

# DIGITAL-BASED LAND SERVICE INNOVATION: ELECTRONIC CERTIFICATE CHECK AT THE LAND OFFICE KLATEN REGENCY

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**Abstract.** The rapid development of science and technology, the Government is expected to innovate in providing public services in order to achieve Good Governance. One example of the implementation of Good Governance is public services in the land sector managed by the Ministry of Agrarian and Spatial Planning/National Land Agency. As part of the government agency, the Klaten Regency Land Office develops innovations in online certificate checking services. The purpose of this study is to find out the extent of the implementation of online certificate checking service innovations and what factors affect them. The method used in this study is a qualitative descriptive method. The data collection method in this study uses interviews and document studies where the source of informants is the community and employees of the Klaten Regency Land Office. The data analysis in this study consists of three stages, namely data condensation, data presentation, and drawing conclusions or verification. The results of the study show that online certificate checking services can significantly improve the quality of the Klaten Regency Land Office in providing fast, precise, transparent, and accountable services to applicants or the community. The community responded positively to the shift towards digital-based land service innovation in terms of online certificate checking. Based on the results of the research, information was obtained about the innovation of the service and the factors that affect it. The factors that affect the implementation of these innovations can be divided into internal such as vision and strategy, human resources, organizational structure, organizational culture, and external such as the availability of technology and government policies. The recommendations of this study aim to develop more mature and sustainable programs in public service innovation in the future.

**Keywords:** Good Governance; Land Service Innovation; Online Certificate Checking

## 1. INTRODUCTION

The government's performance can be seen from the public services provided to the community. The process of evaluating government performance can be seen from the quality of public services provided to the community (Garcia-Liorente et al., 2019). Therefore, improving the quality of public services in all ministries/institutions must be a priority that must be improved. Public service users expect that the government bureaucracy provides quality services with high accountability, professionalism, and transparency. (Andiyanto et al., 2021; Colavitti et al., 2020; Nadira, 2019). Thus, innovation is needed in providing public services by taking advantage of increasingly rapid technological advances. The use of technology can provide benefits both directly and indirectly to the community and the government (Muttakin et al., 2022), such as better services; information that can be accessed 24 hours a day and 7 days a week; openness that enhances relations between governments, businesses, and the general public; community empowerment through easily accessible information; and more efficient implementation of government.

The task of the Ministry of Agrarian and Spatial Planning/National Land Agency (Ministry of ATR/BPN) is to carry 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). In order to improve land services to the community, the Ministry of ATR/BPN takes advantage of 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 confirming the suitability of physical and juridical data of land rights 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 certificate, (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 to be determined later (Mustofa et al., 2018; Prasetyo, 2022) efficient and timely in the ATR/BPN environment.

In order to improve good governance, the Ministry of ATR/BPN through the Klaten Regency Land Office as the implementer to innovate in improving service quality, namely by providing online certificate checking services. This was followed up by issuing the Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia (Permen ATR/KBPN) Number 19 of 2020 which has replaced the Regulation of the Minister of Agrarian 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 does 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 with the law was carried out to emphasize public services (Mustofa, 2020; Rosmidah et al., 2021). The influence of leadership on the performance of land services is also prioritized to carry out land services (Putra et al., 2019; Rusydi et al., 2020). In addition, services using the website are also important to provide easy access to services, including to facilitate long queues (Fatriyanto Mooduto et al., 2021; Marlina et al., 2020; Nugroho, 2021). There are even several studies on home pick-up services to the community (Mahmudah & Meirinawati, 2017; Sagari & Mujati, 2022; Sofyan et al., 2008). However, previous research has not discussed electronic services in Klaten Regency, especially about checking land certificates online. Therefore, the researcher is interested in exploring how far the implementation of electronic certificate checks is at the Klaten Regency Land Office and what factors are obstacles in its implementation. This is done because the online certificate checking service is a concrete action of the Ministry of Agrarian Affairs and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia (Permen ATR/KBPN) Number 19 of 2020 regulating 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 for land services, it is necessary to encourage the Land Office to provide excellent service to the community. This is strengthened by the Decree of the Minister of Agriculture 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 set by the Ministry of ATR/BPN. Thus, this research will take a position in explaining the implementation of online certificate checking digitization services. This study aims to describe how land service innovations in the form of online certificate checks at the Klaten Regency Land Office are implemented, as well as to identify organizational factors that affect the implementation of these innovations at the Klaten Regency Land Office.

## **2. RESEARCH METHODS**

The type of research used in this study is a qualitative description 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 land service innovations in the form of online certificate checking at the Klaten Regency Land Office are implemented, as well as to identify the organizational factors that affect the implementation of these innovations at the Klaten Regency Land Office, which is located on Jl. Veteran No. 88, Bareng Lor, North Klaten, Klaten Regency. The data used in this study is descriptive data that has a high level of accuracy (Denzin & Lincoln, 2018). The researcher used the purposive sampling technique to select the source material that was appropriate for 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 online certificate checking services. The main data in this study comes from the Coordinator of the Substance Group (KKS) for Land Rights Maintenance, Space and PPAT Development of the Klaten Regency Land Office and the community who use services. The reason for choosing resource persons is an employee who carries out his duties and is responsible for the field of online certificate checking services at the Klaten Regency Land Office. In addition, secondary data such as books, journals, and scientific articles are also used to complement the primary data obtained from interviews.

After the data was collected, the researcher checked the validity of the data by triangulation method and consultation with peers to ensure the validity of the data (Denzin & Lincoln, 2018). The researcher hopes that the results of the data validity can accurately and be accountable for the research phenomenon. After data collection, the researcher conducts a data analysis stage consisting of data condensation, data presentation, and conclusion verification. Data condensation is done to find patterns and important points related to the objectives and research questions. Then, the data was presented in the form of narratives, interviews, and document studies regarding the online certificate checking program at the Klaten Regency Land Office. The last stage is conclusion verification which is carried out by re-examining the research objectives and drawing conclusions from the results of 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 research phenomena.

## **3. 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, certificate checking services are services used to check the conformity of physical data and juridical data from land rights certificates with electronic data stored in databases (Agraria et al., 2018). The implementation of online certificate checks is carried out by partners who have been registered with the Klaten Regency Land Office, namely by the Land Deed Making Officer (PPAT). The online certificate checking service carried out by PPAT is one of PPAT's responsibilities before making a deed related to the transfer or transfer of land rights, or the granting of the burden of land rights or property rights to a flat.

Checking certificates online provides benefits by checking the compatibility between the certificate of land rights or ownership of flats with the list available at the Land Office. The purpose of this service is to ensure the compatibility of the physical and juridical data on the certificate with the data contained in the database. This service provides legal certainty for the applicant before committing legal acts related to land plots. Online certificate checking has been in effect since January 2020, previously the applicant had to come to the Klaten Regency Land Office and bring the document for the application for checking the certificate manually

### 3.1 Innovation of Online Certificate Checking Services

Online certificate checking services are a new innovation in Klaten Regency. The first socialization was carried out in December 2019 and the third socialization was carried out in July 2022. This innovation continues to be socialized to the public. However, in the national ranking, Klaten Regency in December 2024 was ranked 76th out of 480 with a total of 135,678 online checking services. For more details are presented in Figure 1

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

Incoming File	135.819
Active Files Exceed SPOPP	50
Active Files According to SPOPP	110
Completed Files Exceed SPOPP	175
Completed Files in Accordance with SPOPP	135.484
Previous Arrears	20
Total Incoming Files	135.839

(Source: Klaten Regency Land Office, 2024)

A The online certificate checking service carried out by the Klaten Regency Land Office in December 2024 shows that there are 135,678 incoming application files. With 135,484 files completed according to SPOPP and completed files exceeding SPOPP by 175. Looking at the data above, this shows that the services provided by the Klaten Regency Land Office are mostly in accordance with the SPOPP, namely 1 working day with a completion rate according to SPOPP of 97.7%. With excellent service, this will provide legal certainty to the public as a service user applicant. As information from employees at the Klaten Regency Land Office is 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 community, especially applicants/PPAT. Certificate checking is one of the land services that many applications have submitted. With the existence of online certificate checking, it is easier for applicants/PPAT so that there is no longer a 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 the applicant/PPAT within 1 working day." Interview with the PPAT Land Rights Maintenance and Housing Task Force.

The results of the interview explained 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 community. The community or applicant can access independently without coming to the Klaten Regency Land Office and the 1 working day service can provide legal certainty to the community as an applicant/PPAT. Online certificate checking is one of the 7 (Seven) Priority Services. Therefore, to be more complete, a discussion will be given further about the character of innovation that must exist in each policy, one of which is the policy of checking certificates online at the Klaten Regency Land Office as follows:

#### 1. Relative advantage

Relative advantage explains that an innovation must have better advantages and added value compared to previous innovations. The innovation must have an element of novelty that distinguishes it from other innovations (Hassink et al., 2020; Sapardiyono & Pinuji, 2022). This innovation of online certificate checking makes it easier for PPAT to check certificates without having to come directly to the Klaten Regency Land Office. They can register anytime and anywhere. With this convenience, it is hoped that it can increase the guarantee of legal certainty. In addition, the Klaten Regency Land Office is also committed to providing excellent service by increasing credibility, accountability, and transparency.

As a public innovation, online certificate checking provides benefits for employees,

especially implementing officers at the Klaten Regency Land Office. Previously, the officer had to enter the application file into the system, but with the online certificate check, the applicant or PPAT could enter the application file independently through the online system. In this way, land services can be provided more effectively and efficiently to the community, especially PPAT. In addition, the convenience felt by applicants/PPAT through this online system also makes it possible to provide services at a more affordable cost in accordance with the PNPB rate that has been set by the government. The innovation of online certificate checking also shows more 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 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 public as an applicant/PPAT within 1 working day (Sofyan et al., 2008).

## 2. Compability

Compability or conformity is a concept that states that an innovation should be suitable and in accordance with the previous innovation that was replaced (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). In online certificate checking, there is compatibility with manual checking related to service requirements and rates. The requirements for checking certificates online and manually are the same, namely referring to the Regulation of the Head of the National Land Agency of the Republic of Indonesia Number 1 of 2010 concerning Service Standards and Land Arrangements. This is also shown from the results of the following interview:

*"There is no differential, the online and manual requirements are the same, in accordance with the regulations, but in the online registration process, the party who makes the input is the applicant/PPAT himself independently, so that there is a suitability of the uploaded data."*

This means that the difference between the online and manual certificate checking process is who does the data input. In manual checking, PPAT must be present in person at the Klaten Regency Land Office, take the queue number, meet 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, PPAT can now upload application data independently at the PPAT office or at home. The tariff charged to the applicant/PPAT both online and manually is the same, in accordance with the 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 and Spatial Planning/National Land Agency.

## 3. Complexity

Complexity or complexity in innovation is a new trait that can be higher than previous innovations, also called complexity (Nugroho, 2021; Putra et al., 2019). Although the effectiveness of the service continues to increase, there are still some problems of complexity felt by the checking implementing officers. One of them is when the application file in the form of a pdf scan cannot be opened or corrupted so that it is difficult for the officer to check the certificate effectively and efficiently, as conveyed by the following source:

"Until now, the land book that has been validated at the Klaten Regency Land Office has reached 50%, but the Klaten Regency Land Office has always increased the completion of land book validation to 100%. In addition, there are still many files uploaded by applicants/PPAT that are corrupt or cannot be opened, so the Klaten Regency Land Office finds an alternative solution by making a complaint email for corrupt

upload files, and always carries out socialization of understanding of the use of online certificate checking applications to improve services."

Interview with KKS on Maintenance of Land, Space and Construction of PPAT

To anticipate these problems, the Klaten Regency Land Office held a third socialization in July 2022 which was attended by PPAT with the aim of providing an understanding of the use of online certificate checking applications and understanding the requirements in accordance with the provisions to increase the effectiveness and efficiency of services. After socialization, it is hoped that the implementing officers can be more effective in handling complex problems and improving overall services.

#### 4. Triability

Innovation can only be accepted if it has been tested and proven to provide more advantages or value than previous innovations, called triability (Mustofa, 2020; Rosmidah et al., 2021; Rusydi et al., 2020). Online certificate checks carried out in accordance with service standards and land arrangements with a completion time of only 1 working day provides benefits for the applicant/PPAT. However, there are often problems such as server-errors, corrupt pdf scan files, and unvalidated land books, thus hindering online certificate checks. However, the Klaten Regency Land Office continues to strive to improve excellent service to the community through socialization and increasing the number of validated land books, as conveyed by the following speakers:

"Because server-errors cause inhibition of the checking process, this is also due to the fact that there are not many validated land books. However, the Klaten Regency Land Office always improves the quality of land book validation so as to improve land services."

Interview with KKS on Maintenance of Land, Space and Construction of PPAT

#### 5. Observability

In terms of innovation, observability is essential for innovation to be visible in terms of how it works and produces better benefits (Janssen et al., 2020; Quinn et al., 2022) The resource person said that:

"The online certificate checking service makes it easier to move or impose land rights or flats. Applicants/PPAT no longer need to come to the Klaten Regency Land Office. Services can be carried out anywhere, so that the applicant can ensure that the data entered is appropriate and correct."

Interview with the PPAT Land Rights Maintenance and Housing Task Force.

From the interviews conducted, the online certificate checking service allows applicants/PPAT to access applications easily from the PPAT office or their own homes without having to visit the Klaten Regency Land Office directly. In addition, this service also facilitates the process of transferring or imposing land rights or apartment units, and makes services more effective and efficient (Prasetyo, 2022; Rosmidah et al., 2021).

In the manual checking process, the application file is entered by the counter officer at the Klaten Regency Land Office, while in the online checking process, the applicant independently enters the application file, so that the applicant can ensure that the data entered is appropriate and correct.

### *3.2 Factors Influencing Digital-Based Innovation at the Klaten Regency Land Office*

Innovation is essential for an organization to continue to grow and compete in an increasingly competitive market. However, in order to create a successful innovation, there are several factors to consider. In this context, the factors that influence innovation, both internally and externally, will be discussed.

#### 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 built 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 which is part of an effort to become an agent of change. In the application of information technology and science, the Klaten Regency Land Office is able to improve its service performance to be more systematic, accurate, and reliable so as to provide great benefits for the community or applicants. In carrying out 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 of which is filled by employees who have competence in their fields. The front office is responsible for understanding the requirements, flows, 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 (SOPs), 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 applied is to schedule working hours starting at 08.00 WIB with attendance using fingerprints and e-office applications when arriving and returning home at 16.30 WIB. Cooperation between sections is also emphasized to improve coordination and communication in line with the implementation of 5S, namely greetings, smiles, politeness, manners, and enthusiasm, to build harmony in carrying out duties and providing good service. Sanctions will be imposed on employees who violate the rules that have been set.

## **2. External Factors**

Technology, facilities and infrastructure are essential for effective public services. One form of using technology in providing online certificate checking services is through the use of computers and internet networks connected to the Ministry of ATR/BPN's servers. Database and information system for online certificate checking services using computerized land office website (KKP Web). By utilizing technology and improving digital literacy, services can be faster and easier for applicants and employees (Marlina et al., 2020; Sofyan et al., 2008). Even though it has been implemented, there are still weaknesses in the partner system and Web KKP that cause server-error problems and corrupt pdf files that often occur.

Government policies regarding service standards and land arrangements, which are regulated in the Regulation of the Head of the National Land Agency Number 1 of 2010 and the Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Land Agency of the Republic of Indonesia Number 19 of 2020, are the basis for the implementation of online certificate checking services. Through this policy, the Ministry of ATR/BPN shows transparency, accountability, and trust in providing public services that are easily accessible to the public, including requirements, time, procedures, costs, and other information (Prasetyo, 2022). The Klaten Regency Land Office implements this government policy to provide convenience and goodness of services to the community. In addition, the demands of an increasingly intelligent community have encouraged the Ministry of ATR/BPN to carry out digital transformation, especially in the public service sector, including land services. The Klaten Regency Land Office has innovated by providing an online certificate checking service that can be accessed anytime and anywhere, with the aim of reducing face-to-face interaction.

## **CONCLUSION**

The implementation of online certificate checking service innovations at the Klaten Regency Land Office is carried out in compliance with applicable laws and regulations with the aim of improving the quality of public services and providing convenience and

legal certainty for the community. However, in its implementation there are several obstacles such as the problem of corrupt pdf files that arise, but the Klaten Regency Land Office has provided alternatives to overcome these obstacles.

The implication of this research is the importance of the Klaten Regency Land Office to overcome the obstacles that arise in the implementation of online certificate checking service innovations. In dealing with problems such as corrupt pdf files and server errors, it is recommended that there be an improvement in the quality of network systems and reliable technology infrastructure. In addition, 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. In addition, the Klaten Regency Land Office needs to keep up with relevant technological developments and government policies. By taking these steps, the Klaten Regency Land Office can improve the quality of services and provide better satisfaction to the community as service users.

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