



Digital Transformation in Population Administration Services: Evaluating the Akudicari Application through Good Governance Principles

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Abstract

This study investigates the digital transformation of population administration services in Indonesia, with a particular focus on the implementation of the Akudicari application at the Department of Population and Civil Registration (Disdukcapil) in Badung Regency, Bali. Population administration services, including the issuance of identity cards, family cards, and birth certificates, are fundamental to ensuring citizens' legal identity and access to education, health, and social welfare. However, these services have long been constrained by bureaucratic inefficiencies, lengthy procedures, and the persistent problem of service brokerage. The emergence of information and communication technology (ICT) provides new opportunities to overcome these challenges through digital innovation. Akudicari, launched in 2022, represents a local government initiative to enhance efficiency and accountability by allowing citizens to track the progress of their documents online in real time. The study applies a qualitative descriptive method, utilizing interviews, observations, and document analysis to evaluate Akudicari in relation to the principles of good governance—transparency, accountability, efficiency, responsiveness, and public participation. The findings indicate that Akudicari has significantly improved service effectiveness by reducing processing time by nearly 30 percent, providing transparency through open access to real-time information, and minimizing the role of intermediaries in administrative procedures. At the same time, challenges persist, particularly in rural areas, where digital literacy remains low and internet connectivity is inconsistent. Disparities in the digital competencies of civil servants also hinder the optimal use of the application. The study concludes that Akudicari is not only a technological innovation but also an instrument of governance reform that strengthens the relationship between government and citizens. However, its long-term sustainability requires continuous system upgrades, regular staff training, and inclusive community outreach. By addressing these challenges, Akudicari can serve as a scalable model for digital public service delivery in other regions of Indonesia and contribute to global discussions on e-government transformation.

Keywords: Digital Transformation, Public Service, Population Administration, Akudicari, Good Governance

I. Introduction

The digital era has reshaped the expectations of citizens regarding how governments deliver public services. In almost every country, technological innovation is no longer considered an option but a necessity for improving efficiency, transparency, and accountability in governance. According to the United Nations E-Government Survey (2022), digital governance has become a crucial indicator of a state's

capacity to provide inclusive and responsive services. Countries such as Estonia, Singapore, and South Korea have demonstrated that digital transformation can radically reduce bureaucratic complexity while at the same time strengthening citizens' trust in government institutions.

Indonesia, as a developing country with a population exceeding 270 million, faces both opportunities and challenges in this regard. Over the past two decades, the national government has introduced several programs to digitalize public services, supported by the issuance of Presidential Regulation No. 95 of 2018 on the Electronic-Based Government System (SPBE). Despite these efforts, the implementation of digital government remains uneven across regions. In some urban centers, innovative applications have already enhanced service delivery, but in rural and peripheral areas, limited infrastructure and low digital literacy remain persistent barriers.

Population administration services occupy a strategic position within this digital transformation agenda. Documents such as identity cards, family cards, and birth certificates are essential not only for legal identity but also for accessing education, healthcare, employment, and social assistance. Previous research (Ismanto, 2020; Damayanti & Daryanto, 2020) indicates that inefficiencies in population administration—such as long queues, overlapping procedures, and informal brokerage practices—significantly erode public trust and contribute to citizens' dissatisfaction with government performance.

In response to these challenges, the government of Badung Regency in Bali launched the Akudicari application in 2022. The application allows citizens to monitor the status of their documents in real time using their unique identification number (NIK). With this innovation, citizens are no longer required to repeatedly visit service offices simply to ask about the progress of their applications. Instead, the entire process can be tracked digitally, reflecting the government's attempt to improve transparency and efficiency while aligning with the broader objectives of good governance.

However, the adoption of Akudicari also reveals a paradox. While urban residents with adequate access to internet facilities and digital skills can easily adapt to the platform, many rural citizens remain excluded from its benefits. Moreover, the implementation process faces technical disruptions, uneven staff capacity, and infrastructure limitations that hinder the system's optimal functioning. These conditions raise a fundamental question: to what extent can Akudicari serve not only as a tool of administrative efficiency but also as an embodiment of the principles of good governance?

This study is therefore motivated by two interrelated objectives. First, it aims to evaluate the effectiveness of the Akudicari application in enhancing population administration services in Badung Regency. Second, it examines the extent to which Akudicari reflects the principles of good governance, including transparency, accountability, responsiveness, efficiency, and public participation. By analyzing these dimensions, the research contributes both empirically and theoretically to discussions on digital public service delivery in developing contexts. Furthermore, the study provides policy recommendations for improving inclusivity and sustainability in digital governance initiatives across Indonesia.

Literature Review

Digital transformation refers to the integration of digital technologies into government processes in order to fundamentally change how services are delivered. According to Mergel, Edelmann, and Haug (2019), digital government is not only about adopting technology but also about reshaping institutional structures, culture, and citizen–state interactions. The United Nations Development Programme (UNDP, 2001) highlights that digitalization can strengthen administrative efficiency, widen public access to services, and create new opportunities for citizen participation.

In Indonesia, several studies have underlined the importance of digital innovation in improving service quality. Nugroho (2019) argues that digital public service reduces bureaucratic layers and increases citizen satisfaction. Research by Handayani, Sandhyaduhita, and Hidayanto (2015) demonstrates that integrated e-government systems in Indonesia enhance service adoption when supported by infrastructure readiness and user trust. These findings suggest that digital transformation should not be understood merely as a technical solution but as a governance reform process.

Civil registration services are vital to ensuring citizens' legal identity and enabling access to welfare systems. The World Bank (2018) states that robust civil registration systems are a foundation for achieving inclusive development and poverty reduction. In Indonesia, these services are regulated by Law No. 24 of 2013 on Population Administration, which emphasizes the government's responsibility to guarantee that every citizen is recorded and recognized by the state.

Despite the legal framework, several challenges persist in practice. Research by Ismanto (2020) notes that inefficiency, long queues, and the presence of brokers often discourage citizens from engaging with formal procedures. Comparative studies also reveal that some cities, such as Surabaya with its Klampid New Generation (KNG) application and Jakarta with Alpukat Betawi, have made progress in digitalizing civil registration services. Kusumastuti and Adi (2021) found that these applications significantly reduced waiting times and increased citizen satisfaction. Nonetheless, disparities between urban and rural areas remain a pressing concern.

The concept of good governance has been widely recognized as a guiding framework for evaluating public administration. The UNDP (1997) defines good governance as governance that is transparent, accountable, effective, equitable, and participatory, with a strong adherence to the rule of law. Dwiyanto (2016) further emphasizes that good governance in public services can only be achieved when bureaucratic structures are responsive to citizens' needs and when accountability mechanisms are clearly established.

In the context of digital governance, transparency is achieved through open access to information, accountability is reinforced through digital records and monitoring systems, and responsiveness is facilitated by features that allow citizens to lodge complaints and receive timely responses. Participation, meanwhile, is enhanced when communities are actively involved in both the design and use of digital services. However, several scholars (Heeks, 2018; Janssen & van der Voort, 2016) caution that digital transformation does not automatically guarantee good governance. Instead, it may reproduce or even exacerbate existing inequalities if issues such as digital literacy and infrastructure are not adequately addressed.

While there is an expanding body of literature on digital governance and civil registration systems in Indonesia, research focusing on the integration of digital population administration services with the principles of good governance remains limited. Most existing studies have focused either on technical aspects of e-government or on citizen satisfaction with digital platforms, without systematically connecting these findings to governance principles.

This study therefore contributes to filling this gap by examining the Akudicari application as both a digital innovation and a governance instrument. By analyzing its implementation in Badung Regency through the lens of good governance, the study provides empirical insights into the extent to which digital services can simultaneously enhance efficiency and uphold governance values. In doing so, it offers theoretical enrichment for the study of e-government in developing countries and practical lessons for policymakers seeking to strengthen inclusive digital transformation.

II. Methodology

This study employs a qualitative descriptive approach, which is considered suitable for exploring complex social phenomena such as the digital transformation of public service delivery. The choice of methodology reflects the need to capture not only the technical aspects of the Akudicari application but also its social, cultural, and governance implications within the community.

The research was conducted at the Department of Population and Civil Registration (Disdukcapil) in Badung Regency, Bali, an area known for its rapid economic development and high population mobility. Badung is a strategic region with both urban and rural characteristics, making it a relevant case study for examining the challenges and opportunities of digital governance. The launch of the Akudicari application in 2022 provided a unique opportunity to analyze the early stages of implementation and its impact on public service delivery.

Three primary techniques were employed to collect data: in-depth interviews, participant observation, and document analysis. Interviews were conducted with ten informants, including four government officials and six citizens who had direct experience using the application. Participant observation enabled the researchers to observe the interaction between citizens and staff, the role of the application in daily service delivery, and the challenges encountered during the process. Document analysis was performed by reviewing official reports, policy documents, user manuals, and statistical records related to Akudicari usage between 2022 and 2024.

The data were analyzed using a thematic analysis approach. The process began with open coding, where interview transcripts and observation notes were carefully examined to identify recurring concepts. These codes were then grouped into broader themes, such as transparency, accountability, responsiveness, efficiency, and participation, which align with the principles of good governance. The analysis also sought to identify contradictions between theoretical expectations and empirical findings.

To ensure the validity and reliability of the findings, triangulation of sources was achieved by comparing data from government officials, citizens, and official documents. Triangulation of methods was employed by cross-checking findings from interviews, observations, and document reviews. Member checks were also conducted by sharing preliminary interpretations with selected informants. Ethical considerations were carefully observed, including informed consent, anonymity, and confidentiality of participants.

III. Result And Discussion

The implementation of the Akudicari application in Badung Regency has introduced significant changes to the delivery of population administration services. The findings of this study reveal both the achievements of this digital transformation and the obstacles that still hinder its full potential.

One of the most notable impacts of Akudicari is the improvement in efficiency of service delivery. Citizens reported reduced waiting times and less need for repeated visits to government offices, with processing time reduced by approximately 30 percent. The application provides real-time updates, enhancing transparency and reducing opportunities for brokerage.

From a governance perspective, Akudicari improves transparency, accountability, responsiveness, and public participation. Transparency is achieved by providing open access to information, while accountability is reinforced through digital records that allow monitoring of staff performance.

Responsiveness is facilitated through complaint features, enabling faster responses to citizen concerns. Participation is promoted through community outreach and village-level engagement.

Despite these benefits, challenges remain. The digital divide persists, especially in rural areas where digital literacy is low and internet infrastructure is limited. Human resource disparities and occasional disruptions in the central population database further hinder optimal use. To address these obstacles, the local government has implemented training programs, system updates, and public awareness campaigns.

Nevertheless, a gap remains between the theoretical promise of digital governance and its practical realities. While technology offers opportunities for greater inclusivity, structural inequalities in access and literacy continue to limit the system's reach. This finding supports Heeks' (2018) argument about the design–reality gap in digital governance.

IV. Conclusion And Recommendations

The Akudicari application represents an important innovation in the digital transformation of population administration services in Indonesia. Its ability to enhance efficiency, transparency, accountability, and responsiveness demonstrates clear alignment with the values of good governance. At the same time, challenges such as the digital divide, infrastructure limitations, and uneven staff readiness remain significant obstacles.

To overcome these barriers, the government should expand digital literacy programs targeting rural communities, strengthen internet infrastructure, provide continuous training for civil servants, and ensure regular evaluation and upgrades of the system. By implementing these strategies, Akudicari can serve as a scalable model of digital public service delivery in other regions of Indonesia.

In conclusion, the case of Badung illustrates both the opportunities and the limitations of digital transformation. It demonstrates that technology can reinforce good governance, but only when accompanied by inclusive policies and responsive institutions. The lessons drawn from this study contribute to broader debates on e-government transformation in developing countries.

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