



Community Participation Dynamics in the Land Registration Process in the Digital Era and the Challenges Faced

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Abstract

This article aims to examine the dynamics of community participation in the land registration process in the digital era, as well as the challenges faced in optimizing citizen involvement. In the midst of developments in digital technology, land registration has great potential to become more transparent and efficient. However, although information technology can facilitate access to information and speed up the registration process, there are a number of challenges that need to be overcome. These challenges include the digital divide, low technological literacy among the community, and a lack of understanding of land rights. This research uses qualitative methods to find out people's experiences in participating in the land registration process and find ways to make people more active. It is hoped that the results of this research can provide advice to the government and related parties so that people can participate more easily and everyone feels involved.

Keywords: *Community Participation, Land Registration, Digital Era.*

INTRODUCTION

According to Article 3 of Government Regulation No. 24 of 1997 on Land Registration, the primary purpose of land registration is to provide legal certainty and protection for holders of land rights, apartment units, and other registered rights, enabling owners to easily prove their ownership. Furthermore, land registration aims to provide relevant information to interested parties, including the government, to facilitate data access for decision-making related to registered land parcels and apartment units. Additionally, land registration is expected to create orderly land administration, ensuring that land data and information management is more systematic and organized. Landowners register their land to obtain proof of ownership in the form of official documents. Legally binding documents for land rights holders include land certificates, transfer of rights deeds, land statements, and court decisions issued by authorized institutions.

Land registration plays a critical role in the land administration system, serving to provide legal certainty regarding ownership rights, usage rights, and land management rights. In an agrarian country like Indonesia, land is not only considered a material asset but also a resource with significant social, economic, and cultural value. Therefore, community participation is crucial in the land

registration process. Active community involvement ensures that this process proceeds fairly, transparently, and helps reduce or prevent agrarian conflicts often arising from unclear land status.

With the advent of the digital era, community involvement in land registration has undergone significant changes. Advances in information and communication technology, particularly in digitizing land administration, have created greater opportunities for broader and more efficient public participation. With the help of technologies such as Geographic Information Systems (GIS), digital mapping, and online registration platforms, people can access information, submit reports, and communicate with relevant agencies more quickly and accurately. Moreover, digitalization facilitates the government in enhancing data accuracy, expediting registration processes, and minimizing potential corruption or abuse of power often present in land administration bureaucracy.

However, despite the opportunities offered by digital technology, several significant challenges remain. One major challenge is the inequality of access to technology, especially in rural or remote areas of Indonesia, where digital infrastructure is not yet evenly distributed. Limited internet access and digital devices can hinder community involvement in the land registration process. Additionally, low levels of digital literacy, particularly among the elderly and those in less favorable socio-economic conditions, pose obstacles to utilizing technology for land registration. A lack of public awareness regarding land rights and registration procedures further exacerbates the situation.

Beyond technical constraints, social and cultural barriers must also be addressed. In certain areas, especially in customary or rural regions, land is considered more than just an economic asset. It is often closely tied to the cultural and spiritual identity of local communities. This perspective adds complexity to the land registration process, particularly when conflicts arise between state law and customary norms regarding land management. In this context, community involvement extends beyond technical aspects and requires approaches that respect and accommodate local values embedded within the community. Another obstacle is the lack of socialization and education about the importance of land registration. Many people are unaware of the long-term benefits of land registration, such as the guarantee of property rights protection, access to credit, and the potential increase in the economic value of formally registered land. This lack of awareness causes reluctance or disinterest in participating in the registration process, ultimately slowing down or hindering land registration programs.

In light of these issues, this study aims to delve deeper into the dynamics of community involvement in the land registration process in the digital era. The main focus is to understand how digital technology can serve as a means to enhance community participation and identify the various barriers hindering its implementation. Through a more inclusive and effective approach, it is hoped that community participation in land registration can be improved, supporting the realization of a more transparent, fair, and sustainable land administration system. This research also seeks to further comprehend the obstacles to community participation and find appropriate solutions to encourage broader and

more effective engagement in the land registration process, particularly in Indonesia.

From the discussion above, the following research questions can be formulated:

1. What are the dynamics of community participation in the land registration process in the digital era?
2. How does public perception of personal data security in the online land registration process influence their trust and willingness to participate?

METHOD

The research method used is through a descriptive qualitative approach, the reason for using this approach is to focus on exploring the community's experience in following the land registration process. Understanding people's perceptions of technology, participation in the digital era, and especially regarding personal data security. Identifying challenges and factors that hinder community participation. All data and information in this study were taken and quoted from scientific journals, articles, and other reliable sources. Therefore, this research is a library research.

RESULT AND DISCUSSION

Dynamics of Community Participation in the Land Registration Process in the Digital Era

Land registration is a crucial step in managing and regulating the allocation, control, ownership, and utilization of land, as well as addressing various land-related issues. The primary goal of land registration is to provide certainty of rights and legal protection for landowners through certificates as proof of ownership. These certificates serve as tools for regulating land control and ownership while also acting as mechanisms for monitoring land use and utilization. Rights are inherent attributes linked to individuals, both in physical and existential contexts. Thus, the Indonesian People's Right to Land is naturally connected to the Indonesian community's claim over their land.

The land registration process in Indonesia has evolved significantly in the digital era. This transformation aligns with the applicable legal provisions, such as Articles 19 and 26 of Law No. 5 of 1960 on the Basic Agrarian Law and Government Regulation No. 24 of 1997 on Land Registration. Innovations, particularly through programs like Complete Systematic Land Registration (Pendaftaran Tanah Sistematis Lengkap, PTS) and the implementation of electronic land certificates, aim to enhance the efficiency of land services and improve accessibility for the public via digital platforms.

With online services, citizens are no longer required to visit land offices directly, reducing both time and transaction costs. The implementation of digital services also brings much-needed efficiency to a land administration system

historically known for being slow and cumbersome. Faster data collection, verification, and registration processes now offer significant benefits to both citizens and government agencies.

The implementation of PTSL in Ngawi Regency provides a concrete example of how this program involves the community in the land registration process. Community participation is evident in data collection, land measurement, and boundary determination, where residents' enthusiasm has been a key factor in accelerating this program. However, technical challenges such as mapping, field measurements by officers, and forming land data collection teams (Puldataan) have not fully adhered to the technical guidelines set by the government. These challenges suggest that, despite high levels of participation, certain aspects of technical execution still require improvement for optimal results.

Nonetheless, the success of PTSL+PM in Ngawi Regency demonstrates that active community participation can be a solution to the limited human resources at the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN).

In other regions, such as Sragen Regency, the implementation of electronic land registration has brought its own dynamics. Digitalization of land registration, aimed at expediting certification processes and enhancing legal certainty, is increasingly efficient. With support from the local National Land Agency (BPN), the people of Sragen Regency have begun to adapt to using digital services for land registration. Community participation in this digital system has been notably positive, especially during the pandemic, when direct interaction with BPN officers was minimized.

Meanwhile, Kendal Regency demonstrates that online land registration data maintenance programs have been implemented successfully, despite technical challenges such as server issues and hardware problems. The program, known as "PPAT Online," facilitates Notaries (PPAT) and the community in maintaining land registration data digitally, making the process faster and more transparent. Although these programs promise improved efficiency and accessibility, the main challenges lie in technological infrastructure disparities, especially in remote and rural areas like Ngawi and Sragen. In such regions, limited internet access and technology availability hinder optimal community participation in digital land registration programs.

Moreover, low levels of digital literacy also pose a significant barrier to active participation in these programs. Many citizens are unfamiliar with online procedures and find it difficult to use the provided digital platforms. This situation is exacerbated by a lack of intensive outreach on the benefits and procedures of electronic land registration.

In addition to access and literacy challenges, public trust and perceptions of personal data security in electronic services remain issues. Despite the use of encryption technology and electronic signatures to prevent forgery and data breaches, public confidence in the security of electronic land certificates needs improvement. Concerns about potential data leaks or misuse of information undermine trust, reducing active participation in digital programs like online land registration.

The National Land Agency (BPN) has emphasized the importance of strict security standards to protect land and owner data. However, other challenges, such as addressing agrarian conflicts and avoiding social tensions exacerbated by technology, require attention. Poor transparency and communication at the local level could further complicate these issues.

To increase participation and build public trust, the government must strengthen outreach programs related to the benefits of digitalization and data privacy protection. These efforts should ensure that electronic services are inclusive and accessible to all societal layers, especially those with limited access to technology and information.

Another aspect to consider is the paradigm shift from manual to online registration systems, which may lead to resistance and adaptation difficulties. Notaries and related stakeholders may struggle to adapt to new technologies, potentially slowing down processes and affecting service delivery. Adequate training and outreach are essential to help legal professionals maximize the benefits of ATR/BPN applications.

An in-depth analysis highlights the significant impact of data integrity and validity on legal certainty. Errors in data entry or manipulation of information could have serious consequences for property transaction validity. Thus, careful steps must be taken to ensure data quality and accuracy within the system. It is essential to remind the public that the primary goal of land registration is to provide legal certainty and protection. Hence, the corresponding land rights certificate serves as a crucial legal document for landowners.

Discussion: Dynamics of Community Participation in Digital Land Registration

Introduction

Community participation in digital land registration processes reflects an evolving landscape in public administration, driven by technological advancements. The integration of digital systems aims to streamline land registration, reduce bureaucracy, and foster transparency. However, challenges related to technological infrastructure, digital literacy, and public trust remain significant. This discussion explores these dynamics, supported by theoretical frameworks and recent empirical studies.

Theoretical Foundations

Community participation in land administration can be understood through the lens of participatory governance theory. This framework emphasizes the active involvement of citizens in decision-making and service delivery, fostering empowerment and improving outcomes (Arnstein, 1969). Moreover, the technology acceptance model (TAM) by Davis (1989) provides insights into factors influencing the adoption of digital services, including perceived usefulness and ease of use.

Empirical Evidence

1. Benefits of Digital Land Registration

Digitalization enhances efficiency and accessibility. A study by Alam et al. (2023) highlights how electronic systems reduce transaction costs and processing times, promoting faster legal certification processes. In Kendal Regency, the "PPAT Online" program has demonstrated improved transparency and efficiency despite facing technical challenges.

During the COVID-19 pandemic, digital land registration proved invaluable in maintaining service continuity while minimizing physical interactions, as observed in Sragen Regency (Dahani, 2022).

2. Challenges of Implementation

Technological Barriers: Infrastructure disparities, particularly in rural areas, impede program implementation. Limited internet access and outdated technology often hinder community participation (Japar et al., 2024).

Digital Literacy: Low levels of digital literacy create barriers for individuals unfamiliar with online procedures. A lack of outreach programs further exacerbates these issues, as highlighted by Nurcahyo et al. (2019).

Data Security Concerns: Public trust in electronic certificates is influenced by perceptions of data security. Ramadani and Hikmah (2022) argue that while encryption and e-signatures enhance security, concerns over data misuse persist.

3. Community Participation Dynamics

High levels of community involvement in data collection and land measurement, as seen in Ngawi Regency, underscore the importance of public engagement in ensuring program success (Maarif et al., 2024). However, technical misalignments in field procedures indicate the need for better adherence to guidelines.

Resistance to change among stakeholders, including notaries, often arises due to a lack of training and familiarity with new systems. Effective capacity-building initiatives are critical in addressing this challenge (Widodo, 2021).

Policy Implications

To enhance community participation, the following strategies are essential:

1. Infrastructure Development: Bridging the technological gap in rural areas through investments in internet connectivity and hardware.
2. Digital Literacy Programs: Conducting targeted outreach and training programs to improve public understanding of digital land registration processes.
3. Trust-Building Measures: Strengthening public confidence through robust data security protocols and transparent communication.
4. Stakeholder Engagement: Providing training and support to notaries and legal professionals to ensure smooth adaptation to digital systems.

The dynamics of community participation in digital land registration are influenced by multiple factors, ranging from technological infrastructure to public trust. While digitalization offers significant benefits, addressing challenges through inclusive policies and strategic interventions is vital for achieving the goals of transparency, efficiency, and legal certainty.

CONCLUSION

The dynamics of community participation in the land registration process in the digital era highlight significant potential to enhance the efficiency and transparency of land services through the use of technology. The digitalization of land registration has created opportunities for greater public involvement and has helped reduce bureaucratic barriers. However, several challenges persist, such as technological infrastructure gaps, especially in rural areas, low digital literacy, and public uncertainty about personal data security. These challenges often undermine public trust and willingness to participate in digital land registration programs.

In addition to technical obstacles, social and cultural challenges also influence public participation, particularly in customary areas where land holds cultural and spiritual significance. The need for legal protection of personal data and intensive outreach on data security is crucial to encouraging broader and more inclusive participation.

The government is expected to enhance education efforts, simplify bureaucracy, and strengthen technological infrastructure to ensure that the public feels more confident and capable of engaging in digital land registration procedures. With synergy between the government and the public, it is hoped that active community participation in land registration can be realized, supporting a fairer, more transparent, and sustainable land administration system across Indonesia.

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