

Comparison of e-government acceleration in five regions: Case studies following the issuance of Presidential Regulation 95/2018

Komparasi akselerasi e-government di lima daerah: Studi kasus pasca terbitnya Perpres 95/2018

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Abstract

One year following the issuance of Presidential Regulation Number 95 of 2018 (Perpres 95/2018), all local governments are competing to implement an electronic-based government system (SPBE/e-Government/e-Gov). This study, which was conducted in the 2021-2022 period, aimed to examine e-Gov planning and then compare its practice in the five regions (Surabaya, Banyuwangi, Sleman, Gresik, and Kulon Progo) focusing on the results of the 2019 SPBE evaluation and the availability of a legal umbrella in the form of Regent/Mayor Regulations governing the implementation of e-Gov. Starting with the e-Gov theoretical framework, this study used a qualitative-descriptive method with internet secondary data, library research, SPBE index review, and supporting documents. The results of this study are: (a) there are four phases of e-Gov planning: automation, optimization, reengineering, and transformation. The acceleration of the implementation of the SPBE includes the integration of planning, budgeting, procurement, personnel data, archives, public complaints, and data centers; (b) responsively, the five regions compared in this study already have a legal umbrella in the form of a Regent/Mayor Regulations one year following the issuance of Presidential Decree 95/2018; (c) The SPBE service domain is a reliable indicator among the five regions, while the SPBE governance and policy domain displays different dynamics among them. This study concludes that Indonesia's performance in e-Gov practice is still not convincing among other countries globally and recommends more innovative implementation of e-Gov from authorities (government) without neglecting periodic evaluations.

Keywords: an electronic government index; electronic government; SPBE institutionalization

Abstrak

Satu tahun setelah terbitnya Peraturan Presiden Nomor 95 tahun 2018 (Perpres 95/2018), seluruh pemerintah daerah berlomba-lomba menerapkan sistem pemerintahan berbasis elektronik (SPBE/e-Government/e-Gov). Studi yang dilakukan pada kurun 2021-2022 ini bertujuan untuk mengkaji perencanaan e-Gov kemudian mengkomparasikan praktiknya di lima daerah (Surabaya, Banyuwangi, Sleman, Gresik, dan Kulon Progo) dengan berfokus pada hasil evaluasi SPBE tahun 2019 dan ketersediaan payung hukum berupa Peraturan Bupati/Wali Kota yang mengatur pelaksanaan e-Gov. Bertolak dari kerangka teoretik e-Gov, kajian ini menggunakan metode kualitatif-deskriptif dengan data sekunder internet, kajian pustaka, telaah indeks SPBE dan dokumen pendukung. Simpulan kajian ini adalah: (a) Terdapat empat fase perencanaan e-Gov: otomasi, optimasi, reengineering, dan transformasi. Akselerasi SPBE meliputi integrasi perencanaan, penganggaran, pengadaan, data kepegawaian, kearsipan, pengaduan publik, dan pusat data; (b) Secara responsif, lima daerah yang dikomparasikan dalam kajian ini telah memiliki payung hukum berupa Peraturan Bupati/Wali Kota satu tahun pasca terbitnya Perpres 95/2018; (c) Domain layanan SPBE menjadi indikator andalan diantara lima daerah, sementara domain tata kelola dan kebijakan SPBE menampilkan dinamika yang berbeda diantara lima daerah tersebut. Studi ini menyimpulkan bahwa performa Indonesia dalam praktik e-Gov masih belum meyakinkan diantara negara-negara lain secara global dan merekomendasikan pelaksanaan e-Gov yang lebih inovasi dari para pemegang otoritas (pemerintah) dengan tanpa mengabaikan evaluasi secara berkala.

Kata kunci: indeks pemerintahan elektronik; electronic government; institusionalisasi SPBE

Introduction

Acceleration of the quality of public services has become a necessity for an increasingly modern society. Speed, convenience, and efficiency without compromising the quality of governance and public services are critical matters as people's lives evolve from the local to the global levels. Governance and public services have developed in such a way by adapting the advancement of information and communication

technology instruments commonly referred to as e-government (or e-Gov). In response to this rapid development, the government has issued Presidential Regulation Number 95 of 2018 (Perpres 95/2018) concerning Electronic-Based Government Systems (SPBE), followed by the issuance of Minister of State Apparatus Empowerment and Bureaucratic Reform Regulation Number 59 of 2020 (Permen PAN-RB 59/2020) regarding SPBE Monitoring and Evaluation and other related regulations.

As a result, all regional governments - both provincial and regency/city - are competing to implement e-Gov, in accordance with the spirit of Presidential Regulation 95/2018 and PAN-RB Regulation 59/2020. Of course, the process of revamping and accelerating the electronic-based governance system (e-government) produces a variety of phenomena in the regions affected by it. Some of them are able to move quickly due to adequate infrastructure support and the leaders' strong will, while others have to struggle to catch up due to various limitations and constraints.

Historically, since the issuance of Presidential Instruction Number 3 of 2003 (Inpres 3/2003) concerning the National Policy and Strategy for the Development of E-Government, the issue of e-government has become an increasingly important one to study and develop. This is consistent with global governance developments, particularly in light of developed-country experiences. Several definitions of e-Gov include: (a) the use of information and communication technology in government processes (second point in the weighing section of Presidential Instruction 3/2003); (b) SPBE is a government administration that uses information and communication technology to provide services to SPBE Users (Article 1 paragraph 1 of Presidential Regulation 95/2018); (c) the use of information and communication technologies in public administrations combined with organisational change and new skills in order to improve public services and democratic processes and strengthen support to public policies (Commission of The European Communities 2003:7); (d) the use by the government of web-based internet applications and other information technologies, combined with processes that implement these technologies to: enhance the access to and delivery of government information and services to the public, other agencies, and other government entities or bring about improvements in government operations that may include effectiveness, efficiency, service quality, or tranformation (U.S. Congress 2002, in Grönlund & Horan 2005:718).

These four definitions each contain at least a few keywords that combine to form a flexible definition of e-Gov: the use of information and communication technology in government processes to improve public services and access to information from the government to the public, the private sector (companies), workers, and other government entities, or vice versa (Layne & Lee 2001, Andersen & Henriksen 2006, Mellouli et al. 2014). As a result, e-Gov is classified into three types of relationship specifications: (a) *government to citizen* (G2C/C2G), in which citizens can access government information and services online; (b) *government to business* (G2B/B2G), in which the government and the private sector can interact online; and (c) *government to government* (G2G/G2G), in which various levels of government institutions provide services and allocate responsibilities (Moon 2002:424-433, Salsabila & Purnomo 2018).

Contextually in Indonesia, with the enactment of Presidential Decree 95/2018 on SPBE as previously mentioned, the implementation of e-Gov in Indonesia has become a very rich, dynamic, and challenging research field. The implementation of e-Gov in Indonesia raises various intriguing phenomena ranging from the national to the local level. These various phenomena range from the best (best practices) to weak ones (worst practices).

This article departs from the author's enthusiasm to examine e-Gov issues, particularly in practice in Indonesia by observing e-Gov practices indirectly in five regions, including Surabaya, Banyuwangi, Sleman, Gresik, and Kulon Progo. What is the significance of these five areas? This is due to the fact that the five regions enthusiastically welcome the presence of Presidential Decree 95/2018 by accelerating all instruments that must be prepared quickly and effectively. This study is important to conduct at least as an illustration that regions with city status are not always compatible with implementing e-Gov effectively due to the readiness of their infrastructure and human resources, but areas with regency status, despite the limitations of their electronic infrastructure, are apparently able to catch up in implementing e-Gov.

The various experiences in implementing e-gov at the local government level can be observed from the index implemented by the national government through the Electronic Based Government System (SPBE) platform. Studies on e-government in Indonesia have evolved in this manner in tandem with the rapid development of digital technology. Huda & Yunas (2016:97-108), for example, have explored how the development of e-Gov in Indonesia necessitates various alterations, such as adequate budget allocations and the development of a digital society that is not solely for the benefit of a better e-Gov but also in accelerating economic growth. All of this is dependent on the local government's strong commitment and leadership.

Discursively, the issue of e-Gov has shifted the common understanding of one-roof service to become the standard e-Gov practice in various regions. The definition of one-stop service has evolved from relying on physically integrated services under one roof to an electronic-based integrated system service, that prioritizes information/data flowing dynamically and integrated. In this environment, services are no longer physically oriented (buildings) so a physical office does not always have to be under one roof. To build integrated electronic-based services, all service systems based on applications or the web are standardized in order to make the system and use of data/information faster, more efficient, transparent, and accountable. However, the trend of one-stop service which is understood to be under one office (physically) continues running in many areas.

Furthermore, instead of streamlining budgets and processes, the experience of implementing information and communication systems at all levels of ministries/institutions/regions (K/L/D) individually has resulted in budgetary inefficiencies and confusing data and processes. According to the Ministry of Finance in 2017 regarding government ICT spending data, the budget for government ICT spending is used for general applications by 65% and special applications by 35%, with the percentage increasing year after year. However, the utility of information and communication technology (ICT) is only 30%.

The study of the shortcomings of ICT utility in e-Gov is not limited to Indonesia. A recent study on this subject was conducted by Simonofski et al. (2022) who identified that the majority of these open government data (OGD) portals were designed more for expert users rather than the general public (Lourenço 2015). The technical barriers are OGD content and packaging that are less grounded for the layperson (Janssen et al. 2012), provision of basic functionality such as search and download that fail to provide value to the user (Alexopoulos et al. 2014), limited descriptions found in portals (Gebre & Morales 2020), too many data set categories that can impede user access to information (Pinto et al. 2018), and others. As a result, breakthroughs are required to address these series of weaknesses, such as intermediary tools for data analysis and exploration, which are critical for ordinary citizens to use OGD (Safarov et al. 2017), end-user support with demos, online courses, FAQs, or helpdesk (Zuiderwijk et al. 2015), and prerequisites for increasing citizen intention to engage in OGD, such as perceived ease of engagement, availability of feedback mechanisms, or links with social media (Saez Martín et al. 2015, Purwanto et al. 2020).

As a result, the research objectives are as follows: (a) to identify plans and strategies for accelerating the implementation of SPBE as part of the dynamics of e-Gov issues, particularly at the local level in Indonesia; (b) to compare the five regions, focusing on the results of the 2019 Electronic-Based Government System (SPBE) evaluation (index) and the availability of a legal umbrella in the form of Regional Regulations or Regent / Mayor Regulations that address the following three domains and seven aspects: (1) internal policy domain, which includes aspects of (i) SPBE governance policies; (ii) SPBE service policies; (2) SPBE governance domain, which includes aspects of (iii) institutional; (iv) strategy and planning; (v) information and communication technology (ICT); and (3) SPBE service domain, which includes aspects of (vi) government administration and (vii) public services.

Research Method

This study employed a qualitative-descriptive method by utilizing internet-based secondary data, library research based on publications, relevant previous research, and a review of the SPBE index published by the Ministry of Administrative Reform and Bureaucratic Reform (KemenPAN-RB) of 2019 and other

relevant supporting documents. Technically (see Figure 1), data analysis was performed by extracting data from the 2019 SPBE evaluation results (index), classifying and interpreting data, then elaborating research findings (Creswell 2002:138). Furthermore, data regarding the legal umbrella at the local government level that strengthens the implementation of the SPBE were also traced.

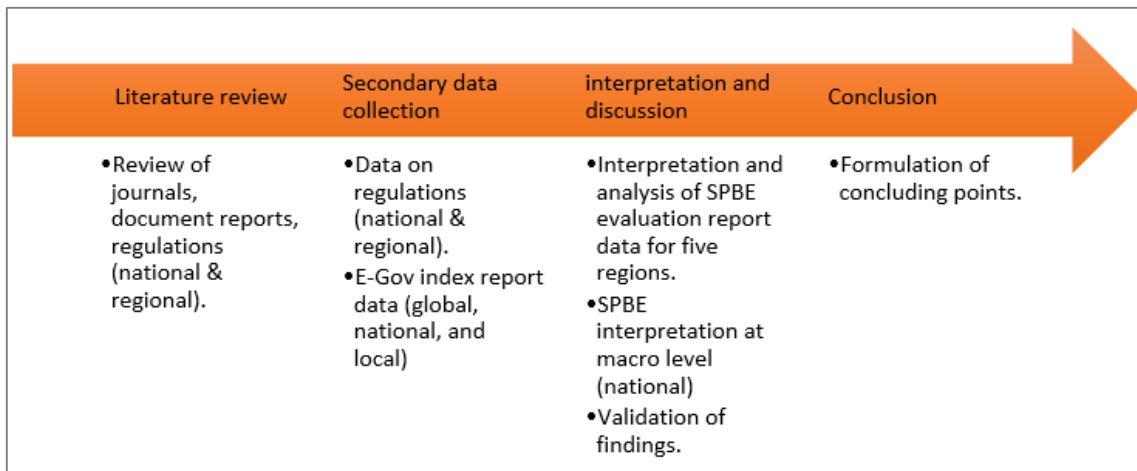


Figure 1.
Descriptive qualitative research method
Source: Modification by authors

The selection of five regions to compare their e-Gov implementation experience, including Surabaya, Banyuwangi, Sleman, Gresik, and Kulon Progo, was based on consideration of the general performance characteristics of each of these local governments in implementing e-Gov. It is particularly relevant to the development process of e-Gov infrastructure, which leads to the evaluation of the SPBE index. Furthermore, the availability of a regional legal umbrella to legally strengthen SPBE implementation is an important variable that determines SPBE implementation effectiveness within the local government environment.

Data analysis and interpretation were carried out on a theoretical basis, as in e-Gov studies related to the focus of this research, using the method used by Huda & Yunas (2016:99). This internet-based research method is also referred to as internet-mediated research (IMR) (Hewson in Hesse-Biber et al. 2008:543-570). This IMR method – by improvising using a software tool called Netvizz to extract data from Facebook groups and pages – was also used by Fuchs (2018:157-206) to examine the ideological expressions of supporters of Norbert Hofer from the Freedom Party of Austria’s (FPO) on Facebook on the Presidential Election in Austria in 2016.

Results and Discussion

Discourse on SPBE planning and implementation

The concept of e-Gov (synonymous with Electronic-Based Government System/SPBE; digital government; one-stop government, and online government) has been widely applied in various developed countries since the late 1990s, particularly beginning with practitioners who shared their experiences (Grönlund & Horan 2005:713). The practice of e-Gov coincided with the explosion of internet use in England, Canada, Australia, and the United States in the mid-late 1990s (Chadwick 2016). The issue of e-Gov goes hand in hand with the issue of e-Democracy (e-Dem) in the sense of the concept of open government and transparency. It is a new paradigm that emphasizes data access and reuse in order to promote interoperability and innovation (Hansson et al. 2015). In their development practices, e-Gov and e-Dem allow marginalized communities to participate in policy-making through various channels, resulting in more legitimate decisions and effective implementation (Nurdin 2018:1-7). In this case, improving the quality of citizen participation boosts public trust in the government (Moon 2018). National and local governments around the world are required to safeguard data while also increasing citizen participation to make government more open and transparent (Manoharan et al. 2022).

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According to Yusuf et al. (2016:18-35), there are four main issues in e-Gov discussions, namely: e-Democracy, e-Participation, e-Voting, and e-Governance. Besides, there are several other issues including local government, public sector, public policy, interoperability, ICT support, e-Government implementation, SPBE implementation, transparency, public e-Services, governance, trust issues, e-Commerce, and identity management.

Globally, at least two e-Gov Indexes are frequently used as credible references for e-Gov studies, including: (1) The United Nations E-Government Development Index (EGDI) that is accessible via the website (<https://publicadministration.un.org/egovkb/en-us/>). It ranks the online service index, human capital index, and telecommunications infrastructure index in 193 United Nations member countries; and (2) Waseda World Digital Government (WDG) Rankings Survey which has ten main indicators covering 64 countries. Waseda WDG and its indicators can be accessed via the website (<https://idg-waseda.jp/ranking.htm>).

Meanwhile, in the scope of cities, a survey was conducted to rank big cities from various countries in terms of e-Gov implementation as a reference for best practices. According to the 2018-2019 Global E-Gov Survey on city government performance (digital governance), several cities around the world are best at implementing e-Gov, including Seoul (score: 84.07), Madrid (score: 80.51), Yerevan (score: 67.59), Auckland (score: 67.24), and Paris (score: 65.02) (Manoharan et al. 2022). In this case, Jakarta is ranked 78th, trailing Ho Chi Minh City (67th), Bangkok (61st), Kuala Lumpur (30th), and Singapore (6th). The survey assessed five areas: privacy and security, usability, content, services, and citizens and social engagement.

Domestically, the Ministry of PAN-RB is in charge of e-Gov ranking, as explained above. The KemenPAN-RB SPBE Index is an implementation of Presidential Decree 95/2018, which is nothing more than the institutionalization and regulation of e-Gov. The Presidential Decree 95/2018 was issued in response to Presidential Instruction 3/2003 concerning the National Policy and Strategy for E-Government Development, as well as an effort to operationally integrate at least four Laws (UU), including: (a) Law no. 14/2008 concerning Openness of Public Information where the product is an information and documentation system (b) Law no. 25/2009 concerning Public Services where the product is a public service information system; (c) Law no. 25/2009 concerning Public Services where the product is public; and (d) Law no. 23/2014 concerning Regional Government where the product is a regional development system.

SPBE Is an e-Gov platform that includes three relationships, including: (a) Government and Government (G2G) covering products of e-office, e-planning, e-budgeting, e-Monev, data interconnection, integrated financial information systems, local e-Gov, etc; (b) Government with citizens (G2C) covering products of e-complaints, e-health, e-education, e-KTP, e-Bansos, integrated tax system, integrated insurance system, census application, etc; (c) Government with Business (G2B) covering products of e-procurement, e-licensing, local taxes, e-commerce, etc. (Huda & Yunas 2016:104-106). The first relationship has one derivative, which is the Government and the State Civil Apparatus/employee (G2E), which includes products of e-HR, e-pension, and so on.

In general, there are four stages of strategic planning in the long-term development of e-Gov in Indonesia, including coverage of regional e-Gov practices. The first stage is automation. This phase marks the transition from the manual to the automatic or digital eras. Everything related to public services, that can be done based on ICT, has transitioned from manual to electronic. The second stage is optimization. After the first stage is completed, the government will focus on optimization. Facilities and infrastructure are put to good use in order to promote economic growth. The third stage is re-engineering. Gradually, various policies must be adjusted so that e-Gov policies can be properly implemented. The fourth stage is transformation (Huda & Yunas 2016:104). The pattern of business service processes and government offices has changed, allowing ICT to serve as a foundation for all matters. The main principle is "If it can be simplified, why make it complicated" (Tohirin 2014).

The acceleration of SPBE implementation through the integration of planning, budgeting, and procurement is coordinated by the Minister of PPN/Bappenas (National Development Planning Agency). Personnel data integration between the National Personnel Agency (BKN) and government agencies is

coordinated by the PANRB Ministeras are the integration of public service complaints by the Minister of PANRB, and the integration of electronic official documents (archives), while the integration of PBE infrastructure (National Data Center, National Intra-Government Network) is coordinated by the Minister of Communication and Information (KOMINFO).

Comparison of SPBE implementation in five regions

The implementation of SPBE in the first year following the issuance of Presidential Decree 95/2018 exhibits intriguing dynamics. The SPBE evaluation methodology which is a derivative of the three domains and sub-domains, is detailed by the KemenPAN-RB through the Regulation of the Minister for Administrative Reform and Bureaucratic Reform (PermenPAN-RB) 59/2020 concerning SPBE Monitoring and Evaluation as illustrated in the scheme in Figure 2.



Figure 2.

The SPBE assessment scheme based on PermenPAN-RB 59/2020

Source: Dewan Teknologi Informasi dan Komunikasi Nasional (2018:10) - processed by authors

The 2019 SPBE evaluation in the five selected regions in this study was elaborated successively starting from Surabaya to Banyuwangi, Sleman, Gresik, and Kulon Progo. *The first* is Surabaya City. As the largest city in East Java, Surabaya is at the forefront of policy innovation and public services, including infrastructure acceleration and SPBE implementation. When evaluated in 2019, Surabaya received the title of “very good” SPBE index score (see Figure 3) of 3.72. This predicate is the result of an aggregate assessment of the SPBE policy domain (score: 2.88) that includes aspects of SPBE governance policies (score: 2.29) and SPBE service policies (score: 3.30). While the governance domain (score: 2.86) which shows ICT aspects (score: 3.67), SPBE strategy and planning (score: 2.00) and SPBE institutions (score: 2.5) also show good performance although still weak in the aspects of strategy and planning. Furthermore, the SPBE service domain is very high, with a score: 4.42, covering aspects of government administration (score: 4.57) and public services (score: 4.17).



Hasil Evaluasi SPBE 2019

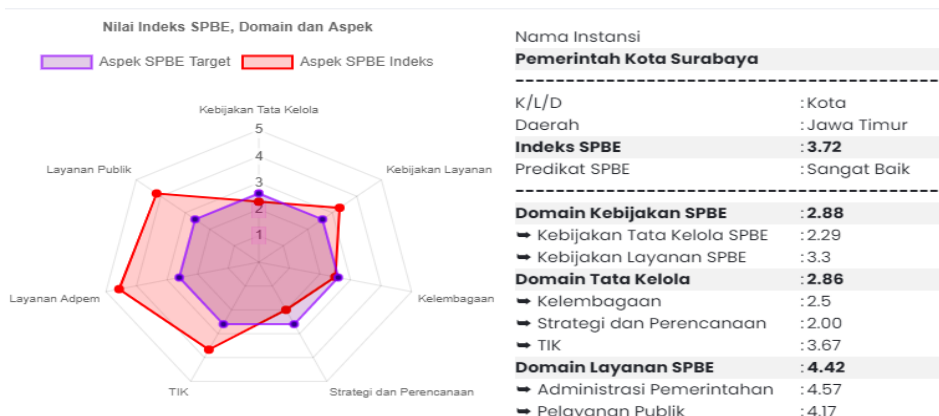


Figure 3.

SPBE evaluation results of Surabaya City in 2019

Source: SPBE (2021)

Surabaya City Government has issued a legal umbrella for the implementation of SPBE or e-Gov, namely Surabaya Mayor Regulation 68/2020 concerning SPBE Implementation within the Surabaya City Regional Government. In general, the Surabaya City Government has made every effort to improve government administration services, also known as internal services, in order to support the main services like public services, which require support from an integrated government administration service system.

The second is Banyuwangi Regency. Many innovations in electronic-based governance have been implemented acceleratively in Banyuwangi Regency, making this regency receives a "good" title in the 2019 SPBE evaluation. The superiority of SPBE implementation in Banyuwangi Regency (see Figure 4) lies in the SPBE service domain (score: 3.79), specifically in the aspects of government administration services (score: 3.86) or often referred to as internal services and public service aspects (score: 3.67), both of which receive close to a score of 4. However, the policy domain (score: 2.47) and both aspects of governance policy (score: 2.43) and SPBE service policies (score: 2.5) show poor performance. Meanwhile, the governance domain (score: 2.57) shows strength in the ICT aspect (score: 3.00) but is very weak in the institutional aspect (score: 2.00).

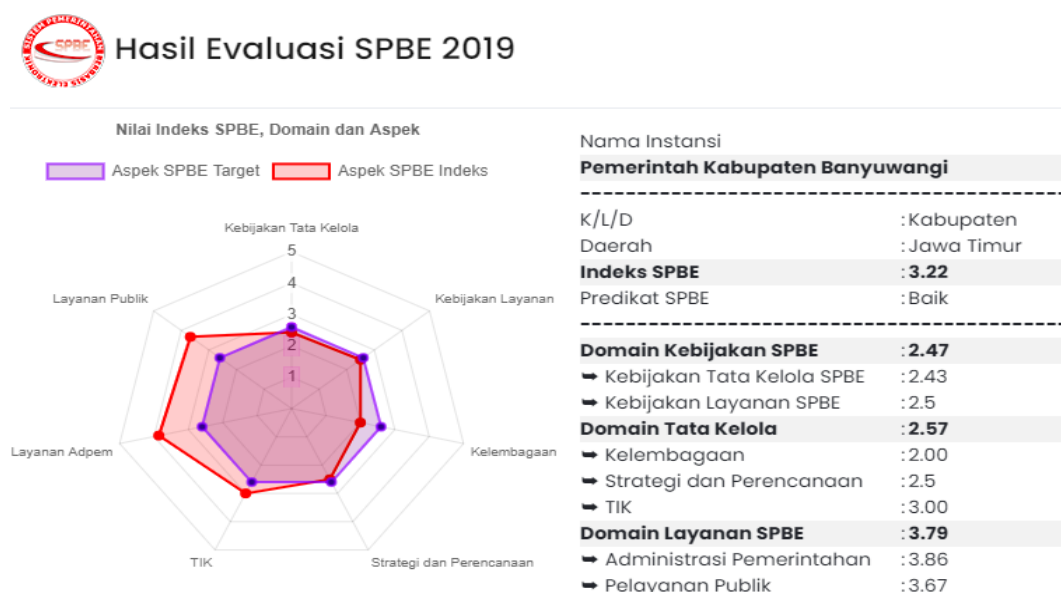


Figure 4.
SPBE evaluation results of Banyuwangi Regency in 2019
Source: SPBE (2021)

The Government of Banyuwangi Regency issued Banyuwangi Regent Regulation 67/2019 concerning Electronic-Based Government Systems in the Administration of Banyuwangi Regency Regional Government to strengthen the implementation of e-Gov. Banyuwangi has issued a legal umbrella for SPBE implementation earlier than Surabaya.

The third is Sleman Regency. Although the government has only issued a legal umbrella for SPBE in 2021 of Sleman Regent Regulation 22/2021 concerning the Implementation of SPBE, the results of the evaluation of SPBE practice in Sleman Regency in 2019 (see Figure 5) achieved a satisfactory score of 3.37 with the title "good". This is primarily due to the innovative and accelerated steps taken by the regency government to implement SPBE as soon as possible within the government environment, as well as a mandate from the central government. Implicitly, the experience of Sleman Regency (similar to Surabaya) reflects that e-Gov practice does not always run in line by prioritizing the legal umbrella to overshadow the implementation process, but concrete-discrete steps. It is carried out in the form of developing digital infrastructure as soon as possible, followed by the issuance of a legal umbrella in the form of Regent Regulation to strengthen and further legalize the implementation.



Hasil Evaluasi SPBE 2019

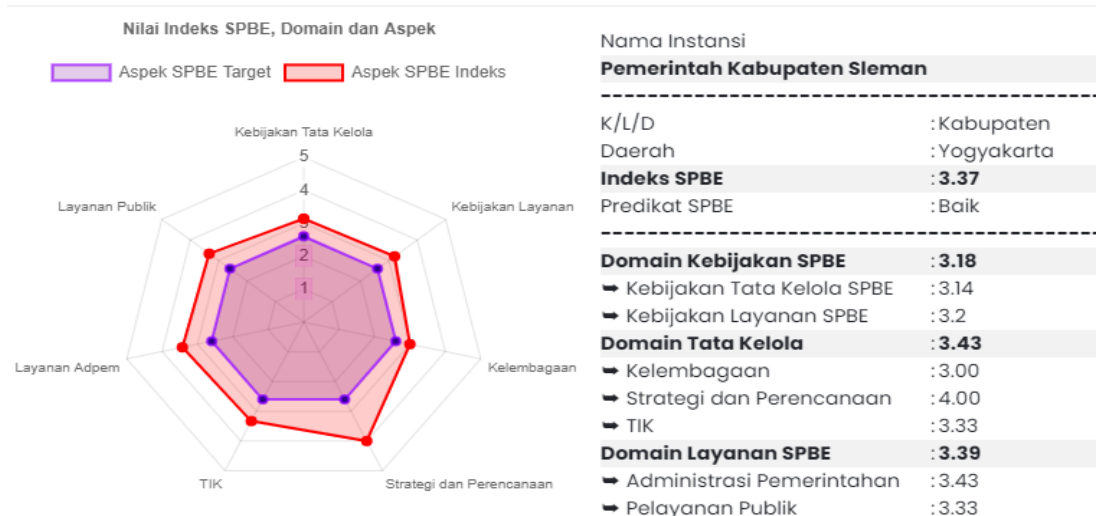


Figure 5.

SPBE evaluation results of Sleman Regency in 2019

Source: SPBE (2021)

According to the results of the SPBE evaluation in Sleman Regency, SPBE implementation appears to be more evenly distributed in all domains, including SPBE policy (score: 3.18), governance (score: 3.43), and SPBE services (score: 3.39). When all aspects are considered, the strategy and planning aspect received the highest score (score 4 on a scale of 5) indicating that this regency is very good at planning.

Meanwhile, the aspects of the SPBE governance policy (score: 3.14) show a good enough performance so that it can be said that Sleman Regency has an orderly administration and rules. This is because, prior to performing the SPBE service, the most principled and actually simple thing to do is to design and stipulate a policy that ensures all apparatus movements are more flexible because they are protected by a legal umbrella. The SPBE service indicator (score: 3.2) then demonstrates good performance.

Similarly, the institutional aspect (score: 3.00) and the ICT aspect (score: 3.33) appear to have integrated with the duties and functions of the existing unit, resulting in a good score. Balancing these three domains is challenging because the classic problem of government bureaucracy, namely the ego-sectoral potential in every unit of government, frequently becomes an impediment to the process of building an integrated e-Gov system. Finally, the SPBE service domain is equally good, covering aspects of government administration (score: 3.43) and public services (score: 3.33). These last two aspects indicate that the regency government is very serious about maintaining orderly administration and providing community service.

The fourth is Gresik Regency, which is one of the most responsive regencies in implementing SPBE to the extent of the regional head's initiative that legally issues a legal umbrella earlier than many other regencies/cities through the issuance of Gresik Regent Regulation 7/2018 concerning Implementation of E-Government in Gresik Regency Government.

According to the 2019 SPBE evaluation, the Gresik Regency Government (see Figure 6) is very good in terms of government administration services (score: 4), as well as public services (score: 3.5), boosting the SPBE service domain. (score: 3.82). Gresik Regency benefits in this case because the two SPBE services receive the highest weighting of 55% (at the time this assessment was carried out). However, as of 2021, the weight has been reduced to 45% of all SPBE scores. As a result, if the two services score higher than 3 (three), the implication is that the SPBE score for an area as a whole will be high as well because the proportion of SPBE services alone is already more than 50%.

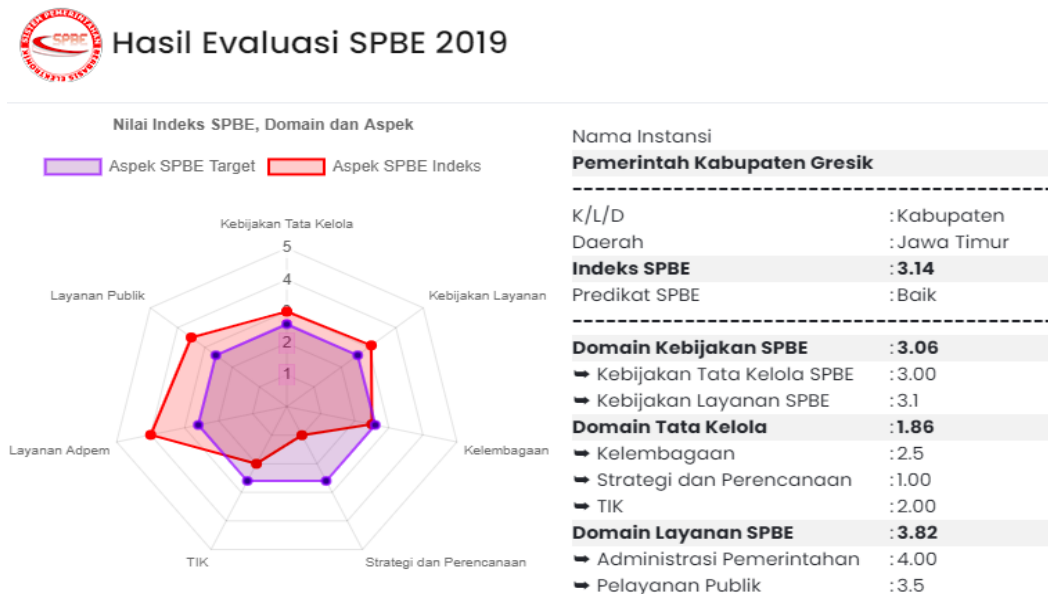


Figure 6.
SPBE Evaluation Results of Gresik Regency in 2019
Source: SPBE (2021)

Meanwhile, Gresik Regency’s SPBE policy domain is quite good (score: 3.06). It indicates that the Gresik Regency Government has prepared an SPBE implementation policy, including SPBE governance (score: 3.00) and SPBE service policy (score: 3.1). This is, of course, strongly supported by the issuance of the earliest e-Gov policy legal umbrella in comparison to other regencies/cities in East Java, with implications for the very good performance of aspects of government administration and public services as previously mentioned. The legal umbrella serves as a “safety belt” for the bureaucratic apparatus in carrying out its duties, providing legal certainty.

In comparison to the other two domains, the governance domain has a weak side (score: 1.86), which includes institutional aspects (score: 2.5), strategy and planning (score: 1.00), and information and communication technology (ICT) (score: 2.00). The Gresik Regency Government should pay special attention to the governance domain in the coming years.

The fifth is Kulon Progo Regency, one of the regencies that have implemented SPBE rather slowly and unsatisfactorily. According to the 2019 SPBE evaluation results, the overall SPBE index score is 2.91 (see Figure 7). Even though it is still titled “good,” compared to the other four regions, Kulon Progo needs to improve significantly because the overall score is still less than 3 on a scale of 5. However, this is understandable given that socioeconomically, the pace of the economy of Kulon Progo is rather slow, which has an impact on regional income and the wheels of economic rotation, directly or indirectly. In turn, the capacity of regional budgets and expenditures to build an e-Gov-based government system adjusts to regency budgets’ relatively limited performance.

Furthermore, the legal umbrella for the Regent’s Regulation is a little late in 2020, though this variable is not the main determinant, at least when compared to its neighboring regency, Sleman, which has a legal umbrella for 2021. Kulon Progo Regency established a legal umbrella in the form of Kulon Progo Regent’s Regulation 5/2020 on the Implementation of Electronic-Based Government Systems.

The strategy pursued by the Government of Kulon Progo Regency, similar to the experience of e-Gov practice in other regions, is to maximize the SPBE service domain (score: 3.36) because it will directly have implications for increasing the prestige that its public services are good in the eyes of the community. This domain is expected to boost public trust in the Regent and his apparatus.

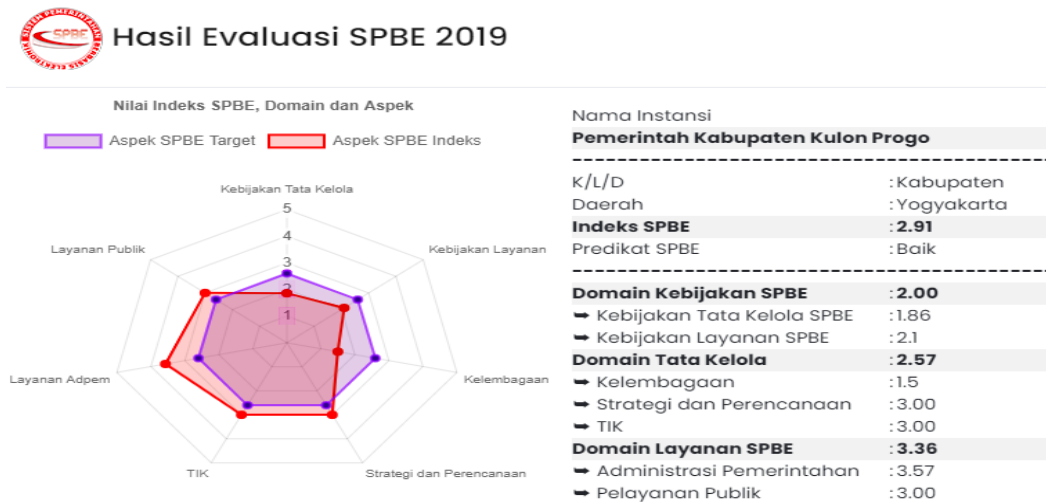


Figure 7.
SPBE evaluation results of Kulon Progo Regency in 2019 SPBE
Source: SPBE (2021)

Meanwhile, the governance domain score (2.57) is slightly greater than that of the SPBE policy domain (score: 2.00). In this domain, two aspects are actually quite high, including strategy and planning (score: 3.00) and ICT (score: 3.00). These two aspects, however, did not have a very positive impact on the governance domain because the institutional aspect (score: 1.5) had a very low score, which was also the lowest indicator of all the indicators evaluated and undermined the governance domain. Indirectly, Kulon Progo Regency's priority improvements to catch up are on institutional aspects and aspects of SPBE governance policies, while maintaining and improving other aspects overall.

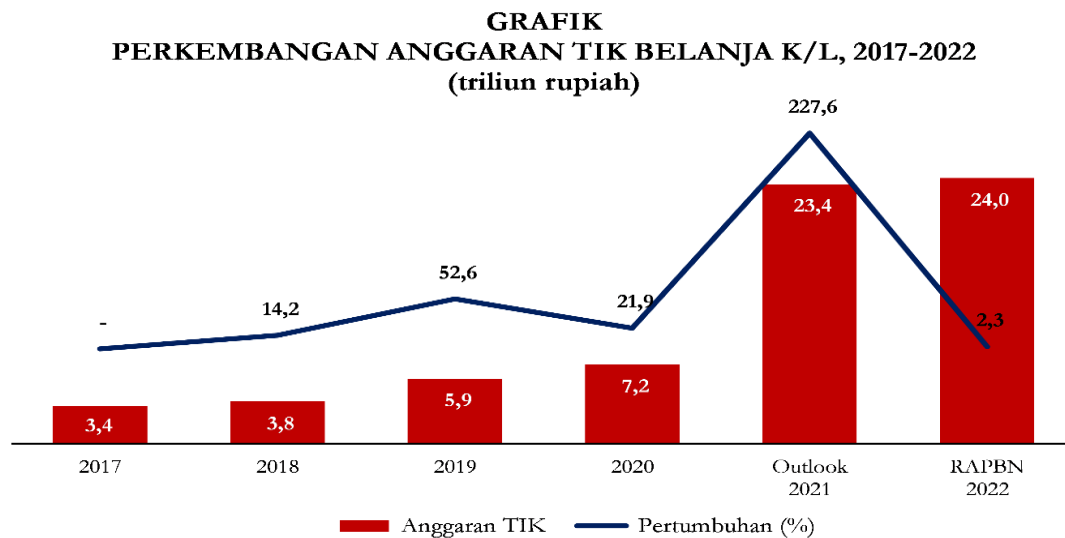
Analysis and discussion of SPBE implementation in the five regions

According to the descriptive comparative analysis of the five regions, the 2019 SPBE evaluation scores ranked consecutively are as follows: (i) Surabaya (index score: 3.72) with the highest domain as SPBE services (score: 4.42) and the lowest domain governance (score: 2.86); (ii) Sleman (index score: 3.37) with the highest domain as governance (score: 3.43) and the lowest SPBE policy (score: 3.18); (iii) Banyuwangi (index score: 3.22) with the highest domain SPBE services (score: 3.79) and the lowest domain SPBE policy (score: 2.47); (iv) Gresik (index score: 3.14) with the highest domain SPBE services (score: 3.82) and the lowest governance (score: 1.86); and (v) Kulon Progo (index score: 2.91) with the highest domain SPBE service (score: 3.36) and the lowest SPBE policy (score: 2.00).

Meanwhile, in terms of responsiveness (speed) of issuing the legal umbrella governing SPBE, the order is as follows: Gresik in 2018, Banyuwangi in 2019, Surabaya in 2020, Kulon Progo in 2020, and Sleman in 2021. In relation to the index scores, domains, and aspects listed above, it is clear that the variable responsiveness (immediateness) of the legal umbrella does not significantly determine the performance of SPBE implementation in the five regions. It is illustrated that Gresik was the first regency to issue a Regent Regulation in 2018, but the acceleration is still relatively slow compared to Banyuwangi in 2019, especially when compared to Surabaya in 2020. Another more decisive variable is policymakers' courage, seriousness, and innovative spirit in planning and implementing e-Gov acceleration (regional heads and heads of regional apparatus organizations (OPD)).

However, it must be acknowledged that a new trend - particularly aided by the momentum of the COVID-19 pandemic that hit the world at the end of 2019 and for a few years after - digitalization of all dimensions of life has forced all organizations and institutions, including government agencies, to accelerate the adaptation of information-based technology. This new trend is not without ramifications. At the macro level, the government must allocate a "jumbo" budget for information and communication technology spending, which continues to rise year after year. This trend is undoubtedly shared by all regional government agencies. The trend of ICT spending which continues to increase every year, as shown in Figure 8 below, is not always directly proportional to the quality of SPBE.

Records from the Directorate General of Informatics Applications, Ministry of Communication and Informatics of the Republic of Indonesia in 2022 show that the national SPBE index remains at level 2, namely between Ministries/Institutions/Regions (K/L/D) carried out separately and not yet integrated and collaboratively, as shown in Figure 9.



Sumber: Buku Nota Keuangan dan RAPBN 202

Figure 8.
2017-2021 Ministries and Institutions (K/L) ICT spending trends and the 2022 State Budget Plan
Source: Pradipta (2021)



Figure 9.
National SPBE evaluation results for 2018 and 2019
Source: Kominfo Direktorat Jenderal Aplikasi Informatika (2020)

The macro picture at the central and regional levels, as depicted in Figures 8 and 9, shows that the implementation of e-government in the form of an Electronic Based Government System (SPBE) has consumed a significant amount of budget, which continues to rise year after year. Meanwhile, the main challenge encountered during the annual evaluation is that the K/L/D government units have not been integrated collaboratively, resulting in a national rating of below "good."

Globally, the performance of the national SPBE (or e-Gov) implementation remains unstable, despite the fact that, in the United Nations e-Gov ranking, known as the United Nation E-Government Development Index (UN-EGDI), which covers 193 countries, Indonesia's ranking has increased in the last five years from 2016 to 2020. However, in another ranking, the Waseda World Digital Government (WDG) Rankings Survey, which includes 64 countries, Indonesia's position has actually declined over the last three years, from 2017 to 2020. Tables 1 and 2 provide an overview of the top five e-Gov rankings by UN-EGDI and WDG.

Table 1.
Top five UN-EGDI in 2016-2020 and Indonesia's position

| Rank | Top 5 in 2020 | Score | Top 5 in 2018 | Score | Top 5 in 2016 | Score |
|-----------------------------|-----------------------|--------|------------------------|--------|------------------------|--------|
| 1. | Denmark | 0.9758 | Denmark | 0.9150 | England | 0.9193 |
| 2. | South Korea | 0.9560 | Australia | 0.9053 | Australia | 0.9143 |
| 3. | Estonia | 0.9473 | South Korea | 0.9010 | South Korea | 0.8915 |
| 4. | Finland | 0.9452 | England | 0.8999 | Singapore | 0.8828 |
| 5. | Australia | 0.9432 | Sweden | 0.8882 | Finland | 0.8817 |
| Indonesia/ rank/ skor | Indonesia (88) | 0.6612 | Indonesia (107) | 0.5258 | Indonesia (116) | 0.4478 |

Source: United Nations E-Government Development Index (UN-EGDI) in 2016-2020 (UN E-Government Knowledgebase 2022) – data processed by authors

Table 2.
Top five WDG rankings survey in 2017-2020 and Indonesia's position

| Rank | Top 5 in 2020 | Score | Top 5 in 2018 | Score | Top 5 in 2017 | Score |
|---------------------------------|--------------------------|--------|--------------------------|--------|--------------------------|--------|
| 1. | United States of America | 96.287 | Denmark | 94.816 | Singapore | 91.057 |
| 2. | Denmark | 94.605 | Singapore | 93.843 | Denmark | 88.739 |
| 3. | Singapore | 93.497 | England | 91.921 | United States of America | 87.117 |
| 4. | England | 92.129 | Estonia | 91.125 | Japan | 81.236 |
| 5. | Estonia | 91.541 | United States of America | 90.340 | Estonia | 81.198 |
| Indonesia/ rangking/ skor | Indonesia (40) | 64.708 | Indonesia (33) | 61.486 | Indonesia (32) | 58.032 |

Source: Waseda University Institute of Digital Government (2022)

The global trend of e-Gov as shown in Table 1 and Table 2, as well as Figure 10, becomes clearer when examined at a more macro level in the Southeast Asian region. In general, Indonesia's e-Gov performance (score: 0.6612 in 2020) is still below Singapore's (score: 0.915 in 2020), Malaysia's (score: 0.7892 in 2020), Thailand's (score: 0.7565 in 2020), Brunei Darussalam (score: 0.7389 in 2020), Philippines (score: 0.6892), and Vietnam (score: 0.6667 in 2020). This indicates that the quality of e-Gov among Southeast Asian countries is still relatively lagging behind, despite Indonesia's position is above Cambodia (score: 0.5113 in 2020), Timor Leste (score: 0.4649 in 2020), Myanmar (score: 0.4316 in 2020), and Laos (score: 0.3288 in 2020).

The relatively low performance of e-Gov in Indonesia, which reflects the implementation of e-Gov in local scope in the regions, is at least caused by the government's lack of attention to developing the quality of human resources that lead to e-Gov. This is prioritized over the development of ICT infrastructure (although the second one is also not optimal), the weak culture of documenting and sharing information digitally among K/L/D due to sectoral ego, lack of appreciation, and clear career paths for management staff functional data, and a lack of research on middleware to integrate e-Gov services rather than research on website-based applications (Masyhur 2017:51-62).

Aside from the relatively low quality of e-Government in Indonesia, a theoretically conceptual reflection on the concept of e-Government is still debated among experts today. The debate frequently centers on a more substantive question: what is the essence of the e-Gov concept and its indicators (and non-indicators)? Is e-Gov the ultimate goal of government practice, or is it merely a means to an end? What are the success criteria for implementing e-Government? What are some examples of recent government uses of ICT that are not always directly proportional to the cost (cost efficiency and effectiveness)? Does the use of cutting-edge ICTs have implications for improving good governance principles such as transparency, policy effectiveness, the quality of public services, and citizen participation? (Gil-Garcia 2012:2-5, Irawan & Hidayat 2021:8-11). The theory of e-Government in scientific development appears

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to be taken for granted by referring to global indexation standards and their replication at the national and local levels, without adequate reflective studies on the suitability of the processes carried out and the results obtained.

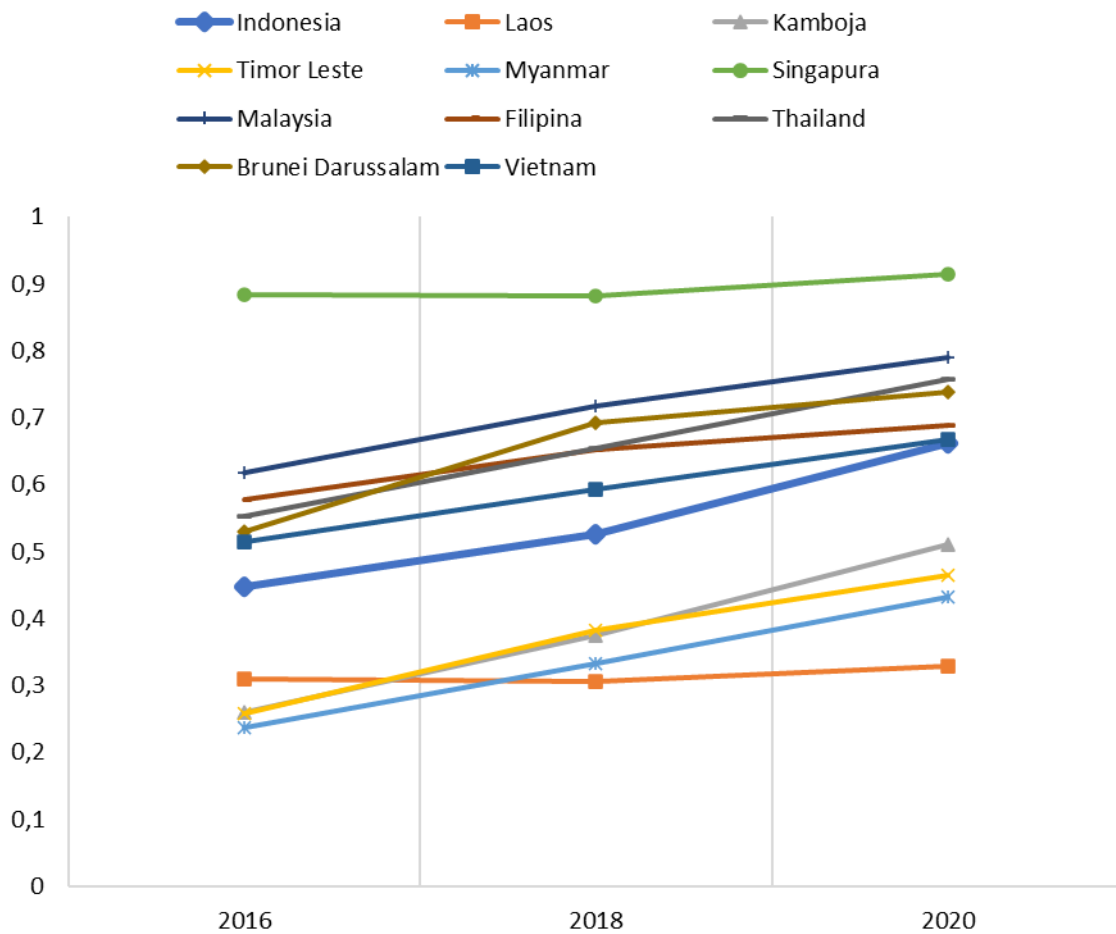


Figure 10.
Trends in UN-EGDI scores for Southeast Asian Countries
Source: UN E-Government Knowledgebase (2020) – data processed by authors

An examination of the implementation of e-Gov from the local to the national levels, as well as Indonesia’s global position, reveals that many obstacles remain to be overcome in order to strengthen the implementation of e-Gov and foster a spirit of collaborative integration among the state, the private sector (business), and society. The main impediment is the continued existence of strong sectoral ego among ministries/institutions/departments, which increases the state budget for ICT because each government unit builds its own, less integrated electronic government system.

Conclusion

The development of e-Gov in the digital age in all dimensions of life is becoming increasingly fast and dynamic. Theoretically, e-Gov presupposes careful planning, which includes automation (public services are carried out based on ICT), optimization (e-Gov infrastructure is optimized to leverage economic growth), re-engineering (issuance of policies to integrate e-Gov), and transformation (optimum ICT-based government management). However, in practice, e-Gov planning in the five regions (Surabaya, Sleman, Banyuwangi, Gresik, and Kulon Progo) studied in this study demonstrate dynamics that are not always in line with what the theory suggests. This can be seen from how the five regions accelerated in implementing e-Gov following one year of the issuance of Presidential Decree 95/2018 concerning SPBE.

If sorted chronologically, Gresik (Regent Regulation on SPBE in 2018) should be the most mature in implementing e-Gov, while Sleman (Regent Regulation on SPBE in 2021) should be the weakest in implementing e-Gov. However, the facts on the ground show that Surabaya (SPBE index score: 3.72) is the “very good” one in e-Gov performance, even though the Major Regulation on SPBE was only issued in 2020. The next is Sleman (SPBE index score: 3.37 and Regent Regulation on SPBE in 2021), Banyuwangi (SPBE index score: 3.22 and Regent Regulation on SPBE in 2019), Gresik (SPBE index score: 3.14 and Regent Regulation on SPBE in 2018), and Kulon Progo (SPBE index score: 2.91 and Regent Regulation SPBE in 2020).

Comparative case studies in the five regions selected in this study illustrate that the acceleration of e-Gov practices is reflected in the website of each selected local government. It was evaluated annually by the central government through KemenPAN-RB through the SPBE Index indicating that there is a superior domain, which is the SPBE services, except Sleman where the flagship domain is the SPBE governance domain. Meanwhile, the SPBE policy domain shows a lack of attention from the local government. On a more macro level, the implementation of e-Gov in Indonesia is not as ideal as expected. The high cost of building ICT infrastructure, combined with the potential for strong sectoral egos among K/L/D, remain the main obstacles, with large expenditures to implement e-Gov remaining inversely proportional to the spirit of building an integrated collaborative e-Gov. As a result, Indonesia’s performance in e-Gov practice remains unconvincing in comparison to other countries worldwide.

The study’s recommendation is that the implementation of e-Gov requires courage, seriousness, and a spirit of innovation from the authorities (government) without ignoring periodic evaluations. This is because the e-Gov implementation does not simply comply with indexation standards at the global, national, and local levels but also because e-Gov projects are mega-projects with huge costs. Therefore, it is critical to strive for maximum benefits, particularly for the business sector and society.

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