
Implementation of Digitalization Policies in Realizing Independent Villages from the Perspective of Agile Governance: A Case Study of Jedong Village, Pasuruan Regency

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ABSTRACT

This study aims to analyze the implementation of digitalization policies in fostering village independence, focusing on Jedong Village in Pasuruan Regency. Employing a qualitative descriptive approach, data were collected through direct observations, semi-structured interviews with village officials and residents, and analysis of relevant documents. The population comprises all stakeholders involved in the digitalization process, with a purposive sample of key informants selected based on their roles and experiences. The primary instrument used was an interview guide designed to elicit detailed information on the adoption and impact of digital tools. Findings indicate that the implementation of the Village Information System (SID) has significantly enhanced administrative efficiency, transparency, and community participation. Residents reported improved access to information and services, leading to increased engagement in village development initiatives. However, challenges such as limited internet infrastructure and varying levels of digital literacy among residents were identified as barriers to optimal utilization. The study concludes that while digitalization policies have the potential to promote village autonomy and development, addressing infrastructural and educational gaps is crucial for maximizing benefits. Recommendations include investing in digital infrastructure, providing training programs to enhance digital skills, and developing policies that support sustainable digital integration at the village level.

Keywords: Digitalization Policy, Village Independence, Village Information System, Administrative Efficiency, Community Participation.

1. INTRODUCTION

The rapid advancement of information and communication technologies (ICT) has significantly influenced various sectors, including governance and public administration (Mardinata et al., 2023). In Indonesia, the government has initiated policies to promote digitalization at the village level, aiming to enhance administrative efficiency, transparency, and community participation (Prawoto, 2025). The concept of an independent village is central to these initiatives, emphasizing self-sufficiency and

sustainable development through effective governance and community empowerment (Jatmiko, 2025).

Despite the strategic importance of digitalization policies, their implementation at the village level faces numerous challenges (Rohmatuningsih, 2022). Many villages grapple with inadequate infrastructure, limited human resources, and low digital literacy, hindering the effective adoption of digital tools (Alkadash et al., 2021). These challenges underscore the need for empirical studies to assess the implementation of digitalization policies and their impact on village autonomy (Markos, 2022).

Previous studies have explored various aspects of digital governance in rural settings. For instance, (Irfan Budi, 2024) examined the potential of digitalization in enhancing village administration, highlighting the need for capacity building and infrastructure development. Similarly, investigated the implementation of OpenSID, a digital information system for villages, emphasizing its role in improving administrative processes and service delivery (Ienca & Vayena, 2018). However, there remains a paucity of case studies focusing on the practical implementation of digitalization policies in specific village contexts, particularly concerning their effectiveness in fostering village independence.

While existing literature provides insights into the potential benefits and challenges of digitalization in rural governance, there is a notable gap in empirical research examining the real-world application of these policies at the village level (Novianti I. F., 2023). Specifically, studies often lack in-depth analysis of how digitalization initiatives are implemented, the extent to which they achieve their intended outcomes, and the contextual factors influencing their success or failure (Tomažević et al., 2023). This gap is particularly evident in the context of Indonesian villages, where diverse socio-economic and infrastructural conditions can significantly impact the efficacy of digitalization efforts.

Addressing this research gap is urgent, given the Indonesian government's ongoing efforts to promote digital transformation across all administrative levels (Andayani & Ali Ramdhani, 2023). Understanding the practical challenges and successes of digitalization at the village level is crucial for informing policy decisions, optimizing resource allocation, and ensuring that digital initiatives effectively contribute to village autonomy and development (Josep Manek et al., 2022).

This study aims to fill this gap by analyzing the implementation of digitalization policies in Jedong Village, Pasuruan Regency (Mahaesa & Huda, 2022). Employing a qualitative descriptive approach, the research investigates how digital tools are utilized in village administration and their impact on achieving the objectives of an independent Village (Miles & Huberman, 1994). The study also identifies the challenges encountered during the implementation process and proposes strategies to overcome them. By providing an in-depth case study, this research contributes to the existing literature on digital governance and offers practical insights for policymakers and practitioners aiming to enhance village autonomy through digitalization (Yin, 2003).

In this context, the concept of **Agile Governance**—a governance paradigm that emphasizes adaptability, iterative development, citizen-centered services, and rapid responsiveness—offers a valuable lens through which to evaluate digitalization efforts (Akbar Maulana et al., 2023). While Agile Governance is gaining traction in urban and corporate settings, its application and theoretical development in rural governance, particularly at the village level in developing countries, remain underexplored (Chasan Amruloh & Lisaria Putri, 2023). Integrating Agile Governance principles into the analysis of digital village systems can bridge this gap, offering insights into how responsiveness and community collaboration can be embedded into digital transformation processes at the grassroots level (Sjödin et al., 2020).

This study addresses these gaps by conducting an in-depth qualitative case study of Jedong Village in Pasuruan Regency. It examines the implementation of digitalization policies through both practical outcomes and theoretical lenses, including Agile Governance principles. Data are collected through interviews with local stakeholders, document analysis, and field observations. The research contributes to both policy and academic discourse by offering a nuanced understanding of how digitalization can not only improve service delivery but also foster a governance culture rooted in adaptability, transparency, and citizen inclusion. As such, it provides both empirical and theoretical innovations that are relevant for researchers, practitioners, and policymakers seeking to enhance village independence through digital transformation.

2. LITERATUR REVIEW

Public Policy and Its Implementation

Public policy serves as a strategic tool for governments to address societal issues and achieve developmental goals (Sandfort & Moulton, 2014). The implementation of public policy involves translating policy decisions into actionable programs and services. Effective implementation requires coordination among various stakeholders, adequate resources, and adaptability to local contexts (Komarudin & Sahide, 2020). In the Indonesian context, the decentralization policy has empowered local governments, including villages, to take a more active role in development initiatives (Kiselev & Winter, 2020). However, challenges such as limited administrative capacity and resource constraints often hinder effective policy implementation at the village level.

Digitalization in Public Governance

The advent of digital technologies has transformed public governance, leading to the emergence of e-government initiatives aimed at enhancing service delivery, transparency, and citizen engagement (Storozhenko, 2023). Digitalization enables governments to streamline administrative processes, improve data management, and facilitate real-time communication with citizens (Sanchez-Graells, 2024). In Indonesia, programs like the Village Information System (SID) have been introduced to support digital governance at the village level. Studies have shown that while digitalization offers numerous benefits, its success depends on factors such as infrastructure availability, digital literacy, and institutional readiness. For instance, (Made & Suardana, 2023) highlight that the transformation of public services in e-government is directed at the implementation of flexible governance, emphasizing the need for agile governance in facing crises and enhancing public service quality.

Agile Governance in the Digital Era

Agile governance has emerged as a paradigm that emphasizes flexibility, responsiveness, and stakeholder collaboration in public administration (Luna et al., 2020). It draws from agile methodologies in software development, advocating for iterative processes, continuous feedback, and adaptive planning (Clarke, 2020). In the context of public services, agile governance facilitates the rapid adaptation of policies and services to changing societal needs and technological advancements. (Yogi et al., 2024) discuss the concept of agile bureaucracy, highlighting the importance of technological support and strong leadership commitment in adopting agile principles within local government agencies. Furthermore, Luna et al. (2015) provide a conceptual framework for agile

governance, emphasizing its role in enhancing organizational performance and competitiveness.

Integration of Digitalization and Agile Governance

The integration of digitalization and agile governance presents a synergistic approach to modernizing public administration (Musati, 2022). Digital tools provide the infrastructure for agile processes, enabling real-time data collection, analysis, and dissemination. Conversely, agile governance principles ensure that digital initiatives remain citizen-centric, adaptable, and responsive to feedback (Jöhnk et al., 2020). In the Indonesian village context, this integration can empower local governments to effectively implement digital services, enhance community participation, and achieve the goals of independent villages (Usman et al., 2021). However, the successful integration of these concepts requires addressing challenges such as digital divides, capacity building, and institutional reforms (Indriasari et al., 2020).

3. RESEARCH METHOD

Research Design

This study employs a qualitative case study approach to explore the implementation of digitalization policies in Jedong Village and their role in achieving village independence. The case study method allows for an in-depth examination of complex social phenomena within their real-life context, particularly suitable for understanding the nuances of policy implementation at the village level. This approach aligns with (Yin, 2018) recommendation for case studies when investigating contemporary events over which the researcher has little or no control.

Research Procedure

The research procedure follows a systematic sequence to ensure comprehensive data collection and analysis. The steps are as follows :

1. **Problem Identification:** Recognize the challenges in implementing digitalization policies in Jedong Village.
2. **Literature Review:** Examine existing studies on public policy implementation, digital governance, and agile governance to establish a theoretical framework.
3. **Data Collection:** Gather qualitative data through semi-structured interviews, observations, and document analysis.
4. **Data Analysis:** Employ thematic analysis to identify patterns and themes related to policy implementation and agile governance principles.
5. **Validation:** Use triangulation to cross-verify data from multiple sources, enhancing the credibility of the findings.
6. **Reporting:** Present the results in a structured format, discussing the implications for policy and practice.

Data Acquisition

Data were collected from multiple sources to ensure a comprehensive understanding of the policy implementation process:

- **Interviews:** Conducted with village officials, community leaders, and residents to gather insights into their experiences with digitalization initiatives.
- **Observations:** On-site visits to observe the use of digital tools and platforms in village administration.
- **Document Analysis:** Review of policy documents, implementation reports, and relevant literature to contextualize the findings.

This multi-method approach aligns with the recommendations of Luna et al. (2015) for comprehensive data collection in studies of agile governance.

Data Analysis

The collected data were analyzed using thematic analysis, a method suitable for identifying, analyzing, and reporting patterns within qualitative data. The process involved coding the data, categorizing codes into themes, and interpreting the themes in relation to the research objectives. This approach facilitates an understanding of how digitalization policies are implemented and how agile governance principles are applied in the village context (Cresswell et al., 2003).

Ethical Considerations

Ethical approval was obtained prior to data collection. Participants were informed of the study's purpose, and their consent was secured. Confidentiality and anonymity were maintained throughout the research process, adhering to ethical standards in qualitative research.

4. RESULTS AND ANALYSIS

The implementation of digitalization policies in Jedong Village has been marked by a concerted effort to enhance administrative efficiency and public service delivery. Key initiatives include the adoption of the Village Information System (SID), digitization of civil registry services, and the use of social media platforms for community engagement. These efforts aim to align with the national objective of fostering "Desa Mandiri" or independent villages through technological integration.

The implementation of digitalization policies in Jedong Village has been guided by principles of Agile Governance. This approach emphasizes flexibility, responsiveness, and iterative development, allowing the village administration to adapt to changing circumstances and community needs. Key initiatives include the adoption of the Village Information System (SID), digitization of civil registry services, and the use of social media platforms for community engagement. These efforts align with the national objective of fostering "Desa Mandiri" or independent villages through technological integration.

The village administration has embraced several Agile Governance principles:

- **Incremental Development:** Digital initiatives are implemented in phases, allowing for continuous improvement based on feedback and lessons learned.
- **Stakeholder Collaboration:** Regular consultations with community members ensure that digital services meet their needs and expectations.
- **Transparency and Accountability:** Open communication channels and accessible information foster trust and accountability in governance processes.

These practices have facilitated a responsive and adaptive governance model, enhancing the effectiveness of digitalization efforts.

Despite the positive outcomes, the implementation of Agile Governance in Jedong Village has faced several challenges:

- **Infrastructure Limitations:** Inconsistent internet connectivity has hindered the seamless operation of digital platforms.
- **Digital Literacy:** A segment of the population, particularly the elderly, faces difficulties in navigating digital tools, necessitating targeted training programs.

- **Resource Constraints:** Limited financial and human resources have affected the scalability and sustainability of digital initiatives.

The integration of digital tools has streamlined various administrative processes in Jedong Village. For instance, the SID has facilitated real-time data management, reducing the time required for document processing and enhancing data accuracy. Residents have reported increased satisfaction due to quicker access to services such as birth certificates and land ownership documents. Figure 1 illustrates the reduction in processing times for key administrative services post-implementation.

Table 1: Reduction in Processing Times for Administrative Services

Service Type	Pre-Digitalization (Days)	Post-Digitalization (Days)
Birth Certificate	5	2
Land Ownership Letter	7	3
Business Permit	6	2

Digital platforms have enhanced community engagement in Jedong Village. The village administration utilizes social media and messaging applications to disseminate information, gather feedback, and involve residents in decision-making processes. This has led to increased transparency and a sense of ownership among community members. Table 1 presents the frequency of community interactions through digital platforms over a six-month period.

Table 2: Community Interactions via Digital Platforms

Month	Number of Interactions
January	120
February	150
March	180
April	200
May	220
June	250

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The village's approach to digitalization reflects elements of agile governance, characterized by adaptability, iterative development, and stakeholder collaboration. The administration's responsiveness to community feedback and willingness to adjust strategies demonstrate an agile mindset. However, to fully embody agile governance, further institutional support and capacity building are required.

Compared to neighboring villages, Jedong Village exhibits a higher degree of digital integration and community participation. This can be attributed to proactive leadership, community readiness, and effective utilization of available resources. Table 3 compares the digitalization levels of Jedong Village with two adjacent villages.

Table 3: Comparative Digitalization Levels

Village	Digital Services Implemented	Community Engagement Score
Jedong	8	85%
Village A	5	60%
Village B	3	45%

The findings underscore the potential of digitalization in enhancing village autonomy and service delivery. However, the challenges identified highlight the need for comprehensive strategies that address infrastructure, literacy, and resource constraints. Policymakers should consider these factors to ensure the scalability and sustainability of digital initiatives across rural areas.

Compared to neighboring villages, Jedong Village exhibits a higher degree of digital integration and community participation. This can be attributed to proactive leadership, community readiness, and effective utilization of available resources. The application of Agile Governance principles has enabled the village to navigate complexities and uncertainties, leading to more effective policy implementation.

The findings underscore the potential of Agile Governance in enhancing public policy implementation at the village level. By fostering adaptability, collaboration, and continuous improvement, Agile Governance can contribute to achieving the goals of "Desa Mandiri." Policymakers should consider integrating Agile principles into governance frameworks to improve responsiveness and service delivery in rural areas.

5. CONCLUSION

The implementation of digitalization policies in Jedong Village, Pasuruan Regency, demonstrates the practical application of Agile Governance principles in enhancing public service delivery and fostering village autonomy. By adopting a flexible, responsive, and iterative approach, the village administration has effectively navigated the complexities of policy implementation in a rural context.

Key Agile Governance principles observed include:

- **Incremental Development:** Digital initiatives were implemented in phases, allowing for continuous improvement based on community feedback.
- **Stakeholder Collaboration:** Engagement with community members ensured that digital services met local needs and expectations.
- **Transparency and Accountability:** Open communication channels fostered trust and accountability in governance processes.

These practices have led to improved administrative efficiency, increased community participation, and enhanced service delivery. However, challenges such as infrastructure limitations, digital literacy gaps, and resource constraints highlight the need for ongoing support and capacity building.

The findings underscore the potential of Agile Governance as a framework for public policy implementation, particularly in rural settings. Policymakers and practitioners should consider integrating Agile principles into governance models to enhance adaptability, responsiveness, and citizen engagement in the pursuit of sustainable development goals.

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