

POLICY IMPLEMENTATION IN DIGITALIZATION GOVERNANCE IN BORDER AREAS INDONESIA

Muhammad Syuzairi^{*a}

*Department of Management, Universitas Maritim Raja Ali Haji, Tanjungpinang, Indonesia
syuzairi@umrah.ac.id.*

ABSTRACT

Implementation of digitalization governance policies in border areas in Indonesia has challenges and obstacles that must be overcome. This research uses descriptive qualitative methods with a post-positivism approach to explore and analyze the implementation of digitalization governance policies in border areas in Indonesia. The findings from this research show that differences in digital infrastructure standards, lack of public awareness and digital skills, limited internet access, and suboptimal data security and privacy are some of the findings that need to be considered in implementing digitalization governance policies. The Resource and Inter-Organizational Communication Enforcement Activities stages have an essential role in ensuring the success of policy implementation. There is a need for investment and development of better infrastructure and technology, as well as supportive budget and policy support from the government, effective and efficient cooperation between related institutions and agencies, and an understanding of the importance of investment and development of better infrastructure and technology. This research can provide a better policy implementation experience in digitalization governance in border areas in Indonesia and provide input for the government and related organizations to increase the effectiveness and efficiency of existing policies. It is hoped that the implementation of this policy can achieve its optimal goals and accelerate development in border areas.

Keywords: Implementation; Policy; Digital Governance;

INTRODUCTION

Digitalization governance is a set of practices, processes, and policies designed to manage and utilize digital technology in organizations or governments effectively (Dunleavy et al., 2008). Digitalization governance, also known as digital governance or e-governance, refers to the use of digital technologies, information and communication technologies (ICTs), and data-driven approaches to enhance the effectiveness, efficiency, transparency, and accountability of government processes and services. It involves the application of digital tools and strategies to improve the delivery of public services, streamline government operations, engage with citizens, and make data-driven decisions. The aim is to ensure that digital technology can provide maximum benefits and reduce risks, including security and privacy. Digitalization governance includes technology strategy, system security, data management, user training, and implementation of clear and transparent policies and procedures (Fahmi & Arifianto, 2022; Lappi et al., 2019). This aims to increase efficiency, effectiveness, and innovation in organizations or governments and increase public trust in digital technology (Dunleavy et al., 2006).

Digitalization converts data or information from the physical (analogue) form into digital form that can be processed, stored, and transmitted using computers or other digital technology. This aims to optimize information collection processing and operate more effectively and efficiently (Riswati, 2021). Examples of digitalization include converting physical documents into digital format, using accounting information systems, and creating mobile applications to manage business. Digitalization Governance in Indonesia is a set of policies, procedures, and best practices for managing digital technology that encourages innovation, efficiency, and digital transformation in all governments, businesses, and society (Périès, 2019). Digitalization Governance in Indonesia involves a comprehensive framework, including cyber risk management, cyber security strategies, privacy policies, and compliance with applicable laws and regulations (Lindgren et al., 2019). One of the main objectives of Digitalization Governance in Indonesia is to ensure cyber security and data privacy in the face of increasing cyber threats. Therefore, Digitalization Governance in Indonesia applies existing industry standards and regulations such as ISO 27001 and the Personal Data Protection Law (UU PDP) to protect users' rights in the use of digital technology (Ahmad et al., 2021; Zaoui & Souissi, 2020).

Besides ensuring data security and privacy, Digitalization Governance in Indonesia aims to increase efficiency in all sectors through digital technology such as e-commerce, e-government, and e-healthcare (Dobrolyubova et al., 2019; Maulana, 2022). This will help Indonesia become more competitive in the global market and strengthen Indonesia's digital economic position. Digitalization Governance in Indonesia also includes learning and training to increase digital literacy and technological competence. This helps the public and government employees understand the importance of digital technology and utilize it to achieve better goals (Hadiono et al., 2020). Overall, Digitalization Governance in Indonesia is essential in supporting digital transformation to help Indonesia achieve better economic growth and sustainability (Tosepu, 2018).

The obstacles to digitalization governance in Indonesia's border regions are still quite complex and require serious attention from the government. Challenges include limited internet access and adequate infrastructure in border areas. Apart from that, the lack of public awareness and ability to use digital technology is also an obstacle that can accelerate the digital divide between cities and borders. Language and cultural differences are also challenging when implementing digital technology in border areas, requiring different approaches according to the local context.

Implementing digital technology that is not adapted to local conditions can exacerbate socio-economic disparities in the region. Therefore, there needs to be genuine efforts from the government to improve digitalization governance in border areas through various programs and policies that support border communities. With reasonable digital control, it is hoped to positively impact the quality of life and economy of border communities and strengthen state sovereignty and security of border areas.

This research investigates policy implementation in digitalization governance in Indonesia's border regions. Digitalization is essential in increasing productivity, efficiency, and transparency in the public sector. However, implementing digitalization is still challenging in Indonesia, especially in border areas. Therefore, this research aims to understand the

implementation of policies related to digitalization in border areas and evaluate the effectiveness and efficiency of implementing these policies in achieving national development goals. The results of this research are essential for the government and other stakeholders in developing policies and strategies related to digitalization in Indonesia's border regions.

The research focuses on examining the implementation of digitalization governance policies within Indonesia's border regions. Digitalization is recognized as a crucial tool for enhancing productivity, efficiency, and transparency within the public sector. Nevertheless, its successful implementation remains a challenging task in Indonesia, particularly in border areas. Consequently, this research seeks to gain insights into the execution of policies connected to digitalization within these border regions. Additionally, it aims to assess how effectively and efficiently these policies contribute to the realization of national development objectives. The findings of this study hold significance for the government and other stakeholders as they provide valuable insights for crafting policies and strategies geared towards advancing digitalization initiatives within Indonesia's border areas.

METHOD

Descriptive qualitative research methods with a post-positivism approach can be used to explore and analyze the case study you want to research (Groff, 2004). This method prioritizes in-depth analysis of existing phenomena, exploring meaning from the participant's perspective, and understanding the social context (Bungin, 2015). This research can be carried out using data collection techniques through documentation studies. The data that has been collected is then analyzed using narrative analysis. In a post-positivism approach, researchers look for objective facts and pay attention to social constructions and interpretations made by participants.

Researchers will examine how the policy was implemented in a broader socio-political context, the extent to which it achieved its objectives, and the obstacles faced. The results of this research can provide a better understanding of policy implementation in digitalization governance in border areas in Indonesia and provide input for the government and related organizations to improve the effectiveness and efficiency of existing policies.

RESULT AND DISCUSSION

Researchers use the concept of policy implementation in the article *The Policy Implementation Process: A Conceptual Framework* by Donald S. Van Meter and Carl E. Van Horn. The policy implementation process is a critical stage in the public policy cycle. This process involves several parties completing various tasks and responsibilities (Meter & Horn, 1975). A total of 6 steps can be explained as follows:

Standard and Objective

The Standard and Objective stages in implementing digitalization governance policies in border areas in Indonesia have several findings and discussions that need to be understood.

- First, the findings that emerged were differences in digital infrastructure standards between border areas and more developed urban areas. This is an obstacle to implementing digitalization governance policies in border areas. The discussion that needs to be carried out is the development of digital infrastructure that is more evenly distributed throughout Indonesia, including border areas, so that this policy can be realized well.
- Second, another finding is the lack of awareness and digital skills of people in border areas. Many people are not used to digital technology and do not understand its benefits in everyday life. The discussion that needs to be carried out is training and education regarding using digital technology for border region communities. This can be done through training programs and disseminating information about the benefits and ways to use digital technology.

Furthermore, another finding is the limited internet access in border areas. Several border areas in Indonesia are still challenging to reach with internet signals, thus hampering the implementation of digitalization governance policies. Discussions that need to be carried out include improving internet infrastructure in border areas, improving networks, and using the latest technology to increase internet accessibility.

Finally, another finding is that data security and privacy are not optimal in border areas. The use of digital technology in border areas also carries data security and privacy risks. The discussion that needs to be carried out is increasing awareness and monitoring of data security and privacy and developing firm policies to address this problem. Overall, implementing digitalization governance policies in border areas in Indonesia requires an understanding of the findings above and a comprehensive discussion. Real action is needed to overcome these obstacles to ensure the successful implementation of this policy and accelerate development in border areas.

In summary, the successful implementation of digitalization governance policies in border areas of Indonesia demands a holistic approach that considers these findings and discussions. It involves government commitment, public-private collaboration, community engagement, and targeted investments in digital infrastructure and education. By addressing these challenges head-on, Indonesia can work towards achieving digital inclusion, economic development, and improved living standards in its border regions.

Resource

At the Resource stage of implementing digital governance policies in border areas in Indonesia, there are several findings and discussions that require special attention. These findings pertain to the challenges that arise in the allocation of resources needed to execute digitalization policies in border regions. One significant finding is the limitation of financial resources, especially given budget constraints that may be more pronounced in border areas. Discussions in this regard should revolve around the search for alternative sources of funding, such as international grants, public-private partnerships, or reallocating budgets from less pressing sectors. Additionally, the shortage of human resources with expertise in information technology also needs to be taken seriously. This necessitates discussions on workforce development, training programs, and capacity-building initiatives to equip local residents with the skills and knowledge required in the digital world. These discussions serve as a crucial foundation to

ensure that the resources required for implementing digitalization policies in border areas are available and can be used effectively.

At the Resource stage of implementing digitalization governance policies in border areas in Indonesia, several findings and discussions need attention.

- First is the need for human resources (HR) competent in information and communication technology (ICT) to manage existing ICT infrastructure in border areas. Skilled human resources are needed so that existing ICT infrastructure can function optimally in supporting economic, social, and security activities in border areas.
- Second, community participation is needed in using and maintaining existing ICT infrastructure in border areas. The public needs to understand the benefits of operating and maintaining ICT infrastructure to be used optimally. Apart from that, the community can also preserve existing ICT infrastructure in border areas so that existing ICT infrastructure remains in good condition.
- Third, there needs to be synergy between various parties in managing ICT infrastructure. Many parties manage ICT infrastructure in border areas like the government, society, and the private sector. The synergy between multiple parties is needed to ensure that ICT infrastructure runs well and activities in border areas can be carried out smoothly.
- Fourth, there needs to be support from the government for the development of ICT infrastructure in border areas. Government support is required in the form of budgets and policies that support the development of ICT infrastructure in border areas. With this support, ICT infrastructure can run optimally, and activities in border areas can be carried out smoothly.

Implementing digitalization governance policies in border areas in Indonesia requires special attention to the Resource stage. In this stage, human resources competent in ICT, community participation, synergy between various parties, and government support are needed.

Inter-Organizational Communication Enforcement Activities

Inter-organizational communication enforcement activities refer to the measures and processes implemented to ensure effective and efficient communication between different organizations or entities. These activities are crucial in various contexts, such as government agencies, businesses, non-profit organizations, and collaborative projects. The primary goal is to facilitate the exchange of information, data, and resources among organizations to support shared objectives, enhance coordination, and foster collaboration. Inter-organizational communication enforcement activities may involve the establishment of communication protocols, the use of technology and communication tools, the creation of reporting structures, and the development of standardized procedures to ensure that relevant information is shared accurately and in a timely manner. Effective inter-organizational communication can lead to improved decision-making, reduced duplication of efforts, and ultimately, the successful achievement of common goals in multi-organizational settings.

The Inter-Organizational Communication Enforcement Activities stage is one of the critical stages in implementing digitalization governance policies in border areas in Indonesia. Several vital findings and discussions must be considered to proceed with the expected policy implementation.

- First, the importance of coordination between various related institutions and agencies in implementing border digitalization governance policies. This is related to national security and state resilience, so effective and efficient coordination is necessary for successful policy implementation.
- Second, limited infrastructure and technology are the main obstacles to implementing digitalization governance policies in border areas. This shows a need for investment, better infrastructure, and technology development so policy implementation can run optimally.
- Third, the role of the community as stakeholders needs to be strengthened in implementing digitalization governance policies in border areas. This can be done by involving the community in the policy coordination and implementation process so that more active and effective community involvement can be achieved in the policy implementation process.
- Fourth, central and regional governments' support is essential in implementing digitalization governance policies in border areas. This needs to be done by providing sufficient budget and facilities so that policy implementation can run optimally and support the creation of national security and state resilience.

In implementing digitalization governance policies in border areas in Indonesia, the Inter-Organizational Communication Enforcement Activities stage has several significant findings and discussions. Coordination between various institutions and related agencies, limited infrastructure and technology, the role of the community, and support from central and regional governments are essential factors in implementing this policy. By implementing the right strategy and involving all stakeholders, it is hoped that the implementation of digitalization governance policies can run well and support the creation of national security and state resilience in border areas.

Characteristics of the Implementing Agency

The characteristics of the institution responsible for implementing a particular policy or action play a crucial role in determining the success of implementation. These characteristics encompass various aspects such as capacity, coordination, communication, and commitment. An effective institution in carrying out policies must have adequate capacity, both in terms of high-quality human resources and the necessary infrastructure. Furthermore, effective coordination with relevant parties, both internally and externally, is key to smoothly executing policies. The ability to communicate effectively, both in terms of providing updates to stakeholders and listening to their input, is also highly important. Additionally, a strong commitment to policy objectives and the ability to adapt to changes and challenges that arise during implementation are crucial characteristics. Overall, the characteristics of the implementing institution have a direct impact on the success or failure of policy or program implementation. Therefore, understanding and developing these characteristics are essential for achieving desired outcomes in various policy contexts.

The Characteristics of the Implementing Agency stage is essential in implementing digitalization governance policies in border areas in Indonesia. The characteristics of the institution that will implement the policy are determined at this stage. This institution must have several factors, including competence, resources, institutions, policies, and regulations for implementing digitalization governance policies. Competence is an important characteristic that

must be possessed by institutions implementing digitalization governance policies. Competent institutions can produce quality output that meets the targets that have been set. Apart from that, human resources and infrastructure must also be sufficient to support the policy implementation process.

Strong institutions are also an essential factor in the Characteristics of the Implementing Agency stage. Strong institutions will make it easier for institutions to coordinate with related parties in implementing digitalization governance policies. This will also make it easier for institutions to obtain support from associated parties in the policy implementation. Policies and regulations related to the performance of digitalization governance policies must also be considered at the Characteristics of the Implementing Agency stage. Clear policies and regulations will make it easier for institutions to carry out the implementation process. Therefore, the role of related parties, such as the government and associated institutions, is vital in ensuring the creation of policies and regulations needed for implementing digitalization governance policies in border areas in Indonesia.

Economy, Social, Political Condition

Economic, social, and political stages are essential factors that must be considered in implementing digitalization governance policies in border areas in Indonesia. At the economic stage, it is necessary to consider the economic conditions in border areas, especially regarding the availability of technology and infrastructure. The need for significant investments in digital infrastructure must be regarded so that border regions can keep pace with technological advances in big cities.

Apart from that, the social stage is also crucial in paying attention to digitalization governance policies. Border regions have social and cultural diversity that differs from the other areas in Indonesia, so this must be considered in policy implementation. Applying an artistic approach to digitalization governance strategies can help identify and understand social and cultural uniqueness in border regions. At the political stage, digitalization governance policies must pay attention to political dynamics in border areas. The importance of building strategic partnerships with local governments and other stakeholders provides opportunities to provide policy support at the local level. It is also important to consider community involvement in border areas through participation and open dialogue.

In implementing digitalization governance policies in border areas, holistically considering economic, social, and political factors is essential. Building quality digital technology infrastructure and understanding social diversity and cultural uniqueness in border areas can help support policy implementation. Additionally, strategic partnerships and community participation are crucial in maintaining the success of digitalization governance policies in border areas.

The Disposition Implementers

The Disposition Implementers stage in implementing digitalization governance policies in border areas in Indonesia is essential in determining strategies and implementing these policies. The findings at this stage are an increase in the quality of public services and an increase in the effectiveness and efficiency of resource management in border areas. This can be

achieved by having appropriate digitalization governance policies supported by adequate technological infrastructure.

The discussion at the Disposition Implementers stage includes activities to identify problems in border areas and efforts made to resolve these problems using digital technology. Problems faced in border areas have limited access to health services, education, and other public facilities. In overcoming these problems, implementers must pay attention to the social and cultural conditions of communities in border areas so that the community can accept the digitalization policy.

Furthermore, in discussing the stages of The Disposition Implementers, we also discuss strategies for implementing effective and efficient digitalization governance policies. This includes training and outreach to the public and related parties regarding the benefits of implementing digitalization governance policies and efforts to prevent misuse and security of digital data. Finally, in discussing the Disposition stages, Implementers must also consider developing adequate technological infrastructure in border areas. This includes providing a fast, stable internet network and proper software and hardware. This way, digitalization governance policies can run smoothly, support business activities, and protect community rights in border areas.

CONCLUSION

Overall, implementing digitalization governance policies in border areas in Indonesia has challenges and obstacles that need to be overcome. Differences in digital infrastructure standards, lack of public awareness and digital skills, limited internet access, and suboptimal data security and privacy are some of the findings that need attention. In facing this challenge, efforts are required to improve digital infrastructure, train and educate the public regarding digital technology, increase internet access, monitor data security and privacy, and develop firm policies. By overcoming these obstacles, it is hoped that the implementation of this policy can achieve its optimal goals and accelerate development in border areas.

At the Resource stage, several factors need to be considered in implementing digitalization governance policies in border areas in Indonesia. Competent human resources in information and communication technology, community participation in the use and maintenance of ICT infrastructure, synergy between various parties, and support from the government are essential factors in the successful implementation of this policy. There is a need for investment and development of better infrastructure and technology, as well as budget support and supportive policies from the government, to ensure the implementation process can run smoothly and optimally.

The Inter-Organizational Communication Enforcement Activities stage also has several important factors to consider. Coordination between related institutions and agencies, limited infrastructure and technology, the role of the community, and support from the government are things that must be considered in implementing digitalization governance policies in border areas. Effective and efficient cooperation between related institutions and agencies is needed, as well as an understanding of the importance of investment and development of better infrastructure and technology. Community participation and support from the government are also factors.

REFERENCE

- Ahmad, J., Hardianti, Nilwana, A., Muliani, & Hamid, H. (2021). Digitalization Era: Website Based E-Government. *IOP Conference Series: Earth and Environmental Science*, 717(1), 012047. <https://doi.org/10.1088/1755-1315/717/1/012047>
- Bungin, B. (2015). *Analisis data penelitian kualitatif*. Rajawali Pers. <https://onsearch.id/Record/IOS13916.INLIS000000001009756>
- Dobrolyubova, E., Klochkova, E., & Alexandrov, O. (2019). Digitalization and Effective Government: What Is the Cause and Effect? *Communications in Computer and Information Science*, 1038, 55–67. https://doi.org/10.1007/978-3-030-37858-5_5/COVER
- Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2008). *Digital Era Governance; IT Corporations, the State, and e-Government*. Oxford University Press.
- Dunleavy, P., Margetts, H., Bastow, S., Tinkler, J., Barzelay, M., Cox, C., John, P., Lownes, V., Matheson, A., Pinault, L., Stoker, G., Wehner, J., & Whittaker, S. (2006). New Public Management Is Dead—Long Live Digital-Era Governance. *Journal of Public Administration Research and Theory*, 16(3), 467–494. <https://doi.org/10.1093/JOPART/MUI057>
- Fahmi, F. Z., & Arifianto, A. (2022). Digitalization and Social Innovation in Rural Areas: A Case Study from Indonesia. *Rural Sociology*, 87(2), 339–369. <https://doi.org/10.1111/RUSO.12418>
- Groff, R. (2004). Critical realism, post-positivism, and the possibility of knowledge. In *Volume 11, Dari Routledge Studies in Critical Realism*. Routledge.
- Hadiono, K., Candra, R., & Santi, N. (2020). Menyongsong Transformasi Digital. *Proceeding SENDIU 2020*, 81–84.
- Lappi, T. M., Aaltonen, K., & Kujala, J. (2019). Project governance and portfolio management in government digitalization. *Transforming Government: People, Process and Policy*, 13(2), 159–196. <https://doi.org/10.1108/TG-11-2018-0068/FULL/PDF>
- Lindgren, I., Madsen, C. Ø., Hofmann, S., & Melin, U. (2019). Close encounters of the digital kind: A research agenda for the digitalization of public services. *Government Information Quarterly*, 36(3), 427–436. <https://doi.org/10.1016/J.GIQ.2019.03.002>
- Maulana, R. Y. (2022). Collaborative Digital Transformation Pemerintah Provinsi Jawa Barat. *Jurnal Noken Ilmu-Ilmu Sosial*, 7(2), 263–277.
- Meter, D. S. Van, & Horn, C. E. Van. (1975). The policy implementation process : A conceptual framework. *Administration & Society*, 6(445).
- Périès, G. (2019). Individuals, Normativity and Urban Spaces: Critical Perspectives on Digital Governance. In *Digital Identities in Tension: Between Autonomy and Control* (pp. 127–153). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781119629610.CH3>
- Riswati, R. (2021). Implementasi Tata Kelola Pemerintahan Daerah Berbasis Digitalisasi Teknologi di Indonesia. *Jurnal Media Birokrasi*, 3(2), 1–15. <https://doi.org/10.33701/JMB.V3I2.2474>
- Tosepu, Y. A. (2018). *Membaca di era literasi digital*. <http://yusrintosepu.wixsite.com/yoes/single-post/2018/04/01/Membaca-di-Era-Literasi-Digital>

Zaoui, F., & Souissi, N. (2020). Roadmap for digital transformation: A literature review. *Procedia Computer Science*, 175, 621–628. <https://doi.org/10.1016/J.PROCS.2020.07.090>