

# Comparative Study: Implementation of E-Government in Realizing Improved Public Services in Indonesia and Thailand

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## Abstract

This study discusses a comparison of the implementation of e-government in Thailand and Indonesia. The purpose of this paper is to describe the implementation of e-government in both Thailand and Indonesia, as well as to compare its implementation and the impact on public services in both countries. This research uses a literature study method, which does not require fieldwork or meeting with respondents. The preparation for this research is similar to other types of research, but the sources and data collection methods involve gathering data from literature, reading, taking notes, and processing research materials. It is hoped that the results of this study can provide recommendations for the governments of both countries to further improve public services to the community.

Keywords: Comparison; E-Government; Public Services; Thailand; Indonesia

## INTRODUCTION

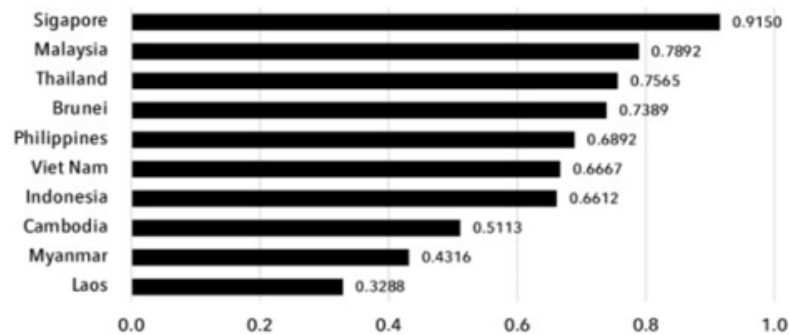
One form of development that runs very rapidly is technology. The development of technology makes things that used to be done manually and take a long time now become easy and fast. The internet is one of the most developed technologies.

With the internet, it can help meet the information needs of the community. So that the ease of getting fast, precise and accurate information is easy today. The use of information technology has now been applied in various fields, one of which is in the field of government. In government administration, the use of information technology is called E-government (Wahyuningsih & Purnomo, 2020).

Through E-Government, all state institutions, businesses, communities and other interested parties can optimally utilize government information and services at any time. The use of technology in the implementation of e-government is an effort implemented by government agencies in optimizing the provision of services for the community. In addition, the use of e-gov also seeks to make public service delivery more effective and efficient in terms of the use of time, budget, and the application of easy relationships or relationships.

The implementation of e-government innovation itself has been widely carried out throughout Indonesia but with varying degrees of success. E- Government in its application is not just using technology alone but must be supported by good regulations and policies as well. Some of the problems that cause the failure of e- government development and implementation are the unpreparedness of human resources, available information technology, government organizational culture, and lack of attention from the parties directly involved.

As developing countries, Indonesia and Thailand are still trying to become countries that can implement e-government so that they can be recognized by the world like other developed countries.



**Picture 1.** E-Government Development Index for 2020 in the ASEAN Countries  
Source: (Data from United Nations Department of Economic and Social Affairs, 2020)

Based on the table of results of the UN assessment of government development in ASEAN countries in 2020, Indonesia is ranked seventh while Thailand is ranked third. This shows that Indonesia is still below Thailand in the development of e-government implementation.

Thailand began to seriously develop e-Governance in the early 2000s with the introduction of national policies focused on government digitization. One of the first steps was the establishment of the National Electronics and Computer Technology Center (NECTEC) which was tasked with formulating policies and strategies related to information technology.

In 2001, Thailand launched the National IT Policy Framework which aimed to develop information and communication technology (ICT) infrastructure and improve public access to digitized public services. This policy was later updated with the Digital Government Plan which includes a vision to build a transparent, effective, and responsive government through the utilization of digital technology. Key Initiatives in e-Governance in Thailand are:

1. Thailand e-Government Interoperability Framework (TH e-GIF) This framework was introduced to ensure interoperability between various information systems used by government agencies. With TH e-GIF, data and information can be easily exchanged between agencies, which in turn improves the efficiency and quality of public services. (Saekow & Boonmee, 2011)
2. One Stop Service: Thailand has developed various online service portals that make it easier for the public to access government services. One example is the GovChannel portal that provides access to various public services such as business registration, tax payment, and licensing services. (Yordmanee et al., 2012)
3. E-Payment System: The Thai government has adopted an electronic payment system for various public services. This allows the public to make online payments of bills, taxes, and fines, which reduces the need to visit government offices in person. (Apasrawirotea & Yawisedb, 2021)
4. Open Government Data: As part of efforts to increase transparency, Thailand launched the data.go.th portal, which provides open access to government data. This allows the public, academia, and the private sector to utilize the data for research, analysis, and application development. (Srimuang et al., 2017)

The development of e-government (egov) in Indonesia has made significant progress in recent years, although it still faces a number of challenges. The Indonesian government has issued various regulations and policies to support the development of e-government. One of them is Presidential Instruction Number 3 Year 2003 on National Policy and Strategy for e-Government Development which encourages the use of information technology in government administration. The Indonesian government has also launched various programs such as the 100 Smart City Movement which aims to develop smart cities in Indonesia by utilizing information technology (Herdiyanti et al., 2019).

Digitalization of Public Services has been implemented because many government agencies in Indonesia have adopted e-government systems to improve the efficiency of public services. Some examples are e-KTP, e-Samsat, and e-Procurement services (Sutalhis & Novaria, 2024). At the local level, many local governments have started to implement e-government systems to improve transparency and efficiency, although the level of adoption varies across regions.

The Indonesian government has developed various digital platforms such as the Regional Management Information System (SIMDA), the Population Administration Information System (SIAK), and online services for taxation and licensing (Budi Hasmanto. Implementation of population administration information system (SIAK) in Tangerang pilot area: CV. Cipta Utama Tangerang, 2007) Information and communication technology (ICT) infrastructure continues to be expanded, including the construction of internet networks in remote areas through programs such as Palapa Ring (Satria et al., 2017).

Despite the progress, there are still various challenges in the development of e-government in Indonesia. These include the digital divide, especially in remote areas, lack of human resources skilled in ICT, and resistance to change in some parts of the bureaucracy. In addition, integration between systems owned by various government agencies is still a major challenge, given the complexity of the bureaucracy and variations in implementation in different regions. The arrival of the COVID-19 pandemic has been a catalyst in the acceleration of e-government adoption. Many public services are shifting to digital platforms to reduce face-to-face interactions and minimize the spread of the virus. The Indonesian government also continues to encourage innovation through initiatives such as SPBE (Electronic Based Government System) which aims to realize an effective, efficient, and transparent government by utilizing digital technology. Overall, the development of e-government in Indonesia shows a positive direction with more and more public services being digitally integrated. However, to achieve the full potential of e-government, continuous efforts are needed to overcome existing challenges and strengthen inter-agency coordination. In Indonesia, some regions are already doing quite well in implementing e-Government, such as Seragen Regency, Surabaya City. Not only in Thailand whose e-government implementation has a good impact on public services, Indonesia is also the same because e-government can be effective and efficient in providing public services to the community.

Indonesia and Thailand have different characteristics and challenges in implementing e-Gov. By comparing the two countries, best practices that can be adopted by each country to improve the effectiveness of e-Gov implementation in public services can be identified. Through this comparative study, the barriers faced by each country in the implementation of e-Gov can be identified, thus providing insight into how these barriers are overcome, which may be relevant and applicable in

other developing countries. By understanding the differences and advantages of the technologies implemented, each country can consider adopting or customizing technologies that have proven successful in other countries.

From the explanation above, it is interesting to identify, analyze and compare how the comparison of e-Government implementation in Thailand and Indonesia and how the impact of e-Government on public services in the two countries.

## **METHODS**

The comparative approach, according to Hudson (2007), is used to compare the similarities and differences between two or more facts and qualities of the object under study based on a certain framework. Researchers can use the comparative technique to find basic answers about cause and effect by evaluating the components that cause or occur a specific phenomenon (Hudson, 2007). We utilized a qualitative research approach in this study, which is often used in comparison studies (Creswell, 2010). The data needed in the research was obtained from previous research literature sources that discuss e-government as well as valid data from the Thai government's e-government website and several local government e-government websites in Indonesia. And in-depth interviews with relevant informants. Data analysis and conclusions are produced in accordance with the expected objectives. In writing this article, the author reviewed and analyzed journals related to e-government. The results of these various literatures will be used by the author to discuss and compare the implementation of e-government in the two countries.

## **RESULTS AND DISCUSSION**

### **A. Government Policy Related to E-Government**

Discussion of government policies government policies in implementing e- government in Indonesia and Thailand include regulations, national strategies, and policy implementation: Indonesia started implementing e-government since the issuance of Presidential Instruction Number 3 2003 on National Policy and Strategy for e-Government Development. This policy provides a legal foundation for the development of digital technology in government institutions. government institutions. In addition, Law No. 11 of 2008 on Information and Electronic Transactions is the legal basis that supports utilization of information technology in government processes. Indonesia also launched the National Strategy for Electronic- Based Government Systems (SPBE) to improve the effectiveness and efficiency of public services.

To improve the effectiveness and efficiency of public services. Institutions that were formed began to be independent institutions such as the National Information and Communication Technology Council (Wantiknas) to a unit attached to the ministry, namely the Directorate of e-Government Directorate General of Applications and Informatics of the Ministry of Communication and Informatics to the Deputy Assistant for Policy Formulation and Coordination of the Implementation of Government Administration System and Implementation of Electronic of the Ministry of State Apparatus Empowerment and Bureaucratic Reform. However, it can be perceived that these institutions are not effective enough in formulating development strategies. Institutions have not been effective enough in

strategizing the development of e-Government development strategy, so it is not enough for Indonesia to be on par with developing countries in Southeast Asia in implementing e-Government.

The development and advancement of information and communication technology in society provides an opportunity for the Indonesian government to innovate in creating a government with the support of SPBE (Electronic Based Government System). The utilization of information and communication technology in government administration to facilitate services for government agencies, civil servants, businesses, communities, and other parties is known as SPBE or e- government.

The System of Electronic-Based Government (SPBE) seeks to minimize government service costs, time, and corruption. The implementation of SPBE also aims to advance the effectiveness and effectiveness of work techniques and the quality of public services. It is a type of governance innovation that aims to utilize information and communication technology to provide more efficient services for SPBE managers in the community. (Arief and Abbas, "Systematic Literature Review: Obstacles to the Implementation of Electronic-Based Government Systems"). Presidential Regulation No. 95 on Structuring Electronic-Based Government Systems (SPBE) was promulgated in 2018, with the aim of realizing a clean, efficient, transparent, and accountable government system, providing quality, trusted and reliable public services, and increasing integration and efficiency. SPBE was previously known as e- government or electronic government before the presidential order. SPBE offers information and services to the people of Indonesia that include:

1. Government to Citizen (G2C) is a government- community partnership that seeks to increase engagement and make it easier for people to get government information.
2. Government to Business (G2B) is a classification of ties or connections between the government and the business world. This relationship is crucial in building a good connection between the government and the business world with the aim of facilitating business transactions.
3. Government to Government (G2G) is a kind of relationship between two governments. The purpose of the relationship is to meet the information needs of international organizations while facilitating and facilitating collaboration among the countries involved.
4. Government to Employees (G2E) is a classification of network connections between government and employees. The target of this relationship is to develop and improve the expertise and prosperity of employees or government officials who work in government agencies.
5. Government to Non-Profit (G2N) is a type of relationship between the government and non-profit organizations or institutions such as NGOs, political parties and the like. This relationship intends that non-profit organizations or institutions can be managed properly according to the mandate and mandate to achieve their goals.

Indonesia is currently lagging behind several countries, especially in the Southeast Asian region, in terms of digital development. The President issued five directives to prevent the acceleration of digital change in the face of the Covid-19 outbreak. The first step is to expand access and improve digital infrastructure. Second, in important areas such as government, public services, social care, education, health, business, industry, and broadcasting, develop a digital transportation strategy. Third, accelerate the integration of the National Data Center. Fourth, establish rules to finance and support

digital transformation and increase human resources for digital talent. The government also issued Presidential Regulation No. 9/2019, which focuses on improving data collection standards and laying the groundwork for data openness and interoperability across government agencies.

Thailand has a Digital Government Development Plan 2023-2027 policy that provides strategic direction in e-government development. The Thai government through Digital Economy Promotion Agency (DEPA) and Digital Government Development Agency (DGA) focuses on digital transformation in government to improve the quality of public services. Thailand has a program called “Thailand 4.0” that aims to digitize the public sector as part of the national development plan.

The policy differences between Indonesia and Thailand can be seen in the focus of implementation. Indonesia focuses on improving service equity across regions, including remote areas, while Thailand focuses more on digital innovation and smart city infrastructure development. Thailand tends to be more progressive in e- government development with the support of strict regulations and long-term planning to support digital transformation.

## **B. Technology Infrastructure and Information Technology Readiness**

Technological infrastructure includes facilities and infrastructure needed for e- government implementation, such as internet access, data centers, and adequate information technology. According to the World Economic Forum (WEF) (The World's Economic Forum (WEF), [Online]. Available: <http://www.weforum.org/>.) Indonesia is currently ranked 98th in terms of infrastructure, in terms of human resource skills, in terms of program usage, and in terms of impact achieved through program implementation.

In the case of Indonesia, infrastructure is still not widely distributed. Only in big cities, such as Jakarta, Surabaya, Yogyakarta, Bandung, Medan, etc., infrastructure is built and well-developed, but not in small towns or border areas. There are some provinces that do not even have an internet network, so it is impossible to get information technology if the internet network does not exist. The main challenge in Indonesia is that internet access is still limited, especially in remote and rural areas. Indonesia has launched the Palapa Ring project to expand internet access across the country, but geographical constraints have led to disparities in the spread of digital technology. The government has also invested in the construction of a national data center and cybersecurity system to support the sustainability of e-government services.

Thailand is more advanced in the provision of technology infrastructure with a more even level of internet access across the country. The Thai government has built a national data center as well as implemented a 5G network to support digital transformation in the public sector. In addition, Thailand's progress in smart city projects also shows a more advanced technology infrastructure readiness compared to Indonesia. Thailand has an advantage in infrastructure readiness due to consistent investment and policy support in providing high-speed internet access and 5G networks. This accelerates the digital transformation process in the government sector. Indonesia still faces major challenges in equalizing internet access, which impacts the provision of e-government-based public services in remote areas.

## **C. Community Participation and Readiness**

Digital literacy and community readiness are important factors in the successful implementation of e-government, as digital services require certain skills to be used effectively. In Indonesia the

level of digital literacy in Indonesia varies, with people in urban areas tending to be more prepared and accustomed to using digital services. However, in rural and remote areas, limited technological knowledge is a challenge in utilizing e-government services. The government attempts to improve digital literacy through training and education programs, but the reach is still limited.

Thai people are generally more accustomed to the use of digital technology due to higher levels of digital literacy and government support in digital education programs that cover all levels of society. Thailand also conducts digital awareness campaigns and provides access to technology information through community centers. Thailand has a higher level of digital literacy and better public participation in e-government, which contributes to the effectiveness of digital public services. In Indonesia, limited digital literacy, especially in remote areas, is a major obstacle to e-government implementation. The government needs to strengthen technology education programs to increase public awareness of the benefits of e-government.

#### **D. Quality of Public Services**

The quality of public services is measured through the effectiveness, efficiency, transparency and accessibility of services provided through e-government platforms. E-government in Indonesia has improved the quality of public services by providing faster access to information and administrative services such as online driver's license and passport renewal. However, challenges in service consistency, limitations of systems that are still error-prone, and access barriers in remote areas make service quality still not optimal.

Thailand has been able to provide faster and more efficient public services through e-government. For example, health services and business licenses can be accessed easily through integrated applications, resulting in shorter service times. The public service system in Thailand is also considered more transparent, with a clear reporting mechanism for the public to provide feedback and submit complaints.

Thailand has a better quality of e-government-based public services, as seen from the efficiency of service time and a higher level of transparency. In Indonesia, despite improvements, the quality of public services still needs to be improved, especially in system consistency and service accessibility in remote areas.

#### **E. Data Security and Privacy**

Data security and privacy are key challenges in e-government implementation, as digital services are vulnerable to cyberattacks and privacy breaches. Indonesia has a new Personal Data Protection Law that was passed in 2022. However, the implementation of cybersecurity systems is still a challenge, and cases of data leakage are still common. The government has made efforts to improve the security system by building a national data center, but further improvements in regulations and technology are still needed to protect user data.

Thailand has a Personal Data Protection Act (PDPA) that has been implemented since 2021, providing a strong legal framework to protect user data. The Thai government has also developed more advanced cybersecurity infrastructure and conducted specialized training for officials to improve security in e-government services. Thailand is ahead of Indonesia in terms of data security regulations and systems, with strict implementation of the PDPA and proactive cybersecurity measures. Indonesia

still needs to strengthen cybersecurity and implementation of personal data protection laws to prevent data leaks that could undermine public trust in e-government.

## CONCLUSION

Based on the discussion above, it can be concluded that Thailand has an advantage in implementing e-government, especially in technological infrastructure, community participation, quality of public services, and data security. Indonesia has made various efforts in e-government development, but still faces challenges in equitable access, digital literacy, and data security. By increasing investment in infrastructure, strengthening security regulations, and expanding technology education in society, Indonesia can further optimize the implementation of e-government to improve public services.

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