

# Analysis of the State Administration System in Public Services in the Digital Era

Suci Ramadhani<sup>1</sup>, Giovany Anggasta<sup>1</sup>, Siti Nazira<sup>1</sup>, Ninda Oktaviani Putri<sup>1</sup>, Erinaldi<sup>1</sup>

<sup>1</sup> STIA Lancang Kuning Dumai, Indonesia

---

## ARTICLE INFO

### Keywords:

State administrative system;  
Information and Communication  
Technology (ICT);  
Digital transformation;  
Digital public services;  
E-government

---

### Article history:

Received 2026-02-19  
Revised 2026-03-23  
Accepted 2026-04-22

---

## ABSTRACT

The development of information and communication technology (ICT) in Indonesia has driven significant transformation in the state administrative system, particularly in the implementation of digital-based public services. This study aims to analyze the role of the state administrative system in improving the quality of public services in the digital era, as well as to identify the challenges and solutions encountered. The method used is a library research approach by examining various relevant scientific literature sources, such as journals, books, official reports, and applicable regulations. The results of the study indicate that the implementation of digital technology through the concept of e-government is able to enhance the effectiveness, efficiency, transparency, and accountability of public services. This is reflected in the increasing use of digital services by the public, along with improvements in a more modern and structured bureaucratic system. However, the implementation of digitalization still faces several challenges, including infrastructure gaps, limited human resource competencies, and the lack of optimal integration between government systems. Therefore, strengthening the state administrative system is necessary through improving the quality of human resources, developing technological infrastructure, and formulating adaptive policies to support the success of digital transformation in public service delivery.

*This is an open access article under the [CC BY](https://creativecommons.org/licenses/by/4.0/) license.*



---

### Corresponding Author:

Suci Ramadhani

STIA Lancang Kuning Dumai, Indonesia; [suciramadhanidumai57@gmail.com](mailto:suciramadhanidumai57@gmail.com)

---

## 1. INTRODUCTION

The development of information technology in Indonesia is currently accelerating along with the progress of globalization and digitalization. This can be seen from the increasing number of people who use the internet, smartphones, and various digital applications in their daily lives. This change does not only occur in big cities, but also begins to be felt in the regions, thus making people's lifestyles more practical, fast, and technology-based. (Amrozi et al., 2022)

Information technology not only has an impact on the economic and social sectors, but also brings significant changes in the system of government. In the context of state administration, information

technology plays an important role as a tool to improve bureaucratic performance. Administrative processes that were previously carried out manually, such as data recording, archiving, and document services, are now starting to shift to digital systems. These changes make work more practical, structured, and accessible to various stakeholders. (Afdilate, 2025)

In the state administrative system, digitalization plays an important role in improving bureaucratic performance. Processes that were once done manually, such as data recording, archiving, and document management, now use digital systems. This makes work neater, organized, and reduces the risk of errors. In addition, digitally stored data is also easier to search and reuse, thus supporting the smooth running of public services.

The application of digital technology also encourages the creation of more transparent and accountable public services. The public can easily monitor the service process, find out the information needed, and submit complaints directly through digital platforms. Thus, the use of technology in the state administrative system not only increases efficiency, but also strengthens public trust in the government in providing better services.

With the implementation of digital systems, public services become faster and more accurate because they are supported by technology that is able to minimize human error. In addition, the use of information technology also encourages the creation of transparency in the administration of government, where the public can more easily access information related to public services. This indirectly increases government accountability, because every service process can be monitored and evaluated openly by the community.

The Indonesian government itself began to implement the concept *e-government* since 2003 as the first step towards digital-based government. The goal is to improve the quality of public services, improve the government work system, and facilitate communication between the government and the community. An example can be seen from online licensing services and public complaint systems that are currently widely used. (Supriyanto, 2016)

Along with these developments, the use of information and communication technology (ICT) in Indonesia has also increased significantly, especially in the period from 2023 to 2024. This increase shows that people are increasingly accustomed to using digital services, including in accessing public services. Therefore, data on the increase in ICT use is important to be further analyzed as a basis for assessing the effectiveness of the implementation of *e-government* in the state administrative system.

Indicator	Index value		Improvement (points)	Growth (%)
	2023	2024		
(1)	(2)	(3)	(4)	(5)
ICT access and infrastructure	5,81	5,91	0,10	1,72
Use of ICT	5,91	6,10	0,19	3,21
ICT Expertise	6,04	6,08	0,04	0,66
ICT Development Index	5,90	6,02	0,12	2,03

Source : Central Statistics Agency for 2023-2024

In 2024, the Indonesian ICT Development Index shows that the largest contribution comes from the aspect of technology use with a percentage of 40.53 percent. Meanwhile, the access and infrastructure aspect has a contribution of 39.27 percent, which is almost balanced, while the expertise aspect is still relatively low, at 20.20 percent. This condition shows that the community is quite active in utilizing technology, including in accessing digital public services. However, in the state administration system, this needs to be balanced with increasing the ability of human resources so that digital-based public services can run more optimally and evenly

The achievement of the Indonesian ICT Development Index in 2024 shows that the use of technology is the main factor with a contribution of 40.53 percent, followed by access and infrastructure at 39.27 percent, and ICT expertise which is still at 20.20 percent. This indicates that digital development in Indonesia is quite good in terms of use, but it has not been fully supported by the capabilities of the community and apparatus. In the context of state administration, this condition is a challenge in the implementation of digital public services, because the success of the system does not only depend on technology, but also on the capabilities of its users. (Statistics, 2025)

Overall, the development of ICT in Indonesia in 2024 shows positive results, especially in terms of the use of technology by the community. This indicates that people are starting to get used to using digital services, including in accessing various forms of public services provided by the government. However, there is still an imbalance between the high utilization of technology and the relatively low ability of human resources. This condition shows that in the state administrative system, the readiness of the apparatus and the community is an important factor in supporting the success of digital transformation.

Although the development of information technology has encouraged transformation in the state administrative system, in reality there are still various problems in the implementation of public services in the digital era. One of the main obstacles is the uneven technological infrastructure in all regions, so access to digital services is still limited for some people. In addition, there are still limitations in the ability of human resources, both in terms of government apparatus and the community, in understanding and utilizing technology optimally.

Another problem is the lack of integration of digital systems between government agencies, which causes public services to not be fully effective and efficient. This often creates obstacles in the administrative process, such as data that is out of sync and services that are still convoluted. Therefore, continuous improvement efforts are needed in the state administrative system so that digital-based public services can run more optimally, transparently, and are able to meet the needs of the community as a whole. (Supriyanto, 2016)

## 2. METHODS

This study uses the literature review method (*library research*), which is a research approach that is carried out by examining various sources of scientific literature that are relevant to the topic *Analysis of the State Administration System in Public Services in the Digital Era*. These sources include national and international scientific journals, books, laws and regulations, government reports, as well as the results of previous research that discuss state administration, public services, and digital transformation (*e-government*). Through an in-depth analysis of the literature, the researcher seeks to identify interrelated theories, concepts, and empirical findings to explain the role of the state administrative system in improving the quality of digital-based public services (Scott, 2019).

The literature review process is carried out systematically through three main stages, namely: (1) the collection of literature relevant to the research topic through scientific databases such as Google Scholar and Garuda Ristekdikti, (2) critical evaluation of the content, methods, and research results from each source to ensure their validity and suitability, and (3) synthesis of information into a conceptual framework that describes the relationship between the state administrative system, the use of digital technology, and the effectiveness of public services. With this method, the research emphasizes more on conceptual and comparative analysis to produce theoretical understanding and policy recommendations without conducting direct field research.

## 3. FINDINGS AND DISCUSSION

### 1.1 Application of State Administration Principles in Public Services in the Digital Era

The application of state administration principles in public services in the digital era is very important in improving the quality of services to the community. Principles such as effectiveness, efficiency, transparency, and accountability are the basis for the implementation of good public

services. With technological developments, the government is required to be able to adjust the administrative system to be more modern and in accordance with the needs of today's society. This shows that technology affects not only the way of working, but also the values in the administration of the state. (Juliarso, 2019)

The principles of effectiveness and efficiency can be seen from the use of digital-based services in public services. Currently, many services can be accessed online so that people no longer need to come directly to government offices. This certainly makes the service faster and more time-saving. In addition, the use of digital systems can also reduce operational costs and make administrative processes neater and more organized. (Widyani et al., 2022)

Furthermore, the principle of transparency is also increasingly visible with the existence of a digital system. The public can easily find out information related to services, such as procedures, costs, and completion times. With this information disclosure, the public can participate in supervising the running of public services. This can also reduce the possibility of irregularities or abuse of authority by government officials. (Suhartono, Rivai, & Wibowo, n.d.)

In addition to transparency, the principle of accountability has also become stronger in the digital system. Every service process carried out can be well recorded in the system, so it is easy to evaluate. Government officials are also required to be more responsible in providing services. With technology, government performance can be monitored and assessed more clearly. (Riset et al., 2025)

However, in its implementation, there are still several obstacles, such as limited infrastructure, lack of ability to use technology, and the lack of integration of systems between agencies. Therefore, continuous efforts are needed by the government, such as improving the quality of human resources and improving the existing technology system. Thus, the application of state administration principles in public services in the digital era can run more optimally and provide equitable benefits to the community.

## 1.2 Strengthening the State Administration System in Supporting Public Services in the Digital Era

Strengthening the state administrative system in the digital era is carried out through technology integration, improving the competence of human resources (HR), and simplifying bureaucracy to create more effective and efficient public services. This transformation is characterized by the implementation of *e-government* through the use of an integrated digital platform that allows the public to access services quickly and transparently. One of the strategic steps taken is the implementation of a cloud-based integrated system with a single service portal, such as the SiCantik application, which simplifies the licensing process. In addition, the digitization of business processes is carried out by converting manual procedures into electronic systems so that document processing time becomes shorter and more accurate. The use of advanced technology such as *artificial intelligence* (AI), *chatbots*, and *big data* also supports services that are more responsive and based on community needs.

On the other hand, increasing the capacity of human resources is an important factor in supporting the success of the digital administration system. State civil servants need to be equipped with digital training on a regular basis in order to be able to operate technology and information systems that continue to develop. Not only that, a change in work culture is also needed, where the bureaucracy must be more adaptive, innovative, and oriented towards public services, not just carrying out administrative functions. The professionalism of the apparatus is the main key in providing fast, precise, and quality services to the community (Syafitri et. al, 2025)

Furthermore, strengthening the state administrative system must also be supported by adequate regulations and infrastructure. The government needs to develop policies that are adaptive to technological developments, such as the implementation of digital signatures and personal data protection regulations. In addition, the availability of technological infrastructure such as internet networks and hardware must be evenly distributed to the regions so that there is no digital divide. The aspect of data security is also a top priority to maintain public trust in government digital services.

Finally, public participation and supervision are important elements in realizing transparent and accountable governance. The government can take advantage of public complaint applications such as

SP4N-LAPOR! to accommodate the aspirations and complaints of the community directly and quickly. Information transparency also needs to be improved through the provision of open access to government policies and budgets. Examples of real implementation can be seen from the use of applications such as Alavocado Betawi in Jakarta and Lapor! in various regions, which are able to facilitate population services and increase the government's responsiveness to community needs. Thus, strengthening the state administrative system in the digital era is expected to be able to create public services that are more modern, transparent, and oriented towards community satisfaction. (Nugroho, 2025)

### 1.3 Challenges and Solutions of the State Administration System in Public Services in the Digital Era

Digital transformation in state administration aims to realize faster, more efficient, and transparent public services, and is in line with the vision of a Golden Indonesia 2045. The change from conventional systems to electronic-based systems (*e-government*) is a strategic step in improving the quality of services to the community. However, in its implementation, this transformation process still faces various obstacles, both in terms of technicality, quality of human resources, and institutional aspects. (Yuliana & Anita, 2026)

One of the main problems is the digital divide and limited access to technological infrastructure. Not all regions in Indonesia have adequate internet networks, especially in rural and remote areas. This condition causes people to experience difficulties in utilizing digital services provided by the government. In addition, data security and privacy issues are also an important concern, because cyber threats such as hacking and personal data leaks can reduce the level of public trust in digital services.

Another problem that is no less important is the limited competence of human resources (HR) in the field of digital technology. There are still state civil servants (ASN) who are not fully able to operate the digital system optimally, so that it has an impact on less than optimal service. In addition, resistance to change is also an obstacle, where some bureaucracies still maintain manual work methods because they are used to the old system. In addition, the lack of integration between applications in various agencies causes duplication of systems that actually confuse the public.

To overcome these obstacles, the government needs to implement an appropriate and targeted strategy. One of them is by developing *SuperApps* and a *Single Sign-On* (SSO) system that allows people to access various services through one integrated platform without having to do repeated registrations. This effort is considered to be able to increase efficiency while facilitating access to public services.

In addition, strengthening the cybersecurity system is very important in maintaining public trust. The government needs to improve the protection of personal data through the use of more advanced security technologies and supported by clear and firm regulations. On the other hand, increasing human resource capacity must also be carried out on an ongoing basis through digital training for civil servants to be able to adapt to technological developments and provide more responsive services.

Furthermore, bureaucratic revitalization and deregulation are important steps in supporting the acceleration of digital transformation. Simplifying rules that have been hindering innovation needs to be done so that the implementation of digital systems can run more optimally. In addition, the development of a single data ecosystem is also a strategic solution to ensure data integration and interoperability between agencies, so as to avoid duplication and improve information accuracy.

In general, the digitization of public services has great potential in increasing efficiency, and can even save time and costs significantly. The success of this transformation is highly dependent on good system integration and sustainable development of human resource competencies. Thus, public services in the digital era are expected to be able to be more proactive, adaptive, and responsive to people's needs.

#### 4. CONCLUSION

Based on the results of the discussion, it can be concluded that the implementation of a digital-based state administration system has a very important role in improving the quality of public services in Indonesia. Digitalization has encouraged the creation of faster, more efficient, transparent, and accountable services, as well as facilitating public access to various government services. In addition, strengthening the administrative system through technology integration, improving the competence of the apparatus, and simplifying the bureaucracy is the main key in realizing modern governance.

However, the success of digital transformation still faces various challenges, such as technology access gaps, low human resource capabilities, and lack of system integration between agencies. Therefore, continuous efforts are needed from the government to overcome these obstacles through infrastructure development, increasing digital literacy, strengthening data security, and establishing an integrated system. With these steps, the state administrative system is expected to be able to support more optimal, inclusive, and community-oriented public services in the digital era.

#### REFERENCES

- Afdilati, A., Publik, A., Ilmu, F., & Ilmu, S. (2025). *Peran Teknologi Informasi dalam Meningkatkan Efektivitas Administrasi Publik di Indonesia*. 140–155.
- Amrozi, Y., Aini, N., Munadhiroh, Z., Studi, P., Informasi, S., Islam, U., ... Viewers, V. (2022). *PETA PERKEMBANGAN E-GOVERNMENT DI INDONESIA*. 14(1), 2465–2472.
- Juliarso, A. (2019). *ANALISIS IMPLEMENTASI E-GOVERNMENT DALAM PEMERINTAH DAERAH KABUPATEN CIAMIS*. 10, 19–28.
- Nugroho, H. S. (2025). *Efektivitas Interoperabilitas Data Pelayanan “ LAPOR ” Sleman Sebagai Perwujudan Smart Governance*. 10(3), 618–636.
- Riset, J., Humaniora, S., Kasus, S., Akta, P., Kependudukan, D., Sidoarjo, K., ... Haryati, E. (2025). *Transformasi Digital dalam Pelayanan Publik: Analisis Tantangan dan Strategi Inovasi Pelayanan Pencatatan Sipil di Era Digitalisasi*. (November).
- Statistik, B. P. (2025). *Indeks Pembangunan Teknologi Informasi dan Komunikasi 2024*.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D*. Bandung: Alfabes.
- Suhartono, B., Rivai, F. H., & Wibowo, E. K. (n.d.). *Implementasi e-Government dalam Pelayanan Publik di Unit Layanan Administrasi pada Biro Organisasi dan Tatalaksana Kementerian Dalam Negeri*. 189–204.
- Supriyanto, E. E. (2016). *Kebijakan Inovasi Teknologi Informasi (IT) Melalui Program Elektronik Government dalam Meningkatkan Kualitas Pelayanan Publik di Indonesia Abstrak*.
- Syafitri, I., Annisa, N., Resti, M., & Riau, U. I. (2025). *PUBLIKA: Jurnal Ilmu Administrasi Publik Peningkatan Layanan Administrasi Kependudukan Melalui Identitas Kependudukan Digital ( IKD ) : Studi Kesiapan SDM dalam Era Transformasi Digital di Provinsi Riau*. 11(2), 277–301. <https://doi.org/10.25299/jiap.2025.24856>
- Widyani, R., Nilamcaya, M., Rudiansyah, A., Publik, M. A., Swadaya, U., Jati, G., & Cirebon, U. M. (2022). *PEMANFAATAN TEKNOLOGI DIGITAL DALAM PELAYANAN PUBLIK MENGGUNAKAN ELEKTRONIK GOVERNMENT ( E-Government )*. (2005).
- Yuliana, S., & Anita, D. (2026). *Pelayanan Publik Digital sebagai Instrumen Peningkatan Kepercayaan Masyarakat terhadap Pemerintah*. 4(4), 13973–13980.