

Effectiveness of Online Land Administration in Land Registration Services in Indonesia

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Abstract. *The purpose of this study is to analyze the obstacles faced by PPAT in managing land online at the BPN office and to determine and analyze the effectiveness of the Online Service System at the BPN in providing land registration services. This study discusses the effectiveness of electronic land registration services at the BPN Office in order to help the general public and PPAT to carry out the electronic land registration process. This study also found that online land registration services play an important role in maintaining social stability through the integration of BPN, PPAT, and the community, and are considered effective because they are in line with the rules and encourage the creation of welfare. This study uses an empirical legal approach to analyze how electronic land registration services are run at the BPN office, what obstacles occur in the service and the assessment of the community and PPAT towards the electronic land registration service. In the analysis using Talcott Parsons' Structural Functionalism theory and using the theory of the workings of William J. Chambliss and Robert B. Seidman's law. The type of data used in this study is primary data obtained from observation and interviews. The analysis in this study is evaluative the results of the study indicate that the implementation of electronic land registration services at the BPN Office has obstacles in the process, these obstacles have the potential to slow down the land registration process. Although there are several obstacles in the process, this does not reduce the effectiveness of electronic land registration services, the general public and PPAT agree that the existence of online land registration services can reduce queues at the BPN Office.*

Keywords: *Effectiveness; Electronic; Registration.*

1. Introduction

Considering that as time goes by and the digitalization is increasingly developing rapidly, mastery of the right technology is an indicator of a country's progress.¹ The

¹Ngafifi, Muhamad, (2014), "Kemajuan Teknologi Dan Pola Hidup Manusia Dalam Perspektif Sosial Budaya" *Jurnal Pembangunan Pendidikan: Fondasi dan Aplikasi* Volume 2, Nomor 1,

emerging issue of digitalization leads to efforts to equalize the implementation of digital technology, in various fields and various regions, this has an impact on various lines of life, including trade activities and not least on public services in government in Indonesia.²

Digital transformation in public services is a change in government services using information and communication technology and making public service activities that were previously carried out manually can be carried out through information technology so that public services become easier, faster and well-organized. Government agencies in Indonesia are currently being encouraged to be able to provide the best service through the digitalization process.³

The Ministry of ATR/BPN in its role in encouraging technological progress has transformed digitally in implementing electronic services since 2019 to provide convenience for its users.⁴The Ministry of ATR/BPN has also implemented the Electronic-Based Government System (SPBE) by launching

7 Priority Services as stated in the Decree of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 440/SK-HR.02/III/2023, namely:

- 1) Registration of Decree;
- 2) Transfer of Rights;
- 3) Change of HGB/Right of Use to Ownership Rights through granting general rights;
- 4) Elimination of Mortgage Rights/Roya, both Manual and Electronic;
- 5) Certificate Check;
- 6) LetterLand Registration Information (SKPT);
- 7) RightElectronic Liability;

The launch of innovations on the 7 Priority Land Services is expected to

<https://journal.uny.ac.id/index.php/jppfa/article/viewFile/2616/2171>, accessed on 31 March 2024, at 09.30 WIB

²"Penerapan Teknologi Informasi dalam Pelayanan Pertanahan", Kumparan,<https://kumparan.com/irvan-maulana-1693100971413404602/penerapan-teknologi-informasi-dalam-pelayanan-pertanahan-214VHySkX0A> accessed on 31 March 2024, at 10.00 WIB

³ Sisilianingsih, Sari et al., (2023), "Analisis Faktor Transformasi Digital Pelayanan Publik Pemerintah Di Era Pandemi", *Jurnal Teknologi Informasi dan Ilmu Komputer (JTIIK)*, Vol. 10, No. 4, https://www.researchgate.net/publication/373541300_Analisis_Faktor_Transformasi_Digital_Pelayanan_Publik_Pemerintah_Di_Era_Pandemi, accessed on 31 March 2024, at 09.48 WIB

⁴Nirmawai, Yulia Jaya & Gunawan Indra, March (2021), "Transformasi Digital Kementrian ATR/BPN", Newsletter ATR-BPN edisi 69 March 2021, <https://pubhtml5.com/tgsp/ddlh/basic/>, accessed on 31 March 2024, at 10.00 WIB.

continuously improve services to the community. The Ministry of ATR/BPN also continues to provide an understanding of electronic certificates to internal staff, the community, and to partners of the Ministry of ATR/BPN, one of which is the Land Deed Making Officer (PPAT) and Notary.

The Priority Land Services launched by the Ministry of ATR/BPN have been implemented by the National Land Agency and can be accessed through the website provided by the Ministry of ATR/BPN. The implementation of the 7 Priority Land Services is expected to shorten the queue at the Land Office and create effectiveness between service officers and land service users and can reduce the occurrence of KKN practices and facilitate access to land services.

Land Deed Making Officials (PPAT) and Notaries as partners of the Ministry of ATR/BPN have the duty and authority to make authentic deeds related to land rights in the case of initial land registration or transfer of rights as stated in Article 15 paragraph (1) of the Republic of Indonesia Law Number 2 of 2014 concerning Amendments to Law Number 30 of 2004 concerning the Position of Notaries "Notaries are authorized to make authentic deeds regarding all acts, agreements and determinations required by laws and/or desired by the interested party to be stated in an authentic deed, guarantee the certainty of the date of making the deed, store the deed, provide grosse, copies and extracts of the deed, all of which as long as the making of the deed is not also assigned or excluded to another official or other person determined by law." and the Government Regulation of the Republic of Indonesia concerning the Regulation on the Position of Land Deed Making Officials Number 24 of 2016 Article 1 Number (1) "Land Deed Making Officials, hereinafter referred to as PPAT, are general officials who are given the authority to make authentic deeds regarding certain legal acts regarding land rights or Ownership Rights for Apartment Units."

The purpose of land registration in Indonesia is to provide legal certainty (*rechts kadaster*) of land rights and legal protection of land ownership. Because, by registering land, the owner of the land plot will receive a document of proof of rights as proof of ownership of the data of which is guaranteed legal certainty. The document of proof of rights is referred to by PP Number 24 of 1997 concerning Land Registration as a land certificate.

This aspect will be further studied, namely whether online land administration at the BPN Office is able to simplify the service process, especially in terms of registering the transfer of land rights so that it is effective in supporting part of the land administration process carried out by PPAT according to their job duties.

2. Research Methods

The type of research used in this study is empirical legal research, the sociological legal approach method is to identify and conceptualize law as a real and functional

social institution in the real life system.⁵The sociological legal approach can be described through several approaches, including the Structural Approach and the Interdisciplinary Approach. The structural approach is a method or strategy in seeking information that is not only focused on one element as an individual that stands alone but also focuses on the relationship between its elements. The structural functional theory considers society as a whole system that functions to produce social order and balance. Meanwhile, the interdisciplinary approach is used to address a problem from the perspective of various relevant fields of science in an integrated manner. With the sociological legal approach, it is hoped that it will be able to complete and thoroughly examine the effectiveness of online land administration in land registration services in Indonesia.

3. Results And Discussion

3.1. Obstacles faced by PPAT in managing land online

In recent decades, land registration systems around the world have undergone a process of modernization by implementing information and communication technology. A significant achievement in the modernization of land registration systems is demonstrated by ensuring public access to online land registration and introducing infrastructure for electronic registration processes. Electronic land registration is an inevitable consequence of advances in information and communication technology, as demonstrated by examples in several countries.⁶

According to Presidential Regulation Number 10 of 2006, it is explained that the National Land Agency (BPN) is a Non-Departmental Government Institution that is under and responsible to the President and is led by the Head of the National Land Agency, which has the task of carrying out government duties in the land sector nationally, regionally and sectorally. The task of the National Land Agency is to assist the President in managing and developing Land Administration both based on Law Number 5 of 1960 and other Laws and Regulations covering the regulation, use, control and ownership of land, determination of land rights, measurement and registration of land and others related to land issues based on policies determined by the President.

The duties of the BPN according to Article 2 of the Presidential Regulation of the Republic of Indonesia Number 20 of 2015 concerning the National Land Agency are to carry out government duties in the land sector in accordance with the provisions of laws and regulations. "In practice, land management which is the authority of the BPN can be manifested in controlling the use and control of land

⁵Soerjono Soekanto. (1981). *Pengantar Penelitian Hukum*, Jakarta: UI Press. p. 51.

⁶Mujiburohman, Dian Aries, (2021), "Transformasi dari Kertas ke Elektronik: Telaah Yuridis dan Teknis Sertipikat Tanah Elektronik", *Jurnal Agraria dan Pertanahan*, Vol. 7, <https://jurnalbhumi.stpn.ac.id/index.php/JB/article/download/472/374/2121>, accessed on 20 April 2025, at 15.10 WIB

through the determination of land rights which culminate in the issuance of land certificates.

The industrial era 4.0 where all activities in the field of government and public services use electronic systems that are connected quickly, easily and effectively in accordance with the provisions of Government Regulation (PP) Number 71 of 2019 concerning the Implementation of Electronic Systems and Transactions for the government system in stages. In line with this system in the National Land sector which has used an electronic system in accordance with the initial rules regarding electronic transactions, namely Law Number 11 of 2008, has changed as determined by Law Number 19 of 2016 concerning Electronic Transaction Information (ITE) which has since the beginning recognized the existence of electronic certificates other than conventional certificates which explain that electronic certificates are electronic certificates that contain electronic signatures and identities that indicate the legal subject status of the parties in electronic transactions issued by the organizer of electronic certification.⁷

Concretely, the Ministry of ATR/BPN launched a land service modernization program called Electronically Integrated Land Services. The services consist of Electronically Integrated Mortgage Rights Services (registration of Mortgage Rights, transfer of Mortgage Rights, change of creditor name, deletion of Mortgage Rights and data correction), Electronic Land Information Services, Land Value Zone (ZNT), Land Registration Certificate (SKPT), checking and Modernization of Land Rights Granting Decision Letter Application Services.

Digital transformation is highly prioritized by the Ministry of ATR/BPN because the transfer of rights services are the three largest services, in addition to checking and mortgage services, if these three services are implemented electronically, it will accelerate land services to the community.⁸ Electronic land registration services at the BPN Office can be carried out by applicants by accessing the Sentuh Tanahku application which can be downloaded via the PlayStore application for Android users and the AppStore for iOS users.

There are several electronic land information services at the BPN Office, namely, Electronic Mortgage Rights (HT-el), Electronic Roya, Land Registration Certificate (SKPT), and Land Value Zone (ZNT).

Difference	Analog Land Certificate	Electronic Land Certificate
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⁷Muammar, Arif Rahman, (2021) "Prosedur Penerbitan Sertifikat Elektronik Sebagai Bukti Autentik Penguasaan Hak Atas Tanah", *Juridica: Jurnal Fakultas Hukum Universitas Gunung Rinjani*, Volume 3 Nomor 1, <https://juridica.ugr.ac.id/index.php/juridica/article/download/191/147/72>, accessed on 20 April 2025, at 11:00 WIB

⁸Martono, Dwi Budi, Staff Ahli bidang teknologi informasi, https://www.instagram.com/p/DlxqTeFyBTw/?img_index=2&igsh=ejV4cDc4YWFpdXpl, accessed on 23 April 2025 at 16:37 WIB.

Form	Using serial numbers with a combination of letters and numbers on the Blank Code	Using the Electronic Document Hashcode generated by the system
Scan QR code	Without being equipped with a QR code	Equipped with a QR code system that can be scanned to get direct information about the E-certificate.
Identity number	Consisting of the title number, measurement letter, number for identifying the field and field map.	Single Identity applies one type of number as its identity, namely the field identification number or abbreviated as NIB.
Obligations and prohibitions	It is noted in the recording instructions column that these provisions are not uniform depending on each land office.	Stating the aspects of Rights, Registrations, Responsibility, provisions regarding obligations and prohibitions are included
Signature	Using a manual signature is prone to duplication or forgery.	Using Electronic signature
Document form	Paper-based in the form of sheets of blank filling.	Electronic Documents provide information that is concise, clear and concise.

In practice, electronic land registration services are not always smooth. Although the purpose of electronic land registration is to increase efficiency and convenience for the community, there will always be obstacles that arise as this system runs. The obstacles that occur are:

- 1) There are still many Indonesian people who do not understand the technology and procedures for issuing electronic certificates.
- 2) The lack of public understanding about the importance of data collection in the certificate issuance process causes them to tend to ignore the completeness of application documents.
- 3) The human resources (HR) implementing land registration are not yet ready and the equipment and data held by the Land Office are not yet integrated.
- 4) The internet network is not evenly distributed, especially in remote areas
- 5) Not all land in Indonesia has been mapped and registered;
- 6) The use of the Touch My Land Application for the first land service that requires the collection of files to the Land Office. The public complained about the halted filing process and difficulties when logging in to the feature.
- 7) Not all certificates are detected by the system, there are some certificates that even though the forms have been changed, they are still not detected and manual processing must be carried out so that the certificate is registered.
- 8) Application errors or offline slow down the land administration process at the PPAT Office.
- 9) The number of files that can be registered with the Land Office is very limited due to time constraints for inputting data into the application.

3.2. Effectiveness of Online Land Administration at BPN in Land Registration Services

Service is a concrete need of every human being because it cannot be separated from human life. Public service is a basic service from the Government to the community in order to fulfill the need for service in accordance with laws and regulations for every citizen, one of the public services that is greatly needed in community life is administrative service. Public service is basically intended to serve the community without complicating administration and bureaucracy. The number of services at the Land Office is quite large, namely initial land registration services, land registration data maintenance services, land recording and information services, land measurement services, land arrangement and management services. Each of these services has different requirements and procedures. Services provided by the Land Office often get a negative impression from service recipients. Land certificate administration is considered time-consuming, complicated and convoluted, the costs required are expensive and there are individuals who seek profit.⁹

The Ministry of ATR/BPN in its implementation of electronic land registration services continues to strive for the best to support success. Active efforts made by BPN include Data Security, Education and Training, Legal Compliance, Accessibility. As explained above, the government is trying to change the land registration service process to be more modern to make it easier, faster, and more effective. The basis for creating electronic land registration services is the Regulation of the Minister of Agrarian Affairs and Spatial Planning/National Land Agency of the Republic of Indonesia Number 5 of 2017 concerning Electronic Land Information Services.

Effectiveness means the effectiveness of the influence of the effect of success or efficacy or efficacy. Discussing the effectiveness of the law is certainly inseparable from analyzing the characteristics of two related variables, namely the characteristics or dimensions of the target object used.¹⁰As explained that with the presence of electronic land registration services, it is expected that work will be easier, more effective and faster to complete. However, in fact, electronic land registration services are considered not very effective.

The presence of electronic registration services called online counter services has not been very effective in PPAT offices because it actually adds to the work by inputting files online first, this situation is very different compared to before the online counter service PPAT only needed to visit the land office and sometimes there was a disruption to the system that was uncertain in time, sometimes the

⁹Mujiati, Damar Sagari, (2022), "Efektivitas Layanan Hak Tanggungan Terintegrasi Secara Elektronik di Kantor Pertanahan", *Jurnal Tunas Agraria*, Volume 5 Nomor 1, <https://jurnaltunasagraria.stpn.ac.id/index.php/JTA/article/download/166/159/982>, accessed on 02 April 2025, at 13.45 WIB

¹⁰Barda Nawawi Arief, (2013). *Kapita Selekta Hukum Pidana*, Bandung: Citra Aditya Bakti. p. 67.

fastest could function again in a few hours and the longest the system could function again in 1 day. Judging from the purpose of presenting electronic land registration services is to reduce direct contact with Land Office officers and facilitate the process of land registration, this goal has not been fully achieved. Because online counter services still require direct submission of files to the Land Office for data inspection and validation by data. Data validation is carried out to determine the completeness of the files so that the SPS can be issued. SPS is issued if the files are complete, and the completeness is known when at the Land Office and dealing with officers who check not when online from each PPAT office. In this case, online counter services are considered not simple because the online system should not only be applied in the registration process, but the entire process is also applied online. Based on the above, online counter services are still less effective for PPAT in carrying out their duties. If viewed from the theory of legal effectiveness based on this, this online counter service is ineffective for PPAT because it only helps in the process of inputting files, after which the other processes still go through the same process.

On the other hand, the effectiveness of work can be measured by the time variable, the time variable in question is the punctuality and speed of time of the service provided by the service provider. It's just that the use of measures of the accuracy or speed of the service provided differs from one person to another. Apart from such subjective assessments, what is clear is that the time factor can be used as one measure of work effectiveness.¹¹The time variable required by the Land Office to process land registration services varies depending on factors and circumstances.

The theory that the author uses as an analytical tool is the theory of how law works and the theory of Structural Functionalism. According to Robert B. Seidman and William J. Chambliss, the process of how law works is largely determined by four main components, namely law-making institutions (laws), law enforcement bureaucracy, role holders, and the influence of personal and social power. In the context of land registration, this theory can be used to analyze how regulations and practices related to land registration are influenced by various actors and factors. Regulations on land registration are made by legislative institutions, and the Chambliss-Seidman theory helps to understand how the interests of various parties.

BPN as a law enforcement bureaucracy in the land sector is responsible for enforcing land registration regulations. This theory helps analyze how this bureaucracy carries out its duties, including factors that influence the

¹¹Wahyuni, Ai Sri, et al., (2019), "Efektivitas Pelaksanaan Pelayanan Administrasi Terpadu Kecamatan (Paten) di Kecamatan Jaro Kabupaten Tabalong", *Jurnal Administrasi Publik & Administrasi Bisnis*, Vol. 2, No.2, Nopember, Tabalong, <https://jurnal.stiatabalong.ac.id/index.php/JAPB/article/download/189/169/597>, accessed on 12 April 2025, at 16.10 WIB

effectiveness and fairness of the registration process. Individuals, groups, and organizations involved in land registration, such as landowners, indigenous peoples, and conflicting parties. Chambliss-Seidman's theory helps understand how their roles and interests influence the course of the registration process, including potential conflicts and injustices.

Electronic land registration services at the Land Office are seen from the Theory of the working of the law of William J. Chambliss and Robert B. Seidman that the working of the law in the land registration process can be seen from the harmony of activities between the order and order in society and the implementing institutions (in this case PPAT and BPN) according to applicable regulations so that they can realize welfare for the community. Furthermore, the community who have completed land registration with PPAT and BPN can provide feedback or feedback as input for regulations on the land registration service system at the Land Office. This is important to ensure that land registration runs fairly, transparently, and effectively in protecting the rights of the community.

The theory that the author uses as an analytical tool in addition to the theory of how law works is Talcot Persons' Structural Functionalism theory. Based on the structural functionalism theory, Talcott Parsons sees society as a system consisting of various interrelated elements that function to maintain social balance. This theory can be applied in land registration services by identifying how the various components of the land registration system are interconnected and function to achieve stable and balanced goals. The function of land registration in the Structural Functionalism theory is to guarantee ownership rights, facilitate land transactions, and maintain social stability.

Effective land registration must integrate various elements, such as legal regulations, administrative procedures, and community support. The land registration system must also be ready and able to adapt to social and economic changes. Such as technological innovations that make manual land registration into electronic land registration. The purpose of effective electronic land registration is to guarantee legal land ownership rights, facilitate transactions, and prevent land disputes. Delays, unclear procedures, and corruption can interfere with the achievement of these goals. Thus, the theory of Structural Functionalism provides a comprehensive analytical framework for understanding the land registration system as a dynamic and interconnected social system. This understanding can help in improving the effectiveness, efficiency, and fairness of land registration services.

According to the author, the implementation of electronic land registration is more effective than conventional land registration. This is because the implementation of online or electronic land registration provides many benefits to the community. These benefits are increasing productivity and efficiency, because so far it has been using a paper-based system in its operations,

automatically costing quite a lot, it is difficult to store and retrieve land documents and also takes a long time, even in some cases land documents are not found.

Online services also have many more benefits such as reducing queues or crowds, although applicants must bring physical files to the BPN for the sake of completing the required administrative files. The registration process carried out online is more standard because it is regulated by the system. Recording and signing are carried out electronically and are guaranteed by law. Electronic certificates use digital signatures encoded with cryptographic algorithms and use Hash Codes and QR Codes, so that security is more guaranteed compared to analog. Access to the electronic system is given on a limited basis, usually given access to the actual rights holders, courts and land authorities. Electronic documents are stored by the system so that they do not require space for storage and make it easier to search for documents. The public response to utilizing online services from the BPN Office has been quite good so far. BPN will continue to develop this online service and consistently conduct socialization to the public, so that legal certainty for the community in the land sector can be realized optimally.

4. Conclusion

Research shows that electronic land registration services at the BPN Office include validation, checking, and measurement, but have not run completely smoothly. The obstacles include low public understanding, inadequate human resource readiness, limited internet network, incomplete land data, technical problems with the application, and limited number of files that can be registered. The effectiveness of the system is measured by its benefits to the community. Several PPATs consider electronic land registration services to be not yet fully effective because they still require sending physical files to the BPN, even though the system should be able to verify automatically. Even so, digitalization is still supported because it facilitates access and reduces queues, with the hope that in the future this service will be completely digital without the need to go to the BPN office. The government needs to improve digital literacy and socialization to the public to reduce misinformation and clarify the benefits and procedures for electronic land certificates. In addition, training and capacity building of Land Office human resources need to be carried out to improve technical skills and ensure the smooth running of the program. Strengthening data security and privacy protection is also important through an encrypted system and strict data protection. Updating the online registration system is needed so that uploaded files can be verified automatically, reducing the need to bring physical documents to the BPN. With this system, the process becomes much more efficient, because speed of time is the main benchmark for service effectiveness compared to manual systems.

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