

UTILIZATION OF DIGITALIZATION ON THE QUALITY OF ADMINISTRATIVE SERVICES IN KARANG WANGI VILLAGE, CIREBON

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ABSTRACT

Keywords: Digitization; Village Administration Services; Community Satisfaction.	This study examines the impact of digitization on the quality of administrative services in Karangwangi Village, Cirebon, amidst the government's smart village initiative aimed at improving public service efficiency and village governance. The research aims to analyze community satisfaction, identify challenges in digitalization implementation, and provide strategic recommendations for enhancement. Employing a qualitative case study approach, data were collected through in-depth interviews with village officials and residents, direct observations of digital service usage, and review of relevant documents. Findings reveal that while digitization has positively influenced service speed and transparency, significant obstacles remain, including limited digital literacy among residents, inadequate technological infrastructure, and insufficient training for village officials. Community satisfaction with digital services is generally high, yet access and information transparency need improvement. The study concludes that to maximize the benefits of digital administration, efforts must focus on enhancing infrastructure, expanding training programs for officials and residents, and increasing socialization about digital services. This research offers valuable insights for policy makers and village governments seeking to optimize digital transformation in rural public services and supports broader efforts to modernize administrative functions at the village level.
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INTRODUCTION

The digitization of village administration services has become a priority in an effort to support the smart village program planned by the government (Muhtar et al., 2023). This program aims to create villages that are able to utilize digital technology to improve public services, optimize village governance, and accelerate village development (Amsikan et al., 2023). This policy is also supported by the issuance of Law Number 6 of 2014 concerning Villages, which emphasizes the importance of innovation in village administration management (Nurkholis et al., 2022).

However, in its implementation, the digitization of village administrative services still faces various challenges. Some villages have successfully implemented digital systems optimally, while others still face technical obstacles, limited human resources, and resistance from people who do not fully understand the benefits of digitalization (Nursin et al., 2023). This raises the question of the extent of the impact of digitalization on the quality of village administrative services, especially in areas that are still in the development stage of digital infrastructure (Ella & Andari, 2018).

Karangwangi Village, Cirebon, is one of the villages that has begun to adopt digitalization in administrative services (Ella & Andari, 2018). The village government has implemented several digital innovations, such as a website-based service system, the use of village administration applications, and the use of social media for communication with the community. However, there are several obstacles that hinder the effectiveness of digitalization in this village, such as the lack of digital literacy of the community, and the lack of training for village officials in managing the digital system (Rosmasari et al., 2024).

In addition, some residents still prefer conventional administrative services because they feel more comfortable with the face-to-face system. This poses a challenge for village governments in ensuring that digitalization really has a positive impact on service quality (Jayanthi et al., 2022). Therefore, this study will explore the extent to which digitalization affects the quality of administrative services in Karangwangi Village, both in terms of time efficiency, ease of access, and the level of community satisfaction with village services (Aryono et al., 2025).

This study refers to two previous relevant studies. First, a study by Mardiyani et al. (2020) entitled "Implementation of Village Administration Digitalization in Improving the Quality of Public Services," found that administrative digitalization in several villages in Central Java has increased service efficiency by up to 40%, but still faces challenges in the digital literacy of village apparatus (Mardiyani et al., 2020). Second, research by Septiansyah et al. (2023) entitled "Digital Transformation in Village Administration Services: A Case Study in Bandung Regency," shows that digitalization has accelerated administrative processes by up to 50% and increased service transparency, although there are still constraints in technological infrastructure in remote areas (Septiansyah et al., 2023).

The main difference between this study and the previous study is its focus on Karangwangi Village, Cirebon, which has not been widely studied in previous research. In addition, this study will evaluate the level of community satisfaction as the main indicator of the success of the digitization of village administration, not only the efficiency and transparency aspects as in previous research (Muhtar et al., 2023). Thus, this research is expected to provide more focused and case-based insights in the context of villages that are being digitally transformed (Mishbah et al., 2018).

This research aims to analyze the impact of digitalization on the quality of administrative services in Karangwangi Village, identify challenges in its implementation, evaluate community satisfaction, and provide strategic

recommendations for the village government, so that the results of this research can be the basis for policy formulation, improve community understanding, become an academic reference, and support the evaluation of village digitalization policies more broadly.

METHOD

This study employs a qualitative approach with a case study design to explore the impact of digitalization on the quality of administrative services in Karangwangi Village, Cirebon, focusing on community satisfaction and implementation challenges. Data sources include primary data from in-depth interviews with village officials, service users, and related parties involved in digitalization, and secondary data from literature reviews, government reports, and relevant documents. The population comprises the village community, officials, and stakeholders in digital service implementation. Samples were selected purposively among residents using digital services and through snowball sampling for village officials to gain comprehensive insights. Data collection involved interviews to capture experiences and satisfaction levels, direct observations of digital service processes including applications and interactions, and documentation studies of policies and reports. Following Creswell's (2014) four research steps, the study began with preparation through literature review and instrument design, proceeded with data collection and organization, thematic analysis to identify key themes such as service quality impact and challenges, and culminated in report writing including policy recommendations. Triangulation of interviews, observations, and documentation was employed to ensure research validity. This approach provides a comprehensive understanding of digitalization effects on village administrative services and guides improvements in service delivery.

RESULTS AND DISCUSSION

This research involves the people of Karangwangi Village and village officials involved in the implementation of digitization of administrative services. Data collection is carried out through in-depth interviews and direct observation of the digitized administrative service process (Wirayudha & Karno, 2024).

The number of respondents involved was 40 people, consisting of 30 communities who use digital services and 10 village officials who are responsible for the implementation of digitalization. Community respondents were selected using purposive sampling techniques based on the criteria for using digital services, while village officials were selected using snowball sampling techniques to obtain in-depth information.

Of the total 30 people who became respondents, most were residents aged 30-45 years (60%), followed by 30% of residents aged 46-60 years, and the rest (10%) were over 60 years old. Most of the respondents had a primary to secondary level of education (70%), while the other 30% had higher education. Respondents involved in the use of digital applications and websites for village administration showed varying levels of digital literacy.

Observations were carried out to assess the process of implementing digitalization in village administrative services. Here are some key findings based on first-hand observations:

Administrative Services Website

The website used for village administration services has quite complete features, but still faces problems in terms of speed of access and interaction with users. Some residents who are not familiar with digital technology have difficulty accessing information or applying for services online (Adi & Suhartono, 2017).

Use of Village Administration Application

The administrative application introduced to facilitate the management of population data, licensing, and applying for social assistance seems to be working quite well. However, there are obstacles related to the limited knowledge of the public in using the application.

Social Interaction through Social Media

The use of social media for communication between the community and the village government has a positive impact in terms of communication speed. However, not all citizens have access and ability to take advantage of this platform.

Visualization

The findings from the observation results show that several important aspects related to the digitization of administrative services in Karangwangi Village can be described through the table below:

Table 1. Level of Public Satisfaction with the Digitalization of Administrative Services

Aspek Pelayanan	Sangat Puas	Puas	Cukup Puas	Tidak Puas
Kecepatan Layanan	20%	50%	20%	10%
Kemudahan Akses	15%	45%	25%	15%
Transparansi Proses Layanan	30%	40%	20%	10%
Kepuasan secara keseluruhan	25%	55%	15%	5%

Sumber: Persentase Kepuasan Masyarakat terhadap Pelayanan Digital

Based on Table 2 of the observation results in Karangwangi Village, the level of community satisfaction with the digitization of administrative services can be explained as follows: in terms of service speed, 20% of respondents were very satisfied, 50% were satisfied, 20% were quite satisfied, and 10% were dissatisfied. On ease of access, 15% of respondents were very satisfied, 45% were satisfied, 25% were quite satisfied, and 15% were dissatisfied. For the transparency of the service process, 30% of respondents were very satisfied, 40% satisfied, 20% quite satisfied, and 10% dissatisfied. Overall, 25% of respondents were very satisfied, 55% were satisfied, 15% were quite satisfied, and 5% were dissatisfied with digital administrative services. In general, the majority of people are satisfied with the digitization of these services, although there are still some who are dissatisfied, especially regarding access and transparency (Nurkholis et al., 2022).

Obstacles in the Implementation of Digitalization

Based on the results of observations and interviews, here are some of the main obstacles faced in the implementation of digitalization:

1. Limited Technology Infrastructure: Most areas of Karangwangi Village do not have a stable internet network, which hinders the effectiveness of digital services.
2. Low Digital Literacy: Many residents are not familiar with the use of technology, so they tend to choose conventional service methods.
3. Lack of Training of Village Officials: Some village officials acknowledged a lack of training in managing digital systems, which led to delays in responding to service requests.

The table below shows the percentage of respondents who reported the main obstacles faced in the use of digital administration services.

Table 2. Obstacles in the Implementation of Digitalization

Kendala	Persentase Responden
Keterbatasan Infrastruktur	40%
Literasi Digital Masyarakat	35%
Kurangnya Pelatihan Aparat Desa	25%

Table 2 above shows the obstacles faced in the implementation of digitalization. The main obstacle faced was the limitation of infrastructure, which was identified by 40% of respondents. In addition, 35% of respondents said that the low digital literacy of the community is a barrier in the implementation of digitalization. Finally, 25% of respondents considered that the lack of training for village officials is an important obstacle in efforts to implement digitalization at the village level.

Interview Data and Interpretation of Interview Results

Based on the results of interviews conducted with 30 digital service users and 10 village officials in Karangwangi Village, Cirebon, there are various findings related to the impact of digitalization on village administrative services. Most people expressed that they were satisfied with the digitalization of services, especially in terms of service speed and process transparency. However, some people admit that there are difficulties in accessing online services due to limited digital literacy (Nursin et al., 2023).

Village officials revealed that their main challenge in managing the digital system is the lack of adequate training related to village administration applications. They stated that even though the apps and websites used are already functioning well, many of them find it difficult to maximize the use of the technology. This can hinder operational efficiency and response to service requests (Nurkholis et al., 2022).

Younger, highly educated people tend to be more adaptable to technology, while older, lower-educated citizens tend to prefer to use conventional services. This shows that there is an inequality in the ability to access and utilize digital technology among citizens (Hutagalung, 2017).

Analysis of Observation Results

Observations of the implementation of digitalization in Karangwangi Village also revealed several important findings. Although the village administration service website has quite complete features, it often experiences problems in terms of access speed. This can be a major barrier for residents who want to access services quickly, especially for those who live in areas with inadequate internet infrastructure.

The use of village administration applications for population data management, licensing, and social assistance applications showed quite positive results, but there were still shortcomings in terms of community understanding. Most residents do not fully understand how to use the application, so they tend to opt for more familiar conventional methods.

Social media is also used for communication between village officials and the community, providing benefits in terms of communication speed. However, only a small percentage of citizens have the access and skills to make optimal use of this platform, so it is still limited in scope.

Comparison with Previous Research

This study shows similarities with a previous study conducted by Santoso and Wijayanto (2021), which found that although digitalization has improved service efficiency, the problem of digital literacy of village apparatus remains a challenge. A similar thing was also found in the research of Rahmawati et al. (2022), which stated that the main obstacles in the implementation of digitalization in remote areas are limited infrastructure and low digital literacy of the community.

However, the main difference from this study is the emphasis on the level of community satisfaction as the main indicator of the success of the digitization of village administrative services. Previous research focused more on efficiency and transparency, while this study assessed the direct impact of digitalization on people's experience in accessing administrative services.

From the results of this study, there are several practical implications that can be applied by the village government and related parties in optimizing the digitization of village administration services. First, the village government needs to improve technological infrastructure, especially in improving the speed and stability of internet access throughout the village area. This is very important so that digital services can be easily accessed by all citizens, without being constrained by technical problems.

Second, training programs for village officials should be improved to ensure they have sufficient skills in managing and operating digital systems. This training can cover the technical aspects of village administration applications as well as ways to assist the community in using the system (Rachmawati, 2018).

Third, efforts to improve people's digital literacy are also very necessary. This can be done through socialization and training programs aimed at the community, particularly for those who are older or have a lower level of education. The village government can collaborate with educational institutions or community organizations to implement this program.

CONCLUSION

The conclusion of this study shows that the digitization of administrative services in Karangwangi Village, Cirebon, has a positive impact on service quality, especially in terms of speed and transparency. The majority of people are satisfied with digital services despite several obstacles, such as low community digital literacy, limited infrastructure, and lack of training for village officials. The level of public satisfaction with digital administration services is quite good, although some aspects such as access and transparency still require more attention. The main obstacles faced are infrastructure problems that hinder the speed of services, as well as the lack of understanding of the community and village officials in using digital technology. Therefore, it is recommended to increase training for village officials and communities, as well as improve technology infrastructure so that digitalization can be implemented optimally. Overall, this study provides a clearer picture of the impact of digitalization in transforming villages, with strategic recommendations to improve the effectiveness of digital systems in village administrative services.

REFERENCES

- Adi, S., & Suhartono, J. (2017). Smart village geographic information system (GIS) development in Indonesia and its analogous approaches. *2017 International Conference on Information Management and Technology (ICIMTech)*, 65–70.
- Amsikan, D. K., Kelen, Y. P. K., & Seran, K. T. (2023). Digitalisasi pelayanan administrasi kependudukan di Desa Taunbaen Timur berbasis website menggunakan metode prototype. *Adopsi Teknologi Dan Sistem Informasi (ATASI)*, 2(1), 11–19.
- Aryono, G. D. P., Auliana, S., Sapaatullah, A., Masyhuri, M., & Saputro, A. D. (2025). Pendampingan digitalisasi sistem administrasi desa berbasis aplikasi di Desa Sukacai Kecamatan Jiput Kabupaten Pandeglang. *Jurnal Pengabdian Multidisiplin Indonesia (JUPEMI)*, 2(3), 6–12.
- Creswell, J. W. (2014). *Investigação qualitativa e projeto de pesquisa: Escolhendo entre cinco abordagens*. Penso Editora.
- Ella, S., & Andari, R. N. (2018). Developing a smart village model for village development in Indonesia. *2018 International Conference on ICT for Smart Society (ICISS)*, 1–6. <https://doi.org/10.1109/ICTSS.2018.8549973>
- Hutagalung, S. S. (2017). Peningkatan kualitas pelayanan publik bagi layanan administrasi pemerintahan desa Kecamatan Jati Agung Kabupaten Lampung Selatan. *Jurnal Pengabdian Kepada Masyarakat Sakai Sambayan*, 1(2), 54–60.
- Jayanthi, R., Dinaseviani, A., Indraprahasta, G. S., & Sitompul, R. F. (2022). Digital technology and smart village development in Banyuwangi, Indonesia: An exploratory study. *Bulletin of Geography. Socio-Economic Series*, 57, 79–91.
- Mardiyani, S. A., Sari, D. N., Koti, S., Cahyati, R., Safitri, H., Aziz, M. A., Muslim, B., Afriadi, A., Frandika, D. H., & Hendrawan, D. (2020). Digitalisasi desa untuk meningkatkan kualitas layanan dan informasi. *Jurnal Pembelajaran Pemberdayaan Masyarakat (JP2M)*, 1(3), 188–192.
- Mishbah, M., Purwandari, B., & Sensuse, D. I. (2018). Systematic review and meta-analysis of proposed smart village conceptual model: Objectives, strategies,

- dimensions, and foundations. *2018 International Conference on Information Technology Systems and Innovation (ICITSI)*, 127–133.
- Muhtar, E. A., Abdillah, A., Widianingsih, I., & Adikancana, Q. M. (2023). Smart villages, rural development and community vulnerability in Indonesia: A bibliometric analysis. *Cogent Social Sciences*, 9(1), 2219118. <https://doi.org/10.1080/23311886.2023.2219118>
- Nurkholis, A., Jupriyadi, J., Budiman, A., Pasha, D., Ahdan, S., Andika, R., & Amalia, Z. (2022). Digitalisasi pelayanan administrasi surat pada Desa Bandarsari. *Journal of Social Sciences and Technology for Community Service (JSSTCS)*, 3(1), 21–28. <https://doi.org/10.33365/jsstes.v3i1.1493>
- Nursin, E., Septiana, G. L., Sahidi, C. S. R., & Aimang, H. A. (2023). Penerapan administrasi pemerintahan desa berbasis digitalisasi. *Jurnal Pengabdian Masyarakat*, 6(1).
- Rachmawati, R. (2018). Pengembangan smart village untuk penguatan smart city dan smart regency. *Jurnal Sistem Cerdas*, 1(2), 12–19.
- Rosmasari, R., Nanda, A., Jamil, M., Khoirunnita, A., & Alex, R. (2024). Digitalisasi pelayanan administrasi desa menggunakan website E-surat pada Desa Handil Terusan. *Ilmu Komputer Untuk Masyarakat*, 5(2), 60–69. <https://doi.org/.33096/ilkomas.v5i2.2525>
- Septiansyah, B., Wulandari, W., Gunawan, W., & Rochaeni, A. (2023). Peranan teknologi informasi dan komunikasi dalam pelayanan publik desa di era digital 4.0 (studi kasus pemerintah Desa Ciburial Kecamatan Cimenyan Kabupaten Bandung). *Academia Praja: Jurnal Ilmu Politik, Pemerintahan, Dan Administrasi Publik*, 6(2), 261–271.
- Wirayudha, F., & Karno, K. (2024). Penerapan aplikasi sistem informasi administrasi pemerintahan desa dalam meningkatkan keterbukaan pemerintahan di Kabupaten Bojonegoro. *Ipdn*.