

DIGITAL GOVERNANCE THROUGH SUPER APP: EVALUATION OF SERVICE QUALITY, BUREAUCRATIC INTEGRATION, AND USER WELFARE IN JAKI (JAKARTA KINI)

Muhammad Naufal Helga Fikri¹, Sulis Ariska Novrianti², Oktaviani Rosmala³, dan Herie Saksono⁴

¹Universitas Indonesia, Depok, Jabar, Indonesia, ²Universitas Brawijaya, Malang, Jatim, Indonesia, ³Universitas Jember, Jember, Jatim, Indonesia, ⁴Universitas Islam Al-Azhar (UNIZAR), Mataram, NTB, dan Pusat Riset Pemerintahan Dalam Negeri, Badan Riset dan Inovasi Nasional (PR PDN OBRIN), Indonesia

e-mail addresses: sulisarsk@gmail.com; muh.naufalhelga@gmail.com; oktaavr16@gmail.com; and herie.saksono26@gmail.com

ABSTRAK

Penelitian ini menganalisis efektivitas tata kelola pemerintahan digital berbasis *super app* melalui studi kasus JAKI (Jakarta Kini) sebagai platform layanan publik terpadu (*one-stop service*) dalam mengatasi fragmentasi layanan dan meningkatkan kesejahteraan masyarakat. Di tengah percepatan digitalisasi, keberadaan lebih dari 27.000 aplikasi pemerintah di Indonesia memunculkan inefisiensi sistemik, lemahnya interoperabilitas, dan rendahnya integrasi layanan. Studi terdahulu umumnya berfokus pada kualitas layanan/kepuasan pengguna secara parsial, tanpa mengkaji keterkaitan antara kinerja layanan digital, integrasi birokrasi, dan kesejahteraan publik secara komprehensif. Studi ini bertujuan mengembangkan dan menguji secara empiris model terintegrasi yang menghubungkan kualitas layanan digital (kualitas sistem, kualitas informasi, dan kualitas layanan), kepuasan pengguna, serta kesejahteraan publik, dengan mempertimbangkan peran moderasi integrasi birokrasi. Penelitian menggunakan metode analisis data sekunder yang diperoleh dari berbagai sumber seperti basis data layanan JAKI, dokumen resmi pemerintah, pemberitaan media massa, serta publikasi ilmiah yang relevan. Hal tersebut juga dilakukan analisis mendalam untuk mengidentifikasi pola kelembagaan dan dinamika tata kelola digital. Hasil penelitian menunjukkan bahwa kualitas sistem, kualitas informasi, dan kualitas layanan berpengaruh signifikan terhadap kepuasan pengguna, yang selanjutnya berdampak positif terhadap kesejahteraan publik yang diukur melalui dimensi persepsi, partisipasi, dan akseptabilitas (PPA). Namun demikian, fragmentasi birokrasi, inkonsistensi regulasi, serta kurangnya sistem atau tata kelola yang seragam dalam mengintegrasikan database antar unit kerja menjadi faktor penghambat utama dalam optimalisasi integrasi layanan digital, sehingga membatasi inklusivitas dan utilitas layanan. Temuan ini menegaskan bahwa kualitas layanan digital tidak

cukup tanpa didukung oleh keselarasan kelembagaan dan koherensi tata kelola. Penelitian ini memberikan kontribusi teoretis melalui integrasi *Information Systems Success Model* dengan pendekatan kesejahteraan dalam konteks tata kelola digital, serta menegaskan peran krusial integrasi birokrasi dalam ekosistem *super app*. Secara praktis, direkomendasikan penguatan kebijakan satu data, harmonisasi tata kelola lintas sektor, dan pengembangan strategi literasi digital yang inklusif guna meningkatkan dampak layanan publik digital.

Kata-kata Kunci: Tata Kelola Digital, Reformasi Birokrasi, Aplikasi Super, Kepuasan Pengguna, Kualitas Layanan, dan Metodologi Kesejahteraan.

ABSTRACT

This study examines the effectiveness of super app-based digital governance through the case of JAKI (Jakarta Kini) as an integrated one-stop public service platform in addressing service fragmentation and enhancing public well-being. Amid the acceleration of digital transformation, the existence of more than 27,000 government applications in Indonesia has led to systemic inefficiencies, weak interoperability, and limited service integration. Prior studies have predominantly focused on service quality or user satisfaction in isolation, without comprehensively examining the interrelationships among digital service performance, bureaucratic integration, and public well-being. This study aims to develop and empirically test an integrated model linking digital service quality (system quality, information quality, and service quality), user satisfaction, and public well-being, while considering the moderating role of bureaucratic integration. The research employs a secondary data analysis method using data obtained from various sources, such as the JAKI service database, official government documents, mass media reports, and relevant scientific publications. An in-depth analysis was conducted to identify institutional patterns and the dynamics of digital governance. The findings indicate that system quality, information quality, and service quality significantly influence user satisfaction, which in turn positively affects public well-being, measured through the dimensions of perception, participation, and acceptability (PPA). However, bureaucratic fragmentation, regulatory inconsistencies, and the lack of a uniform system or governance framework for integrating databases across work units are major obstacles to optimizing digital service integration, thereby limiting the inclusivity and utility of these services. These findings underscore that the quality of digital services is insufficient without institutional alignment and coherent governance. This study contributes theoretically by integrating the Information Systems Success Model with a

well-being approach in the context of digital governance, while highlighting the critical role of bureaucratic integration within super app ecosystems. Practically, the study recommends strengthening one-data policy integration, enhancing cross-sectoral governance harmonization, and promoting inclusive digital literacy strategies to maximize the impact of digital public services.

Keywords: *Digital Governance, Bureaucratic Reform, Super Apps, User Satisfaction, Service Quality, and Well-Being Methodology*

INTRODUCTION

The development of information and communication technology in the 21st century has brought about fundamental changes in government systems. This phenomenon is known as digital transformation, which involves the comprehensive adoption of digital technology to improve the effectiveness, efficiency, and quality of public services. Data from the 13th edition of the United Nations E-Government Survey indicates significant progress in global e-government development, with the average E-Government Development Index (EGDI) score rising from 0.6102 to 0.6382 by 2024. As many as 71.5% of the 193 UN member states have now reached a high or very high EGDI level, reflecting an increasingly massive wave of digital transformation that is further divided into three waves: Government to Citizen, which focuses on providing information; Government as Platform, which emphasizes transactional interactions; and We -Government, which fosters collaboration between government and citizens in the co-production of public services (OECD, 2020). It is this third wave that major cities worldwide are currently experiencing, where citizens are no longer passive recipients of services but active participants in the public service process through integrated digital.

Indonesia, as the country with the fourth-largest population in the world, is also part of this trend. The Indonesian Internet Service Providers Association (APJII, 2023) reports that national internet penetration has reached 78.19 percent of the total population, with Jakarta serving as the epicenter of digital connectivity. The Jakarta Provincial Government capitalized on this momentum through the Jakarta Smart City initiative to launch the JAKI (Jakarta Kini) super app in October 2019. This innovation

refers to a single platform that integrates various services into a unified digital ecosystem (Gao, Krogstie, & Siau, 2020), a model that, in the context of government, can serve as a one-stop government service instrument enabling residents to access various public services through a single digital platform.

Although JAKI has recorded substantial user growth, comprehensive evaluations of its service quality, the effectiveness of its bureaucratic integration, and its impact on user well-being remain very limited in the academic literature. This gap serves as the primary rationale for this study. This study aims to evaluate the quality of JAKI's services from a user perspective based on available secondary data; analyze the level of integration of Local Government Agencies (LGAs) within JAKI's digital ecosystem; measure the impact of JAKI usage on user well-being; and formulate evidence-based policy recommendations to strengthen digital governance through the super app in Jakarta. Theoretically, this study is grounded in three main frameworks: **the E-Government Maturity Model** (Layne & Lee, 2001) to assess the level of service integration maturity; the **Information System Success Model** (DeLone & McLean, 1992) to evaluate the effectiveness of technology use; and **E-Government Service Quality** (Zeithaml, Parasuraman, & Malhotra, 2002) to evaluate the dimensions of digital service quality.

The contributions of this research lie at three levels: academic, policy, and practical, which can serve as a foundation for the development of a more inclusive, responsive, and impactful JAKI for all segments of Jakarta's population. The novelty of this study lies in the use of the **Digital Competitiveness Index (DCI)**, a statistical measure that integrates data from various reports by the Central Statistics Agency (BPS), Jakarta Smart City (JSC), the Indonesian Internet Service Providers Association (APJII), and other relevant documents. The data is used to address the gaps identified in the benefits to the public, as measured through the dimensions of perception, participation, and acceptability (PPA).

METHOD

This study employs a **secondary data analysis (SDA)** approach as its primary method. Secondary data analysis is a scientific approach that utilizes data previously collected by others for different purposes, but which can be reanalyzed to answer new research questions (Heaton, 2004; Vartanian, 2011). This method was chosen due to the availability of rich and relevant public data regarding JAKI and its suitability for comprehensive policy evaluation, as well as its reliance on a wide range of comprehensive empirical data, thereby enabling resource savings, the testing of new hypotheses, and the analysis of large datasets over a specific time period (Wickham, 2019).

The data analysis adopts the **Integrative Secondary Research (ISR)** model, an approach that combines various methodologies, such as mixed methods to serve as the basis for evidence-based policy evaluation (Whittemore & Knafl, 2005). This model is also complemented by the **Well-being Methodology**, which is used to measure the effectiveness of government interventions on citizens' quality of life and well-being through three dimensions: perception, participation, and acceptability (PPA) (Muktiono & Suriadi, 2021).

These data sources are further supported by government documents, including evaluation results of the Electronic-Based Government System (SPBE) through Jakarta's digital regulatory documents, such as Jakarta Governor Regulation No. 95 of 2021, Jakarta Governor Regulation No. 2 of 2020 on Jakarta One Data, and Law No. 27 of 2022 on Personal Data Protection. The results of this data analysis are expected to provide suggestions and recommendations for improving the digital public service system on the JAKI app.

DISCUSSION

The Jakarta Kini (JAKI) app, launched by the Jakarta Provincial Government in October 2019, serves as a one-stop service platform that replaces various overlapping government apps. The development of JAKI is part of the Jakarta Smart

City master plan, which is based on Jakarta Provincial Governor Regulation No. 95 of 2021 on the Implementation of Digital Ecosystem Services. Architecturally, the platform is built on cloud computing infrastructure using a microservices approach, integrating more than 30 government public services. To date, the JAKI app has provided approximately 11 core features, including a citizen complaint feature, with 6 new features planned for 2025. This diversity of services positions JAKI as **one of the most comprehensive super apps** in Indonesia.

From a user perspective, data from the 2025 Jakarta Smart City report shows a significant increase. In 2020, JAKI recorded approximately 650,000 cumulative downloads which then surged to 1.2 million users in 2021, a rise driven in part by the COVID-19 pandemic, which made JAKI the primary information channel for Jakarta residents to access updates on the pandemic's progression, healthcare facilities, and vaccination information. This surge in users demonstrates that a crisis can serve as a catalyst for increased government digital adoption (Luna et al., 2021). This growth has continued to rise year over year, despite a slowdown in the growth rate following the COVID-19 pandemic, indicating that JAKI has entered a maturity phase in the adoption curve, where reaching new users becomes more challenging and retaining existing users becomes increasingly critical. The increase in JAKI downloads and active users can be illustrated in the following table based on data from Kaleidoskop JSC as follows.

Table 3.1. JAKI User Growth, 2020-2024

Year	Total Downloads	Active Users	Year-over-Year (YoY)
2020	~500.000	~180.000	-
2021	~2.500.000	~340.000	+85%
2022	~3.000.000	~520.000	+75%
2023	~4.000.000	~680.000	+43%
2024	~6.000.000	~980.000	+17%

Source: Author's compilation, 2026

The JAKI app has an average rating of 3.8 out of 5 stars on the Google Play Store (based on 12,000 reviews as of 2025), reflecting fairly positive reception; however, user reviews still highlight various technical issues as well as a lack of transparency regarding regulatory matters.

The biggest problem currently facing JAKI also lies in the **uneven optimization of its features**, with the “JakLapor” feature being the most frequently used complaint platform, while the “JakSurvei” feature is the least used. This has led to an imbalance in the digital participation mechanism, with the dominance of one feature indicating that JAKI has not yet fully become the primary platform for providing complex services, where service equity serves as the benchmark for the success of a government super app (Twizeyimama & Andersson, 2019). This issue is further compounded by the tendency for complaint responses to be delayed due to significant disparities in governance among government agencies and differences in institutional capacity and commitment in fulfilling their rights and obligations.

The evaluation of JAKI becomes even more meaningful when compared with government super apps from the ASEAN region, as shown in the table cited from official government documents of Singapore, Malaysia, and Thailand.

Table 3.2. Benchmarking JAKI Against ASEAN Regional Super Apps

Indikator	JAKI (Indonesia)	LifeSG (Singapura)	MyGOV (Malaysia)	Tang Rat (Thailand)
Platform Operator	Jakarta Smart City	Government Technology Agency (Govtech)	Ministry of Digital	Digital Government Development Agency (DGA)
User Ratings	3.8	4.6	3.3	4.2
Integration Services	30+	100+	36+	173

Indikator	JAKI (Indonesia)	LifeSG (Singapura)	MyGOV (Malaysia)	Tang Rat (Thailand)
Complaint Resolution	~90%	~91%	~92%	~88%
System Uptime	~97%	~99%	~99%	~99%
Accessibility for People with Disabilities	Does not meet standards	Uses international standards (WCAG 2.1)	Limited to Malay	Limited to facial recognition

Source: Author’s compilation, 2026

The benchmarking reveals a gap in user ratings, where JAKI still lags behind LifeSG and Tang Rat, although it outperforms Malaysia’s MyGOV. In terms of procurement resolution, JAKI still outperforms Tang Rat, though it trails behind LifeSG and MyGOV. The greatest disparity lies in system availability, with JAKI ranking last compared to the other three government super apps, and access for people with disabilities remains very limited with a key dimension used as an indicator of the maturity of an inclusive e-government (Dwivedi et al., 2019).

Data from the East Ventures-Digital Competitiveness Index (EV-DCI) 2025 ranks DKI Jakarta as the province with **the highest digital competitiveness score** in Indonesia for six consecutive years with a score of 78.4, a figure that exceeds the national average of 38.3. This achievement is supported by three key pillars: Entrepreneurship and Productivity (score 100.0, first nationally), Infrastructure (score 95.8, first nationally), and Finance, including digital financial inclusion (score 84.5, first nationally). Within the context of the Information Systems Success Model (DeLone & McLean, 2003), the primary theoretical framework of this study use these three achievements reflect system quality maturity at the infrastructure level: DKI Jakarta possesses very strong technical prerequisites to support the operation of government digital platforms such as JAKI, ranging from 4G signal coverage across the entire administrative region (score 100), e-wallet adoption achieving the highest

national score (100), to the growth of the Regional Gross Domestic Product (RGDP) in the Information and Communication sector by 4.9 percent in 2024, with a total value of Rp3,679.36 trillion.

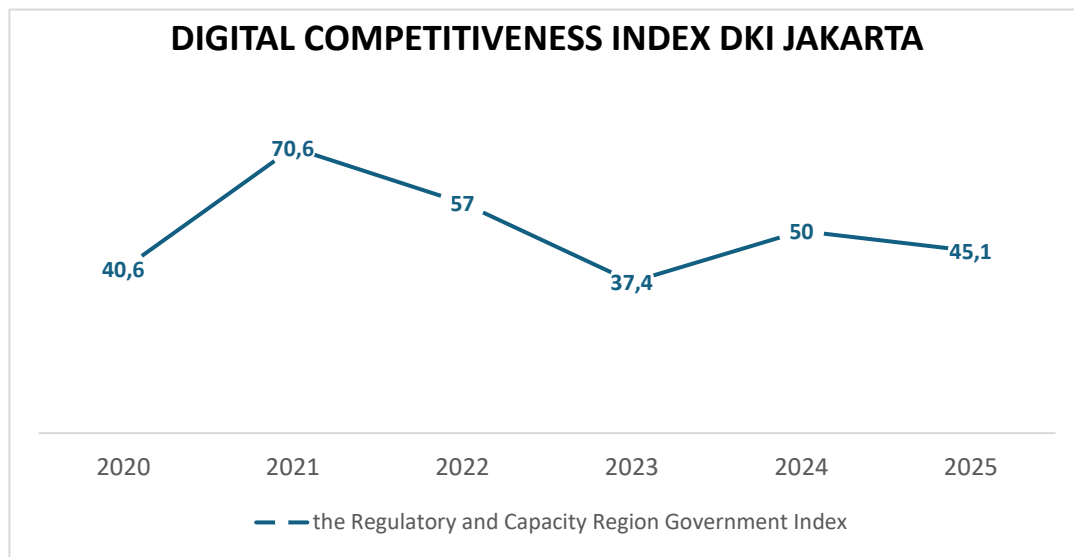


Figure 3.1 Trends in the Regulatory and Capacity Index of the Jakarta Provincial Government, 2020–2025

Source: East Ventures Digital Competitiveness Index, 2020–2025

However, in quantitative terms, **the regulatory and capacity** indicators for the Jakarta Provincial Government have shown fluctuating trends year by year, with the highest score of 70.6 in 2021 and the lowest of 37.4 in 2023. In 2025, the regulatory and capacity score for the Jakarta Regional Government declined again become 28th rank nationally with a score of 45.1, which impacted the performance of JAKI is particularly the government agencies (OPDs) responsible for operating the super app as they were not functioning effectively. This decline in the score resulted from negative factors arising from **bureaucratic fragmentation and unresolved regulatory inconsistencies**, compounded by the fact that some civil servants (ASN) lacked the technical readiness to operate the Electronic-Based Government System

(SPBE), which has the potential to hinder JAKI's transformation into an inclusive and tangible digital governance instrument.

CONCLUSION

This study examines the effectiveness of utilizing a super-app-based digital government system through a case study of JAKI as an integrated public service platform in DKI Jakarta. Overall, the findings indicate that JAKI has successfully served as a tangible tool in addressing the fragmentation of government digital services, which previously consisted of 27,000 overlapping applications with low interoperability. Built on a cloud computing infrastructure using a microservices approach, JAKI integrates more than 30 public services into a single digital ecosystem that replaces previous applications, reflecting the seriousness of the DKI Jakarta Provincial Government in realizing the concept of a modern and responsive one-stop service.

In terms of user adoption, the JAKI app has seen annual growth, with over 6,000,000 downloads and more than 980,000 active users by 2024. Significant events such as the COVID-19 pandemic served as a major catalyst for the adoption of digital governance, positioning JAKI as the primary channel for residents of Jakarta to access various information during the pandemic. However, the growth rate slowed significantly after the pandemic ended; by 2024, the number of JAKI users had grown by only 17%, indicating that JAKI has entered a maturity phase in the digital adoption curve, characterized by the retention of existing users and the expansion of reach to new users.

Theoretically, this study empirically demonstrates that system quality, information quality, and JAKI service quality have a significant impact on user satisfaction, which in turn positively affects public well-being as measured through the three dimensions of perception, participation, and acceptability (PPA) and relevance to the Information Systems Success Model (DeLone & McLean). However, this study also identifies significant structural barriers. Although DKI Jakarta's digital infrastructure ranks first nationally with an EV-DCI score of 78.4 for six consecutive

years, regulatory performance and institutional capacity have shown a weakening trend, with the local government capacity score dropping to 45.1 in 2025 and ranking 28th nationally. Within bureaucratic fragmentation among Regional Government Agencies (OPDs), inconsistencies in cross-sectoral regulations, and the uneven technical readiness of Civil Servants (ASNs) in operating the SPBE system are significant barriers to optimizing the integration of JAKI's digital services. This situation creates a paradox where superior technical infrastructure does not automatically result in effective governance. When compared to government super apps in the ASEAN region, JAKI still lags significantly behind Singapore's LifeSG and Thailand's Tang Rat, particularly in terms of the number of integrated services, system uptime, and most critically, accessibility for people with disabilities, which does not yet meet the international WCAG 2.1 standards.

Therefore, the researchers provide recommendations based on evidence-based policies, such as: (1) The need to accelerate the implementation of a comprehensive and consistent "One Data Jakarta" initiative, accompanied by the formation of a cross-sectoral data governance team with executive authority to promote the standardization of governance within government agencies; (2) Harmonization of regulations and strengthening of bureaucratic capacity through programs to improve civil servants' digital literacy and technical training to prevent them from becoming a bottleneck in the delivery of digital services; (3) The JAKI application needs to adopt international standards in providing access to people with disabilities so they can receive equal services, also expanding inclusive digital literacy strategies, particularly for communities with limited digital capabilities.

REFERENCES

- Agranoff, R., & McGuire, M. (2003). Collaborative public management: New strategies for local governments. Georgetown University Press.
- Asosiasi Penyelenggara Jasa Internet Indonesia (APJII). (2023). Survei penetrasi dan profil perilaku pengguna internet Indonesia 2022–2023. APJII.
- Badan Pusat Statistik (BPS) Provinsi DKI Jakarta. (2023). Statistik telekomunikasi DKI Jakarta 2023. BPS Provinsi DKI Jakarta.

- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Digital Government Development Agency Thailand. (2024). The Department of Land Transport, in collaboration with DGA, has made the Thang Rath Super App available. DGA Thailand. <https://www.dga.or.th/en/document-sharing/en-dga-news/118865/>
- Dinas Komunikasi, Informatika, dan Statistik (Diskominfo) Provinsi DKI Jakarta. (2023). Laporan tahunan Diskominfo Provinsi DKI Jakarta 2023. Pemerintah Provinsi DKI Jakarta.
- Dinas Kesehatan Provinsi DKI Jakarta. (2023). Laporan kinerja layanan kesehatan digital Provinsi DKI Jakarta tahun 2023. Pemerintah Provinsi DKI Jakarta.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*. 19(4), 9-30.
- Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the Unified Theory of Acceptance and Use of Technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, 21(3), 719–734. <https://doi.org/10.1007/s10796-017-9774-y>
- East Ventures. (2020). Digital Competitiveness Index 2020: Peluang dan Tantangan Ekonomi Digital di 34 Provinsi dan 24 Kota di Indonesia. East Ventures.
- East Ventures. (2021). Digital Competitiveness Index 2021: Momentum Akselerasi Transformasi Ekonomi Digital. East Ventures.
- East Ventures. (2022). Digital Competitiveness Index 2022: Menuju Era Keemasan Digital Indonesia. East Ventures.
- East Ventures. (2023). Digital Competitiveness Index 2023: Keadilan Digital Bagi Seluruh Rakyat Indonesia. East Ventures.
- East Ventures. (2024). Digital Competitiveness Index 2024: Mewujudkan Kedaulatan Digital Indonesia. East Ventures.
- East Ventures. (2025). Digital Competitiveness Index 2025: Mendorong Inovasi dan Kecerdasan Buatan untuk Meningkatkan Daya Saing Digital Indonesia. East Ventures.
- Gao, S., Krogstie, J., & Siau, K. (2020). Adoption of mobile services for government services: A survey in China. *Government Information Quarterly*, 37(4), 101437.
- Government Technology Agency of Singapore. (2024). LifeSG: Product overview and services. Govtech Singapore. <https://www.tech.gov.sg/products-and-services/for-citizens/digital-services/lifegs/>
- Heaton, J. (2004). *Reworking qualitative data*. Sage Publications.

- Heeks, R. (2020). ICT4D 3.0? Part 1—The components of an emerging "digital for development" paradigm. *The Electronic Journal of Information Systems in Developing Countries*, 86(3), e12124. <https://doi.org/10.1002/isd2.12124>
- Jakarta Smart City. (2020). *Kaleidoskop Laporan kinerja JAKI (Jakarta Kini) 2020*. Jakarta Smart City Unit, Diskominfo Provinsi DKI Jakarta.
- Jakarta Smart City. (2021). *Kaleidoskop Laporan kinerja JAKI (Jakarta Kini) 2021*. Jakarta Smart City Unit, Diskominfo Provinsi DKI Jakarta.
- Jakarta Smart City. (2022). *Kaleidoskop Laporan kinerja JAKI (Jakarta Kini) 2022*. Jakarta Smart City Unit, Diskominfo Provinsi DKI Jakarta.
- Jakarta Smart City. (2023). *Kaleidoskop Laporan kinerja JAKI (Jakarta Kini) 2023*. Jakarta Smart City Unit, Diskominfo Provinsi DKI Jakarta.
- Jakarta Smart City. (2024). *Statistik penggunaan aplikasi JAKI: Ikhtisar tahunan 2024*. Jakarta Smart City Unit, Diskominfo Provinsi DKI Jakarta.
- Janowski, T. (2015). Digital government evolution: From transformation to contextualization. *Government Information Quarterly*, 32(3), 221–236. <https://doi.org/10.1016/j.giq.2015.07.001>
- Kementerian Digital Malaysia. (2025). *MyGOV Malaysia: Aplikasi Pusat Sehenti Digital Perkhidmatan Kerajaan*. Jabatan Digital Negara (JDN). <https://www.mygov.gov.my/ms-MY>
- Kementerian Komunikasi dan Informatika (Kominfo) & Katadata Insight Center (KIC). (2022). *Indeks literasi digital Indonesia 2022*. Kementerian Komunikasi dan Informatika RI.
- Kementerian Komunikasi dan Informatika (Kominfo) & Katadata Insight Center (KIC). (2023). *Indeks literasi digital Indonesia 2023*. Kementerian Komunikasi dan Informatika RI.
- Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi (KemenPAN-RB). (2022). *Laporan hasil evaluasi SPBE tahun 2022*. KemenPAN-RB RI.
- Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi (KemenPAN-RB). (2023). *Laporan hasil evaluasi SPBE tahun 2023*. KemenPAN-RB RI.
- Layne, K., & Lee, J. (2001). Developing fully functional e-government: A four stage model. *Government Information Quarterly*, 18(2), 122–136. [https://doi.org/10.1016/S0740-624X\(01\)00066-1](https://doi.org/10.1016/S0740-624X(01)00066-1)
- Liang, Lu-Hai. (2025). Malaysia's national government 'super-app' to launch imminently. *Biometric Update*. <https://www.biometricupdate.com/202508/malaysias-national-government-super-app-to-launch-imminently>
- Luna-Reyes, L. F., Zhang, J., Gil-Garcia, J. R., & Cresswell, A. M. (2021). From e-government to digital government transformation: Challenges and

- opportunities. *Transforming Government: People, Process and Policy*, 15(4), 599–614.
- Muktiono, Ayub, & Suriadi, Jadi. (2021). *Implementasi Wellbeing Methodology dalam Kajian Akademis*. Widina Bhakti Persada.
- Meijer, A., & Bolívar, M. P. R. (2016). Governing the smart city: A review of the literature on smart urban governance. *International Review of Administrative Sciences*, 82(2), 392–408. <https://doi.org/10.1177/0020852314564308>
- Mergel, I., Edelman, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. *Government Information Quarterly*, 36(4), 101385. <https://doi.org/10.1016/j.giq.2019.06.002>
- OECD. (2020). *The OECD digital government policy framework: Six dimensions of a digital government (OECD Working Papers on Public Governance, No. 35)*. OECD Publishing. <https://doi.org/10.1787/f64fed2a-en>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
- Peraturan Gubernur DKI Jakarta Nomor 2 Tahun 2020 tentang Satu Data Jakarta.
- Peraturan Gubernur DKI Jakarta Nomor 95 Tahun 2021 tentang Penyelenggaraan Layanan Ekosistem Digital.
- Peraturan Presiden Nomor 95 Tahun 2018 tentang Sistem Pemerintahan Berbasis Elektronik (SPBE).
- Sharon, Alita. (2025). Singapore: Enhanced Digital Service Standards Advance Inclusivity. *OpenGov Asia*. <https://archive.opengovasia.com/2025/05/13/singapore-enhanced-digital-service-standards-advance-inclusivity/>
- Thian, Si Ying. (2025). Thailand pursues AI innovation, while concurrently dealing with legacy. *GovInsider Asia*. <https://govinsider.asia/intl-en/article/thailand-pursues-ai-innovation-while-concurrently-dealing-with-legacy>
- Twizeyimana, J. D., & Andersson, A. (2019). The public value of e-government: A literature review. *Government Information Quarterly*, 36(2), 167–178. <https://doi.org/10.1016/j.giq.2019.01.001>
- Undang-Undang Nomor 27 Tahun 2022 tentang Perlindungan Data Pribadi.
- United Nations. (2022). *UN e-government survey 2022: The future of digital government*. United Nations Department of Economic and Social Affairs. <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2022>
- Van Dijck, J., Poell, T., & de Waal, M. (2018). *The platform society: Public values in a connective world*. Oxford University Press.

- Vartanian, T. P. (2011). *Secondary data analysis*. Oxford University Press.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, *27*(3), 425–478. <https://doi.org/10.2307/30036540>
- Warschauer, M. (2004). *Technology and social inclusion: Rethinking the digital divide*. MIT Press.
- Wickham RJ. Secondary Analysis Research. *J Adv Pract Oncol*. 2019 May-Jun;10(4):395-400. doi: 10.6004/jadpro.2019.10.4.7. Epub 2019 Mar 1. PMID: 33343987; PMCID: PMC7520737.
- Wirtz, B. W., Weyerer, J. C., & Geyer, C. (2019). Artificial intelligence and the public sector: Applications and challenges. *International Journal of Public Administration*, *42*(7), 596–615. <https://doi.org/10.1080/01900692.2018.1498103>
- Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing*, *52*(5), 546–553. <https://doi.org/10.1111/j.1365-2648.2005.03621.x>
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, *30*(4), 362–375. <https://doi.org/10.1177/009207002236911>