Faculty of Government Management, Governance Institute of Home Affairs (IPDN)

Building Digital Villages: Implementation of the Metadesa System in the Smart Village Program in Lampung Province

Author: Angga Natalia

Affiliation:

Universitas Islam Negeri Raden Intan Lampung, Jl. Letkol Endro Suratmin Sukarame, Bandar Lampung, 35131, Indonesia

e-Mail:

angganatalia@radenintan.ac.id

*Corresponding author

Angga Natalia Universitas Islam Negeri Raden Intan Lampung, indonesia Email: angganatalia@radenintan.ac.id

Available Online: Aug 16, 2025

Received: Oct 28, 2024

Revised: Mar 18, 2025

Accepted: Aug 08, 2025

ABSTRACT

This study analyzes the implementation of the Metadesa System within the Smart Village Program in Lampung Province, which aims to improve the quality of rural life through the utilization of information and communication technology (ICT). The Metadesa System functions to integrate data across administrative levels village, sub-district, district, and province while supporting public services that are more transparent, accountable, and efficient. Focusing on three main pillars, namely Smart Government, Smart Economy, and Smart People, this study evaluates the effectiveness and challenges of implementation using an evaluative approach, covering aspects of communication, resources, implementers' attitudes, and bureaucratic structure. The findings indicate that the implementation of the Metadesa System has contributed to improved public service efficiency and community empowerment, despite facing challenges such as limited internet infrastructure and low digital literacy in certain areas. The urgency of this study lies in the need to accelerate rural digital transformation to reduce development disparities and strengthen data-driven governance. It is recommended that the development of human resource capacity, along with sustained policy and technological infrastructure support, be prioritized to enable the replication of successful implementation in other regions.

Keywords: Metadesa System; Policy Implementation; Smart Village

Faculty of Government Management, Governance Institute of Home Affairs (IPDN)

ABSTRAK

Penelitian ini menganalisis implementasi Sistem Metadesa dalam Program Smart Village di Provinsi Lampung yang bertujuan meningkatkan kualitas hidup masyarakat desa melalui pemanfaatan teknologi informasi dan komunikasi (TIK). Sistem Metadesa berfungsi mengintegrasikan data lintas tingkatan pemerintahan desa, kecamatan, kabupaten, hingga provinsi serta mendukung pelayanan publik yang lebih transparan, akuntabel, dan efisien. Dengan berfokus pada tiga pilar utama, yaitu Smart Government, Smart Economy, dan Smart People, penelitian ini mengevaluasi efektivitas dan tantangan implementasi menggunakan pendekatan evaluatif, meliputi aspek komunikasi, sumber daya, sikap pelaksana, dan struktur birokrasi. Hasil penelitian menunjukkan bahwa penerapan Sistem Metadesa berkontribusi pada peningkatan efisiensi layanan publik dan pemberdayaan masyarakat desa, meskipun masih dihadapkan pada kendala seperti keterbatasan infrastruktur jaringan dan rendahnya literasi digital di beberapa wilayah. Urgensi penelitian ini terletak pada pentingnya akselerasi transformasi digital desa guna mengurangi disparitas pembangunan dan memperkuat tata kelola berbasis data. Penelitian ini merekomendasikan perlunya penguatan kapasitas sumber daya manusia serta dukungan kebijakan dan infrastruktur teknologi secara berkelanjutan untuk mereplikasi keberhasilan implementasi di wilayah lain.

Kata kunci: Sistem Metadesa; Implementasi Kebijakan; Smart Village

INTRODUCTION

Improving the quality of life for rural communities has become one of the main agendas of the Indonesian government in recent decades. This is reflected in various policies focused on village development, where the government encourages villages to become more independent and competitive. One of the strategic policies in supporting this agenda is the implementation of the Smart Village Program. This program adopts the using information concept of communication technology (ICT) as a tool to accelerate village development, improve the quality of public services, and empower village communities in various aspects of life. The Smart Village Program is designed to address various challenges faced by villages in the context of modernization, one of which is the limitation of infrastructure and access to efficient public services.

The current digital era, villages in Indonesia, including those in Lampung, are faced with the challenge of adapting to rapid technological developments. The Smart

Village program aims to create smart, independent, and competitive villages, focusing on three main pillars: Smart Government, Smart Economy, and Smart People (Setiawan, 2023).

Previous research has shown that internet usage and investment in ICT significantly contribute to economic growth in the provinces of Sumatra, including Lampung (Wardhono et al., 2023). Therefore, the development of digital infrastructure in the villages of Lampung is very important to support this initiative.

Lampung Province is one of the regions actively implementing the Smart Village Program through the adoption of the Metadesa System. This system is designed to comprehensively integrate data and information from the village, sub-district, district, to provincial levels in order to enhance the effectiveness and efficiency of village governance. Unlike previous systems such as OpenSID, which focused primarily on internal village administrative management, Metadesa offers broader data integration

across sectors and regions, enabling decisionmaking at the provincial level based on realtime data from the village level.

The key advantage of Metadesa lies in its ability to connect various government entities within a unified digital ecosystem, while also providing analytical tools and interoperability features that are absent in other digital systems used at the village level. Despite its significant potential, empirical research evaluating the effectiveness of Metadesa particularly in terms of community empowerment and public service reform remains scarce. This study seeks to fill that gap by assessing how far Metadesa contributes to а comprehensive sustainable digital transformation in rural governance.

The initiative on smart villages has received support from the regulatory side, specifically in Law No. 6 of 2014, which enables villages to become independent and prosperous. The development digitalization in the smart village program is currently having a significant impact on village growth, especially on community behavior patterns. With this program, the community is expected to develop their village. This also shows that sustainable development goals (SDGs) have started to be implemented at the grassroots level of rural communities.

Sustainability is an important aspect in the development of smart villages. According to Vaishar & Št'astná (2019), this must be a primary consideration in the implementation of smart villages and must be continuously evaluated. Abdul Halim Iskandar, Minister of Villages, Development of Disadvantaged Villages, and Transmigration (Mendes PDTT), stated that the smart village program helps villages develop, reduces poverty, and supports the achievement of the SDGs.

(Katriana, 2020). He defines a smart village as a village that has the ability to improve the welfare and quality of life of its residents by using technology in various aspects of village development. Danu, 2021).

However, the implementation of the Metadesa System did not proceed without challenges. Many villages in Lampung face technical challenges, such as lack of access to technological infrastructure, limited internet connectivity, and the readiness of human resources to manage more complex systems. This challenge is exacerbated by the resistance from some village officials who are already accustomed to using conventional methods in village administration The shift management. towards digitalization, although offering many advantages, requires sufficient time and readiness from all parties involved, both at the village level and at higher levels of government.

This research aims to analyze the implementation process of the Metadesa System in the Smart Village Program in Lampung Province, with a focus on the existing challenges and opportunities. This research uses a evaluative approach to assess the extent to which the implementation of the Metadesa System has successfully achieved its objectives, as well as to identify the challenges that need to be addressed. This research also aims to provide recommendations for local and village governments to improve the effectiveness of the implementation of this program in the future.

Specifically, this research attempts to answer two main questions: First, how is the implementation process of the Metadesa System in the Smart Village Program in Lampung Province, and to what extent has this system positively impacted village

management? Second, what challenges are faced by village governments and related parties in the process of data migration and adaptation to the Metadesa System, and what strategies can be implemented to overcome these challenges?

By answering these questions, it is hoped that this research can provide a clearer picture of the implementation of the Metadesa System in Lampung Province, while also offering insights for other regions that wish to adopt a similar concept in smart village development. This research is also expected to serve as a reference for policymakers in formulating more effective strategies for developing and modernizing villages across Indonesia, by optimally utilizing the potential of information and communication technology.

METHODS

This study with qualitative an exploratory design examines the implementation of the Metadesa System in Lampung's Smart Village Program. Creswell & Clark (2007) define research design as "the plan of action that links philosophical assumptions to specific methods," and research methods as "techniques of data collection and analysis," while Brewer (2000) emphasizes that methods are procedural rules to ensure valid and reliable results. Informants were selected through snowball sampling to identify those knowledgeable about the system, including officials from the Lampung Provincial PMDT Office, the Smart Village Team leader, village secretaries, and operators from several sub-districts. Data collection included indirect observation to reduce observer bias and secondary data from relevant laws and regulations.

Data were analyzed using an evaluative approach focusing on communication,

resources, disposition, and bureaucratic structure, with data reduction to focus on relevant information. To ensure validity, source triangulation compared information informants, technique across and triangulation combined interviews, observations, and document reviews, enhancing credibility and reducing bias in understanding the system's implementation.

RESULT AND DISCUSSION

The Smart Village Program in Lampung Province is one of the significant initiatives aimed at improving the quality of life in rural communities through the utilization of information and communication technology (ICT). This program uses the Metadesa System as a foundation to integrate data from the village level to the provincial level, with the hope of enhancing transparency, efficiency, and accountability in village governance.

The Process of Implementing the Metadesa System

The implementation of the Metadesa System in the Smart Village Program in Lampung Province began as part of the government's commitment to improving public services through the digitalization of village administration. The Metadesa System is a platform designed to replace the previous system, OpenSID, which was solely focused on managing village administrative data. Metadesa brings the capability of data integration from the village, sub-district, district, to provincial levels, with the aim of facilitating data synchronization across government levels and improving the quality of public services in villages.

The Metadesa System can function as a platform for managing population data and public services more efficiently. Research by

Assani' et al. (2022), shows that computerized population data management can reduce problems arising from manual management, in line with the goal of building smart villages.

The implementation process begins with thorough planning at the provincial level, followed by training and socialization for village governments. Initially, several villages were designated as pilot villages to implement the Smart Village Program. These villages were given access to the Metadesa System and are expected to serve as examples for other villages. The village officials in these pilot villages were trained to use the digital platform, including how to migrate data from the old system to the Metadesa System. In addition, mentoring is conducted periodically to help village officials overcome the challenges they face during the transition period.

Prayitno et al. (2021) explain that the concept of a smart village is inseparable from the smart city that came first. Aimed at utilizing information technology to create better services and accelerate the welfare of rural communities. Villages are the frontline and also determine the direction of national policies and development. Empowerment and strengthening of rural areas are the main things that must be done. The government is responsible for and ensures that rural areas advance in terms of human, infrastructure, social, and economic aspects.

The process of implementing a smart village is not only limited to the transition of technology but also includes changes in the work culture of village officials. Village officials who were previously accustomed to manual and conventional data management methods are required to adopt a new digital-based system. This certainly causes resistance from some village officials,

especially those who are not used to or do not have basic skills in digital technology. However, with intensive training and mentoring, many of them have begun to understand the importance of using technology to improve the efficiency of public services.

Dewi, (2016) explains that the valuative approach is an approach to information resulting from the assessment of what is desired by the policy, both in terms of short-term and long-term expectations. If this approach is applied, it will show a deviation angle because the expected value will certainly differ when compared to the factual value.

Edwards, (1980) asserts that the main problem of public administration is the lack of attention to implementation. He added, without effective implementation decision of policymakers will not be carried out successfully. According to him, there are four key points for effective implementation, namely: Communication, resources, attitude, and bureaucratic structure.

The implementation of the Metadesa System in the Smart Village Program in Lampung Province is an important step in efforts to improve the quality of life of rural communities through the utilization of information and communication technology. The evaluative approach this implementation process aims to assess the effectiveness and impact of the Metadesa System on the Smart Village Program towards sustainable village development. Metadesa System is designed to integrate various public services that can be accessed digitally by the village community. In this context, previous research shows that the use of information technology can enhance the efficiency of public services and empower

communities in decision-making. (Manar et al., 2021; Nurjayadi et al., 2020).

In practice, the implementation of Metadesa has accelerated administrative processes such as document issuance, population data reporting, and social assistance applications, which previously required lengthy procedures and manual The system also improves handling. transparency, as citizens can monitor the status of public services online. Community engagement has increased through active participation in using the application, digital literacy training, and technology-based village forums, which strengthen the role of citizens as active agents in development rather than passive recipients of policy. Thus, Metadesa serves not only as a digital tool but also as an instrument of social transformation at the village level.

Mr. Sulis, as the Functional Community Self-Reliance Driver Expert at the PMDT Office of Lampung Province, explained that "in the development of smart villages in Lampung Province, there are three main pillars that serve as the foundation, namely Smart Governance, Smart Economy, and Smart Society. Each of these pillars contributes to creating an ecosystem that supports the success of smart village implementation."

The Metadesa Program plays a strategic role in supporting these three pillars. In the context of Smart Governance, Metadesa promotes more transparent, accountable, efficient and village administration through the digitalization of public services and cross-sectoral data integration. In terms of Smart Economy, the system creates opportunities for utilizing village data to develop local economic potential based on information, such as mapping MSMEs and village flagship

products. Meanwhile, under the Smart Society pillar, Metadesa encourages active community participation by providing open access to information and improving digital literacy among villagers, thereby fostering a society that is technologically adaptive and aware of its rights and role in development.

Therefore, the government in this case must also act quickly to create the latest innovations not only to meet the needs of the community but also to ensure the standardization of good governance not only at the central level but also down to the village. Where the process of digitalizing services can be more transparent and accountable, one of which is the creation of the metadesa system in the smart village program in Lampung Province. Research by Andari & Ella, (2021) dan Wardhono et al., (2023) also shows that the implementation of digital systems in village governance can accelerate administrative processes and increase community participation in decisionmaking. For example, the use of mobile applications for public services allows the community to access information and services more efficiently, thereby increasing and satisfaction engagement. (Erwanto et al., 2022).

Mr. Davit, as the head of the Smart Village Lampung Official Team, also stated that the development of digitalization in all sectors is indeed unavoidable, but it must be addressed and we must be able to adapt, especially in the realm of governance, particularly concerning population data and public service needs that are constantly evolving. There needs to be a system that can balance those needs and be accessible to all levels, even reaching the villages, he said.

Getting the public accustomed to digital services is not an easy task. The adaptation of society to technological

advancements cannot be generalized; some communities can quickly adjust, while others are reluctant for various reasons. The challenges of implementing the metadesa system certainly do not only come from the executors, namely the government, but also from the community. The same information was also obtained by Mr. Edi, the Secretary of Tanjung Mas Mulya Village, Mesuji Timur, that the stability of the internet signal is still a major obstacle for the village, especially Tanjung Mas Mulya Village. Until now, the administrative service process is still offline, and the community comes directly to the village hall to receive services. Similarly, in Sidokayo Village, Abung Tinggi District, North Lampung Regency, Ms. Fia, as the Village Operator, explained that this year she has just been assigned to receive training related to smart villages in Bandar Lampung City in July 2024 for four (4) days. This is a new experience for her, and she hopes it can be implemented in Sidokayo Village.

It's quite different if we look at Hanura Village, Teluk Pandan District, Pesawaran Regency. Mr. Yudi explained that Hanura Village itself has been a Smart Village locus since 2021. Adjustments and challenges are certainly present, but there will be many conveniences to be gained once the village digitization process starts, not only for the apparatus but also for the community, he said. This shows that the readiness of the government and the community is the main capital for the successful implementation of the village digitalization process. Therefore, training programs that focus on the use of information and communication technology are expected to enhance the skills of officials and the community, so that they can contribute more actively to village development. (Maysha Nitimanta et al., 2023; Susanti et al., 2023). In addition, community participation in the development process is also very important to ensure that the programs implemented align with the needs and aspirations of the residents (Hadian & Susanto, 2022).

There are four main factors that play an important role in achieving effective policy implementation, namely communication, resources, disposition, and bureaucratic structure. Edwards, (1980) emphasized that the main problem of public administration is the lack of attention to implementation. He added that without effective implementation, the decisions of policymakers will not be carried out successfully.

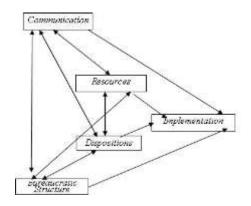


Figure 1. Direct and indirect impacts in Implementation

Source: George C. Edwards III - Implemeting Public Policy, 1980

a. Communication

Effective socialization to the village community is a key indicator. The government needs to conduct an information campaign explaining the benefits and workings of the Metadesa system. This can be done through face-to-face meetings, social media, and other communication channels to reach the community widely. Because from some of the information obtained from interviews, not a few members of the

community have not yet utilized digital facilities in the public service process in the village.

Thus, communication is one of the key elements in policy implementation. Edward III emphasized that effective communication among all parties involved, including policymakers, implementers, and the public, is crucial to ensure that policies are well understood and implemented. Cahyany (2024) states that good communication indicators can measure the success of policy implementation, as clear and consistent communication can reduce misunderstandings and increase public support for the implemented policies. In addition, open communication also allows for feedback from the community, which can be used to improve existing policies (Chaidir, 2022).

Effective communication is key in the implementation of Metadesa. This system requires clear communication channels between local governments, villages, and communities so that its implementation can be carried out on a large scale. It is important to ensure that all parties are involved in the decision-making process and implementation of this Metadesa System.

b. Resources

One of the main indicators of implementation effectiveness is the quality of human resources and their availability. It is very important for the operation of the Metadesa system to have trained human resources with good technical skills. Village officials and village information managers (operators) must be provided with training to ensure they can effectively utilize technology. This is due to several complaints regarding the capabilities and limitations of the apparatus in implementing government

digitization through the Metadesa system. Another important factor is the availability of adequate information technology infrastructure, such as a stable internet network and sufficient hardware. Metadesa system cannot operate well without good infrastructure. The government must ensure that all villages participating in the Smart Village program have adequate access technology. to Edward III's theory emphasizes that without sufficient resources, whether in the form of financial, human, or technological, the implementation of policies will be hindered. Research by Setyawan et al. (2019) shows that good resource support, including training and adequate facilities, significantly influences the effectiveness of policy implementation. This is in line with the findings of Saputro, 2021), which state that a lack of resources can be a major obstacle in achieving policy goals. The available resources greatly influence the success of the implementation.

c. Disposition

Disposition of in the context implementing the Metadesa system in the Smart Village Program in Lampung Province includes the attitudes, commitment, and readiness of all parties involved, from the government to the community. The goal of the Smart Village Lampung Program is to integrate information technology into village management. This is in line with the government's policy to build digital and selfsufficient villages. Because the success of the Metadesa implementation depends on the active participation and support from all parties, it is very important for the community and local government to support this program.

The disposition or attitude of policy implementers also plays an important role in the success of implementation. According to (Anggraini et al., 2022), a positive disposition of policy implementers can enhance implementation effectiveness, as they will be more committed to achieving policy goals. Conversely, a negative disposition can result in resistance to the policy and reduce implementation effectiveness. (Saputro, 2021).

The disposition or attitude stakeholders, including the government and society, greatly determines the success of the implementation. Support from the local government and active participation from the community in this program will enhance the effectiveness of the Metadesa implementation. This program aims to create better and more responsive village government to the needs of the community. It is hoped that this system can run well and provide significant benefits for village development in Lampung Province with the commitment from the government and a positive attitude from the community.

d. Bureaucratic structure

direct To and the support implementation of Metadesa, local governments must have strong leadership. Clear and integrated policies, as established by the Lampung Governor's Decree, serve as the foundation for this program. Good coordination between various government agencies, including the Community and Village Empowerment Office (PMDT), is essential to align the data and information used in the program. This includes effective data integration to support decision-making. A good bureaucratic structure must include mechanisms of transparency and accountability in program implementation.

This includes clear and accessible reporting to the public to ensure that the program runs according to the set objectives. In addition, the existence of an effective evaluation and monitoring system to assess the progress of Metadesa implementation is an important indicator. This helps in identifying problems and making the necessary adjustments to run the system.

A clear and efficient bureaucratic structure can facilitate the implementation of policies more effectively. Kurniawan et al. (2022) show that a responsive and wellorganized bureaucracy can accelerate the implementation process and accountability. Conversely, a complex and inefficient bureaucratic structure can hinder policy execution and reduce its effectiveness. (Lao & Nasarudin, 2023; Pratama et al., 2019). In the context of Smart Village, an efficient and transparent bureaucratic structure will facilitate the decision-making process and program implementation. With the presence of an integrated system, it is hoped that the bureaucracy can function better, reduce obstacles in public service, and increase accountability.

Challenges in Implementing the Metadesa System

These challenges encompass various aspects, such as human resources, technological infrastructure, and bureaucratic structures that are still not ready to support these changes.

a. Readiness of Human Resources

One of the biggest challenges in the implementation of the Metadesa System is the readiness of human resources (HR) at the village level. Many village officials do not have an educational background in technology, so they have difficulty

understanding and operating this new system. Although the government has provided training and assistance, many village officials find it difficult to adapt to these changes. Some village officials who are used to manual work feel uncertain whether the use of technology will make their jobs easier or actually add to their burden.

In this study, it was found that resistance to this technology is also caused by concerns that the new system will add complexity to their work. Village officials feel that the use of technology, although it has many benefits, also carries risks, especially related to data loss or system damage. This shows the importance of providing clear understanding and continuous training to village officials, so they can see the long-term benefits of technology implementation in village management.

b. Technology Infrastructure

In addition to challenges in human resources, the limitations of technology infrastructure also pose a major obstacle in the implementation of the Metadesa System. Many villages in Lampung Province still face difficulties in accessing the internet. Unstable or even unavailable internet networks in several villages pose a serious challenge in the implementation of the Smart Village Program. In fact, good internet access is a primary requirement for the implementation of the Metadesa System, which operates online to facilitate data synchronization between villages, sub-districts, districts, and provinces.

The implementation of the Metadesa system must also consider local conditions and community needs. According to Zavratnik et al., the success of smart village initiatives heavily depends on the adaptation of technology to the local social and

economic context (Zavratnik et al., 2018). Therefore, it is important to conduct socialization and training for the community so that they can make good use of technology. This is in line with research that shows that the development of digital villages must include enhancing the community's capacity to use technology (Hamka et al., 2023).

Based on interviews with several village officials, the issue of limited internet connectivity often causes public services to be slow and inefficient. For example, when people come to process their civil registration documents, the system used is inaccessible due to an unstable internet connection. This condition necessitates that public services continue to be carried out manually, which inevitably reduces the effectiveness of the digital system implementation.

To address this issue, the provincial government has been working with internet service providers to improve network infrastructure in the villages. However, this effort takes quite a long time, especially due to the geographical conditions in some villages that are difficult to reach. Therefore, an alternative solution is needed, such as the use of offline technology that can be reintegrated into the online system when the internet network is available.

c. Bureaucratic Structure and Sectoral Ego

Another challenge faced in the implementation of the Metadesa System is the issue of bureaucracy. The complex bureaucratic structure and the sectoral ego between village, sub-district, district, and provincial governments often become obstacles in the implementation of this program. The lack of coordination between levels of government has hindered the data synchronization process. For example, some

districts feel that the Smart Village Program is a provincial program, so they do not have the responsibility to support the implementation of this program in their areas.

This issue of sectoral ego is also evident from the lack of support from the district government in terms of providing the budget and infrastructure needed by the villages to implement the Metadesa System. Some districts do not allocate a specific budget for the development of digital infrastructure in the villages, forcing the villages to seek other funding sources to implement this system. In addition, the differences in vision between village, sub-district, and district governments also pose an obstacle in achieving harmony in the implementation of this program.

To address this challenge, the provincial government needs to take more decisive steps in coordinating this program. There needs to be clear regulations and commitment from all parties involved to collaborate in supporting the implementation Smart of the Village Additionally, more intensive Program. socialization is necessary to align the vision between village, sub-district, and district governments, so that all parties can move in the same direction.

The challenge of implementing the Metadesa System is also rooted in the complexity of the bureaucratic structure at the village government level. In a bureaucratic system, there are hierarchies and administrative procedures that often slow down the process of implementing innovations, especially those involving major changes such as the digitization of government systems. The Metadesa System, designed to integrate data from the village level to the provincial level, requires close coordination and full support from all levels

of government. Unfortunately, the lack of coordination between village, sub-district, and district governments, as well as the occasional emergence of sectoral egos, has become an obstacle in the implementation of system. On the other hand, the challenges faced in the implementation of the Metadesa System in Lampung are also related to the limited understanding of village officials about the importance of using technology to improve the quality of public services. In several interviews conducted, many village officials still feel more comfortable with traditional methods in managing administration and providing services to the community. They feel that technology will actually make work more difficult, especially for those who do not have an educational background in technology. In addition, the lack of intensive and continuous training for village officials is another factor that slows down the adaptation process to the Metadesa System.

Nevertheless, the implementation of the Metadesa System also has a number of significant potential benefits for village development in Lampung. One of the main benefits of this system is the increased transparency and accountability in village government management. Through the Metadesa System, information about village budgets, development programs, and public services can be accessed more easily by the community. This is expected to increase community participation in the decisionmaking process at the village level, thereby creating a more inclusive and responsive government to the needs of the community. Transparency is also one of the keys to reducing corruption practices at the village level, which has long been one of the challenges in village governance management.

In addition, the implementation of the Metadesa System is also expected to improve efficiency in the management administration and public services in the village. With the advent of digitalization, administrative processes that previously took a long time, such as handling correspondence and managing population documents, can be done more quickly and efficiently. This not only makes it easier for the community to access services but also reduces the workload of village officials. The integrated Metadesa system also enables data synchronization between different levels of government, which will ultimately facilitate the planning and decision-making processes at the provincial level.

However, to realize the potential benefits of this Metadesa System, efforts beyond mere technology provision are required. Provincial and district governments need to provide more concrete support in the form of training, mentoring, and infrastructure assistance for the underdeveloped villages. In addition, there needs to be an effort to raise awareness among village officials about the importance of digitalization in improving the quality of public services. Campaigns about the benefits of technology in village management need to be continuously promoted, so that village officials can be more open and ready to face changes.

CONCLUSION

The conclusion of this article shows that the implementation of the Metadesa System in the Smart Village Program in Lampung Province has had a positive impact on improving the efficiency and accountability of public services. Using a evaluative approach, the analysis focuses on four main indicators:

communication, resources, disposition, and bureaucratic structure.

In terms of communication, this program has demonstrated the importance of effective socialization and information campaigns to the village community, which are key in facilitating the adoption of new technology and strengthening community involvement in the village management process. Resources have become a critical challenge, especially concerning the limitations of technological infrastructure and the readiness of human resources to operate the system. Although training has been provided, capacity building is still needed to ensure the sustainability of the program.

The attitude or disposition of the implementers, both at the government level and in the village community, greatly influences the success of the Metadesa System implementation. The commitment and readiness of village officials are determining factors in overcoming resistance to the shift towards digitalization. The supportive bureaucratic structure, with strong leadership and coordination between levels of government, also plays a significant role in the successful implementation of this program.

However, this study has limitations, including a focus on a limited number of pilot villages, which may not fully capture the diversity of conditions across Lampung Province. Future research should expand the scope to include a broader range of villages and consider longitudinal studies to assess the long-term impact and sustainability of the Metadesa System. Furthermore, the positive results indicate strong potential for scaling up the Metadesa System to other regions with similar socio-economic and infrastructural characteristics. Successful scalability will

depend on addressing local challenges, particularly in infrastructure and human resource capacity, and ensuring adaptive implementation strategies that respond to specific community needs.

ACKNOWLEDGMENT

The researchers express their gratitude to all parties who have contributed to the completion of this research, especially to all the informants who have willingly provided information and data sources for the completion of this study.

REFERENCES

- Andari, R. N., & Ella, S. (2021). Model Desa Cerdas Untuk Membangun Indonesia Maju. Syiah Kuala University Press. https://doi.org/10.52574/syiahkuala universitypress.203
- 2. Assani', S., Rohman, T., & Afif Effindi, M. (2022). Smart Village Dalam Bentuk Sistem Informasi Data Kependudukan (SIDK) Menggunakan Metodologi Extreme Programming. JIKO (Jurnal Informatika dan Komputer), 5(2), 142–149. https://doi.org/10.33387/jiko.v5i2.48 50
- 3. Brewer, J. D. (2000). *Ethnography*. Open University Press.
- 4. Creswell, J. W., & Clark, V. L. P. (2007). Designing and conducting mixed methods research. In Designing and conducting mixed methods research. Sage Publications, Inc.
- 5. Dewi, R. K. (2016). *Studi Analisis Kebijakan Publik*. CV Pustaka Setia.
- 6. Edwards, G. C. (1980). *Implementing Public Policy*. Congressional Quarterly Press.

- 7. Erwanto, E., Megawaty, D. A., & Parjito, P. (2022). Aplikasi Smart Village dalam Penerapan Government to Citizen Berbasis Mobile pad Kelurahan Candimas Natar. Jurnal Informatika dan Rekayasa Perangkat Lunak, 3(2), 226–235. https://doi.org/10.33365/JATIKA.V3I 2.2029
- 8. Hadian, N., & Susanto, T. D. (2022). Pengembangan Model Smart Village Indonesia: Systematic Literature Review. Journal of Information System, Graphics, Hospitality and Technology, 4(2), 77–85. https://doi.org/10.37823/INSIGHT.V4 12.234
- Hamka, Sri Murtinah, T., & Giyanto, B. (2023). Collaborative Governance in the Development of Digital Villages in Karanganyar Indonesia. KnE Social Sciences, 2023, 337–361. https://doi.org/10.18502/kss.v8i11.1 3557
- Katriana. (2020). Desa Cerdas tingkatkan aktivitas ekonomi di desa, kata Mendes PDTT - ANTARA News. https://www.antaranews.com/berita /1575093/desa-cerdas-tingkatkanaktivitas-ekonomi-di-desa-katamendes-pdtt
- 11. Manar, D. G., Kholid Alfirdaus, L., & Yuwono, T. (2021). Localizing IT: Smart Kampung as Banyuwangi Regency's Innovation from Below 2015-2020. https://doi.org/10.4108/EAI.9-10-2020.2304816
- 12. Maysha Nitimanta, N., Putri, N., Fauzia, S., & Azijah, D. N. (2023). Analisis Strategi Pemerintah Desa Pancakarya dalam Keterlambatannya Menuju Konsep Smart Village.

- Lentera: Multidisciplinary Studies, 1(4), 238–243. https://doi.org/10.57096/LENTERA.V 114.43
- 13. Nurjayadi, Nasution, T., Herwin, & Andesa, K. (2020). Peningkatan Pelayanan Terhadap Masyarakat Melalui Kegiatan Smart Village pada Desa Rimba Makmur Kabupaten Kampar. Dinamisia: Jurnal Pengabdian Kepada Masyarakat, 4(1), 140-151. https://doi.org/10.31849/DINAMISIA .V4I1.3224
- Prayitno, G., Subagiyo, A., Dinanti, D.,
 Sari, N. (2021). Smart Village:
 Mewujudkan SDGs Desa Berbasis
 Inovasi dan Digitalisasi. UB Press.
- 15. Setiawan, H. (2023). Program Smart Village Melaksanakan Update dan Migrasi Sistem Informasi Desa Terpadu. smartvillage.co.id. https://smartvillage.co.id/2023/10/2 5/program-smart-village-melaksanakan-update-dan-migrasi-sistem-informasi-desa-terpadu/
- 16. Susanti, W. F., Jannatuzzahra, K., Dita, A., Kartika, P., & Mukaromah, S. (2023). *Upaya dalam Mengurangi*

- Kesenjangan Digital pada Penerapan Smart Village. Prosiding Seminar Nasional Teknologi dan Sistem Informasi, 3(1), 334–343. https://doi.org/10.33005/SITASI.V3I1 .336
- 17. Vaishar, A., & Št'astná, M. (2019). Smart Village and Sustainability. Southern Moravia Case Study. European Countryside, 11(4), 651–660. https://doi.org/10.2478/EUCO-2019-0036
- 18. Wardhono, A., Yaqin, M., Sari, M. I., Sari, K. I., Qori'ah, C. G., & Nasir, M. A. (2023). The Role of Digital Transformation to Economic Growth in the Provinces of South Sumatra, Aceh, and Lampung. Media Ekonomi dan Manajemen, 38(2), 250–265. https://doi.org/10.56444/MEM.V38I 2.3523
- 19. Zavratnik, V., Kos, A., & Duh, E. S. (2018). Smart villages: Comprehensive review of initiatives and practices. Sustainability (Switzerland), 10(7). https://doi.org/10.3390/su10072559