

# Public Service Reform and Citizens' Dependence on Intermediaries in Land Administration

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## Abstract

**Background** Digital transformation has become a central agenda in public administration reform, including land administration, with the expectation of improving efficiency, transparency, and direct citizen access to services. In Indonesia, digital land administration has been promoted to simplify procedures and reduce informal practices. However, citizens continue to rely on intermediaries even after digital systems have been implemented. This study examines why intermediary dependence persists and how institutional arrangements shape access to digital land services.

**Methods** This study employed a qualitative single-case study with a mechanism-based explanatory approach in Bone Bolango Regency, Indonesia. Data were collected through repeated field visits, in-depth interviews, direct observation, and document analysis, then analyzed using thematic coding and mechanism-based interpretation.

**Results** The findings show that digitalization creates formal access but does not automatically produce practical accessibility. Limited digital literacy, administrative anxiety, fragmented institutional coordination, and hybrid administrative procedures continue to shape citizens' experiences in accessing land services. Intermediaries remain important because they help citizens understand requirements, prepare documents, reduce procedural risks, and coordinate across institutions.

**Conclusion** Digital reform does not automatically eliminate intermediary dependence in public service delivery. The effectiveness of digital governance should be assessed not only through technological availability and procedural efficiency, but also through citizens' ability to access services directly and confidently. This study advances a relational institutional perspective on digital governance and suggests further comparative research across regions and public service sectors.

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## Keywords

*Key words: Citizen Dependence; Digital Transformation; Intermediaries; Land Administration; Public Service Reform*

## Introduction

Digital transformation has become one of the main agendas of contemporary public administration reform across many countries. Governments increasingly adopt digital technologies to improve service efficiency, strengthen bureaucratic transparency and accountability, and build public trust in state institutions. In the digital-era governance literature, digitalization is understood not merely as the use of technology to automate administrative procedures, but also as part of a broader transformation in how the state organizes public services and interacts with citizens. A number of studies have shown that digital services can accelerate bureaucratic processes, expand service integration, and improve government responsiveness to public needs (Djarmiko et al., 2025). However, other studies emphasize that the success of digital reform is not determined solely by the presence of technology. Public values such as accessibility, fairness, legitimacy, and trust continue to depend on organizational capacity, institutional design, and the ability of bureaucratic institutions to translate digital systems into service experiences that citizens can understand and access effectively (Clarke, 2020). In this context, digitalization does not always simplify the relationship between citizens and the state; instead, it may also generate new forms of administrative complexity that require citizens to adapt.

Land administration represents an important arena of digital reform because it is directly linked to legal certainty, property rights protection, investment, spatial planning, taxation, and state legitimacy in guaranteeing citizens' rights. A well-functioning land administration system contributes to social and economic stability by ensuring that land ownership can be legally and administratively verified. For this reason, many countries have promoted the digitalization of land services through electronic registration, digital certificates, spatial data integration, and technology-based land information systems. These reforms aim to accelerate service delivery, improve data accuracy, reduce bureaucratic discretion, and strengthen service transparency (Isnaeni & Hamadi, 2024). In Indonesia, the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency has advanced modernization through computerized land administration systems, electronic certification, and data integration to create faster, more affordable, and legally secure services (Sutiyo et al., 2026). Normatively, these reforms are expected to reduce citizens' reliance on third parties and provide more direct access to formal services.

Nevertheless, the implementation of digital land administration does not always follow the linear expectations of policy design. In practice, land services continue to face challenges such as limited digital infrastructure, uneven local administrative capacity, fragmented inter-agency data systems, and varying citizen ability to understand digital procedures. Electronic systems often coexist with manual verification, paper-based documentation, and cross-institutional coordination processes that are not yet fully integrated (Rodima-Taylor, 2021). This indicates that digital transformation in land administration is not simply a matter of replacing manual procedures with digital applications, but also involves the capacity of institutions and citizens to adapt to administrative change. In this context, difficulties in land administration affect not only bureaucratic efficiency but also legal certainty of ownership and public trust in state institutions. These issues make digital land administration a highly relevant topic in contemporary public administration research.

This condition is clearly visible in land services in Bone Bolango Regency. Although digital

services have been introduced through electronic registration and application based administrative procedures, citizens continue to encounter obstacles in accessing services. These include difficulties in creating and managing accounts, uploading documents, fulfilling administrative requirements, and synchronizing land data with civil registration and other supporting documents. Land registration and transfer procedures are still widely perceived as lengthy, complicated, and not always predictable in terms of timing and outcomes. In such circumstances, citizens continue to use formal channels but frequently rely on intermediaries who are considered more familiar with procedures and more experienced in dealing with administrative processes. These intermediaries assist citizens in preparing documents, communicating with officials, interpreting requirements, and reducing procedural uncertainty. This situation demonstrates that digitalization does not automatically eliminate informal practices. Instead, digital systems may create new forms of procedural uncertainty that open space for intermediaries to remain embedded in everyday service delivery.

This phenomenon reveals an important gap in the existing literature. Studies on *digital governance* have largely emphasized the potential of technology to improve efficiency, service integration, and public value. Meanwhile, studies on land administration have focused primarily on legal certainty, registration modernization, and strengthening ownership records (Campbell-Verduyn et al., 2021). Research on public trust and digital literacy generally explains digital service adoption from the user perspective (AbdulKareem & Oladimeji, 2024). Although these fields are well developed, they often remain analytically separate. There is still limited research explaining why citizens' dependence on intermediaries persists even after public services have been digitalized, particularly in land administration within developing countries such as Indonesia. This gap forms the central focus of this article.

To explain this phenomenon, this study adopts a relational institutional perspective. This perspective argues that the outcomes of digital reform are shaped by the interaction between technology, institutional capacity, and the social relationship between citizens and the state. From this perspective, dependence on intermediaries is not understood merely as a form of informality or as a consequence of limited digital skills, but as the result of institutional relationships that are not yet fully aligned in public service practice. In this study, citizens' dependence on intermediaries is analyzed through five main indicators: the usability of digital systems, citizens' digital literacy and trust in formal services, the administrative burden imposed on service users, the administrative capacity of frontline bureaucrats, and institutional coherence among organizations involved in land administration (Ahmad et al., 2025). When digital systems are difficult to navigate, citizens do not fully understand procedures, administrative burdens are high, bureaucratic capacity is uneven, and coordination across institutions remains weak, intermediaries emerge as institutional translators connecting citizens with the state (Pérez-Morote et al., 2020). In this role, intermediaries help citizens understand procedures, prepare documents, reduce administrative risks, and make service outcomes more predictable. In this sense, digitalization does not necessarily eliminate informality but may instead reconfigure the forms and functions of intermediaries within digital public service systems.

Based on this context, this article aims to analyze the factors explaining the persistence of citizens' dependence on intermediaries in digital land registration and land transfer services at the Land Office of Bone Bolango Regency, Indonesia. This article argues that digital reform does not automatically replace intermediaries because access to public services continues to be shaped by the interaction between technology, citizens' trust, bureaucratic capacity, and institutional

coordination. By positioning intermediaries as part of everyday service delivery practices, this study contributes to public administration reform literature by demonstrating that the success of digitalization depends not only on technological availability, but also on the ability of institutions to provide services that citizens can understand, trust, and access effectively. The findings are expected to contribute to broader debates on digital governance while also offering policy reflections for strengthening more inclusive and citizen-oriented digital land administration services.

## Methods

This study employed a qualitative approach using a single-case study design with a mechanism-based explanatory orientation to examine how formal digital land administration reforms coexist with citizens' continued dependence on intermediaries in accessing land services. A qualitative case study is particularly appropriate for examining governance phenomena embedded in real institutional settings because it enables analytical generalization through tracing internal causal mechanisms rather than statistical inference (Yin, 2019). Bone Bolango Regency, Indonesia, was selected as a critical case because digital land administration has been formally implemented while intermediary dependence remains persistent in practice, making it analytically relevant for examining the limits of digital reform in reducing informal access. The unit of analysis focused on the relational process of service access, particularly how administrative procedures, institutional coordination, citizens' capacities, and intermediary practices interact in shaping access to land registration and transfer services. This design enabled the study to reconstruct how digital systems are experienced and translated in everyday service delivery and to explain why intermediary dependence persists despite formal digitalization.

Data were collected through repeated field visits, in-depth interviews, direct observation, and document analysis. Repeated visits were important for identifying recurring patterns of interaction and avoiding reliance on isolated observations. Interviews explored citizens' procedural experiences, their understanding of digital systems, administrative challenges, institutional coordination, and the role of intermediaries in facilitating access. Observation focused on how citizens navigated procedures, how officials interpreted requirements, and how intermediaries operated in service interactions. Official documents, including service procedures, institutional responsibilities, and verification requirements, were examined to compare formal institutional expectations with actual practice in the field. This combination of methods allowed the study to capture both institutional design and everyday administrative interactions shaping access to land services (Miles & Huberman, 2016).

The data were analyzed using thematic coding combined with mechanism-based interpretation through open coding, axial coding, and selective coding to identify recurring patterns related to digital literacy, administrative burden, institutional fragmentation, trust, and intermediary involvement. Gap analysis was then used to compare formal institutional expectations with empirical practice, followed by theoretical synthesis to reconstruct coherent causal explanations. To ensure validity and trustworthiness, the study employed triangulation across interviews, observations, and documents, repeated interpretation during fieldwork, limited member checking with informants, and systematic documentation of the analytical process to maintain transparency and conceptual consistency. These strategies strengthened the credibility of the findings while preserving alignment between empirical interpretation and the study's analytical framework.

## Results and Discussion

### Limited Digital Literacy and Citizens' Administrative Anxiety

The first finding shows that the availability of digital land services has not automatically translated into practical accessibility for citizens. Although digital platforms such as *Geo-KKP* and *Sentuh Tanahku* have been introduced to simplify registration and improve service transparency, many applicants continue to face difficulties in understanding procedures, uploading documents, verifying requirements, and monitoring application status. This indicates that the main challenge is no longer merely the availability of digital infrastructure, but the gap between formal digital systems and citizens' capacity to use them independently. Several informants explained that the applications are helpful in principle, yet effective use still requires substantial understanding of land registration procedures and administrative stages (Interv-01; Interv-02). Field observations further show repeated document corrections due to inconsistencies between land records and civil administration documents, requiring applicants to return several times before completing the process (Obs-01).

These findings support previous studies arguing that digital public services do not automatically reduce barriers to access when users continue to experience administrative burdens and procedural uncertainty. In the case of land administration, digital literacy extends beyond technical ability to operate an application; it also includes understanding administrative requirements and anticipating legal risks associated with land ownership (Scheerder et al., 2019). This explains why citizens frequently rely on intermediaries not because they reject digitalization, but because direct access is not always perceived as safe, predictable, or efficient.

In this sense, intermediary dependence emerges as a rational response to uncertainty and confirms that formal digital access may coexist with limited substantive accessibility. This finding suggests that the broader challenge of digital public service reform lies not only in expanding technological access, but also in ensuring that citizens are able to navigate procedures confidently and obtain reliable outcomes without requiring additional assistance. When formal systems remain difficult to understand or insufficiently predictable, intermediaries continue to play an important role in translating institutional procedures into practical pathways of access for citizens.

### Administrative Fragmentation in the Institutional System

The second finding demonstrates that digitalization has not fully eliminated fragmentation within land administration. Citizens continue to navigate a chain of interconnected institutions involving the land office, village administration, civil registration, taxation authorities, and legal verification processes. Although each institution is formally linked to land services, in practice documentation standards, verification procedures, and institutional timelines often remain inconsistent. Small discrepancies between land certificates, identity cards, and family records frequently delay verification and force applicants to revise documents across multiple offices (Interv-07; Interv-09). Rather than replacing previous procedures, digital systems often operate alongside older administrative arrangements, creating a hybrid system where digital registration still depends on manual clarification and institutional coordination.

This finding reinforces arguments in public administration literature that digital reform does not necessarily resolve coordination problems when institutional interoperability remains weak. While digital governance literature emphasizes integration and efficiency, the evidence from Bone Bolango suggests that fragmented procedures continue to shift coordination burdens onto citizens. This

fragmentation also affects institutional trust because applicants often receive different explanations from different offices and remain uncertain about which procedures are correct (Schneider et al., 2025). In such circumstances, intermediaries become important not only as facilitators but also as coordinating actors who connect fragmented institutional requirements. Their persistence therefore reflects unresolved institutional fragmentation rather than resistance to reform. This finding suggests that the effectiveness of digital public service reform depends not only on technological integration, but also on the ability of institutions to coordinate procedures consistently and provide citizens with clear, predictable, and accessible pathways to services. Without stronger institutional coherence, digital systems may expand formal access while continuing to rely on intermediaries to bridge gaps that remain unresolved in everyday administrative practice.

### **Informal Intermediaries as Adaptive Institutional Pathways**

The third finding shows that intermediaries continue to play a central role in digital land administration. Rather than disappearing after digital reform, they have adapted by helping citizens understand procedures, prepare documents, monitor applications, and connect requirements across institutions. Informants consistently described intermediaries as individuals who know where to begin, what documents are required, and how to respond when verification problems arise (Interv-11; Interv-13). Observations also show that although intermediaries are not formally recognized within official procedures, their role remains visible in everyday service routines because they absorb administrative burdens that citizens often struggle to manage independently (Obs-03).

This finding challenges the assumption that digitalization inherently reduces informality through standardization and direct citizen access. In Bone Bolango, intermediaries do not bypass the state; instead, they translate state procedures into practical administrative steps that citizens can follow. The intermediaries act as institutional mediators and analysis that formal and informal governance often coexist in everyday administrative practice. The findings also reinforce recent scholarship on intermediary bureaucracy in digital governance (Flacke et al., 2025), demonstrating that intermediaries increasingly function as translators of hybrid digital administration. Their persistence indicates that institutional accessibility remains incomplete and that formal digital rights often still require relational support to become practical outcomes. Rather than disappearing through technological modernization, intermediaries continue to operate as adaptive actors who bridge the gap between formal institutional design and citizens' everyday administrative realities.

This finding suggests that the success of digital public service reform cannot be measured solely by the existence of online platforms, electronic procedures, or faster administrative processing, but also by the extent to which citizens are able to navigate public services independently, safely, and with confidence. When institutional coordination remains fragmented and citizens continue to face uncertainty in accessing services, intermediaries become part of the governance process by translating formal rules into practical action. In this regard, the broader challenge of digital reform lies not only in expanding technological infrastructure, but also in strengthening institutional coherence and ensuring that formal access can be transformed into accessible and reliable public service outcomes for citizens.

### **Mechanisms of Intermediary Dependence in Digital Land Administration**

Taken together, the findings reveal one consistent mechanism explaining why intermediary dependence persists in digital land administration. Digitalization expands formal access, but formal access does not automatically become practical access. When citizens encounter limited digital

literacy, administrative anxiety, fragmented institutional coordination, and uncertainty regarding service procedures, they seek actors capable of making the system easier to navigate. The mechanism operates in three connected stages: first, digital systems formally broaden service access while continuing to require substantial procedural understanding; second, fragmented coordination and inconsistent data create uncertainty that cannot be resolved through the application alone; and third, intermediaries emerge as institutional translators who connect citizens with formal procedures through practical guidance and informal coordination.

This mechanism explains why digital reform tends to reconfigure intermediaries rather than eliminate them. In manual systems, intermediaries helped citizens navigate bureaucratic complexity; in digital systems, they increasingly assist with understanding interfaces, preparing electronic documentation, resolving inconsistencies, and interpreting institutional requirements. These findings suggest that the limitations of digital reform cannot be explained only by technology adoption. More fundamentally, they point to a relational gap between formal systems and citizens' everyday experience of access. This is consistent with broader public administration scholarship emphasizing that governance outcomes are shaped by coordination, institutional coherence, and trust rather than technology (Osborne et al., 2022). In this sense, intermediary dependence becomes an indicator of incomplete institutional accessibility and demonstrates the continuing coexistence between formal modernization and adaptive informal access in digital public service delivery.

Rather than viewing intermediaries solely as residual actors within a transitional bureaucracy, this study shows that their persistence reflects the ongoing gap between institutional reform and citizens' everyday experience in navigating administrative systems. Digital platforms may expand formal access and improve procedural efficiency, yet their practical effectiveness remains shaped by citizens' ability to understand requirements, coordinate across institutions, and trust that the system can deliver predictable outcomes. When these conditions are not fully achieved, intermediaries continue to function as institutional translators who convert formal rights into practical access. Therefore, the broader challenge of digital public service reform lies not only in building more advanced technological systems, but also in strengthening institutional coherence, reducing administrative complexity, and ensuring that citizens can access public services independently, safely, and with confidence.

## Conclusion

This article explains why citizens' dependence on intermediaries persists despite the expansion of digital public service reform in land administration. Through a qualitative case study at the Land Office of Bone Bolango Regency, Indonesia, the study finds that digitalization creates formal access but does not automatically produce practical accessibility. Limited digital literacy, administrative anxiety, institutional fragmentation, and hybrid administrative procedures continue to shape citizens' experience in accessing land services. In this context, intermediaries remain important because they help citizens understand requirements, prepare documents, reduce procedural risks, and coordinate across institutions. These findings demonstrate that intermediary dependence is not simply a remnant of manual bureaucracy or informal practice, but a relational institutional response to digital systems that remain difficult to navigate and are not yet fully predictable or trusted by citizens.

The study contributes theoretically by advancing a relational institutional perspective on digital governance. It argues that the success of digital reform should not be assessed solely

through the availability of platforms, the expansion of electronic services, or procedural speed, but also through citizens' ability to access services directly, safely, and confidently without relying on informal translation. This finding challenges the common assumption that digitalization naturally reduces informal dependence and highlights that formal modernization may coexist with adaptive intermediary practices. The implications extend beyond land administration and are relevant to other public service sectors such as social welfare, licensing, taxation, healthcare, and social protection, where citizens often face similar institutional complexity in navigating digital systems.

This study is limited by its focus on a single-case setting in Bone Bolango Regency, which means the findings are analytically informative but may not represent all variations of digital land administration in other regions. In addition, the study concentrates on citizens' and institutional experiences within service delivery and does not yet compare broader differences in policy design or regional implementation. Future research could therefore examine multiple cases across regions, compare different public service sectors, or explore how institutional design and citizens' digital capacity influence intermediary dependence in diverse governance settings. Such studies would strengthen understanding of how digital reform can improve not only formal modernization but also citizens' substantive access to public services.

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