

DIGITAL-BASED LAND SERVICE INNOVATION: ELECTRONIC CERTIFICATE CHECKING AT THE KLATEN DISTRICT LAND OFFICE

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Abstract

With the rapid development of science and technology, the government is expected to innovate in providing public services to achieve Good Governance. One example of the application of Good Governance is public services in the land sector managed by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency. As part of this government agency, the Klaten Regency Land Office developed an innovation in online certificate checking services. The purpose of this study was to determine the extent of the implementation of online certificate checking service innovations and what factors influenced it. The method used in this study is a qualitative descriptive method. The data collection method in this study used interviews and document reviews where the informant sources were the community and employees of the Klaten Regency Land Office. Data analysis in this study consisted of three stages: data condensation, data presentation, and drawing conclusions or verification. The results of the study indicate that online certificate checking services can significantly improve the quality of the Klaten Regency Land Office in providing fast, accurate, transparent, and accountable services to applicants or the community. The public has responded positively to the shift towards digital-based land service innovations, particularly in online certificate verification. The research findings provide insights into these service innovations and the factors influencing them. These factors can be categorized as internal factors, such as vision and strategy, human resources, organizational structure, and organizational culture, and external factors, such as technology availability and government policies. Recommendations from this research aim to develop more robust and sustainable programs for public service innovation in the future.

Keywords: *land service innovation, online certificate checking, Good Governance*

I. INTRODUCTION

Government performance can be seen from the public services provided to the public. The government performance evaluation process can be seen from the quality of public services provided to the public (Garcia-Liorente et al., 2019). Therefore, improving the quality of public services in all ministries/institutions must be a priority. Public service users expect government bureaucracy to provide quality services with high accountability, professionalism, and transparency (Andiyanto et al., 2021; Colavitti et al., 2020; Nadira, 2019). Therefore, innovation is needed in providing public services by utilizing increasingly rapid technological advances. The use of technology can provide both direct and indirect benefits to the public and the government (Muttakin et al., 2022), such as better service; information that can be accessed 24 hours a day, 7 days a week; openness that improves relations between the government, business actors, and the general public; community empowerment through easily accessible information; and more efficient government implementation. The Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (Kementerian ATR/BPN) is tasked with carrying out government duties in the field of land and spatial planning with the aim of assisting the President in running the State government (Lany, 2015; Negara, 2019). To improve land services to the public, the Ministry of ATR/BPN utilizes technological advances by providing electronic land information services (Agraria et al., 2018; Azizah, 2021; Budiyo & Aditya, 2022). This service allows land information to be

accessed electronically, including confirmation of the conformity of physical and legal data on land title certificates and other information in the database (Sapardiyono & Pinuji, 2022). The Ministry of ATR/BPN provides several types of electronic land information services, including: (a) certificate checking, (b) land registration certificates, (c) textual/graphic data information, (d) land value information, (e) coordinate point information, (f) global navigation satellite system (GNSS)/continuously operating reference system (CORS) data package information, (g) land ownership history information, (h) land history information, and (i) other information services that will be determined later (Mustofa et al., 2018; Prasetyo, 2022) efficiently and timely within the ATR/BPN environment. In order to improve good governance, the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN), through the Klaten Regency Land Office as the implementing agency, has innovated to improve service quality, namely by providing online certificate checking services. This was followed up by issuing Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia (Permen ATR/KBPN) Number 19 of 2020, which replaced Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia (Permen ATR/KBPN) Number 5 of 2017 concerning Electronic Land Information Services. The Ministry of ATR/BPN did this to expand the reach of information service subjects, encourage investment growth, and provide ease of doing business in Indonesia. Therefore, several improvements are needed in the provisions for the implementation of electronic land information services (Agraria et al., 2018).

Previous research examining electronic services from the Land Office has been conducted. Research on the importance of electronic services and legal compliance was conducted to strengthen public services (Mustofa, 2020; Rosmidah et al., 2021). The influence of leadership on land service performance is also prioritized in land service delivery (Putra et al., 2019; Rusydi et al., 2020). Furthermore, website services are also important for providing easy access to services, including simplifying long queues (Fatriyanto Mooduto et al., 2021; Marlina et al., 2020; Nugroho, 2021). Several studies have even explored home pickup services for the public (Mahmudah & Meirinawati, 2017; Sagari & Mujiati, 2022; Sofyan et al., 2008). However, previous research has not yet addressed electronic services in Klaten Regency, particularly regarding online land certificate verification. Therefore, the researcher is interested in examining the extent of the implementation of electronic certificate checking at the Klaten Regency Land Office and the factors that hinder its implementation. This is done because the online certificate checking service is a concrete action of the Ministry of ATR/BPN in implementing the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia (Permen ATR/KBPN) Number 19 of 2020 concerning Electronic Land Information Services, which is implemented by the Klaten Regency Land Office.

This digital innovation of electronic certificate checking is very important for the Ministry of ATR/BPN in order to improve the quality of public services and improve the integrity assessment survey index of land services, it is necessary to encourage the Land Office to provide excellent service to the public. This is reinforced by 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 concerning 7 (Seven) Priority Services, where certificate checking is one of the seven priority services. The Klaten Regency Land Office is required to provide excellent service on priority services that have been determined by the Ministry of ATR/BPN. Thus, this study will take a position in explaining the implementation of digitalization services for online certificate checking. This study aims to describe how the innovation of land services in the form of online certificate checking at the Klaten Regency Land Office is implemented, as well as to identify organizational factors that influence the implementation of this innovation at the Klaten Regency Land Office.

II. METHOD

The type of research used in this study is qualitative descriptive using a case study approach to study the process and meaning of an online certificate checking program (Yin, 2016). This study aims to describe how the innovation of land services in the form of online certificate checking at the Klaten Regency Land Office is implemented, as well as to identify organizational factors that influence the implementation of this innovation at the Klaten Regency Land Office, located at Jl. Veteran No. 88, Bareng Lor, North Klaten, Klaten Regency. The data used in this study are descriptive data that have a high level of accuracy (Denzin & Lincoln, 2018). Researchers used a purposive sampling technique to select informants who are appropriate to the research field (Creswell & Creswell, 2018). The interview technique used in this study is a semi-structured interview technique with open-ended questions so that researchers can obtain in-depth and comprehensive information about the online certificate checking service. The primary data in this study came from the Coordinator of the Substance Group (KKS) for Land Rights Maintenance, Space, and Land Deed Official (PPAT) Development at the Klaten

Regency Land Office and members of the public who use the service. The interviewees were selected because they were employees who carry out duties and are responsible for online certificate verification services at the Klaten Regency Land Office. Secondary data, such as books, journals, and scientific articles, were also used to complement the primary data obtained from interviews. After the data was collected, the researcher checked the validity of the data using triangulation methods and consulted with colleagues to ensure data validity (Denzin & Lincoln, 2018). The researcher hoped that the results of the data validity could accurately and responsibly describe the research phenomenon. After data collection, the researcher conducted a data analysis stage consisting of data condensation, data presentation, and verification of conclusions. Data condensation was carried out to find patterns and important things related to the research objectives and questions. Then, the data was presented in the form of narratives, interviews, and document reviews regarding the online certificate checking program at the Klaten Regency Land Office. The final stage was verification of conclusions, which was carried out by re-examining the research objectives and drawing conclusions from the results of the data analysis. Data analysis is very important in qualitative research because it can process and analyze data and find new findings that are useful in explaining the research phenomenon.

III. RESULTS AND DISCUSSION

According to Article 1 Paragraph (5) of the Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia (Permen ATR/KBPN) Number 19 of 2020 concerning Electronic Land Information Services, the certificate checking service is a service used to check the conformity of physical data and legal data from land title certificates with electronic data stored in the database (Agraria et al., 2018). The implementation of online certificate checking is carried out by partners who have been registered at the Klaten Regency Land Office, namely by the Land Deed Making Officer (PPAT). The online certificate checking service carried out by the PPAT is one of the responsibilities of the PPAT before making a deed related to the transfer or assignment of land rights, or the granting of land title encumbrances or ownership rights to apartment units. Online certificate verification provides the benefit of verifying the conformity of land title certificates or ownership rights to apartment units with the list available at the Land Office. The purpose of this service is to ensure the conformity of the physical and legal data on the certificate with the data contained in the database. This service provides legal certainty for applicants before taking legal action related to land. Online certificate verification has been in effect since January 2020. Previously, applicants had to come to the Klaten Regency Land Office and bring the application documents for manual certificate verification.

A. Innovation in Online Certificate Checking Services

The online certificate checking service is a new innovation in Klaten Regency. The first socialization took place in December 2019, and the third socialization was carried out in July 2022. This innovation continues to be disseminated to the public. However, in the national rankings, Klaten Regency ranked 76th out of 480 in December 2024, with a total of 135,678 online checking services. More details are presented in Figure 1.

Table 1 Summary of Online Certificate Checking Rankings in the Month
December 2024 Klaten Regency Land Office

File Incoming	135,819
Active Files Exceed SPOPP	50
Active Files According to SPOPP	110
File Completed Exceeds SPOPP	175
Files Completed According to SPOPP	135,484
Previous Arrears	20
Total Files Incoming	135,839

Source: Klaten Regency Land Office, 2024

The online certificate checking service implemented by the Klaten Regency Land Office in December 2024 showed that there were 135,678 applications received. Of these, 135,484 files were completed according to the SPOPP and 175 files exceeded the SPOPP. The data above indicates that the

services provided by the Klaten Regency Land Office are largely in accordance with the SPOPP, namely 1 working day with a completion percentage according to the SPOPP of 97.7%. This excellent service will provide legal certainty to the public as applicants for services. As information from employees at the Klaten Regency Land Office as follows: "Online Certificate Checking is a form of land service innovation issued by the Ministry of ATR/BPN which shows that the Ministry wants to provide better services, by providing convenience to the public, especially applicants/PPAT. Certificate checking is one of the land services that many applications are submitted for. With this online certificate checking, it makes it easier for applicants/PPAT so they no longer need to come to the office to submit an application, it can be done anywhere and anytime. Through online certificate checking, it can provide legal certainty to applicants/PPAT within 1 working day. "Interview with KKS Land Rights Maintenance, Space and PPAT Development. The interview results explain that online certificate checking is a form of public service innovation that shows that the Ministry of ATR/BPN wants to provide better services, by providing convenience to the public. The public or applicants can access it independently without coming to the Klaten Regency Land Office and the 1-day service can provide legal certainty to the public as applicants/PPAT. Online certificate checking is one of the 7 (Seven) Priority Services. Therefore, for more completeness, a discussion will be provided next about the characteristics of innovation that must be present in every policy, one of which is the policy of online certificate checking at the Klaten Regency Land Office as follows:

1. Relative advantage

Relative advantage explains that an innovation must have superior advantages and added value compared to previous innovations. This innovation must have an element of novelty that differentiates it from other innovations (Hassink et al., 2020; Sapardiyono & Pinuji, 2022). This online certificate verification innovation makes it easier for Land Deed Officials (PPAT) to verify certificates without having to visit the Klaten Regency Land Office in person. They can register anytime and anywhere. This convenience is expected to increase legal certainty. Furthermore, the Klaten Regency Land Office is committed to providing excellent service by enhancing credibility, accountability, and transparency. As a public innovation, online certificate checking benefits employees, particularly implementing officers at the Klaten Regency Land Office. Previously, officers had to enter application files into the system, but with online certificate checking, applicants or Land Deed Officials (PPAT) can submit application files independently through the online system. In this way, land services can be provided more effectively and efficiently to the public, especially PPAT. In addition, the convenience experienced by applicants/PPAT through this online system also makes it possible to provide services at a more affordable cost in accordance with the PNPB rates set by the government. The innovation of online certificate checking also shows added value compared to previous innovations, and has been recognized as one of the 7 priority land services based on 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 (Mahmudah & Meirinawati, 2017; Sagari & Mujiati, 2022). This can provide legal certainty to the community as applicants/PPAT within 1 working day (Sofyan et al., 2008).

2. Compatibility

Compatibility is a concept that states that an innovation should be compatible and appropriate with the previous innovation it replaces (Marlina et al., 2020). The goal is to ensure that previous innovations are not simply ignored but become part of the transition process to newer innovations (Fatriyanto Mooduto et al., 2021). When checking certificates online, there is a consistency with manual checks regarding service requirements and rates. The requirements for checking certificates online and manually are the same, namely referring to Regulation of the Head of the National Land Agency of the Republic of Indonesia Number 1 of 2010 concerning Land Service Standards and Regulations. This is also demonstrated in the following interview results:

"There is no difference, the requirements for both online and manual methods are the same, in accordance with the regulations, but in the online registration process, the party who inputs the data is the applicant/PPAT themselves independently, so that the uploaded data matches."

This means that the difference between online and manual certificate checking processes is who inputs the data. In manual checking, Land Deed Officials (PPAT) must be present in person at the Klaten Regency Land Office, take a queue number, fulfill the requirements, bring the required documents, and

fill out the application form at the Klaten Regency Land Office counter. However, with the innovation of online certificate checking, Land Deed Officials (PPAT) can now upload application data independently at the PPAT office or at home. The rates charged to applicants/PPATs for both online and manual processes are the same, in accordance with Government Regulation of the Republic of Indonesia (PP) Number 128 of 2015 concerning Tariffs and Types of Non-Tax State Revenue Applicable to the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency.

3. Complexity

Complexity in innovation is a new characteristic that can be higher than previous innovations, also known as complexity (Nugroho, 2021; Putra et al., 2019). Although service effectiveness continues to improve, several complex issues remain for inspection officers. One example is when scanned PDF application files cannot be opened or are corrupted, making it difficult for officers to verify certificates effectively and efficiently, as conveyed by the following sources:

"To date, 50% of land certificates have been validated at the Klaten Regency Land Office, but the Klaten Regency Land Office is continuously improving the land certificate validation process to 100%. Furthermore, many files uploaded by applicants/PPATs are still corrupt or cannot be opened. Therefore, the Klaten Regency Land Office has found an alternative solution by creating a complaint email for corrupt uploaded files, and continuously conducting outreach on the use of online certificate checking applications to improve services."

Interview with KKS Maintenance of Land Rights, Space and PPAT Development

To address these issues, the Klaten Regency Land Office held its third outreach program in July 2022, attended by Land Deed Officials (PPAT). The goal was to provide an understanding of the online certificate verification application and ensure compliance with applicable regulations to improve service effectiveness and efficiency. Following the outreach program, implementing officers are expected to be more effective in handling complex issues and improving overall service delivery.

4. Triability

Innovation is only acceptable if it has been tested and proven to provide benefits or added value compared to previous innovations, a process known as triability (Mustofa, 2020; Rosmidah et al., 2021; Rusydi et al., 2020). Online certificate verification, conducted in accordance with service standards and land regulations, with a completion time of only one working day, provides benefits for applicants/PPAT. However, problems such as server errors, corrupted scanned PDF files, and unvalidated land certificates often occur, hindering online certificate verification. Nevertheless, the Klaten Regency Land Office continues to strive to improve excellent service to the public through outreach and increasing the number of validated land certificates, as conveyed by the following resource person:

"A server error delayed the verification process, and this was also due to the limited number of land records being validated. However, the Klaten Regency Land Office is continuously improving the quality of land record validation, thereby enhancing land services."

Interview with KKS Maintenance of Land Rights, Space and PPAT Development

5. Observability

In innovation terms, observability is important so that innovation can be seen in terms of how it works and produces better benefits (Janssen et al., 2020; Quinn et al., 2022). The informant said that:

"The online certificate verification service simplifies the process of transferring or encumbering land or apartment ownership rights. Applicants/PPATs no longer need to visit the Klaten Regency Land Office. The service can be accessed from anywhere, allowing applicants to ensure the data entered is accurate and complete."

Interview with KKS Maintenance of Land Rights, Space and PPAT Development.

Interviews revealed that the online certificate verification service allows applicants/PPATs to easily access applications from the PPAT office or their own homes, without having to visit the Klaten

Regency Land Office in person. Furthermore, this service simplifies the process of transferring or encumbering land or apartment ownership rights, making services more effective and efficient (Prasetyo, 2022; Rosmidah et al., 2021). In the manual checking process, the application files are entered by the counter officer at the Klaten Regency Land Office, while in the online checking process, the applicant independently enters the application files, so that the applicant can ensure that the data entered is appropriate and correct.

B. Factors Influencing Digital-Based Innovation at the Klaten Regency Land Office

Innovation is crucial for an organization to continue growing and competing in an increasingly competitive marketplace. However, to create successful innovation, several factors must be considered. In this context, we will discuss the factors that influence innovation, both internally and externally.

1. Internal Factors

In order to realize the vision and mission of the Ministry of ATR/BPN which aims to create a trusted and world-standard spatial planning and land management, the Klaten Regency Land Office has developed a strategy with the motto of systematic, easy, accurate, and reliable service. One of the innovations carried out is the development of an online certificate checking system as part of the effort to become an agent of change. By applying information technology and science, the Klaten Regency Land Office is able to improve the performance of its services to be more systematic, accurate, and reliable so as to provide significant benefits to the community or applicants. In providing online certificate checking services at the Klaten Regency Land Office, it is necessary to pay attention to human resources (HR). The office has two divisions, namely the front office or counter and the back office, each filled with employees who have competence in their fields. The front office is responsible for understanding the requirements, flow, costs, and information needed by the applicant/PPAT, while the back office has the ability in information technology, implementation time according to standard operating procedures (SOP), and the ability to read online certificate checking application files (Janssen et al., 2020; Mahmudah & Meirinawati, 2017).

In addition, there are also admins who play a role and are responsible for data management and have competence in their fields. The Klaten Regency Land Office implements an organizational culture that includes discipline, cooperation, 5S, and responsibility for all employees. One form of discipline implemented is scheduling work hours starting at 08.00 WIB with attendance using fingerprints and the e-office application upon arrival and leaving at 16.30 WIB. Cooperation between sections is also emphasized to improve coordination and communication in line with the implementation of 5S, namely greeting, smiling, being polite, courteous, and enthusiastic, to build harmony in carrying out duties and providing good service. Sanctions will be imposed on employees who violate established regulations.

2. External Factors

Technology, facilities, and infrastructure are crucial for effective public service delivery. One example of technology utilization in providing online certificate verification services is through the use of computers and an internet network connected to the Ministry of ATR/BPN server. The database and information system for online certificate verification services utilizes the computerized land office website (KKP Web). By utilizing By leveraging technology and improving digital literacy, services can become faster and easier for applicants and staff (Marlina et al., 2020; Sofyan et al., 2008). Despite its implementation, weaknesses in the partner system and KKP Web remain, leading to frequent server errors and corrupted PDF files. Government policies regarding service standards and land regulations, as stipulated in Regulation of the Head of the National Land Agency Number 1 of 2010 and Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 19 of 2020, serve as the basis for implementing online certificate checking services. Through this policy, the Ministry of ATR/BPN demonstrates transparency, accountability, and trustworthiness in providing easily accessible public services, including requirements, timeframes, procedures, costs, and other information (Prasetyo, 2022). The Klaten Regency Land Office implements this government policy to provide easy and better services to the public. Furthermore, the demands of an increasingly discerning public have encouraged the Ministry of ATR/BPN to undertake digital transformation, particularly in the public service sector, including land services. The Klaten Regency Land Office has innovated by providing online certificate checking

services that can be accessed anytime and anywhere, with the aim of reducing direct face-to-face interaction.

IV. CONCLUSION

The innovative online certificate verification service at the Klaten Regency Land Office is being implemented in compliance with applicable laws and regulations, aiming to improve the quality of public services and provide convenience and legal certainty for the public. However, several challenges, such as corrupted PDF files, have been encountered during its implementation. The Klaten Regency Land Office has provided alternatives to address these challenges. The implication of this research is the importance of the Klaten Regency Land Office to overcome the obstacles that arise in implementing innovative online certificate checking services. To address issues such as corrupted PDF files and server errors, it is recommended that there be improvements in the quality of the network system and reliable technology infrastructure. Furthermore, internal factor management, such as a clear vision and strategy, competent human resource management, and an organizational culture that supports innovation, also needs to be considered. Furthermore, the Klaten Regency Land Office needs to keep abreast of technological developments and relevant government policies. By taking these steps, the Klaten Regency Land Office can improve service quality and provide greater satisfaction to the public as service users.

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