
Innovation in Digital Public Services Through the Sipanduk Application in the Luragung District of Kuningan Regency

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ABSTRACT

SIPANDUK (*Sistem Informasi Pelayanan Administrasi Kependudukan*) is a public service innovation in the form of an application that is expected to assist the community in Luragung District, Kuningan Regency, in managing population administration online. However, in its implementation, the use of the SIPANDUK application is still not optimal, as indicated by low public interest. This study aims to analyze digital-based public service innovations, the factors causing low public interest in using the SIPANDUK application, and recommendations to increase public participation in using the SIPANDUK application. The analysis of public service innovation is based on the Diffusion of Innovation theory by Everett M. Rogers (1962). The research method used is descriptive qualitative with data collection techniques through observation, semi-structured interviews, literature study, and documentation. The results of the study show that digital-based service innovations have not been running optimally. The low level of public interest in Luragung Subdistrict in using the SIPANDUK application is due to the perception of the complexity of the application, low user needs, preference for face-to-face services, and a lack of digital literacy and socialization. As a result, the SIPANDUK application has not been fully accepted by the community in Luragung Subdistrict. Therefore, direct socialization, technical assistance, simplification of the application, and optimization of the role of village officials are needed to encourage sustainable use of the application.

Keywords: Public Services; Digital Innovation; SIPANDUK; Innovation Diffusio; Community Participation.

INTRODUCTION

Public services are a set of activities aimed at meeting the needs of citizens or residents in terms of goods, services, and administrative services in accordance with laws and regulations (Janssen & van der Voort, 2020). Public services are useful for society and can be interpreted as services for consumers aimed at meeting their needs. The community certainly expects high-quality public services, although sometimes these expectations are not aligned with reality. Public services provided by the government often face several obstacles, such as complicated procedures, high costs, and a lack of effectiveness and efficiency (Cordella & Paletti, 2019). In order to provide effective services to the community, the government is required to provide information related to the entire service process so that the community has easier access to the information they need (Widyastuti, 2022).

As time goes by, technological advances continue to spread throughout the world, and more people are utilizing technology in their daily lives. With these advancements, new innovations in public services related to technology are increasingly necessary (Nasikhah, 2019).

(Jati, 2011) The Electronic-Based Government System (*Sistem Pemerintahan Berbasis Elektronik—SPBE*) is a regulation issued by the Indonesian Government through the Ministry of State Apparatus Empowerment and Bureaucratic Reform (Kementerian PANRB) in 2018, specifically on December 24, 2018, as Government Regulation No. 95 of 2018. This regulation aims to encourage and govern the use of information and

communication technology in various aspects of government at all levels, from central to regional (Shareef et al., 2011).

(Choirunnisa et al., 2023) Furthermore, the ongoing COVID-19 pandemic has restricted people's movements in various activities, including document-processing services (Susanto & Aljoza, 2015). Therefore, innovation in service systems has become necessary, such as in Kuningan Regency, which introduced the SIPANDUK (Sistem Informasi Pelayanan Administrasi Kependudukan) application as a digital public service innovation to facilitate population administration services amid the challenges of the COVID-19 pandemic. The Kuningan Regency Government has demonstrated its commitment to transforming public services toward digitalization through official policies, one of which is Kuningan Regent Regulation No. 242 of 2022. This regulation improves upon Regent Regulation No. 32 of 2021, which governs the implementation of SPBE. Through this policy, the government seeks to create efficient, transparent, accountable, and integrated governance through the use of information technology (Kassen, 2020).

The SIPANDUK application is a manifestation of the implementation of policies related to SPBE, as it utilizes digital technology to improve public services, particularly in the field of population administration (Venkatesh et al., 2016). The SIPANDUK application is designed to facilitate the people of Kuningan Regency in processing documents such as electronic ID cards, family cards, child identity cards, birth certificates, death certificates, marriage certificates (non-Muslim), and inter-regional transfer letters (regency/province) online. The SIPANDUK application is also equipped with an online queue feature that assists the community when visiting the DISDUKCAPIL (Dinas Kependudukan dan Pencatatan Sipil) office in Kuningan Regency in person. In addition, SIPANDUK involves village officials to expand the reach of services. Through the implementation of effective village administration, it is expected that village governments will be able to govern effectively, enabling development efforts and excellent public service delivery to be carried out optimally (Permana & Jaya, 2018). Village officials are given special access to assist the community at the village or sub-district level in accessing services from DISDUKCAPIL online, such as in Luragung Sub-district, Kuningan Regency.

Based on observations from initial interviews with sub-district officials, it is evident that public services through the SIPANDUK application in Luragung Sub-district are still not optimal (Nariyah et al., 2023). This is reflected in several issues observed in practice. First, many people still visit the sub-district office to obtain services directly rather than using the SIPANDUK application. This indicates that public trust in digital services remains low and that people are more comfortable with face-to-face interactions. Second, individuals who do not own smartphones face significant barriers in accessing digital services, as access to technology is a basic requirement for using the application. Third, some users have not yet mastered how to use the SIPANDUK application. The researcher's personal experience when attempting to register on the application indicates that there are still challenges related to its user-friendliness. Fourth, weak internet access in several areas of the Luragung Sub-district, along with unstable connections, causes service processes to be delayed or even fail, thereby reducing public interest in using online services.

A number of studies have examined digital-based public service innovations in various regions. Research by Sylvia Maulani and Tomi Setiawan (2024) on the SIPEKA

application at the Banten Province DPMPTSP shows that public service innovation through the application has not been fully optimized. Another study by Puji Ayu Lestari et al. (2021), which examined the implementation of digital-based public services (e-government) during the COVID-19 pandemic, found that it still faces various obstacles.

Previous research has also been conducted by Intan Sandika Putri (2025) on the SIPANDUK application in Kuningan Regency, focusing on the effectiveness and implementation of the e-government program by the Kuningan Regency Population and Civil Registration Office. However, this research has not examined in depth the phenomenon of low public interest in using the SIPANDUK application, especially at the sub-district level.

This study was conducted to determine the extent of the diffusion of a digital-based service innovation based on Everett M. Rogers' Diffusion of Innovation theory (1962), the factors contributing to low public interest in using the SIPANDUK application in Luragung District, Kuningan Regency, and recommendations for increasing community participation in Luragung District in using the application.

The novelty of this research lies in its focused investigation of the SIPANDUK application's adoption at the sub-district level, an area that has not been extensively examined in previous research on e-government initiatives in Indonesia. While other studies have analyzed the general implementation of digital public services, few have explored the specific factors contributing to the low uptake of such innovations at the local level. By examining the interplay between digital literacy, social systems, and the complexity of the SIPANDUK application, this study provides valuable insights into barriers to the adoption of digital public services in rural and semi-urban areas.

The objectives of this study are twofold: first, to understand the barriers to the widespread use of SIPANDUK by examining factors such as digital literacy, public perceptions of service complexity, and preferences for traditional face-to-face interactions; and second, to recommend practical measures that could increase community participation in using the SIPANDUK application, such as improved outreach, training, and user-centered design. This study is expected to contribute to the development of more effective digital public services in Indonesia and provide a case study for other regions seeking to implement similar innovations. The benefits of this research include improved public service delivery through increased adoption of the SIPANDUK application and a better understanding of how to foster digital inclusivity in public administration.

METHOD

The researcher employed a descriptive qualitative method to gain an in-depth understanding of the phenomenon under study (Nasution, 2023). This approach was used to describe actual field conditions based on observations, enabling a comprehensive analysis of the issues related to the adoption of the SIPANDUK application (Zuiderwijk et al., 2021).

The data sources in this study consisted of primary and secondary data. Primary data were obtained through observations and interviews with informants involved in the use of the SIPANDUK application (Twizeyimana & Andersson, 2019). Secondary data were derived from relevant literature, including academic articles, government documents, and other supporting records.

Data collection was carried out through three main techniques. First, observations were conducted directly at the Luragung Sub-district Office in Kuningan Regency to examine the implementation of digital public services through the SIPANDUK application. Second, semi-structured interviews were conducted with informants who were directly or indirectly involved in the use of the application. Third, documentation was used to support the findings from observations and interviews by reviewing relevant records and reports.

Data analysis in this study followed the interactive model developed by Miles, Huberman, and Saldaña, which consisted of three main stages. First, data condensation involved selecting, focusing, and simplifying the data into relevant categories, such as the innovation adoption process and influencing factors. Second, data display involved organizing the data into narrative form to facilitate understanding. Third, conclusion drawing and verification involved interpreting the data and confirming the findings to ensure their validity.

To ensure data validity, source triangulation was applied by cross-checking information obtained from different informants and comparing it with observational findings and supporting documents. This process enhanced the consistency and reliability of the data.

Informants were selected using purposive sampling based on their knowledge, experience, and involvement in the studied phenomenon. The informants included the sub-district secretary, sub-district staff, and members of the community who were either users or non-users of the SIPANDUK application.

RESULT AND DISCUSSION

Innovations in digital-based population administration services through the SIPANDUK application in Luragung District, Kuningan Regency, have not been fully adopted by the community. Based on Everett M. Rogers' (1962) Theory of Diffusion of Innovation, the diffusion process of the SIPANDUK application shows that although this application has relative advantages in terms of ease of access and service flexibility, these benefits have not been felt evenly by the community. The suitability of the innovation to the social conditions of the community is still limited, especially for groups with low digital literacy, as well as the level of complexity in using the application that is still felt by the community, particularly at the login and document upload stages. In addition, the dominant communication channels are indirect and there is minimal face-to-face interaction, which means that the community's understanding of this innovation is not yet optimal. In terms of time and social systems, the adoption of the SIPANDUK application tends to be top-down, so it has not fully emerged from the needs of the community. This has resulted in low confidence and decision-making among the community to use the application on an ongoing basis. The public's preference for face-to-face services and the lack of direct assistance from officials are the main factors behind the low interest in using SIPANDUK. Therefore, recommendations are needed in the form of increased socialization and direct assistance to the public, simplification of the SIPANDUK application usage flow to make it more user-friendly, and optimization of the role of village officials and community leaders.

Digital-Based Service Innovation Based on the Theory of Diffusion of Innovation

Digital-based service innovation through the SIPANDUK application in Luragung Subdistrict was analyzed using the Diffusion of Innovation Theory proposed by Everett M. Rogers (1962), which explains that there are steps or stages in adopting an innovation. Adoption is understood as an activity carried out by individuals towards innovation from the moment they become aware of it, accept it, to the stage of implementing it, which takes place within a person in determining a decision, namely in the form of alternative choices to accept or reject adoption (Rohmah et al., 2022). Based on the results of interviews conducted, the process of accepting the SIPANDUK innovation in Luragung Subdistrict can be explained through the following four main elements:

1. Innovation

SIPANDUK has relative advantages in terms of easy online access to administrative services, flexibility in submitting applications from anywhere, and a service status tracking feature. However, these advantages have not been fully realized by the public because the process is considered to take longer than face-to-face services. In terms of suitability, the SIPANDUK application is considered appropriate for digital developments and the needs of the younger generation, but it is not yet fully suitable for communities that still have limited digital literacy, especially the elderly.

In terms of complexity, there is a difference of opinion between officials and the public. Officials consider the SIPANDUK application to be fairly easy to use, while the public considers it to be quite complicated, especially when it comes to logging in and uploading documents.

In terms of testing capabilities, the SIPANDUK application has undergone a trial period prior to implementation. However, the trial was not accompanied by direct assistance from sub-district officials to the community. Meanwhile, in terms of observation capabilities, the benefits of the SIPANDUK application are more apparent to people living outside the city of Kuningan.

2. Communication channel

The mass communication channels used by sub-district officials are websites and banners, but their effectiveness is not yet optimal or is still low in attracting attention, so public interest remains low. Socialization is carried out indirectly by sub-district officials through village heads, so that the innovation is not fully accepted by the community. The interview results show that face-to-face communication is still the most effective channel for increasing public understanding and conveying information related to this innovation.

3. Time

At the knowledge stage, the SIPANDUK application has been implemented in Luragung District since 2022, but not all communities are aware of the SIPANDUK application. The persuasion stage shows that the community is still unsure about the benefits of the SIPANDUK application due to the experiences of users who are dissatisfied. In the decision stage, the adoption of the SIPANDUK application by the Luragung sub-district was top-down, where the decision to adopt the innovation was based more on policies and instructions from the central government. Thus, the

adoption of the innovation did not fully arise from the needs of the local community. In the implementation stage, even though the SIPANDUK application has been officially launched and is supported by subdistrict officials, its use in daily administrative services is still limited and has not become the community's first choice for managing population documents. Confirmation stage: This situation has prompted the community to reevaluate their experience of using the SIPANDUK application, which has ultimately led most people to re-turn to choosing direct or face-to-face administrative services at the subdistrict office or through village officials, as these are considered faster and more reliable for completing documents.

4. Social System

The characteristics of the community in Luragung Subdistrict show varying levels of acceptance of digital-based public service innovations, with some members of the community, particularly those with better digital literacy, tending to be open to the use of the SIPANDUK application, while others remain hesitant and less enthusiastic about adopting this innovation. Although support from the local government and subdistrict officials is available, the social environment of the community has not been able to fully encourage the use of the application, due to the limited number of real examples or direct experiences of SIPANDUK application users in the surrounding environment as references or motivators for the community to try this innovation.

Factors Contributing to Low Public Interest in Using the SIPANDUK Application

Based on interviews with selected informants, namely the subdistrict secretary, subdistrict officials, users, and non-users, it was found that the low level of public interest in the SIPANDUK application in Luragung Subdistrict was due to several main factors.

First, the perception of complexity in using the application. Although the sub-district authorities consider the SIPANDUK application easy to use, users and non-users still experience several technical obstacles, such as difficulty logging in and a complicated document upload process. The easier an application is to use, the more likely users are to adopt the service (Zubaidi, 2025). This situation has led the public to believe that face-to-face services are more practical, easier, and guaranteed to be completed in a short time.

Second, low demand for the application. Non-users believe that managing civil registration documents is infrequent or not done regularly, so there is no urgency to learn and use the SIPANDUK application on an ongoing basis. Ultimately, the SIPANDUK application is considered irrelevant in everyday life.

Third, preference for face-to-face services. Most people feel more comfortable and secure when they come directly to the sub-district office or take care of their residency documents at the village office because they can get explanations directly from the officers and can ensure that the required documents or administrative files are complete and can complete the service process in one go without having to wait for verification stages as in the SIPANDUK application, so face-to-face services are considered faster, more certain, and easier to understand than digital-based services.

Fourth, lack of assistance and direct interpersonal communication. Users stated that they had never received direct technical explanations from sub-district officials regarding

how to use the SIPANDUK application. Meanwhile, socialization activities were mostly carried out through digital media such as websites and information banners, or conveyed indirectly through village heads, resulting in some members of the community not fully understanding the benefits, service flow, and how to use the SIPANDUK application.

Recommendations to Increase Community Participation in Using the SIPANDUK Application

Based on the results of the research and discussion, there are several recommendations that need to be considered by the Luragung Subdistrict government to increase participation and utilization of the SIPANDUK application by the community in Luragung Subdistrict. First, the subdistrict government needs to increase direct socialization through training at the village level, conducting simulations on the use of the SIPANDUK application, and providing special assistance to elderly communities and communities with limited digital literacy. Second, special SIPANDUK assistance services need to be provided at the Luragung Subdistrict Office to serve as a technical assistance center for communities experiencing difficulties, both in the login stage and in uploading documents. Third, the SIPANDUK application managers are expected to simplify the application usage flow, particularly in the login and document upload processes, and ensure that the SIPANDUK application is user-friendly, has minimal technical disruptions, and is able to provide a more efficient service experience. Fourth, optimize the role of village officials and community leaders as agents of change, given their proximity to the community and strong social influence, so that they can serve as intermediaries of information and drivers of community trust in adopting the SIPANDUK application.

CONCLUSION

Based on the research findings, the implementation of digital public service innovation through the SIPANDUK application in Luragung District, Kuningan Regency, had not yet been optimal and was not fully accepted by the community (Mergel et al., 2019). Although the application was designed to simplify administrative processes, its benefits had not been evenly experienced, reflecting limited success in the diffusion process as outlined in Everett M. Rogers' (1962) Diffusion of Innovation theory, particularly in terms of innovation characteristics, communication channels, time, and social systems (Putri, 2025; Nurkartika, 2025). Low public acceptance was influenced by perceptions that the application was complicated to use, limited demand for digital services, and a preference for face-to-face interactions, compounded by insufficient technical assistance and outreach from local authorities. To address these issues, efforts such as strengthening community outreach, providing hands-on training and assistance, simplifying application features, and optimizing the role of village officials were recommended to improve adoption and sustained use. Future research should further examine strategies for enhancing digital literacy and user experience design, as well as conduct comparative studies across different regions to identify more effective models for implementing digital public service innovations.

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