



## **HYBRID SERVICE INEFFICIENCIES IN CIREBON CITY DISDUKCAPIL'S SPBE DIGITAL ECOLOGY**

**Monika Dwikartika<sup>1</sup>, Riva Walida Lutpya<sup>2</sup>, Keysha Ali Arthawangi<sup>3</sup>, Ayu Apriliani<sup>4</sup>**  
[monikadwika@gmail.com](mailto:monikadwika@gmail.com)<sup>1</sup>, [rivawalidalutpya@gmail.com](mailto:rivawalidalutpya@gmail.com)<sup>2</sup>, [keyshaaliarthawangi@gmail.com](mailto:keyshaaliarthawangi@gmail.com)<sup>3</sup>,  
[ayuapr1478@gmail.com](mailto:ayuapr1478@gmail.com)<sup>4</sup>

**Universitas Swadaya Gunung Jati**

### *Abstract*

*The implementation of the Electronic-Based Government System (SPBE) is a agenda that seeks to improve efficiency in bureaucracy and the quality of services provided to the public. In the context of population administration, the implementation of SPBE at the Cirebon City Disdukcapil is carried out using a hybrid service model that combines online and offline services. However, the implementation of this hybrid service has not had a positive impact on improving the quality of public services. The online services are limited and not integrated, thereby failing to reduce the number and duration of direct visits by the public to service offices. This situation has created a perception among the public that SPBE does not simplify services, but rather adds steps to the bureaucracy without certainty regarding the timing and results. Through the use of a public administration ecology approach, this article examines the issue of hybrid services as a result of the interaction between natural ecology (the physical environment of service delivery), non-natural ecology (social behavior and institutional logic), and digital ecology (the application of SPBE). The results of the analysis show that the imbalance of these three ecological dimensions has resulted in the suboptimal functioning of SPBE as a tool for improving the quality of public services. This article suggests the implementation of a rational hybrid service model based on integrated SPBE, with the principles of a single physical visit, certainty in the process, and optimization of electronic service functions in all stages before and after service delivery.*

**Keywords:** Hybrid Services, SPBE, Digital Disruption.

### **INTRODUCTION**

Developments in information technology have become a very important element in human life and have a major impact on the way public organizations operate. The use of information technology not only serves to improve efficiency and simplify bureaucratic work, but also plays a strategic role in improving the quality of government, especially in providing services to the community. In this regard, information technology is considered capable of accelerating service procedures, reducing administrative errors, and promoting transparency and accountability in government (Nur Aini Mayasiana, Andrias Dwimahendrawan, 2024). One area of public service that is highly dependent on the use of information technology is population administration. This administration includes the issuance of important documents such as Identity Cards (KTP), Family Cards (KK), and birth and death certificates, which play an important role in social and state life. Accurate population data is the basis for development planning, the fulfillment of citizens' rights and obligations, and the distribution of public resources. Therefore, the implementation of population administration services is the responsibility of the state as stipulated in Pancasila and the 1945 Constitution of the Republic of Indonesia (Apsari, 2025).

Law No. 25 of 2009 on Public Services stipulates that public services consist of a series of activities to meet the needs of citizens in relation to goods, services, and/or administrative services provided by the government. In this context, the Population and Civil Registration Office (Disdukcapil) has a strategic role in ensuring that the rights of the community in population administration are fulfilled. Easy access, speed of service, and data accuracy are important indicators of the success of public services in this field (Reynilda, Nugraha et al., 2025). In response to the need for modernization in the bureaucracy, the Indonesian government has enacted Presidential Regulation No. 95 of 2018 concerning the Electronic-Based Government System (SPBE), which requires the integration of information technology in all aspects of government, including public services (Presiden Republik Indonesia, 2018). The implementation of SPBE encourages government agencies to innovate in digital-based services so that efficiency and service quality can be improved. However, various studies show that digital transformation in population administration has not yet reached its maximum potential. Obstacles such as a lack of human resources, low digital literacy among the public, limited technological infrastructure, and unequal access to services remain major challenges (Mulyadi & Zulkarnaen, 2025).

In its local implementation, the Cirebon City Population and Civil Registration Office uses a mixed service approach, combining online and in-person services. Since 2023, the Office has been utilizing digital platforms such as WhatsApp to receive initial applications and provide information on population administration, while physical documents are still collected in person at the service office. This system is equipped with a dedicated WhatsApp number for managing births, deaths, marriages, and changes to population data, which is also supported by the official website of the Population and Civil Registration Office and the central Dukcapil call center. This mixed service approach aims to reduce waiting times, speed up services, and adapt to the conditions of a community with varying levels of digital literacy. However, the implementation of hybrid service models does not always provide the desired efficiency. Research conducted by (Mulyadi and Zulkarnaen (2025) shows that innovations in digital-based population administration services, such as Digital Population Identity (IKD), still face many challenges in terms of concept, administration, and organization. Low levels of digital literacy among the public, limited server capacity, and dependence on physical documents cause the service process to become cumbersome and poorly integrated. This situation has the potential to cause inefficiencies in terms of service time, employee workload, and the experience of people using the service (Aripin & Rulinawaty, 2022). This phenomenon shows that the effectiveness of hybrid services depends not only on the availability of technology, but also on the interaction between technology, employees, organizational systems, and the community as service users.

From a digital ecology perspective, public services are viewed as interconnected systems, where failure in one element, such as human resource readiness or the level of digital literacy in the community, can affect the overall performance of the system. This approach is in line with the concept of hybrid governance, which emphasizes that a combination of digital and conventional services can be a transitional solution, but can also trigger inefficiencies if not managed in an integrated and adaptive manner (Aripin & Rulinawaty, 2022)

Based on this situation, there are still shortcomings in research related to the efficiency of hybrid services in population administration, particularly with the use of a digital ecology approach at the local government level. In this view, digital disruption is seen as a dynamic element that drives transformation in public service systems through the use of information technology, but it can also cause inefficiency if it is not accompanied by employee

readiness and responsive service systems. The incompatibility between digital innovation and traditional service methods can cause overlap in service processes and procedures (Ariyadi & Akbar, 2025). Therefore, this study aims to investigate inefficiencies in hybrid services in population administration at the Cirebon City Disdukcapil by examining the impact of digital disruption on public service performance, as well as answering questions related to organizational readiness, hybrid service implementation, technical issues that arise, service efficiency levels, and innovations needed to improve hybrid service performance.

## **METHOD**

This study applies a qualitative descriptive approach with the aim of exploring the implementation of hybrid services based on the Electronic-Based Government System (SPBE) in population administration at the Population and Civil Registration Office of Cirebon City. The choice of a qualitative approach is based on the focus of this study on processes, individual experiences, and organizational dynamics that cannot be measured using quantitative methods (Creswell, 2014). This type of research is field research, which requires researchers to be directly involved in the real context of public services. Field research provides researchers with the opportunity to understand the reality of SPBE policy implementation as it occurs in daily practice, including the relationship between digital systems, service officers, and the community as users (Creswell, 2014).

The main data sources in this study were obtained through in-depth interviews conducted directly at the research site. The informants consisted of Disdukcapil officers involved in the service process and the community using the service. This method aimed to obtain a balanced perspective from both parties, namely the service providers and recipients. In addition to interviews, this study was also supported by secondary data in the form of policy documents, regulations related to SPBE, and relevant institutional reports. This secondary data was used to strengthen the analysis of the policy context and ensure that the results obtained in the field were in line with the applicable normative framework (Bowen, 2009).

Data analysis was conducted using an interpretive qualitative approach, following the steps of data reduction, data presentation, and conclusion drawing (Matthew B. Miles, A. Michael Huberman, 2014). The interview results were converted into text, grouped, and analyzed using a public administration ecology framework, which includes natural, non-natural, and digital ecological dimensions. This method provides an opportunity to thoroughly analyze the relationship between technology, institutions, and social behavior in the context of public services. Data validity is ensured through source triangulation, namely by comparing information obtained from various informants and matching it with policy document data.

## **RESULT AND DISCUSSION**

This study shows that improvements in the quality of public services at the Cirebon City Population and Civil Registration Office have been achieved through a flexible process of adapting to technology and the ever-evolving needs of the community. The initial implementation of a service registration system using WhatsApp numbers was a response by public services to meet demands for efficiency and ease of access to services. However, in practice, this policy has not been able to create fair and effective services. Digital registration via WhatsApp faces problems in the form of brokering practices, which result in people who need services not getting a place in the queue. This situation illustrates that

the adoption of technology without readiness in the digital ecosystem can cause new disruptions in public services.

From an ecological perspective on digital disruption, this situation reflects an imbalance between technological innovation and the existing social environment. The digitization of services not only changes the way bureaucracy works, but also influences people's behavior and power relations in accessing services. Therefore, the decision to discontinue WhatsApp-based registration and return to a more flexible manual service method can be understood as an administrative adaptation to mitigate the negative impacts of digital disruption. The new policy, which allows the public to process several documents at once in a single visit, demonstrates the bureaucracy's efforts to restore the principles of fairness and responsiveness in public services.

The digital transformation at the Cirebon City Population and Civil Registration Office, which began in 2013, shows that the implementation of SPBE is progressing gradually and in line with the context. Early innovations with QR-based electronic signatures and the use of laser printers became an important foundation for the digitization of population documents. Subsequently, the launch of the Digital Population Identity (IKD) application expanded the scope of online services and strengthened the integration of population administration with digital technology. However, the results of the study revealed that this digitization did not completely eliminate face-to-face services, but rather encouraged the formation of a hybrid service pattern.

Hybrid services activated through IKD directly at the office and access to online services demonstrate a compromise strategy to deal with digital disruption. In the context of the SPBE digital disruption ecology, this model shows the bureaucracy's recognition of the limitations of digital literacy and access to technology among the community. By maintaining direct interaction in the initial stages, Disdukcapil strives to ensure inclusivity in its services, while the use of online services after activation aims to increase the efficiency of the public's time and energy. In terms of organizational capacity, infrastructure adjustments and human resource skill enhancement are important factors in maintaining the sustainability of digital transformation. Technology training, technical guidance for operators, and regular performance evaluations demonstrate the agency's readiness to respond to changes in the digital environment. The commitment to operating an online service system 24 hours a day also reflects a service orientation in line with SPBE principles, while still having anticipatory mechanisms in place to deal with possible system disruptions from the center.

The existence of the "Brojol aja klalen" program reinforces the finding that innovation in public services in the era of digital disruption does not always have to be based on high technology. This program shows that social collaboration and interaction between various parties, in this case between the Population and Civil Registration Office and midwives, still play an important role in improving service quality. In the ecological approach to digital disruption, the program reflects the bureaucracy's ability to integrate digital and non-digital innovations into an adaptive public service ecosystem that focuses on community needs. Overall, the findings and discussions from this study show that the implementation of SPBE at the Cirebon City Disdukcapil is part of an environmental adjustment process influenced by the relationship between technology, organization, and the social situation of the community. Digital change not only creates opportunities for efficiency, but also requires the bureaucracy to reorganize policies and service systems to remain fair, inclusive, and sustainable.

## **CONCLUSION**

The implementation of the Electronic-Based Government System (SPBE) in population administration services at the Cirebon City Disdukcapil demonstrates that hybrid service arrangements have not yet fully achieved the intended efficiency and service quality improvements. Through a digital ecology perspective, this study finds that inefficiencies emerge from an imbalance between digital innovation, organizational capacity, and the social conditions of service users. While digital transformation has expanded access and introduced flexibility through online platforms, it has also generated new forms of disruption, such as procedural overlap, uncertainty in service outcomes, and unequal access caused by variations in digital literacy and institutional readiness. These conditions indicate that hybrid services function more as an adaptive response to digital disruption rather than as an optimal service model.

Based on these findings, this study suggests the need for a more rational and integrated hybrid service model within the SPBE framework. Future service development should emphasize the principle of a single physical visit, strengthen system integration across service stages, and ensure procedural certainty for service users. In addition, continuous investment in human resource capacity, infrastructure reliability, and public digital literacy is essential to balance the digital, organizational, and social ecosystems. Such efforts are expected to enhance the sustainability, inclusivity, and effectiveness of population administration services in the context of ongoing digital disruption.

## REFERENCE

- Apsari, N. (2025). Kualitas Pelayanan Publik Berbasis Digital di Dinas Kependudukan dan Pencatatan Sipil Kota Palu. 7(2).
- Aripin, S., & Rulinawaty, R. (2022). Hybrid Government : Mixed and Hybrid Models of Public Service Delivery in Disadvantaged , Foremost and Outermost Regions. 2022, 1109–1123. <https://doi.org/10.18502/kss.v7i9.11001>
- Ariyadi, A., & Akbar, M. (2025). Public services in the digital age : A systematic review and bibliometric analysis of trends and challenges in digital governance. 2(2), 153–167. <https://doi.org/10.69816/jgd.v2i2.46068>
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40.
- Creswell, J. W. (2014). *RESEARCH Design Qualitative, quantitative, and mixed methods Approaches*.
- Dwiyanto, A. (2011). *Manajemen pelayanan publik: Peduli, Inklusif, dan Kolaboratif*. Yogyakarta: Gadjah Mada University Press.
- Matthew B. Miles, A. Michael Huberman, J. S. (2014). *Qualitative Data Analysis a Methods Sourcebook*. SAGE Publications.
- Mulyadi, R. P., & Zulkarnaen, I. (2025). Service Innovation for Electronic Identity Cards Based on Digital Population Identity Applications at The Cirebon Regency Population and Civil Registration Office. 4(3), 1023–1036.
- Nur Aini Mayasiana, Andrias Dwimahendrawan, R. (2024). Digitalisasi Pelayanan Administrasi Kependudukan dalam Mewujudkan Smart Village. 5(4), 5766–5774.
- Presiden Republik Indonesia. (2018). *PERATURAN PRESIDEN REPUBLIK INDONESIA NOMOR 95 TAHUN 2018*.