UTILIZATION OF DIGITALIZATION IN IMPROVING THE QUALITY OF SERVICES AND INFORMATION IN SUMURKONDANG VILLAGE, CIREBON

Merlinda Intan Fauziah[1*], Fajar Nurjaman[2], Rayhan Syawal Firizki[3], Elvira Fitriyanti[4], Alif Suryalaksana[5]
Politeknik Siber Cerdika Internasional, Cirebon, Indonesia[1,2,3,4,5]
Corresponding Author: merlinda_intan@polteksci.ac.id, fajar_nurjaman@polteksci.ac.id

Abstrak. Digitalization plays a transformative role in improving public service delivery and information dissemination, particularly in rural areas. This study explores the implementation of digitalization in Sumurkondang Village, Cirebon, and its effects on administrative efficiency, accessibility, and community involvement. Employing a qualitative approach with a descriptive case study design, the research involved in-depth interviews, participatory observations, and document analysis. The findings reveal that digitalization improves service quality and ease of access, particularly among younger residents. However, challenges such as low digital literacy among older populations, limited infrastructure, and lack of awareness hinder widespread adoption. Despite some basic digital training conducted by the village government, participation remains low, and skepticism toward digital platforms persists among older users. The study concludes that while digitalization holds great promise for rural development, its success depends on inclusive training, stronger infrastructure, and active community engagement. Recommendations include targeted digital literacy programs, improved internet access, and collaborative efforts between local governments and external partners. These efforts can foster sustainable digital transformation and serve as a model for similar rural communities in Indonesia.
Keywords: Digitalization, Public Services, Village Information, Administrative Efficiency, Digital Literacy, Technology Infrastructure

INTRODUCTION

The global shift toward digitalization has significantly transformed how public services and information are delivered, especially in rural and underdeveloped regions. Digital technologies are being recognized as powerful tools for improving administrative efficiency, promoting transparency, and enhancing access to essential services (World Bank, 2021). According to the OECD (2020), digital government initiatives have increased service responsiveness and citizen engagement globally. Moreover, the United Nations E-Government Survey (2022) emphasizes that the digital divide remains a challenge in developing countries, where rural communities often lag behind due to inadequate infrastructure and limited digital literacy.

In Indonesia, the government has initiated various programs to promote village digitalization as part of the broader smart village development agenda. Despite these efforts, many rural areas continue to face substantial implementation barriers, such as limited internet connectivity, a lack of trained personnel, and low community readiness (Kementerian Kominfo, 2023). Sumurkondang Village in Cirebon serves as a clear example of these challenges. While the village has introduced some digital service innovations, residents still struggle to access digital platforms effectively (Rahoyo et al., 2021). Studies have also indicated that socio-cultural resistance and generational gaps further complicate technology adoption in rural settings (Lailiyah, 2021; Abdussamad, 2021).

Several prior studies have explored village digitalization in the Indonesian context. Rochman et al. (2022) highlighted the importance of structured training and mentoring programs for village officials to enhance digital competencies. Nurrahman (2022) demonstrated that the use of village websites effectively increases transparency and accessibility for residents. Similarly, Nirsal (2024) found that the deployment of Village Service Information Systems (Sistem Informasi Pelayanan Desa) plays a critical role in accelerating the realization of smart village initiatives.

This study distinguishes itself by offering a holistic, contextual analysis of digitalization in Sumurkondang Village. Unlike prior works that focus solely on technical infrastructure or user adoption, this research integrates the social, economic, and cultural dimensions that influence the digitalization process at the local level (Yulianto, 2022; Supriyani & Setyowati, 2021; Sastrawangsa et al., 2021). The research also emphasizes participatory observation and community engagement as key strategies in sustaining digital transformation in rural areas.

The main objectives of this study are to: (1) analyze the existing conditions related to the quality of service and information dissemination in Sumurkondang Village; (2) identify the obstacles and challenges faced during the digitalization process; and (3) formulate strategic recommendations to improve service quality through the integration of digital technologies.

This research is expected to provide several benefits. For local governments, particularly the Sumurkondang Village administration, it offers practical insights to improve service delivery and information transparency through digital tools. For rural communities, it empowers residents to leverage digital platforms in their daily lives, improving access to services and civic participation. Lastly, for academics and policymakers, the findings enrich the

literature on rural digital transformation and serve as a reference for scalable, sustainable digitalization models in similar settings.

METHOD

The research employed a qualitative approach aimed at gaining an in-depth understanding of the use of digitalization in improving the quality of services and information in Sumurkondang Village, Cirebon. This approach was selected to allow comprehensive exploration of the phenomena through direct interaction with research subjects in their natural context. A descriptive case study design was utilized to examine the real-life implementation of digitalization in the village and its influence on service delivery and information dissemination. The study was conducted in Sumurkondang Village, Cirebon Regency, West Java, chosen for its proactive efforts in adopting digital technologies to enhance public services. The research subjects included village officials (such as the village head, secretary, and administrative staff), local community members (including youth, women, and community leaders), and external stakeholders (such as technology providers and support institutions).

The primary instrument in this research was the researcher, supported by tools such as interview guides, observation checklists, and documentation equipment (e.g., cameras and voice recorders) to ensure accurate data capture. Data collection methods consisted of in-depth semi-structured interviews to explore perceptions and experiences, participatory observation to capture social and cultural dynamics, and documentation study to review formal records and policies. Data were analyzed thematically by identifying patterns and relationships relevant to the research objectives, following steps of data collection, reduction, presentation, and conclusion. To ensure data validity, triangulation of sources and methods was applied by comparing information gathered from multiple respondents and data collection techniques.

RESULTS AND DISCUSSION

Sumurkondang Village is one of the villages in Cirebon Regency which has a population of around 1,204 people. Most of the population works in the agricultural and labor sectors, while others work in the home industrial sector. Along with technological developments, the village government has begun to initiate a digitalization program since 2023 to improve the efficiency of public services and accelerate the dissemination of information to the community. This digitalization program includes the construction of village websites, the procurement of mobile-based public service applications, and the provision of free internet access at several strategic points, such as village halls, community centers, and schools (Rusdianto et al, 2022). This initiative is expected to help the community access administrative services without having to come directly to the village office, so that the time and costs spent can be more efficient.

However, the implementation of digitalization faces various challenges, especially related to the technology gap among rural communities. Some citizens, especially the younger generation, are quickly adopting the digital services provided. They use village apps to obtain information related to social assistance programs, tax payments, and correspondence online.

On the other hand, the elderly group tends to have difficulty adapting to these changes due to the limitations of digital literacy. In addition, the technological infrastructure in the village is not fully adequate, with some difficulties in implementing digitalization in the village such as digital-based administrative services.

To gain a deeper understanding of public acceptance of digitalization, in-depth interviews were conducted with 20 respondents who were selected based on variations in age, profession, and education level. From these interviews, it was found that the majority of people under the age of 40 feel that digitalization brings significant benefits. They consider that the online services provided by the village government are very helpful in taking care of administrative documents, such as making ID cards, family cards, and business licenses, without the need to come directly to the village office.

However, people over 40 years old have diverse views. About 50% of this group is still comfortable with conventional methods and is less interested in using digital services. Some of the reasons they conveyed were limitations in understanding technology, distrust of digital systems, and lack of assistance in the use of village applications. In addition, some respondents also expressed concerns regarding the security of personal data they entered in public service applications.

In addition, the results of observations show that there is an imbalance in the use of village applications between people who are already technologically literate and those who are not familiar with digital devices. Young people appear to be more active in using village service applications to obtain information or apply for services, while older communities tend to seek help from their younger family members to access digital services (Rahoyo et al., 2021).

In addition, it was also found that there is still a need for socialization and training for the community regarding the use of digital services (Lailiyah, 2021). Although the village government has conducted some basic training on the use of public service applications, the number of participants who participate in this activity is still limited. Some residents admitted that they were not aware of the training, while others felt that the training provided was still in-depth and needed to be increased so that people were more confident in using digital services (Rahoyo et al., 2021).

To clarify the results of the research, the following are some data visualizations that illustrate the level of acceptance and utilization of digitalization by the people of Sumurkondang Village.

Table 1. Levels of Technology Understanding by Age

Kelompok Usia	Jumlah Responden	Familiar dengan Teknologi (%)	Tidak Familiar dengan Teknologi (%)
< 30 tahun	8	87.5	12.5
30-40 tahun	5	80	20
41-50 tahun	4	50	50
> 50 tahun	3	33.3	66.7

Based on the table above, it can be seen that the older the age group, the lower their level of understanding of technology (Rahoyo et al., 2021). This shows that a more intensive digital education program is needed for older people so that they can make better use of digital services (Lailiyah, 2021).
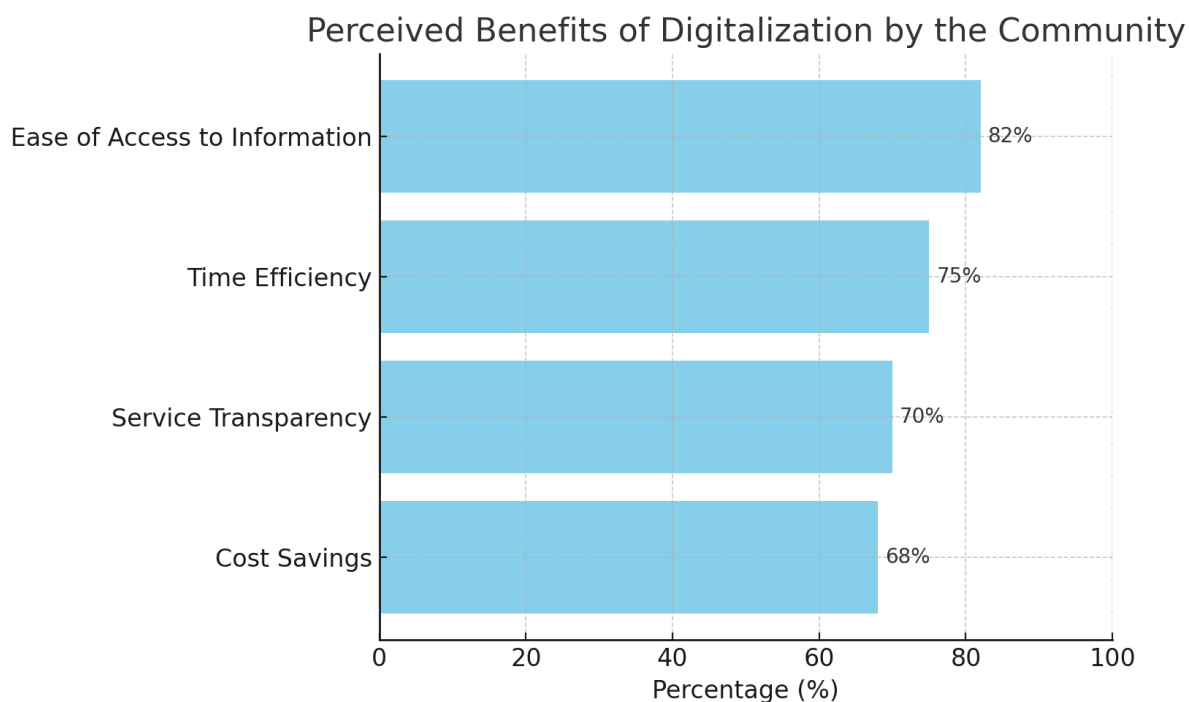
Perceived Benefits of Digitalization by the Community

Ease of Access to Information — 82%
Time Efficiency — 75%
Service Transparency — 70%
Cost Savings — 68%

Percentage (%)

Figure 1. Graph of the Perceived Benefits of Digitalization
Reference sources: (Rahoyo, M, et al (2021)

The graph above shows that the majority of people feel that digitalization provides significant benefits, especially in ease of access to information and time efficiency in managing administration (Rahoyo et al., 2021). However, some aspects such as service transparency and cost savings still need to be improved so that the benefits of digitalization can be optimally felt by the entire community (Lailiyah, 2021).

The results of this study show that digitalization in Sumurkondang Village has had a positive impact on public services and information dissemination. Younger and tech-savvy people tend to accept digitalization well and feel its benefits in daily life. Therefore, further steps are needed in the form of technology training, infrastructure improvement, and wider socialization so that the benefits of digitalization can be felt by all village communities (Abdussamad, 2021).

The findings of this study are consistent with several previous studies. For example, research by Rahoyo et al. (2021) shows that village digitalization can increase local economic growth through the efficiency of public services. However, as also found in this study, challenges such as limited infrastructure and digital literacy are the main obstacles. In addition, a study by Lailiyah (2021) emphasizes that the implementation of village digitalization requires full support from the government and active community participation to achieve good

governance. This is in line with the findings in Sumurkondang Village, where collaboration between the village government and the community is the key to the success of the digitalization program.

CONCLUSIONS

This study analyzed the implementation of digitalization in Sumurkondang Village and its impact on public service quality and information dissemination. The findings reveal that digitalization has significantly improved administrative efficiency and accessibility to village services, particularly among younger and tech-savvy residents. However, the study also identifies critical challenges, including limited internet infrastructure, unequal levels of digital literacy especially among the elderly and insufficient public awareness of available digital services. These factors hinder the full realization of digitalization benefits. The digital divide by age group remains a barrier that needs urgent intervention to ensure equitable access for all citizens. To maximize the potential of digitalization in rural areas, the village government should prioritize continuous digital literacy training, especially for older residents. Infrastructure improvements, such as expanding internet coverage, must be pursued in collaboration with technology partners. Moreover, community outreach and socialization efforts need to be intensified to improve public confidence in digital services. Future studies could explore cross-village comparisons and assess long-term behavioral shifts in technology use resulting from digitalization initiatives.

REFERENCES

Abdussamad, J. (2021). *Pendampingan digitalisasi desa sebagai upaya pengembangan potensi lokal*. Community Development Journal, 4(2), 1960–1965.

Ekram, I., Tuanaya, W., & Wance, M. (2022). *Pemanfaatan teknologi informasi dalam pelayanan publik kantor manunggal satu atap provinsi Maluku*. Jurnal Ilmu Administrasi, 11(1), 45–58.

Kementerian Komunikasi dan Informatika. (2023). *Laporan Transformasi Digital Desa*. Jakarta: Kominfo Press.

Lailiyah, M. (2021). *Digitalisasi desa sebagai upaya percepatan pelayanan publik dalam mewujudkan good governance*. Jurnal Ristek, 1(1), 1–10.

Nurrahman, A. (2022). *Pemanfaatan website desa dalam meningkatkan transparansi informasi publik*. Jurnal Administrasi Publik, 8(1), 77–85.

Nirsal, M. (2024). *Implementasi sistem informasi pelayanan desa menuju smart village*. Jurnal Sistem Informasi dan Teknologi, 5(1), 25–34.

OECD. (2020). *Digital Government in the Post-COVID Era: Resilient and Agile Public Services*. OECD Digital Economy Papers.

Rahoyo, M., Slahanti, M., & Heriawan, B. (2021). *Peran digitalisasi desa terhadap pertumbuhan ekonomi di Desa Krandegan, Jawa Tengah*. Jurnal Kritis, 1(1), 1–21.

Rochman, G. P., Fardani, I., Akliyah, L. S., & Burhanuddin, H. (2022). *Digitalisasi desa di Desa Cikole Lembang*. RESONA: Jurnal Ilmiah Pengabdian Masyarakat, 5(2), 181–197.

Rusdianto, A., Pradana, D., & Salim, F. (2022). *Penerapan aplikasi pelayanan publik berbasis digital di desa*. Jurnal Teknologi dan Masyarakat, 6(1), 13–25.

Sastrawangsa, G., Jayanti, N. K. D. A., Putri, N. M. D. K., & Sekarini, I. G. A. A. (2021). *Pemanfaatan teknologi informasi untuk mendukung pelayanan publik di Desa Petak Kabupaten Gianyar*. Jurnal Manajemen Informatika, 12(3), 134–148.

Supriyani, S., & Setyowati, Y. (2021). *Digitalisasi desa dalam perspektif governmentality: Studi kasus Kalurahan Sambirejo, Sleman*. Jurnal Studi Kebijakan Publik, 7(2), 56–68.

United Nations. (2022). *E-Government Survey 2022: The Future of Digital Government*. Department of Economic and Social Affairs.

World Bank. (2021). *Digital Government for Development: Pathways to a Sustainable Future*. World Bank Group.

Yulianto, D. (2022). *Pemanfaatan teknologi informasi untuk pemasaran pariwisata desa Ngesong, Yogyakarta*. Jurnal Pariwisata Indonesia, 11(2), 98–110.