

# Digital-Based Public Service Innovation: Systematic Literature Review

Merlan S. Uloli<sup>1</sup>, Azwar Lahusin<sup>2</sup>  
<sup>1,2</sup> Bina Mandiri University Gorontalo  
Corresponding Author: [merlan.uloli@ubmg.ac.id](mailto:merlan.uloli@ubmg.ac.id)

---

## ABSTRACT

---

Previous studies show that the development of digital-based public services is a necessity. The aim of this literature research is to identify changes that have occurred in public services. This article comes from a literature review of research articles found via Google Scholar and Semantic Scholar in the last seven years between 2017 and 2023. The results of the literature review show that digital-based public service innovation has a significant positive impact on public service operations and administrative and bureaucratic reform. . In addition, it is important to understand that innovation in digital-based public services requires three key elements: support from government officials, resources including human resources, finance and infrastructure, and benefits obtained by the government. However, there are a number of challenges still being faced, such as technical problems, lack of budget, limited human resources, and the government's inability to adapt to change. Therefore, improvements and expansion of electronic e-government in Indonesia need to continue.

*Keywords: Public Service Innovation, Digital*

---

## 1. INTRODUCTION

Digital-based public service innovation, or what is usually called e-government, is an effort to increase the effectiveness and efficiency of public services by utilizing information and communication technology. In Indonesia, the achievement of implementing electronic government was realized after the issuance of Presidential Instruction (Inpres) Number 3 of 2003 concerning National Policy and Strategy for E-Government Development. The Presidential Instruction aims to serve as a basis for maintaining balance in the government's role in managing its government system, with the aim of achieving open, responsible, efficient and effective government governance, as well as involving community participation in the government process. The use of information and communication technology (ICT) in conveying information is integrated and managed by information users, so that public services can become more efficient, effective and targeted, especially for the benefit of the community. The main aim of this innovation is to improve the quality of public services and make it easier for the public to interact directly with the government[1].

Shiyo is deep[2]states that the development of e-government systems has the potential to disseminate information and increase existence. This shows that with the existence of an e-government system, public services can become more effective and the government can also strengthen the role it plays. In the current era that is highly dependent on digital technology, society is required to adapt to continuous changes. As a result, the government must provide more efficient and effective public services to adapt to these developments. Therefore, utilizing information technology to increase effectiveness and efficiency is the right step to achieve this goal.

Developing an e-government system has great potential to improve the existence of public services and disseminate information. This shows that public services can become more efficient with the existence of an e-government system, and the government can also increase the role it plays in society. Society must adapt to continuous changes in this era that is highly dependent on digital

technology. Consequently, to adapt to these changes, governments must continue to innovate and provide more efficient and effective public services. Therefore, the right step to achieve this goal is to utilize information technology to increase the efficiency and effectiveness of public services. E-government systems can enable better collaboration between the government and its citizens, reduce bureaucracy, increase transparency, and make it easier for citizens to access government services.

However, the implementation of electronic government still requires further improvement and development related to various aspects such as efficiency, trust, reliability and support from the community. Obstacles in implementing digital-based public services are still difficult to avoid, as they relate to technical problems in the context of electronic government in Indonesia. Therefore, efforts are needed from the government to improve the quality and innovation of public services sourced from digital technology[3];[1]

This includes providing better technical support and training to government employees involved in implementing e-government systems. In addition, improving system security and ensuring that people's personal data is properly protected is important. Because public trust is critical to the success of e-government, there needs to be increased transparency and accountability. In addition, the government must continue to increase public awareness about the benefits of electronic government and how to gain access to these services. Strong public support will encourage the adoption of digital technology in public services. Indonesia can achieve its full potential in improving the efficiency, accessibility and quality of public services with joint efforts and commitment to continuously innovate and improve important aspects of e-government.

## 2. LITERATURE REVIEW

According to Rogers in[4], innovation can be defined as a concept, idea, practice, or object that is recognized as something new by a particular individual or group and is ready for adoption. However, in trying to define innovation, there is often difficulty in distinguishing between innovation and change. Change is a general process that includes the transformation or modification of an existing state into a different state, while innovation more specifically refers to changes that create added value, increase efficiency, or solve unsolved problems. In the context of innovation, change is more evolutionary in nature, while innovation is change that brings revolution and significant transformation in the way something is done or understood. Thus, innovation can be seen as a subcategory of change that brings clear positive impacts and added value in a particular context.

Osborne and Brown in[4], to provide clarification, considers innovation to be a specific form of discontinuous change, meaning that innovation is a type of change that occurs suddenly. Innovation can be viewed as a specific form of discontinuous change, which means that innovation is a type of change that occurs suddenly or abruptly in a particular context or domain. The main difference between innovation and general change is that innovation often involves the introduction of new ideas, concepts, or technologies that replace or change previously existing ways. This creates a significant difference in the results or effects produced by innovation, by focusing on changes that are more revolutionary than the evolutionary changes that usually occur in conventional changes. Innovation drives deeper and more impactful changes in a short time, so it becomes important to identify, develop and adopt innovations in various aspects of life and business to achieve better results or higher efficiency.

The definition of public services regulated in Law no. 25 of 2009 is as follows: "Public services are all activities in the context of fulfilling basic needs in accordance with the basic rights of all citizens and residents regarding a service item or administrative service provided by a public service provider. Services are also activities carried out by a person or group of people on a certain basis whose level of satisfaction can only be experienced by the waiter or those served depends on the operator's ability to provide services to meet user expectations[5]. In this context, public services are all efforts made by public service providers to meet the basic needs of citizens and residents in accordance with the basic rights they have. Public services also include various administrative activities provided by public service providers. Public services can also be defined as activities carried out by individuals or groups that provide services on a certain basis. The level of satisfaction with public services depends on the ability of service providers to meet the expectations of service users. In other words, the effectiveness and quality of public services is very dependent on the ability of service providers to meet the expectations of the people who use these services.

Service quality refers to the extent to which the government provides good, efficient and responsive services to the community in terms of government administration. This includes various administrative tasks such as preparing and publishing documents, managing population data, maintaining infrastructure, and other services related to the interests of the community[6]

Public service innovation is a process of developing new ideas, methods and technologies used to improve the quality, effectiveness and efficiency of public services provided by government institutions[1]. In an effort to achieve this goal, innovation in public services can involve various aspects, such as the use of advanced technology, the application of new management methods, the development of more efficient policies, and improving the quality of human resources involved in providing public services. The main aim of public service innovation is to provide better services to the community, with the hope that this will have a positive impact on the quality of life of the community as a whole. Public service innovation can include process improvements, increased accessibility, simplification, and increased operational efficiency of government agencies. Apart from that, in the context of government, public service innovation also plays an important role in increasing transparency, accountability and community participation in the public decision-making process. With innovation, government institutions can be more effective in meeting the needs and expectations of the community and create better governance in public services.

Public service innovation also has a positive impact on government agencies themselves. In this case, innovation helps the government to increase efficiency in resource management, reduce operational costs, and increase productivity. This means that public service innovation not only provides benefits to the people who receive the service, but also benefits the government agencies that provide the service. Public service innovation can mean the introduction of new ideas or methods, but can also include improvements or expansions of existing innovations. This means that public service innovation is contextual and can refer to various types of changes that improve the quality, efficiency and effectiveness of services without always meaning revolutionary new discoveries. In many cases, quality improvements or changes in existing governance and processes can be considered valuable innovation. Thus, public service innovation is an important tool that can help the government continue to improve the quality of services, save resources, and better respond to public demands, which can ultimately improve overall government performance and efficiency. Superior administrative services will lead to: (1) Increased public satisfaction, (2) Increased efficiency

in administrative processes, (3) Better utilization of potential, and (4) Increased accountability. Through a clear and open administrative system, the public can carry out more effective monitoring and evaluation of government performance[6].

### 3. METHODS

This research article is a literature review. To search for articles, use Mendeley, Google Scholar, and Semantic Scholar. The criteria for articles used are that they were published in the last 7 years, namely from 2017 to 2023

### 4. RESULTS AND DISCUSSION

The results of the literature review show that digital-based public service innovation improve public service operations and becomes a new form of breakthrough for administrative and bureaucratic reform. Several forms of digital-based public service innovations produced by previous research include; The Go-Digital innovation implemented by the Samarinda City Population and Civil Registration Service covers all aspects of services provided by the Disdukcapil Office. With 12 innovations that are integrated and connected online, it is hoped that this system will provide convenience for both service providers and the people who use these services. The adaptations implemented in the Go-Digital innovation program allow the program to continue running and developing amidst the pandemic. Demonstrated by an increase in the number of successfully processed documents and service completion time[7].

Benefits or additional value obtained from implementing SIMPUS include a) increasing the quality of public services, which is demonstrated by improving community health center management, which includes operational management, treatment, finance and personnel management, which is evaluated annually, and b) increasing the community satisfaction index towards community health center officers[4]. The implementation of Digital Village innovation in the Naikoten II Subdistrict has had a positive impact on government operations, especially in terms of providing services to the community. This is proven by the level of satisfaction of the people of Naikoten II with the services they receive through the online platform adopted by the Digital Village innovation[8]. With the aim of providing convenience to the public, PT.Pos' innovation, Pos Giro Mobile, improves PT.Pos' management information system. An example is the ability of people to make various payments via smartphone without having to visit a post office[9].

Innovation in public services through the Sampurasun Purwakarta application within the e-government framework is in the form of Android-based digital information and promotion services. This application makes it easier for individuals to get information about tourist attractions in Purwakarta. The implementation of this application provides convenience for visitors to Purwakarta Regency, making it easier for them to access various information related to the area. This innovation is an important tool in efforts to disseminate information about Purwakarta Regency, especially in the tourism sector. In implementing the concept of digital-based public services, there are three elements that must be considered. The first element is "Support," which involves support from officials in realizing the concept of e-government-based public services, such as the e-government framework agreement. The second element is "Capacity," which includes the resources needed to build and develop e-government, including Human Resources, Financial Resources, and Infrastructure. The third element is "Value," which refers to the benefits obtained by the government through the implementation of this public service, especially in controlling data on tourism visits in Purwakarta.

The Cimahi City Government has adopted an application based on the smart city concept in providing public services in every government agency. Thus, in the public service process, various obstacles can be identified and overcome efficiently and accurately[10]. Long-term collaboration in the development and implementation of digital innovation in the Village Information System (SID)

has had positive impacts, including: Improving the quality of services to village communities; Stimulate cooperation with other parties and programs; Facilitate better integration of village data and support the development of the potential of the tourism sector[11].

Innovation in public services is a new approach or creative ideas in the use of technology or updates in service provision. This innovation can involve simplification, changes to rules, procedures, methods, approaches, or organizational structures, with the aim of improving the quality and quantity of services. There are three key aspects of innovation, namely: 1) Product and Service Development, 2) Creation of new ideas, and 3) Continuous efforts to improve and perfect services with results that can be felt.[12]. The Riau Islands Provincial Government has implemented various forms of innovation in public services, including Video Conference, SIMANJA (Performance Management Information System), SILAT (Integrated Apparatus Service Information System), E-Discipline, KIIS (Kepri Integrated Information System), KSP (Kepri Smart Province), SIAPEK (Financial Responsibility Accountability System), and KERIS BAJA (Procurement of Goods and Services Information System)[13].

Electronic government still requires progress and maturity, especially in terms of service quality, especially in terms of public support and trust. Digital-based public services still face challenges, especially in Indonesia. Some technical issues, such as local government websites not working properly, server crashes, and lack of updates, still exist. Additionally, other problems include budget and infrastructure shortages, limited human resources, the government's inability to adapt to change, and the fact that for some functions, citizens must be physically present to access online services. All these obstacles show that Indonesia's electronic government needs to be improved and expanded[3].

The Electronic Information Based Population Administration Management System or Si Mas Gesit has been developed by the Population and Civil Registration Service (Dukcapil). This innovation aims to simplify the process of sending population documents. Previously, at the sub-district level, this service was still manual, so people often needed a long time to process population documents and return to that location.[5].

The Electronic Information Based Population Administration Management System or Si Mas Gesit has been developed by the Population and Civil Registration Service (Dukcapil). This innovation aims to simplify the process of sending population documents. Previously, at the sub-district level, this service was still manual, so people often needed a long time to process population documents and return to that location.[14]. The Electronic Information Based Population Administration Management System or Si Mas Gesit has been developed by the Population and Civil Registration Service (Dukcapil). This innovation aims to simplify the process of sending population documents. Previously, at the sub-district level, this service was still manual, so people often needed a long time to process population documents and return to that location.[1].

## CONCLUSION

The results of the literature review show that digital-based public service innovation has a significant positive impact on public service operations and administrative and bureaucratic reform. Some forms of innovation include:

- 1) Go-Digital innovation implemented by the Samarinda City Population and Civil Registration Service, which covers all aspects of Disdukcapil services. With 12 innovations integrated online, this system provides convenience for service providers and the public.
- 2) SIMPUS, which improves the quality of public services at community health centers, including operational management, treatment, finance and personnel management.

- 3) Digital Village in Naikoten II Village, which improves government operations and community satisfaction with online services.
- 4) PT.Pos' innovation, Pos Giro Mobile, which allows people to make various payments via smartphone.
- 5) The Sampurasun Purwakarta application within the e-government framework, which provides Purwakarta tourism information easily and efficiently.

In addition, it is important to understand that innovation in digital-based public services requires three key elements: support from government officials, resources including human resources, finance and infrastructure, and benefits obtained by the government. However, there are a number of challenges still being faced, such as technical problems, lack of budget, limited human resources, and the government's inability to adapt to change. Therefore, improvements and expansion of electronic government in Indonesia need to continue.

#### ACKNOWLEDGEMENTS

As a writer, we are grateful to the University of Majalengka for its support throughout my career journey. We also acknowledge and thank our lecturer, Mr. Dadan Zalaludin s.t m.t., for his invaluable knowledge and guidance in recognizing bibliometric analysis and reviewing symmetrical literature.

#### REFERENCES

- [1] T. Saputra and A. Frinaldi, "Systematic Literature Review Inovasi Pelayanan Publik Berbasis Digital Systematic Literature," *Menara Ilmu*, vol. 01, no. 01, pp. 116–124, 2023.
- [2] K. Mustafa, Kassim and S. Deodatus, Patrick, "Technology and Immigration System: A New Paradigm for Improving Government Service Delivery in Tanzania," *PanAfrican J. Gov. Dev.*, vol. 2, no. 2, pp. 81–106, 2021, doi: 10.46404/panjogov.v2i2.3231.
- [3] P. A. Lestari, A. Tasyah, A. Syofira, C. A. Rahmayani, R. D. Cahyani, and N. Tresiana, "Inovasi Pelayanan Publik Berbasis Digital (E-Government) di Era Pandemi Covid-19," *J. Ilmu Adm.*, vol. 18, no. 2, pp. 212–224, 2021.
- [4] D. F. Eprilianto, T. A. Oktariyanda, and Y. E. K. Sari, "Inovasi Digital dalam Sektor Publik: Studi Deskriptif Tentang Value Added Inovasi Pelayanan Kesehatan," *J. El-Riyasah*, vol. 13, no. 1, p. 33, 2022, doi: 10.24014/jel.v13i1.14357.
- [5] I. A. Idrus and U. Zakiyah, "Inovasi Sistem Manajemen Administrasi Kependudukan Warga Berbasis Infomasi Elektronik Pada Aplikasi Pelayanan Dinas Kependudukan dan Pencatatan Sipil DKI Jakarta," *J. Polit. Issues*, vol. 3, no. 2, pp. 77–85, 2022, doi: 10.33019/jpi.v3i2.69.
- [6] S. H. N. Djou, Darman, A. Tueno, S. A. Gaib, S. N. Dulupi, and M. Darise, "Analysis of Determinants of Village Administrative Service Quality," *West Sci. Bus. Manag.*, vol. 1, no. 03, pp. 99–106, 2023, doi: 10.58812/wsbm.v1i03.77.
- [7] Anita Wahyuni, I Ketut Gunawan, and Jauchar Barlian, "ADAPTASI INOVASI GO-DIGITAL DALAM PELAYANAN PUBLIK PADA MASA PANDEMI COVID-19: (Studi Kasus Dinas Kependudukan dan Pencatatan Sipil Kota Samarinda)," *Moderat J. Ilm. Ilmu Pemerintah.*, vol. 8, no. 2, pp. 269–283, 2022, doi: 10.25157/moderat.v8i2.2703.
- [8] G. I. S. Banabera, "Analisis Inovasi Pemerintahan Digital Village Dalam Peningkatan Pelayanan Publik Di Nusa Tenggara Timur," *J. Ilmu Pemerintah. Widya Praja*, vol. 45, no. 2, pp. 203–212, 2019, doi: 10.33701/jipwp.v45i2.667.
- [9] R. D. Putra, N. Mulyana, and D. B. Atika, "Platform Digital Berbasis Giropos: Inovasi Pelayanan Publik Di Masa Covid-19 (Studi Di PT. Pos Indonesia (Persero) Bandar Lampung)," *Adm. J. Birokrasi, Kebijakan. dan Pelayanan Publik*, vol. 3, no. 3, pp. 361–376, 2021, doi: 10.23960/administrativa.v3i3.105.
- [10] S. Mulianingsih, "Inovasi Pelayanan Publik Di Masa Pandemi Covid-19 Dalam Meningkatkan Tata Pemerintahan Di Kota Cimahi," *J. Media Birokrasi*, vol. 3, no. 1, pp. 39–50, 2021, doi: 10.33701/jmb.v3i1.2470.
- [11] D. F. Eprilianto, G. W. Pradana, and Y. E. K. Sari, "Digital Inovasi Sektor Publik : Efektivitas Kolaborasi Dalam Implementasi Inovasi Dega Digital," *J. El-Riyasah*, vol. 10, no. 2, p. 127, 2019, doi: 10.24014/jel.v10i2.8909.
- [12] R. S. Muharam, "Inovasi Pelayanan Publik Dalam Menghadapi Era Revolusi Industri 4.0 Di Kota Bandung," *Decis. J. Adm. Publik*, vol. 1, no. 1, p. 39, 2019, doi: 10.23969/decision.v1i01.1401.
- [13] A. Hendrayady, "Inovasi Pelayanan Publik Pemerintah Provinsi Kepulauan Riau Di Era Revolusi Industri 4.0," *KEMUDI J. Ilmu Pemerintah.*, vol. 4, no. 2, pp. 227–238, 2020, doi: 10.31629/kemudi.v4i2.1900.
- [14] D. Daraba, R. Salam, I. Dharma Wijaya, A. Baharuddin, D. Sunarsi, and Bustamin, "Membangun Pelayanan Publik Yang Inovatif Dan Efisien Di Era Digital Di Indonesia Building Innovative And Efficient Public Services In The Digital Age In Indonesia," *Pallangga Praja*, vol. 5, no. 1, p. 31, 2023.