing system places fiduciary guarantees as an important instrument in supporting access to credit, especially for the motor vehicle, trade, *multifinance*, and micro business sectors. Law Number 42 of 1999 provides a legal basis that movable objects can still be used by the debtor even though they are pledged to creditors. The state then changed the registration service pattern from manual to electronic through a general legal administrative system. These changes show the orientation of bureaucratic modernization, time efficiency, and acceleration of public services. The digital system is also expected to reduce transaction costs and expand access to registration throughout Indonesia. This condition shows that online fiduciary is not just a technical innovation, but part of the reform of national economic law. The need for data certainty is getting higher as the volume of consumer financing continues to increase. Challenges arise when the quality of regulation has not always moved as fast as technological developments. This research is relevant because online fiduciary registration is an important node between private law, state administration, and information technology. An in-depth study is needed to ensure that the system runs safely, transparently, and reliably.¹

The digital transformation of fiduciary services is carried out by the government through the AHU Online service which includes registration, changes, data correction, deletion, and download of certificate information. The system speeds up the issuance of fiduciary guarantee certificates compared to conventional models that require face-to-face and multi-layered administrative processes. The government stated that digitalization is intended to make it easier for individuals and corporations to obtain legal certainty. This policy shows a shift in the paradigm of public services towards *paperless services* and national data integration. This efficiency provides great benefits for financing institutions that process thousands of transactions every month. However, the acceleration of services must be balanced by identity validation, the accuracy of the object of collateral, and the protection of electronic data. A fast system without adequate control can actually cause new disputes. Therefore, service modernization needs to be accompanied by reform of norms and

¹ Salim HS, *The Development of Guarantee Law in Indonesia* (Jakarta: RajaGrafindo Persada, 2019), pp. 211–214.

supervision. Electronic registration is not enough to be application-based, but mandatory based on strong legal governance. This research places this aspect as a central issue.²

The first problem in the practice of online fiduciary registration lies in the accuracy of the data input by the applicant or his or her proxies. The electronic system relies heavily on the correctness of information regarding the identity of the parties, the warranty value, the vehicle frame number, and the description of the pledged object. A single digit error can lead to execution issues and third-party objections. Existing regulations do provide a mechanism for changing certificates, but corrections after the certificate is issued still incur time costs and legal risks. This condition shows that digitalization has not automatically eliminated the potential *for human error*. Many disputes actually start from initial data that is not strictly verified. The state needs to build a *pre-validation mechanism* based on integration with population data and vehicle registration. This step will reduce problematic certificates in the first place. Data quality is the main foundation of the reliability of electronic systems. Without accurate data, digital certificates lose their legal certainty value.³

The second problem relates to the limited transparency of public information regarding the status of fiduciary guarantee objects. Many people buy used vehicles without knowing that the vehicle is still burdened with fiduciary. This situation causes losses for the buyer in good faith when there is a withdrawal by the creditor. The legal system should provide easy, fast, and inexpensive access to search for bail status. The availability of search features has indeed grown, but its use is not optimal and is not widely known by the public. Data transparency is an important requirement in moving object trade traffic. The secondary market for vehicles will be healthier if the information on the burden of collateral is proportionately open. The state needs to balance data disclosure with the protection of the privacy of the parties. Online fiduciary law reform must prioritize an effective *public notice system*. The legal certainty of third parties depends on access to such information.⁴

² Directorate General of AHU of the Ministry of Law of the Republic of Indonesia, "Optimizing the Elimination of Fiduciary Guarantees for Legal Certainty," November 12, 2024, portal.ahu.go.id.

³ Niken Prasetyawati and Siti Mahmudah, "The Effectiveness of Online Fiduciary Guarantee Registration by Notaries," *Notary* 16, no. 1 (2023): 426–438, pp. 431–433.

⁴ J. Satrio, *Law on the Guarantee of Fiduciary Property Guarantee Rights* (Bandung: Citra Aditya Bakti, 2017), pp. 98–103.

The third issue concerns the elimination of fiduciary guarantees after the debt has been paid off. Much of the old fiduciary data has not been deleted so that the object appears to be still encumbered even though the debtor's obligations have been completed. This condition hinders new registrations, resale of objects, and lowers public trust in the national database. The government itself once said that the amount of old data that has not been deleted is still very large. This fact shows that digital reform is not only about incoming registration, but also management of exiting the system. A database filled with outdated records will degrade the quality of legal information. Creditors must be encouraged to immediately carry out roya or electronic deletion after repayment. Administrative sanctions and compliance incentives can be policy instruments. Clean data governance is a prerequisite for a reliable system. This research views the issue of elimination as a strategic legal challenge.⁵

The fourth issue relates to cybersecurity and electronic document authentication. Digital fiduciary certificates have high economic value because they are the basis for creditors' preferential and executory rights. High-value documents always have the potential to be the target of account forgery, hacking, or data manipulation. The national legal system through the Electronic Information and Transaction Act does recognize electronic documents, but the implementation of the fiduciary sector requires special security standards. The use of *multi-factor authentication*, digital audit trails, and certified e-signatures is an urgent need. The state must guarantee that changes to the data are fully traceable. The credibility of an electronic certificate depends heavily on the security of its system. If users doubt the security of the platform, public trust will decline. Cyber protection is not just a technical issue, but an issue of legal certainty. Regulatory reform therefore needs to include binding minimum security standards.⁶

The fifth problem relates to the position of the notary as the gate of the legality of the fiduciary deed. The fiduciary guarantee deed still requires an authentic form so that the notary has a central role before electronic registration is carried out. Challenges arise as the digital administrative burden increases, but technical guidelines and system integration have not

⁵ Directorate General of AHU of the Ministry of Law of the Republic of Indonesia, "Optimizing the Elimination of Fiduciary Guarantees for Legal Certainty," November 12, 2024.

⁶ Edmon Makarim, *Telematics Law in Indonesia* (Jakarta: Rajawali Pers, 2020), pp. 167–172.

always been uniform. Notaries face the risk of liability if the data uploaded is different from the deed or supporting documents. This condition demands a clear division of responsibility between the applicant, the notary, and the state system operator. Certainty regarding the scope of notary verification needs to be clarified through regulations. Without this clarity, the notary profession bears excessive risks. A good system must place the notary as the guardian of legality, not just the operator of data entry. Legal reform needs to restore the professional function of notaries in the digital ecosystem. This is important for the quality of the deed and the protection of the parties.⁷

The sixth problem concerns the disparity in digital access between regions of Indonesia. Online services presuppose a stable internet network, adequate digital literacy, and the availability of technological devices. The geographical facts of Indonesia show that the quality of infrastructure is not evenly distributed. Business actors in certain areas can face greater obstacles than business actors in big cities. This inequality has the potential to create injustice in access to state legal services. The principle of equality before the law requires the state to provide services that can be reached by all citizens. Online fiduciary reform should consider hybrid help channels, regional service centers, and technical mentoring. Digitalization must not result in new exclusions. A reliable system must be inclusive of the socio-economic conditions of the community. This study assesses the dimension of equity as an important aspect of safe transaction governance.⁸

The Constitutional Court's ruling on fiduciary execution has also changed the landscape of trust in the national fiduciary system. The Court emphasized that the execution should not be carried out unilaterally without clear default parameters and without the debtor's consent. The ruling encourages a re-reading of fiduciary certificates as instruments that remain subject to the principle of due process. Consequently, the quality of registration becomes increasingly important because the certificate data will be checked when disputes arise. The online system must be able to present an accurate track record that is easily verifiable in court. Public trust depends not only on the ease of registration, but also on the fairness of the enforcement of rights after registration. Legal reform needs to link digital

⁷ Habib Adjie, *Indonesian Notary Law* (Bandung: Refika Aditama, 2021), pp. 245–249.

⁸ Miriam Budiardjo, *Basics of Political Science* (Jakarta: Gramedia, 2018), pp. 63–66.

administration with the protection of the constitutional rights of the parties. Modern fiduciary must be efficient as well as fair. This dimension makes the research more realistic.⁹

An improved regulatory model needs to start from the establishment of a national fiduciary database that is integrated across agencies. The system should ideally be connected to population data, vehicle registration, AHU, and court records related to disputes. Integration will speed up verification as well as close the space for identity manipulation or double collateral objects. The state can also build *risk scoring* on certain transactions that require additional checks. This policy is in line with the principle of electronic-based governance that emphasizes data interoperability. Regulations must regulate the authority of access, security, and the division of responsibilities between agencies. Without a clear legal basis, data integration is prone to questioning. Transparency increases when data comes from an official source that is interconnected. Public trust will grow as the system is considered objective and modern. This step is important for the reform of national fiduciary laws.¹⁰

The next regulatory model needs to set measurable minimum service standards. Certificate issuance time, system *uptime rate*, complaint response, and outage recovery mechanism should be clearly standardized. Many electronic systems fail to be trusted because users are not aware of the operator's performance standards. Good regulation establishes the rights of users when the system is problematic, including refunds or priority re-service. This approach places the community as the subject of service, not just passive users. The state needs to compile performance indicators that are announced periodically. The public can judge the quality of services based on data, not assumptions. Administrative transparency will be significantly improved. The reliability of the system can also be objectively monitored. Legal reform without service standards will be difficult to measure its success.¹¹

The updated regulatory model also needs to strengthen digital grievance and dispute resolution mechanisms. Users must be able to report data errors, suspected account abuse, or service delays through an easily accessible official channel. The complaint system must have a ticket number, a deadline for settlement, and the officer in charge. The presence of this

⁹ Jimly Asshiddiqie, *Indonesian Constitution and Constitutionalism* (Jakarta: Sinar Grafika, 2020), pp. 188–191.

¹⁰ Richardus Eko Indrajit, *Electronic Government: Strategies for the Development of Public Service Systems Based on Digital Technology* (Yogyakarta: Andi, 2021), pp. 92–97.

¹¹ Philipus M. Hadjon, *Introduction to Indonesian Administrative Law* (Yogyakarta: Gadjah Mada University Press, 2019), pp. 154–159.

mechanism increases the accountability of the digital bureaucracy. Users will feel protected when the state provides an effective recourse of action. Many electronic services fail to gain legitimacy because they do not have a clear space for objections. The principle of *good governance* requires responsiveness and accountability. Online fiduciary regulations need to make complaints a core component, not a complement. Public trust grows when mistakes can be corrected quickly. This aspect is essential for sustainable secure transactions.¹²

The next reform model needs to regulate the openness of national statistics on fiduciaries. The government can publish the number of registrations, guarantee value, economic sectors, number of eliminations, and dispute trends periodically. The aggregated data does not violate privacy, but it is very useful for public oversight and policy formulation. Academics, industry, and society can assess the effectiveness of the system empirically. Statistical transparency will reduce the perception that digital services work in a closed space. The modern state needs evidence-based policies. Regulations need to require the publication of open data in a format that is easy to process. This kind of openness also encourages healthy competition between financing providers. Public trust increases when the government is open to the performance of its system. Online fiduciary law reform should move in that direction.¹³

The next strengthening concerns the harmonization of fiduciary regulations with the personal data protection regime. Electronic registration contains the identity of the debtor, creditor, address, and asset details. This information is sensitive and has the potential to be misused if access governance is weak. The Personal Data Protection Act provides a general framework, but the fiduciary sector requires specific derivative rules. Regulations must specify the types of open data, limited data, and confidential data. Users also need to know the purpose of the processing as well as the data retention period. Transparency does not mean opening up all information without limits. The state is obliged to balance openness with the right to privacy. That balance will strengthen the legitimacy of the system. This research places data protection as an important element of the reliability of online fiduciary services.¹⁴

¹² Ridwan HR, *State Administrative Law* (Jakarta: RajaGrafindo Persada, 2022), pp. 302–307.

¹³ Lawrence M. Friedman, *The Legal System: A Social Science Perspective* (New York: Russell Sage Foundation, 2016), pp. 15–19.

¹⁴ Sinta Dewi Rosadi, *Personal Data Protection in Indonesia* (Bandung: Refika Aditama, 2022), pp. 118–124.

The urgency of this research is getting stronger because the digital economy is producing new financing patterns based on *fintech*, *peer to peer lending*, and application-based instant credit. Many transactions use movable objects or receivables as collateral that is relevant to the concept of fiduciary. The old legal system is at risk of being left behind if it does not adapt immediately. Online fiduciary reform must be able to respond to new business models without sacrificing consumer protection. The certainty of digital asset registration, future receivables, and intangible objects is a new issue that demands normative answers. The state needs an adaptive but still prudent regulatory design. Electronic registration can be the main infrastructure of modern financing when updated appropriately. The trust of investors and the public depends on this. Therefore, this research has high theoretical and practical value. This study is relevant for lawmakers, regulators, and business actors.¹⁵

Based on all of these descriptions, it can be understood that online fiduciary registration has brought great progress in legal services, but still faces challenges of data, transparency, deletion, cybersecurity, access disparities, and regulatory harmonization. This condition demands more comprehensive legal reform than just digitizing administrative procedures. This research is directed to answer the main legal challenges in the implementation of online fiduciary registration in Indonesia. This research is also directed to formulate an improved regulatory model to strengthen transparency and public trust. The results of the research are expected to give birth to a modern and responsive secure transaction governance design. A trusted fiduciary system will strengthen national financing and community protection. The state benefits in the form of administrative order and increased legal compliance. The business world obtains transaction certainty and cost efficiency. The community gets better protection as debtors and third parties. Therefore, legal reform of online fiduciary registration is an urgent agenda.

¹⁵ Gunawan Widjaja and Ahmad Yani, *Fiduciary Guarantees* (Jakarta: RajaGrafindo Persada, 2020), pp. 55–61.

Research Question

1. What are the main legal challenges in the implementation of online fiduciary registration in Indonesia?
2. How can an improved regulatory model strengthen transparency and public trust in fiduciary registration?

THEORETICAL FRAMEWORK

1. Legal System Theory – Lawrence M. Friedman

The Legal System Theory proposed by Lawrence M. Friedman provides a comprehensive analytical framework to examine the main legal challenges in the implementation of online fiduciary registration in Indonesia as formulated in the first Problem Formulation. Friedman views that the success of the work of law is determined by three interrelated elements, namely the structure of the law, the substance of the law, and the culture of the law. Legal structure refers to institutions, apparatus, and organizations that carry out norms. Legal substance refers to applicable laws and regulations, principles, and policies. Legal culture refers to people's attitudes, awareness, and behavior towards the law. Online fiduciary registration as a state digital service system can only run effectively if the three elements function in a balanced manner. Inequality of one of the elements will cause disruptions in the implementation of registration, legal protection, and certainty for the parties. Therefore, this theory is relevant to read online fiduciary issues thoroughly, not partially. The systemic approach is important because the issue of fiduciary registration is not solely technical and administrative.¹⁶

The elements of legal structure in Legal System Theory are directly related to the institutional capacity of the state that manages online fiduciary registration through the Directorate General of General Legal Administration of the Ministry of Law and Human Rights. The country is responsible for providing stable servers, accurate verification mechanisms, cybersecurity protection, and technical support for users. The main legal challenges often arise when the institutional structure is not supported

¹⁶ Lawrence M. Friedman, *American Law: An Introduction* (New York: W.W. Norton & Company, 2019), pp. 7–12.

by adequate digital human resources or coordination between institutions has not been optimal. Notaries, financing companies, administrative officials, and system operators need uniform work standards so that there are no differences in practices. Repeated electronic system disruptions can cause delays in the issuance of certificates and economic losses for business actors. Structural weaknesses are also seen when oversight of account misuse or data manipulation is not effective. The theory of the Legal System explains that the law will not work only with written norms if the implementing institution is weak. The first problem can be answered that one of the main challenges of online fiduciary lies in strengthening the country's digital legal structure. Institutional reform is an absolute requirement for the success of electronic services.¹⁷

The element of legal substance in Legal System Theory explains that the quality of laws and regulations determines the certainty and effectiveness of online fiduciary registration. Law Number 42 of 1999 was born in the period before digital transformation developed rapidly so that some provisions have not fully anticipated the need for modern electronic registration. Implementing regulations have indeed regulated online mechanisms, but the development of digital transactions demands more detailed norms regarding data validation, personal data protection, system error liability, and automatic deletion procedures after debt repayment. Ambiguity of norms can give rise to multiple interpretations between notaries, creditors, debtors, and law enforcement officials. Regulatory gaps regarding public access to fiduciary status can also cause harm to well-meaning third parties. Legal System Theory shows that the substance of the law that is left behind will hinder the performance of the legal structure. The first problem can be understood that the big challenge of online fiduciary is not just an application, but the need for regulatory updates that are adaptive to technology. Legal harmonization is an important agenda in reforming the national fiduciary system. Digital legal certainty is born from clear and responsive norms.¹⁸

¹⁷ Peter Mahmud Marzuki, *Introduction to Law* (Jakarta: Kencana, 2021), pp. 183–188.

¹⁸ Maria Farida Indrati Soeprapto, *Jurisprudence: Its Basics and Formation* (Yogyakarta: Kanisius, 2020), pp. 55–61.

The elements of legal culture in Legal System Theory are related to the behavior of users of the online fiduciary registration system, namely notaries, financing institutions, debtors, and the general public. A good digital system can still fail if users do not have legal awareness and compliance ethics. Improper data filling practices, delays in payment after the debt is paid, the use of identity without consent, or neglect of verification procedures indicate a weak legal culture. People also often do not check their fiduciary status when buying used vehicles so that disputes can easily occur. A low legal culture lowers public trust in electronic certificates and state services. Friedman affirms that law lives through social behavior that adheres to the values of legality. The first problem formulation can be answered that the challenges of online fiduciary also stem from the low digital legal literacy of the community. The state needs to build public education, professional development, and consistent sanctions so that compliance increases. The success of electronic systems is largely determined by the quality of the legal culture of its users.¹⁹

The interconnectedness of the three elements of Legal System Theory shows that the main legal challenges in online fiduciary registration are multidimensional and require integrated solutions. The legal structure must be strengthened through reliable digital infrastructure, modern supervision, and inter-agency coordination. The legal substance must be updated through the revision of norms governing transparency, data security, validation of collateral objects, and the responsibilities of system operators. Legal culture must be built through increased digital literacy, notary professionalism, and compliance of financing institutions. When the three elements move in unison, the online fiduciary system will provide legal certainty and better protection. The formulation of the first problem can thus be answered through a systemic perspective that the main obstacle lies in the lack of synchronization of legal structure, substance, and culture in a single digital ecosystem. A sectoral approach that only improves applications without fixing regulations and user behavior will not solve the fundamental problem. Legal System Theory provides a scientific basis for comprehensive legal reform. This research is important to formulate realistic and

¹⁹ Soerjono Soekanto, *Legal Awareness and Legal Compliance* (Jakarta: Rajawali Pers, 2018), pp. 24–31.

sustainable policy updates. Secure online fiduciary governance must be built through the work of the legal system as a whole.²⁰

2. Good Governance Theory

Good Governance *Theory* provides a strong conceptual foundation for answering the second Problem Formulation regarding how an improved regulatory model can strengthen transparency and public trust in fiduciary registration. This concept developed in response to the need for effective, open, accountable, and public service-oriented governance. It is not enough for modern government to only exercise authority legally, but it is mandatory to ensure that the administrative process runs honestly, can be supervised, and is responsive to the needs of the community. Online fiduciary registration is a form of technology-based legal services that concern broad economic interests, so that the quality of its governance determines the legitimacy of the state in the eyes of the public. Public trust will grow if the registration system provides procedural certainty and data protection. Transparency will emerge when basic information is accessible proportionately and easily understood. The *Good Governance Theory* places the community as the center of services, not just the object of bureaucracy. The second problem formulation can be analyzed through the principles of good governance in the design of online fiduciary regulations. This approach is relevant because digital legal updates always require public legitimacy.²¹

The principle of transparency in the *Good Governance Theory* is directly related to the need for information disclosure in the online fiduciary registration system. The public needs certainty whether a vehicle, machine, or other movable object is still burdened with fiduciary guarantees before making a transaction. Well-faith buyers often face risks when warranty status information is difficult to access or not up-to-date. The improved regulatory model should regulate the mechanism for seeking fiduciary status in a fast, legal, and affordable manner without over-exposing personal data. The state can establish a public checking service based on the number

²⁰ Achmad Ali, *Uncovering Legal Theory and Judicial Theory* (Jakarta: Kencana, 2017), pp. 97–103.

²¹ Merilee S. Grindle, *Good Governance Revisited* (Oxford: Oxford University Press, 2020), pp. 14–21.

of certain objects or identities that are restricted. Transparency also demands the publication of statistics on the number of registrations, complaints, and disputes as a form of openness of system performance. Clarity of information will reduce fraud, double transactions, and civil disputes. Public trust will increase when the system does not work behind closed doors. The second problem suggests that online fiduciary regulation should make transparency the primary norm. This principle is an essential element of good governance.²²

The principle of accountability in the *Good Governance* Theory requires clear accountability from the operators of the online fiduciary registration system. The user of the service has the right to know who is responsible in the event of a server outage, data error, certificate delay, or electronic information leak. The updated regulatory model needs to establish minimum service standards, complaint procedures, complaint resolution deadlines, and administrative sanctions for breach of obligations. Accountability also includes periodic audits of system security and national database quality. The state must provide a simple data correction mechanism so that the public is not harmed by digital bureaucratic errors. The financing institution is also obliged to be responsible for eliminating the fiduciary after the debt is paid off. Clarity of responsibility will strengthen the security of system users. The second problem can be answered that public trust is not born from technology alone, but from the existence of parties who can be held accountable. The principle of accountability makes digital services more legitimate and reliable.²³

The principles of effectiveness and efficiency in the *Good Governance* Theory require that online fiduciary regulations produce fast, simple, and reliable services. Electronic systems are set up to reduce the lengthy bureaucracy on manual registration which is time-consuming and expensive. A good regulatory model must set a maximum time for the issuance of certificates, easy-to-understand digital procedures, and data integration with other agencies for verification to take place automatically. Users will lose trust if the online system remains slow, often fails to access, or requires

²² Mark Bovens, *Public Accountability* (Cambridge: Cambridge University Press, 2018), pp. 88–94.

²³ Jan-Erik Lane, *State Management: An Inquiry into Models of Public Administration* (London: Routledge, 2019), pp. 132–138.

irrational repetitive steps. The state needs to ensure that digital transformation actually lowers people's transaction costs. Effectiveness also means the system is able to prevent double enrollment and detect problematic data early on. Certainty of service will encourage the compliance of business actors to register fiduciaries correctly. The second problem formulation emphasizes that regulatory reform must bring real benefits to users. The principle of efficiency makes the law present as a facilitator of modern economic activities.²⁴

The principle of participation and legal certainty in the *Theory of Good Governance* requires stakeholder involvement and clarity of norms in the preparation of online fiduciary regulations. The state needs to involve notaries, finance companies, academics, consumer associations, and the user community when designing rule updates. Participation will result in realistic policies because they are prepared based on field experience and real needs. Legal certainty requires that every procedure, cost, liability, and rights of users be clearly regulated without multiple interpretations. A participatory regulatory model will be more easily accepted and complied with by the public. Public trust grows when citizens feel that their voices are heard in the policy-making process. The registration system will also be stable if the norm does not change frequently without adequate explanation. The second problem can be answered that the ideal regulatory model is transparent, accountable, efficient, participatory, and legally definite regulation. The *theory of Good Governance* thus becomes an important basis for legal reform of online fiduciary registration towards transparent and reliable secure transaction governance.²⁵

²⁴ David Osborne and Ted Gaebler, *Reinventing Government* (New York: Addison-Wesley, 2017), pp. 247–253.

²⁵ Sedarmayanti, *Good Governance and Good Corporate Governance* (Bandung: Mandar Maju, 2021), pp. 36–44.

RESEARCH METHODOLOGY

Research on Legal Reform of Online Fiduciary Registration: Towards Transparent and Reliable Secure Transaction Governance using normative legal research methods with conceptual approaches, legislative approaches, and comparative approaches. Normative legal research was chosen because the main object of the study lies in the norms, principles, synchronization of regulations, and the construction of legal policies that regulate electronic fiduciary registration in Indonesia. This study examines Law Number 42 of 1999 concerning Fiduciary Guarantees, the Electronic Information and Transaction Law, the Personal Data Protection Law, and various implementing regulations in the field of general law administration. The conceptual approach is used to analyze the theory of the legal system and the theory of *good governance* as an analytical knife for the formulation of two research problems. A comparative approach was used to look at the practice of electronic collateral registration in several countries that have implemented modern collateral publication systems. This research is oriented towards the search for an ideal legal prescription, not just a description of a normative state. This prescriptive character is important to produce applicable regulatory reform recommendations. Normative legal research is particularly appropriate when the focus of research is assessing the adequacy of norms and offering legal updates. The choice of this method is in line with the purpose of the research that aims to formulate a more reliable online fiduciary governance model.²⁶

The type of data used in this study is in the form of secondary data consisting of primary legal materials, secondary legal materials, and tertiary legal materials. Primary legal materials include laws and regulations, Constitutional Court rulings related to fiduciary execution, and government administrative policies regarding electronic fiduciary services. Secondary legal materials include books, journal articles, dissertations, research results, and expert opinions on guarantee law, state administrative law, cyber law, and digital governance. Tertiary legal materials include legal dictionaries, encyclopedias, regulatory indexes, and other supporting sources that explain technical research terms. The use of secondary data allows researchers to build systematic arguments based on accountable scientific sources. This research also utilizes public policy documents and official reports of state institutions to read

²⁶ Johnny Ibrahim, *Theory and Methodology of Normative Law Research* (Malang: Bayumedia Publishing, 2018), pp. 57–64.

the dynamics of the implementation of online fiduciary registration. The quality of legal materials greatly determines the quality of the normative analysis produced. The selection of sources is carried out selectively by prioritizing the relevance, authorial authority, and novelty of digital legal issues. This step aims to ensure that the recommendations for legal reform have a strong academic basis.²⁷

The technique of collecting legal materials in this study is carried out through literature studies and systematic document studies. The researcher searched national regulations, academic manuscripts, reputable scientific journals, and court rulings related to online fiduciary registration. The researcher then inventoried each norm that governs registration procedures, data changes, fiduciary removal, system operator responsibilities, and third-party protection. A document study was conducted on government policies regarding the transformation of AHU Online services as well as evolving administrative practices. The researcher compiled a data matrix so that each source could be mapped according to the theme, legal issues, and relevance to the formulation of the problem. This technique facilitates the process of identifying norm conflicts, legal vacancies, and implementation weaknesses. Systematic collection of legal materials will prevent speculative analysis. This research also pays attention to the latest developments so that the results of the study remain actual on the issue of digitization of public services. This methodological step is important in modern legal research that moves quickly to keep up with technological changes.²⁸

The analysis of legal materials in this study uses a qualitative method with grammatical, systematic, historical, and teleological legal interpretations. Grammatical interpretation is used to read the meaning of norms in fiduciary rules and electronic rules textually. Systematic interpretation is used to see the relationship between regulations so that there is no separate reading between guarantee law, administrative law, and information technology law. Historical interpretation is used to understand the purpose of lawmakers when regulating fiduciary as a national financing instrument. Teleological interpretation is used to assess whether existing norms are still in line with the goals of legal protection, transparency, and efficiency in the digital era. The researcher also uses legal argumentation

²⁷ Soerjono Soekanto and Sri Mamudji, *Normative Law Research: A Brief Review* (Jakarta: RajaGrafindo Persada, 2020), pp. 12–19.

²⁸ Mukti Fajar ND and Yulianto Achmad, *Dualism of Normative and Empirical Law Research* (Yogyakarta: Pustaka Siswa, 2019), pp. 160–168.

techniques to assess the adequacy of regulations when dealing with issues of data security, information accuracy, and public access. The qualitative analysis method allows researchers to draw in-depth conclusions, not just numerical ones. This approach is in accordance with the character of law that emphasizes normative rationality. The results of the analysis are expected to be able to answer the main legal challenges of online fiduciary registration comprehensively.²⁹

The final results of this study are prepared in the form of prescriptions or recommendations for online fiduciary registration legal reform models that are oriented towards transparency, transaction security, and system reliability. The researcher formulates recommendations through the stages of problem identification, evaluation of applicable norms, comparison of best practices, and synthesis based on legal system theory and *good governance* theory. These prescriptions can include updating laws, strengthening implementing regulations, integration of national databases, cybersecurity standards, digital complaint mechanisms, and proportionate disclosure of fiduciary status information. This research does not stop at criticism of the weaknesses of the existing system, but offers a legal design that can be applied by policymakers. The practical value of research lies in its contribution to the government, notaries, financing institutions, and service user communities. Its academic value lies in the development of the study of securities law in the context of digital transformation. Prescriptive methods make legal research able to answer the needs of the changing times. Thus, this research method is directed to produce realistic, progressive, and sustainable legal reforms.³⁰

²⁹ Peter Mahmud Marzuki, *Legal Research* (Jakarta: Kencana, 2021), pp. 171–180.

³⁰ Bambang Sunggono, *Legal Research Methodology* (Jakarta: RajaGrafindo Persada, 2017), pp. 109–116.

RESEARCH RESULTS

Main Legal Challenges in the Implementation of Online Fiduciary Registration in Indonesia

The Legal System Theory proposed by Lawrence M. Friedman explains that the work of law is determined by three main elements, namely the structure of the law, the substance of the law, and the culture of the law. These three elements are the right analytical tools to answer the first Problem Formulation regarding the main legal challenges in the implementation of online fiduciary registration in Indonesia. Online fiduciary registration cannot be understood only as an innovation in administrative technology, as this system concerns the certainty of property rights, creditor protection, debtor protection, and the interests of third parties. The state has shifted the registration process from a manual model to an electronic system to speed up public services. The change brings the benefits of time efficiency and transaction costs. Legal challenges still arise because digitalization has not automatically solved normative and institutional problems. The Legal System Theory approach allows researchers to read the relationships between elements thoroughly. The imbalance of one element will affect the effectiveness of the other. Therefore, the analysis of online fiduciaries must be carried out systemically.³¹

The first challenge lies in the aspect of the legal structure, namely the readiness of state institutions as providers of online fiduciary registration services. The Directorate General of General Legal Administration plays a central role in providing electronic systems, server infrastructure, network security, and user assistance services. The quality of the legal structure will be questioned when the system frequently experiences interruptions, delays in access, or difficulties in verifying data. Financing business actors need certainty of the time of issuance of certificates because credit transactions often depend on the speed of registration. Technical disruptions can cause delays in financing disbursement and economic losses. The legal structure also includes coordination between ministries, notaries, financing institutions, and other data agencies. Weak coordination causes fragmentation of services. The theory of the Legal System asserts that good norms will not be effective without strong institutions. The first major challenge thus is to strengthen the country's digital institutional capacity.³²

The second challenge relates to the substance of the law that has not fully adjusted to the development of digital transactions. Law Number 42 of 1999 was born at a time when the

³¹ Satjipto Rahardjo, *Legal Studies* (Bandung: Citra Aditya Bakti, 2014), pp. 87–93.

³² Jimly Asshiddiqie, *Regarding the Law* (Jakarta: Rajawali Pers, 2018), pp. 211–216.

information technology ecosystem had not developed as it is today. Some new issues such as electronic signatures, personal data protection, digital audits, and automated validation were not a major concern when the law was formed. Implementing regulations are indeed present to cover technical needs, but their hierarchical position is often limited to solving fundamental problems. A gap in norms can give rise to multiple interpretations regarding the responsibility of system errors or disputes due to inaccurate electronic data. Legal certainty requires substantive renewal to be in line with the needs of the times. Legal System Theory views the substance of law as the heart of behavioral guidelines. Substances that are left behind will hinder the effectiveness of the legal structure and culture. The second challenge thus lies in the need for reform of national fiduciary regulations.³³

The third challenge concerns the accuracy of registration data as the foundation for the certainty of property rights. The online fiduciary system relies on the information entered regarding the identity of the parties, the description of the object of the guarantee, the value of the guarantee, and the date of the principal agreement. A mistake in one vehicle frame number or the debtor's name can cause serious disputes when the execution is carried out. Electronic certificates issued based on incorrect data will undermine trust in the system. The country needs a multi-layered verification mechanism through the integration of population data, vehicle data, and other relevant databases. Legal System Theory explains that structure and substance must work together to guarantee the quality of data. Verification norms without supporting technology will not be effective. Technology without a legal basis also lacks strong legitimacy. The third challenge shows that data quality is a legal as well as a technical issue.³⁴

The fourth challenge lies in the legal culture of system users, especially notaries, financial institutions, and the public. Many users still view online registration as just an administrative formality to qualify for credit disbursement. Such an attitude encourages the filling of data in a hasty and less thorough manner. Some creditors are also late in eliminating fiduciaries after the debt is paid off, so that the national database is filled with records that are not up-to-date. The public as buyers of used vehicles often do not check their fiduciary

³³ Maria Farida Indrati Soeprapto, *Jurisprudence: Types, Functions, and Content* Materials (Yogyakarta: Kanisius, 2019), pp. 102–108.

³⁴ Gunawan Widjaja, *Fiduciary Guarantee Business Law Series* (Jakarta: RajaGrafindo Persada, 2016), pp. 144–149.

status before the transaction. A low legal culture will lead to repeated disputes even if a digital system is available. Legal System Theory places legal culture as a determining element for the successful implementation of norms. Legal compliance and awareness must be built through education and sanctions enforcement. The fourth challenge thus stems from the legal behavior of stakeholders.³⁵

The fifth challenge relates to the transparency of information to well-meaning third parties. Buyers of vehicles or other movable objects need certainty as to whether the object is still burdened by fiduciary. A system that is too closed will open up the space for selling collateral objects to the public without knowledge of the status of the legal burden. These conditions can trigger disputes between buyers, debtors, and creditors. The state must balance the principle of information disclosure with the protection of personal data. Legal System Theory explains that the substance of the law must regulate access to information proportionately, while the legal structure must provide an easy search mechanism. The legal culture of the community also needs to be built so that they are used to checking the status of collateral before buying goods. The fifth challenge suggests that online fiduciary requires *an effective public notice* model. Public trust will increase when basic information is available legitimately and quickly.³⁶

The sixth challenge concerns cybersecurity and electronic data protection. Digital fiduciary certificates have high economic value because they are the basis of creditors' preferential rights. High-value documents are always vulnerable to account hacking, identity theft, data manipulation, or abuse of internal access. The state is obliged to ensure multi-layered authentication, digital audit trails, data encryption, and periodic surveillance. Legal System Theory suggests that legal structures should provide secure technology, legal substance should establish security standards, and legal culture should encourage user discipline in maintaining access credentials. Failure of one of the elements will open a gap for abuse. Cyber threats to digital legal services are different from ordinary administrative disruptions because they concern the legitimacy of state certificates. The sixth challenge is

³⁵ Romli Atmasmita, *Legal Reform, Human Rights and Law Enforcement* (Bandung: Mandar Maju, 2017), pp. 56–61.

³⁶ Munir Fuady, *Debt Guarantee Law* (Bandung: Citra Aditya Bakti, 2015), pp. 233–239.

very important in the era of the digital economy. An insecure system will quickly lose public trust.³⁷

The seventh challenge is related to the implementation of the execution of fiduciary guarantees after the Constitutional Court's decision that emphasized debtor protection. A fiduciary certificate is no longer understood as a tool that can be used unilaterally without clear default parameters. This situation increases the importance of the accuracy of registration data from the outset because certificates can be tested in disputes. The online system must be able to display the complete history of data changes, registration dates, and legal basis for issuance. Legal System Theory explains that changes in court decisions as part of the legal substance will affect the institutional practices and behavior of the parties. Creditors must be more careful in registering and executing. The debtor gains a stronger procedural protection space. The seventh challenge shows that online fiduciary does not stand apart from the development of constitutional and judicial law. Integration between legal regimes is an urgent need.³⁸

The eighth challenge lies in the disparity in digital access between regions of Indonesia. Online services presuppose stable internet, adequate devices, and the ability of users to understand electronic procedures. Social reality shows that the quality of digital infrastructure is uneven between big cities and certain regions. Small business actors in limited areas can experience greater obstacles than large companies in the center of the economy. Inequality of access raises the issue of fairness in state legal services. Legal System Theory views that the legal structure must reach all citizens, not just developed areas. The legal culture of the community also requires equal digital literacy support. The eighth challenge confirms that digitalization without inclusivity can give birth to new discrimination. The online fiduciary system must be built with a national equity perspective.³⁹

Based on all these descriptions, Legal System Theory proves that the main legal challenges in the implementation of online fiduciary registration in Indonesia are multidimensional. The legal structure faces the problems of institutional capacity, system security, and equitable distribution of services. The substance of the law faces the need to

³⁷ Agus Rahardjo, *Cyber Crime: Understanding and Efforts to Prevent Technological Crime* (Bandung: Citra Aditya Bakti, 2020), pp. 119–126.

³⁸ Ni'matul Huda, *The State of Law, Democracy and Judicial Review* (Yogyakarta: UII Press, 2018), pp. 171–176.

³⁹ Miriam Budiardjo, *Democracy in Indonesia: Parliamentary Democracy and Pancasila Democracy* (Jakarta: Gramedia, 2017), pp. 94–99.

update norms regarding electronic data, transparency, and organizer responsibility. Legal culture faces the problems of compliance, digital literacy, and public awareness of using the system correctly. These three elements affect each other so that partial settlement will not be effective. The state needs to carry out comprehensive reforms through law revisions, strengthening digital infrastructure, integrating national data, and public legal education. Financial institutions and notaries must also improve the professionalism of using electronic systems. The public needs to be given easy and safe access to information. The first problem is thus answered that the main challenge of online fiduciary lies in the lack of synchronization of legal structure, substance, and culture. The best solution must be built through a whole, sustainable legal system approach.⁴⁰

⁴⁰ Lili Rasjidi and Ira Thania Rasjidi, *Fundamentals of Philosophy and Legal Theory* (Bandung: Citra Aditya Bakti, 2016), pp. 201–207.

Improved regulatory model to strengthen transparency and public trust in fiduciary registration

Good Governance *Theory* provides an appropriate analytical basis to answer the second Problem formulation regarding how an improved regulatory model can strengthen transparency and public trust in fiduciary registration. This theory places the government as a public service provider that is obliged to work openly, accountably, effectively, responsively, participatory, and obey the law. Online fiduciary registration is a state service that is directly related to people's economic transactions, so that the quality of its governance determines the legitimacy of the legal system in the eyes of the public. The public will judge the success of digitalization not from the existence of the application alone, but from the certainty of procedures and the protection of user rights. A good regulatory model must make the principle of *good governance* the main normative framework. Regulations that only emphasize administrative aspects without governance will find it difficult to gain public trust. Transparency and public trust are social capital that are very important for the sustainability of the country's electronic system. The second problem must thus be answered through the establishment of rules that organize the behavior of institutions in a modern way. This approach is relevant in the reform of national fiduciary law.⁴¹

The first improved regulatory model should place the principle of transparency as a key legal obligation. Transparency in fiduciary registration means that the public can obtain basic information about the status of the collateral object quickly, easily, and legally. Buyers of used vehicles or other movable objects need certainty whether the object is still burdened by fiduciary before the transaction is made. The new regulation needs to regulate a guarantee status search system based on the identity number of the object while maintaining the confidentiality of the parties' personal data. The state also needs to require the publication of statistics on the number of registrations, amendments, deletions, and fiduciary disputes on a regular basis. Such disclosure of information will reduce the room for manipulation and dishonest sale of collateral objects. The *Good Governance* theory emphasizes that closed public services tend to cause distrust. Transparency makes the system testable by the public. This model will strengthen the legitimacy of online fiduciary registration in Indonesia.⁴²

⁴¹ Gerry Stoker, *The Politics of Governance* (London: Palgrave Macmillan, 2018), pp. 21–27.

⁴² Amartya Sen, *Development as Freedom* (New York: Anchor Books, 2017), pp. 148–154.

The second improved regulatory model should strengthen the principle of system operator accountability. The user of the service has the right to know who is responsible in the event of a data error, delay in the issuance of certificates, server interruptions, or leakage of electronic information. Ideal regulations need to establish the officials in charge of the service, complaint resolution standards, and administrative redress mechanisms if users are harmed. Accountability should also apply to finance institutions that neglect to remove fiduciaries after the debt has been paid off. The state needs to provide clear administrative sanctions for such negligence because the database that is not up to date is detrimental to the wider community. *Good Governance theory* views accountability as the main condition for public trust. A digital system without a responsible party would be considered unsafe. Clarity of responsibility will foster a sense of protection for users. The accountability model is an important foundation for online fiduciary law reform.⁴³

The third improved regulatory model should guarantee the effectiveness and efficiency of the service. Online fiduciary registration was formed to cut through the slow and expensive manual bureaucracy. The new regulations need to set deadlines for the issuance of certificates, data change processing times, and *electronic system uptime* standards. The state must ensure that users do not face repetitive procedures that waste time as well as transaction fees. The integration of the system with population data and vehicle registration will speed up the verification process. The *Good Governance Theory* explains that efficient public services increase public compliance because the procedures are rational and easy to reach. Public trust will grow when the benefits of digitalization are felt by users. Slow and convoluted regulations actually damage the image of the country's electronic system. An effective and efficient model should be the main orientation of fiduciary law reform.⁴⁴

The fourth improved regulatory model should integrate personal data protection and cybersecurity. The online fiduciary system contains the identity of the debtor, creditors, addresses, and details of collateral objects of high economic value. The ideal regulation must regulate the classification of open data, limited data, and confidential data so that information disclosure does not damage citizens' privacy. Countries also need to require the use of multi-

⁴³ Guy Peters, *Institutional Theory in Political Science* (Cheltenham: Edward Elgar, 2020), pp. 96–102.

⁴⁴ Christopher Hood, *The Art of the State: Culture, Rhetoric, and Public Management* (Oxford: Oxford University Press, 2019), pp. 71–77.

layered authentication, encryption, security audits, and digital access trail logging. Good *Governance* theory views user protection as part of the state's responsibility in modern governance. The public will not trust a system that is prone to data leaks or identity abuse. Digital security is a new form of legal protection in the electronic era. Careful regulation will balance transparency with the right to privacy. This model is critical to the reliability of online fiduciary registration.⁴⁵

The fifth improved regulatory model should establish responsive digital grievance and dispute resolution mechanisms. Users need to have an official channel to report input errors, suspected account abuse, service delays, or application rejections for no apparent reason. The new regulations must regulate the electronic ticketing system, response deadlines, objection stages, and escalation of settlement to authorized officials. The state must place complaints as an instrument of governance correction, not an administrative burden. Good *Governance Theory* assesses responsiveness as the main characteristic of healthy public services. Public trust will grow when complaints are handled quickly and fairly. A system that closes the complaint space will cause frustration and non-compliance. A clear correction mechanism also encourages continuous improvement of service quality. Responsive models are a real necessity in online fiduciary reform.⁴⁶

The sixth improved regulatory model should open up space for public participation in the formation and evaluation of online fiduciary policies. The state needs to involve notaries, financing associations, academics, consumer organizations, and the user community when drafting regulatory changes. Participation will result in realistic norms because it is built from field experience. Regulations that are formed behind closed doors are often insensitive to technical needs or public interests. The theory of *Good Governance* places participation as a means of legitimacy and social control over administrative power. Public trust increases when people feel heard in the decision-making process. Participation also encourages compliance because the parties understand the reason for the policy being formed. The modern state

⁴⁵ Colin J. Bennett and Charles D. Raab, *The Governance of Privacy* (Cambridge: MIT Press, 2021), pp. 112–118.

⁴⁶ B. Guy Peters and Jon Pierre, *Handbook of Public Administration* (London: Sage Publications, 2018), pp. 214–220.

must make public consultation the standard procedure. The participatory model will strengthen the quality of national fiduciary law reform.⁴⁷

The seventh improved regulatory model should affirm legal certainty through harmonization between regulations. Online fiduciary registration intersects with guarantee law, civil law, state administrative law, personal data protection law, and electronic transaction law. Overlapping norms will confuse notaries, creditors, and the user community. New regulations need to formulate standard definitions, uniform procedures, division of authority, and clear legal consequences for each electronic act. Good *Governance* theory assesses legal certainty as a fundamental condition for citizens to believe in state actions. People will not be confident in a system whose norms are variable or contradictory. Legal harmonization will also reduce disputes and compliance costs. The legal certainty model is the main buffer for sound fiduciary transactions. Legal reform must move towards regulatory consistency.⁴⁸

The eighth improved regulatory model should encourage performance-based oversight and openness of evaluation. The state needs to establish indicators such as the average time of issuance of certificates, the number of complaints resolved, the success rate of system access, and the number of fiduciaries that have been removed after repayment. The results of the evaluation need to be announced periodically to the public. Data-driven monitoring will make it easier to identify system weaknesses and prepare quick fixes. Good *Governance* theory views open evaluation as part of democratic accountability. Public trust will increase when the government is willing to be measured by objective indicators. Unevaluated systems tend to be stagnant and difficult to fix. The new regulations should make service audits an ongoing obligation. The performance monitoring model will strengthen the professionalism of online fiduciary organizers.⁴⁹

Based on all these descriptions, an improved regulatory model for online fiduciary registration must be built on the principles of transparency, accountability, efficiency, data protection, responsiveness, participation, legal certainty, and performance evaluation. The *Good Governance* Theory proves that public trust is born from good governance, not just from

⁴⁷ Sherry R. Arnstein, *Citizen Participation and Democratic Governance* (New York: Routledge, 2019), pp. 33–40.

⁴⁸ Lon L. Fuller, *The Morality of Law* (New Haven: Yale University Press, 2016), pp. 63–70.

⁴⁹ Robert D. Behn, *Rethinking Democratic Accountability* (Washington DC: Brookings Institution Press, 2017), pp. 55–61.

the use of digital technology. The state needs to revise fiduciary regulations so that each of these principles has a firm legal basis and can be implemented. Finance institutions, notaries, and the public will be more compliant when the system works clearly, quickly, and fairly. Transparency of collateral status will protect third parties. Organizer accountability will provide a sense of security for users. Procedural certainty will reduce disputes and transaction costs. Formulation The second problem is thus answered that the ideal regulatory model is a modern and measurable good governance-based model. This kind of legal reform will bring online fiduciary registration towards transparent and reliable secure transaction governance.⁵⁰

⁵⁰ Mark Considine and Jenny M. Lewis, *Governance in Public Policy* (Cambridge: Cambridge University Press, 2022), pp. 141–148.

CONCLUSION

The results of the study show that:

1. The main legal challenge in the implementation of online fiduciary registration in Indonesia lies in the lack of optimal three elements of Legal System Theory, namely legal structure, legal substance, and legal culture. The legal structure still faces constraints of institutional capacity, system security, and data integration. The substance of the law still needs to be updated to keep pace with the development of digital technology. Legal culture still shows low user compliance in filling in data, fiduciary rights, and utilizing legal information. This condition shows that digitalization is not enough without comprehensive legal reform.
2. The improved regulatory model must be built on the principles of *good governance*, namely transparency, accountability, effectiveness, legal certainty, and data protection. Regulations need to ensure access to fiduciary status information, complaint mechanisms, organizer responsibilities, fast service procedures, and electronic system security. Public trust will increase if online fiduciary registration is managed in an open, professional, and reliable manner.

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