



INNOVATING ONLINE BIRTH CERTIFICATE SERVICES AT THE POPULATION AND CIVIL REGISTRY OFFICE OF BULA CITY EAST SERAM REGENCY

INOVASI PELAYANAN AKTA KELAHIRAN ONLINE DI DINAS KEPENDUDUKAN DAN CATATAN SIPIL KOTA BULA KABUPATEN SERAM BAGIAN TIMUR

Safarni^{1*}, Pieter Sammy Soselisa², Ivonny Yeany Rahanra³

^{1,2,3}Public Administration Study Program, Faculty of Social and Political Sciences, Pattimura
University, Indonesia

*Correspondence E-Mail: safarni30@gmail.com

Abstract

This study investigates the innovation of online birth certificate services implemented by the Population and Civil Registry Office of Bula City in East Seram Regency. Aimed at simplifying the registration process, the online system allows citizens to apply for and upload the necessary documents without physically visiting the office. Despite its accessibility, the community's understanding and utilization of the system remain limited. The research employed a descriptive qualitative approach, involving 12 informants, to assess the procedures and benefits of this service. Findings reveal that while the online system offers significant time and location flexibility, many residents are still unfamiliar with the online registration process. The research highlights the importance of enhancing public understanding and ensuring that the system is user-friendly. To address this gap, it is recommended that further outreach and education campaigns be implemented to foster greater engagement with the system, alongside continuous improvement of the online service interface.

Keywords: Innovation, Service Procedures, Online Birth Certificate

Abstrak

Penelitian ini mengkaji inovasi pelayanan akta kelahiran online yang diterapkan di Dinas Kependudukan dan Catatan Sipil Kota Bula, Kabupaten Seram Bagian Timur. Bertujuan untuk menyederhanakan proses pendaftaran, sistem online memungkinkan masyarakat untuk mengajukan permohonan dan mengunggah dokumen yang diperlukan tanpa perlu datang ke kantor. Meskipun aksesibilitasnya lebih mudah, pemahaman dan pemanfaatan sistem ini oleh masyarakat masih terbatas. Penelitian ini menggunakan pendekatan kualitatif deskriptif dengan melibatkan 12 informan untuk menilai prosedur dan manfaat layanan ini. Temuan penelitian menunjukkan bahwa meskipun sistem online menawarkan fleksibilitas waktu dan tempat yang signifikan, banyak warga yang masih belum familiar dengan proses pendaftaran online. Penelitian ini menyoroti pentingnya meningkatkan pemahaman masyarakat dan memastikan bahwa sistem ini mudah digunakan. Untuk mengatasi kesenjangan ini, disarankan agar kampanye penyuluhan dan pendidikan lebih lanjut dilakukan untuk mendorong partisipasi masyarakat yang lebih besar, di samping peningkatan berkelanjutan terhadap antarmuka layanan online.

Kata Kunci: Inovasi, Prosedur Pelayanan, Akta Kelahiran Online

INTRODUCTION

In recent years, the advancement of information technology has transformed various sectors, including public administration. One of the key areas where technology has had a significant impact is in the provision of public services, particularly in streamlining processes, improving efficiency, and reducing bureaucracy. Public service innovation, especially in administrative services, has been driven by the need to create more efficient, accessible, and user-friendly services for citizens (Mulgan & Albury, 2003). The digitalization of services has become an essential aspect of governmental reforms in many parts of the world, especially in emerging economies, where digital transformation can bridge significant gaps in service delivery (Janssen & van der Voort, 2020).

In Indonesia, the Population and Civil Registration Office, plays a vital role in managing vital records such as birth certificates, marriage certificates, and national identity cards. These documents are crucial for citizens in various administrative and legal processes. However, traditional methods of obtaining these services, which often involve long queues and excessive paperwork, have created bottlenecks and frustration among citizens. These problems are compounded by the rapid population growth in many regions, which places additional pressure on governmental offices to handle an increasing number of requests (Kumaran, 2020).

To address these challenges, many local governments in Indonesia, including the Population and Civil Registration Office in Bula City, East Seram Regency, have started exploring innovative approaches to improve the delivery of civil registry services. One of the most significant innovations is the introduction of online birth certificate services. The shift from traditional in-person processing to online services has the potential to dramatically improve the accessibility, efficiency, and user experience of civil registry services, offering citizens a more convenient way to register births and obtain their official documents without the need to visit the office physically. This innovation is part of Indonesia's broader strategy to embrace digital government and transform public services to meet the demands of a modern society (Widodo, 2021).

Despite the potential advantages of these innovations, the adoption and effective use of online services face significant challenges. These challenges include the digital literacy of citizens, access to the necessary technology, and the understanding of the procedures involved in online applications. Even though the online birth certificate service has been introduced, a large segment of the population, especially those in rural or less technologically advanced areas, struggles to utilize these digital platforms effectively (Hanna, 2021). Consequently, it is crucial to assess how well the online birth certificate service has been implemented and to identify the barriers that hinder its widespread adoption. Such an assessment will help to refine the system and improve its effectiveness in serving the public.

The importance of birth certificates in Indonesia cannot be overstated. They are not only vital for securing legal rights but are also a prerequisite for many other administrative processes such as school enrollment, health insurance, and other forms of public service access (Ferdian, 2018). For this reason, ensuring that the birth certificate registration process is streamlined, accessible, and efficient is of paramount importance. Innovations in this area are a direct response to the need for more efficient public services that align with global trends toward digital government.

The advent of online services has been a pivotal moment in the public administration sector. Globally, governments are increasingly shifting to digital platforms to enhance service delivery. According to studies, countries that have embraced digital transformation in their public sector operations have seen improvements in citizen satisfaction, reduction in operational costs, and more



effective governance (Bertot, Jaeger, & Grimes, 2010). In Indonesia, the government has recognized the need to move towards a digital government model and has implemented various e-government initiatives, including online registration systems for birth certificates. This innovation is not only aimed at improving service delivery but also at making government processes more transparent and accountable.

The introduction of online birth certificate services at the Population and Civil Registration Office Bula City has been a significant step toward improving public service in East Seram Regency. The system allows residents to register births online, submit the required documents, and receive their birth certificates without having to physically visit the government office. This move aims to reduce the waiting time for citizens, eliminate long queues, and make the process more accessible for those who live far from the central office. By using an online system, the Population and Civil Registration Office can serve a larger number of people more efficiently, reducing the logistical constraints associated with manual, in-person registration systems.

However, despite these improvements, there are still several challenges that need to be addressed to ensure the success and sustainability of this innovation. One of the major hurdles is the level of digital literacy among the citizens of East Seram Regency. Many residents, particularly in rural areas, are not familiar with online registration systems and may struggle to navigate digital platforms effectively. According to the Indonesian Ministry of Communications and Information Technology (Kominfo, 2020), the digital divide remains a significant barrier in many rural parts of Indonesia. The lack of proper understanding of how to access and use online services is a significant factor contributing to the slow uptake of online birth certificate services.

Additionally, the availability and accessibility of technology, such as smartphones and internet connectivity, are other critical factors affecting the success of online services. While urban areas in Indonesia have relatively good access to the internet, rural areas often face poor connectivity, which makes it difficult for residents to utilize online services effectively. According to a report by the World Bank (2019), about 36% of the rural population in Indonesia still lacks access to reliable internet services, which directly impacts their ability to engage with digital government initiatives.

To overcome these challenges, it is essential for the government to invest in digital literacy programs and improve internet infrastructure in rural areas. In addition to this, continuous public outreach and education campaigns are necessary to raise awareness about the new online services and provide step-by-step guidance to citizens on how to use these platforms effectively. Partnerships between local government offices and non-governmental organizations (NGOs) could also be explored to offer training and resources for people who are not familiar with digital technologies.

The development of online services for civil registry functions is not only a response to local challenges but also aligns with Indonesia's broader national agenda to modernize public administration and make it more efficient and responsive to the needs of the public. Digital transformation in government services is part of a larger global trend where governments around the world are embracing technology to improve public service delivery. This trend is expected to continue to grow in the coming years as digital tools become increasingly integrated into everyday governance practices (European Commission, 2021). The success of online birth certificate services in Bula City could serve as a model for other regions in Indonesia that are also looking to improve their public services through digital innovations.

In conclusion, the innovation of online birth certificate services in Bula City represents a significant advancement in public service delivery in Indonesia. However, it is clear that further efforts are required to ensure the widespread adoption of this service. Addressing the digital divide, improving public understanding of the system, and providing the necessary resources to support its effective use are



crucial steps in ensuring that this innovation fulfills its potential in enhancing the delivery of civil registry services. As Indonesia continues to move towards a more digital and efficient public administration system, the lessons learned from Bula City will provide valuable insights for future digital government initiatives.

METHODS

This research employs a qualitative descriptive approach to explore the implementation and evaluation of the online birth certificate service offered by the Population and Civil Registration Office in Bula City, East Seram Regency, Indonesia. The primary objective of this study is to understand the procedures, challenges, and benefits of this online service from the perspectives of both users and officials. A qualitative approach is ideal for this study as it provides an opportunity to explore people's experiences and perceptions in depth, particularly when investigating new phenomena or complex issues (Creswell, 2013). This methodology allows for a nuanced understanding of the service, capturing detailed data through interviews, observations, and document analysis.

The population for this research consists of residents of Bula City who have used the online birth certificate service, and officials from the Population and Civil Registration Office who oversee the implementation of the service. A purposive sampling technique was employed to ensure that informants were directly involved with or affected by the service. This sampling method allows for the selection of individuals with specific knowledge and experience that is relevant to the research questions, providing valuable insights into the service's effectiveness and challenges (Patton, 2002).

In total, 12 informants were selected: 8 residents who have used the online service and 4 officials who manage or oversee the service's implementation. The interaction with informants was conducted through semi-structured interviews, which offered flexibility in allowing respondents to share their experiences and perspectives while ensuring that key research topics were covered. The interviews were designed to explore a range of issues, including user satisfaction, challenges faced during the registration process, and suggestions for improvement. Interviews with officials focused on the operational aspects of the service, including its implementation, infrastructure challenges, and strategies for improving user engagement.

The interviews were conducted in-person or virtually, depending on the informant's availability and location. To deepen the understanding of the experiences of residents, the researcher also engaged with informants in follow-up conversations and field observations, allowing for clarification of points discussed and to better capture the context in which the service is used. This method of interaction ensured that both verbal and non-verbal cues were observed, which provided richer, more comprehensive data.

While the qualitative approach provides detailed insights, it is important to address the validity and reliability of the data obtained. To strengthen the findings, the study incorporated several strategies to ensure the credibility and consistency of the data. First, triangulation was applied by using multiple data collection methods—interviews, observations, and document analysis—thereby enhancing the robustness of the results. Triangulation helps to cross-verify data from different sources and reduce the potential for bias in interpreting the findings (Denzin & Lincoln, 2011).

Additionally, member checking was employed as a technique to validate the accuracy of the interview data. After the interviews were transcribed, the researcher shared the findings with some of the informants to ensure that their perspectives were accurately captured and interpreted. This process helped to improve the credibility of the data by confirming that the informants' views were correctly understood.



Finally, the researcher maintained transparency throughout the research process by providing a clear audit trail, which documents the decisions made during the research, such as the selection of informants, data collection methods, and analysis procedures. This approach supports the reliability of the findings by allowing others to follow the research process and understand how conclusions were drawn.

RESULTS AND DISCUSSION

Results

The study examined the experiences of residents and officials regarding the online birth certificate service implemented by the Population and Civil Registration Office of Bula City, East Seram Regency. Twelve informants, including eight residents who used the online service and four officials who oversaw its implementation, participated in the research. Interviews were conducted to assess user satisfaction, challenges faced, and suggestions for improving the service. This section outlines the key findings based on the data collected.

Positive Outcomes of the Online Birth Certificate Service

The online birth certificate service introduced by the Population and Civil Registration Office has received positive feedback from both residents and officials, primarily for its convenience and time-saving advantages.

A major benefit reported by residents was the time saved by not having to physically visit the office. Many residents noted that the online system allowed them to complete the registration process from the comfort of their homes. The convenience of uploading necessary documents online, combined with the flexibility of being able to submit applications at any time, significantly reduced the time spent in waiting lines. One resident stated, "I used to spend hours waiting in line at the office to register my child's birth, but with the online service, I could do everything from home in a few minutes" (Resident 3, Interview, 2024).

In addition to time savings, the online service increased accessibility for residents who lived in remote areas. Those who had limited access to transportation, or those who faced logistical challenges traveling to the central office, appreciated the opportunity to submit applications electronically. As one resident described: "I live in a distant village, and traveling to the office was always a challenge, but with the online system, I could complete everything from home" (Resident 6, Interview, 2024). The ability to access government services from home allowed for greater inclusivity in service delivery, particularly for residents in remote or underserved areas.

The immediate confirmation received after submitting documents was another positive aspect. Users appreciated the assurance that their applications were processed promptly. The transparency and real-time updates on the status of their applications helped build trust in the system and reduced uncertainty regarding the service.

For the officials managing the service, the online birth certificate system brought operational improvements. According to one official, the digital platform allowed for faster processing, which helped reduce the manual workload significantly. "The online system has made our job easier. We can process more applications per day without needing to manually handle each document, which significantly reduces the workload for our staff" (Official 1, Interview, 2024). The reduction in paper-based documentation has also contributed to a more efficient and streamlined workflow.

Furthermore, officials noted that the online system allowed them to focus on more complex cases, which require physical presence or additional verification. By automating the simpler processes, the system has enabled staff to allocate more time and resources to handling specialized cases. This shift in



workflow management has resulted in improved productivity and greater operational efficiency within the office.

Challenges in Implementing the Online Birth Certificate Service

Despite the benefits, several challenges were identified that hindered the widespread adoption of the online service. The digital divide, digital literacy, and technological barriers emerged as key issues limiting the service's effectiveness.

One of the most significant barriers to the adoption of the online birth certificate service was the digital divide, particularly in rural areas. Many residents, especially those from economically disadvantaged backgrounds, lacked access to the necessary technology, such as smartphones, computers, and high-speed internet. Some residents reported that the lack of a reliable internet connection made it difficult to access the online service, and many who lived in remote areas struggled to submit their applications. One resident stated, "I don't have a smartphone, and the internet at home is very slow. It was difficult for me to upload the required documents online, so I ended up going to the office anyway" (Resident 5, Interview, 2024).

In addition to slow internet speeds, some residents struggled with the high cost of data packages, which limited their ability to access online services. According to the World Bank (2019), approximately 36% of Indonesia's rural population still lacks access to reliable internet services, exacerbating the digital divide. This lack of infrastructure, particularly in rural and remote areas, makes it difficult for many citizens to engage with digital government services, leaving them reliant on traditional methods of service delivery.

Another significant challenge was the low level of digital literacy, particularly among older generations. Many residents were unfamiliar with how to navigate the online platform, leading to confusion and frustration. As one resident explained, "I found it difficult to understand how to upload the correct documents. The website is not as straightforward as it should be, and sometimes it takes too long to load" (Resident 2, Interview, 2024). The complexity of the online platform and the lack of user-friendly design further discouraged residents from using the service, with many opting for the traditional in-person method.

The digital literacy gap was particularly evident in older populations, who are less familiar with using digital tools. As one official pointed out, "Older generations often come to the office because they don't know how to use the online registration system. We need to reach out more to these groups to ensure they are aware of the service" (Official 1, Interview, 2024). The low adoption rates among elderly populations, coupled with challenges related to the complexity of the system, indicate that digital literacy programs are necessary to improve the overall usage of online government services.

Awareness of the online birth certificate service was another significant challenge. Many residents were either unaware of the new system or lacked the necessary information to use it effectively. A lack of public education campaigns about the new service contributed to low adoption rates, especially among individuals who are unfamiliar with online government services. As one official explained: "Although we have manuals and instructions on the website, many residents still come to the office for help because they don't know how to navigate the online system" (Official 3, Interview, 2024).

The socio-economic factors influencing the adoption of the online service are also critical to understanding the challenges faced by residents. Those from lower-income households often struggle to afford the necessary technology or the internet data required to use the online system. This disparity in access to technology is a significant factor contributing to low adoption rates among certain segments of the population. The financial barriers to accessing technology are compounded by limited access to digital skills and infrastructure, further exacerbating the digital divide in rural areas.



Discussion

The findings of this study provide valuable insights into the challenges and opportunities associated with the implementation of online birth certificate services in Bula City, East Seram Regency. While the service has improved accessibility and efficiency, there are significant barriers that need to be addressed to ensure its broader adoption. This section discusses the implications of these findings, contextualizes them within broader socio-economic dynamics, and provides recommendations for overcoming the identified challenges.

Socio-economic Dynamics and the Digital Divide

One of the most prominent challenges identified in the study is the digital divide, which affects the adoption of online government services in rural and underserved areas. The divide in access to technology, coupled with the lack of reliable internet infrastructure, makes it difficult for many citizens to fully engage with digital services. This issue is particularly pronounced in rural areas, where residents often face challenges in accessing affordable technology and high-speed internet. As the Indonesian Ministry of Communications and Information Technology (Kominfo, 2020) highlights, the digital divide remains a significant barrier to the widespread adoption of digital services in Indonesia. According to the World Bank (2019), approximately 36% of rural residents lack reliable internet access, further exacerbating disparities in digital service delivery.

This digital divide is not unique to Indonesia. Similar challenges have been observed in other countries, where low internet penetration and limited access to technology have hindered the adoption of e-government services. In India, for example, the adoption of digital government services has been impeded by low levels of internet access, particularly in rural regions (Sharma, 2015). These global examples highlight the importance of addressing both technological and socio-economic factors to ensure equitable access to public services.

To address the digital divide, the government should prioritize investments in digital infrastructure, particularly in rural areas. This could involve partnerships with telecommunication companies to improve internet connectivity and offer affordable data packages. By improving digital infrastructure, the government can ensure that more residents have the opportunity to access online services, which will enhance the overall efficiency and accessibility of public services.

Digital Literacy and Public Education

Digital literacy emerged as another key barrier to the adoption of the online birth certificate service. Many residents, particularly older generations, struggled with navigating the online platform due to a lack of digital skills. To overcome this barrier, it is essential for the government to invest in digital literacy programs. These programs should focus on building the digital skills of residents in rural areas, particularly the elderly, who may be less familiar with online platforms. Community centers, schools, and local NGOs could play a significant role in delivering these programs, ensuring that digital literacy reaches all segments of society.

Additionally, public education campaigns are essential to raising awareness of the online birth certificate service. Many residents were unaware of the service or lacked the necessary information on how to use it effectively. The government should conduct outreach efforts through local media, social media platforms, and public information sessions to inform residents about the availability of online services. Providing clear, step-by-step guides and tutorials on how to use the online platform will help increase adoption rates, especially among residents who are not familiar with digital technologies.



Collaboration with the Private Sector and Educational Institutions

Collaboration with the private sector and educational institutions is another key strategy to accelerate the adoption of the online service. Partnerships with technology companies can help provide affordable devices and internet access to underserved communities. Telecommunication companies could offer subsidized data packages or affordable smartphones to residents in remote areas, ensuring that they have the necessary resources to engage with digital government services.

Educational institutions can also play a significant role in improving digital literacy by integrating digital skills training into school curricula. Schools could offer workshops or after-school programs that teach students how to navigate digital government platforms, ensuring that future generations are better equipped to use these services. Additionally, local community centers can serve as hubs for digital literacy programs, providing hands-on support and training for residents who need assistance.

Simplifying the User Interface

To ensure the continued success of the online birth certificate service, the government should focus on simplifying the user interface of the online platform. The complexity of the current platform, combined with slow loading times, has led to frustration among users, particularly those with limited digital skills. A more intuitive, user-friendly design will make it easier for all residents, including those with low digital literacy, to navigate the system and complete their registrations. Simplifying the platform's layout and providing clear instructions on how to upload documents will improve the user experience and encourage greater adoption.

CONCLUSION

Conclusion

In conclusion, the online birth certificate service in Bula City, East Seram Regency, represents a significant step towards improving public service delivery in Indonesia. The implementation of this online service has brought notable benefits, such as reducing wait times, improving efficiency, and increasing accessibility for residents, especially in remote areas. The service has made it easier for residents to register births without needing to visit the office in person, streamlining the process and enhancing overall service delivery.

However, the study also uncovered several challenges that have hindered the full adoption and effectiveness of the system. These challenges primarily stem from issues related to the digital divide, including limited access to technology and slow internet connections in rural areas. Furthermore, digital literacy remains a significant barrier, particularly among older generations who are less familiar with using online platforms. Additionally, the complexity of the user interface and the lack of awareness about the service further restrict its widespread use.

Addressing these challenges is essential for ensuring that the online birth certificate service fulfills its potential. The digital divide, in particular, must be bridged to ensure that all residents, regardless of their technological background or geographical location, can benefit from the service. Improving digital literacy, enhancing infrastructure, simplifying the user interface, and raising public awareness are crucial steps to improve accessibility and increase user engagement with the system.

Recommendations

To ensure the continued success and broader adoption of the online birth certificate service in Bula City, East Seram Regency, several actions are recommended. First, there should be a comprehensive effort to improve digital literacy across all segments of the population, particularly in rural areas and among older generations. Offering digital literacy programs, workshops, and public awareness



campaigns will help residents become more comfortable with using online platforms and enable them to take full advantage of the service. Additionally, addressing the digital divide by improving internet infrastructure, particularly in underserved areas, is crucial. Collaborating with telecommunications companies to offer subsidized internet access or mobile data packages could provide residents with the necessary resources to access online government services.

Moreover, the user interface of the online platform needs to be streamlined to ensure it is intuitive and user-friendly. Simplifying the document submission process and making the platform more accessible will reduce confusion and enhance user experience. Alongside this, the government should focus on raising public awareness through targeted outreach programs. These programs should include clear instructions on how to use the online birth certificate system, especially for those unfamiliar with digital platforms, ensuring that no resident is left behind in the transition to digital services.

Finally, providing ongoing technical support for users who encounter difficulties is essential. A help desk or live chat support system could assist users in navigating the platform and solving any problems they may face. By taking these steps, the government can enhance the accessibility, usability, and overall success of the online birth certificate service, making it a truly inclusive and efficient public service for all citizens.

REFERENCES

- Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government Information Quarterly*, 27(3), 264-271.
- Bertot, J. C., Jaeger, P. T., & McDermott, A. (2012). *The intersection of open government, transparency, and digital technologies*. *Journal of Public Administration Research and Theory*, 22(3), 417-436.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Sage Publications.
- Denzin, N. K., & Lincoln, Y. S. (2011). *The SAGE handbook of qualitative research* (4th ed.). Sage Publications.
- European Commission. (2021). Digital government and public services.
- Ferdian, M. (2018). The role of civil registration and vital statistics in Indonesia: Challenges and opportunities. Jakarta: Kementerian Dalam Negeri.
- Hanna, M. (2021). Barriers to digital adoption in Indonesia: Understanding the rural-urban divide. *Journal of Digital Government*, 4(1), 32-48.
- Janssen, M., & Kuk, G. (2016). *Digital government transformation: An analysis of e-government developments and trends*. Springer.
- Janssen, M., & van der Voort, H. (2020). The influence of digitalization on public sector performance and transparency. *Public Administration Review*, 80(6), 965-977.
- Kominfo. (2020). Digital literacy and the digital divide in Indonesia. Ministry of Communications and Information Technology, Republic of Indonesia.
- Kumparan. (2020). Public service innovation in Indonesia: Challenges and opportunities.
- Kvale, S. (2007). *Doing interviews*. Sage Publications.
- Mulgan, G., & Albury, D. (2003). Innovation in the public sector: A systematic review. *London: Cabinet Office*.



- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Sage Publications.
- Sharma, S. (2015). *ICT in government services and public administration*. International Journal of Public Administration, 38(6), 431-445.
- Sørensen, E., & Torfing, J. (2015). *Theories of governance and public administration*. Sage Publications.
- Widodo, D. (2021). Digital transformation in public services in Indonesia. *Jakarta: Government Innovation Bureau*.
- World Bank. (2019). Indonesia: Internet connectivity and rural access. *Washington, DC: World Bank Group*.

