

Digitalization of Public Services and Smart Governance: Normative Gaps and Legal Opportunities in Central Aceh

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Abstract: Indonesia's regional autonomy framework places the primary burden of public service delivery on district-level governments, yet the legal architecture governing digital transformation at this level remains structurally deficient. This study examines the juridical dimensions of public service digitalization in Central Aceh Regency, specifically analyzing the normative gaps, institutional barriers, and legal opportunities that shape its trajectory toward smart governance. Employing a normative juridical approach with statute, conceptual, and comparative analytical methods, the study finds that digitalization in Central Aceh is largely symbolic rather than substantive. Presidential Regulation No. 95 of 2018 on SPBE lacks enforcement mechanisms capable of compelling genuine compliance at the district level, while Law No. 25 of 2009 on Public Services contains no affirmative digital service mandate. The absence of a Qanun on Digital Services an instrument legally available under Aceh's special autonomy framework has created a critical normative vacuum that allows institutional fragmentation, low ASN digital literacy, and authority-oriented bureaucratic culture to persist unchallenged. Juridical opportunities exist through Qanun legislation under Article 235(1) of Law No. 11 of 2006, the proactive disclosure obligations of Law No. 14 of 2008 on Public Information Disclosure, and regional autonomy provisions enabling locally adaptive governance models. Genuine bureaucratic repositioning toward smart governance requires enforceable legal instruments, not merely digital infrastructure.

1. Introduction

Digital transformation in government has transcended the status of mere technological innovation to become a constitutional imperative in ensuring efficient, transparent, and accountable public services.¹ Within Indonesia's regional autonomy framework, district-level governments bear the constitutional responsibility to deliver services that uphold the principles of rechtsstaat –

¹ Scholl, Hans J. "Digital Government: Looking Back and Ahead on a Fascinating Domain." *Digital Government: Research and Practice* 1, no. 1 (2020): 1-12. <https://doi.org/10.1145/3352682>.

efficiency, openness, and accountability mandated by Article 34(3) of the 1945 Constitution and Law No. 25 of 2009 on Public Services. Yet the translation of this normative mandate into substantive digitalization encounters a persistent juridical paradox: regulatory frameworks prescribe digital government while simultaneously lacking enforceable mechanisms to ensure its realization.² This disjuncture between legal prescription and institutional capacity produces what Cordella and Tempini identify as “symbolic adoption” – the formal existence of digital systems without functional transformation of bureaucratic behavior or service delivery.³

Presidential Regulation No. 95 of 2018 on Electronic-Based Government Systems (SPBE) represents Indonesia’s principal legal instrument for government digitalization, mandating integrated digital service architectures across all levels of government. However, empirical evidence reveals profound implementation gaps at the local government level. The absence of administrative sanctions for non-compliance, weak inter-institutional coordination mechanisms, and regulatory ambiguity regarding data governance have rendered SPBE implementation largely ceremonial rather than substantive.⁴ Martitah et al.’s examination of Indonesian local governments exposes systemic obstacles including “sectoral ego,” departmental fragmentation, and resistance to data interoperability – phenomena that transform digital platforms into isolated silos rather than integrated service ecosystems.⁵ These institutional pathologies are further compounded by what Janowski terms the “contextualization gap” – the failure of universal digital government models to account for local institutional capacities, cultural practices, and geographical constraints.⁶

Central Aceh Regency exemplifies these contradictions. Despite formal SPBE adoption, the regency’s 2023 digital government maturity index remains in the lower quartile nationally, characterized by fragmented service platforms, inadequate digital infrastructure in rural areas, and pronounced digital literacy deficits among both civil servants and citizens.⁷ The Ministry of State Apparatus Empowerment and Bureaucratic Reform’s evaluation reveals that over 40% of Central Aceh’s civil apparatus are above 45 years of age – a demographic profile correlating with significant technology adoption resistance and limited digital competence.⁸ More critically, citizen satisfaction with digital services in critical sectors such as population administration and health services remains moderate, indicating that digitalization has not translated into improved service quality or accessibility.⁹

² Mergel, Ines, Noella Edelmann, and Nathalie Haug. “Defining Digital Transformation: Results from Expert Interviews.” *Government Information Quarterly* 36, no. 4 (2019): 101385. <https://doi.org/10.1016/j.giq.2019.06.002>.

³ Cordella, Antonio, and Niccolò Tempini. “E-Government and Organizational Change: Reappraising the Role of ICT and Bureaucracy in Public Service Delivery.” *Government Information Quarterly* 32, no. 3 (2015): 279–286. <https://doi.org/10.1016/j.giq.2015.03.005>.

⁴ Suryana, T.B.M. Ferdiansyah, Aisyah Azzahrah Rahmawati, Neng Sulisna Ramdanti, and Assahra Nabila Safitri. “Transformasi Digital Dalam Pelayanan Publik: Tinjauan Yuridis Terhadap SPBE Di Indonesia.” *Constitutio* 4, no. 1 (2025): 37–53. <https://doi.org/10.47498/constitutio.v4i1.4944>.

⁵ Martitah, Dian Kus Pratiwi, and Tri Cahya Indra Permana. “Confronting E-Government Adoption in Indonesian Local Government.” *Journal of Indonesian Legal Studies* 6, no. 2 (2021): 375–404. <https://doi.org/10.15294/jils.v6i2.47795>.

⁶ Janowski, Tomasz. “Digital Government Evolution: From Transformation to Contextualization.” *Government Information Quarterly* 32, no. 3 (2015): 221–236. <https://doi.org/10.1016/j.giq.2015.07.001>.

⁷ Ministry of State Apparatus Empowerment and Bureaucratic Reform (Ministry of PAN-RB), *Indeks SPBE Kabupaten Aceh Tengah Tahun 2023* [SPBE Index of Central Aceh Regency 2023] (Jakarta: Ministry of State Administration Reform, 2023), 15–18.

⁸ Badan Kepegawaian dan Pengembangan Sumber Daya Manusia (BKPSDM) Central Aceh Regency, *Laporan Evaluasi Kompetensi ASN dalam Implementasi Layanan Digital 2023* [Evaluation Report on Civil Servant Competency in Digital Service Implementation 2023] (Takengon: State Administration and Civil Service Bureau, 2024), 4–6.

⁹ Badan Pusat Statistik (BPS) Central Aceh Regency and Ombudsman of the Republic of Indonesia Aceh Representative, *Indeks Kepuasan Masyarakat Terhadap Pelayanan Publik di Kabupaten Aceh Tengah Tahun 2022* [Public Satisfaction Index on Public Services in Central Aceh Regency 2022] (Takengon: BPS, 2023), 8–11.

The juridical dimensions of this implementation failure merit critical examination. First, Law No. 25 of 2009 on Public Services, while mandating “excellent service standards,” contains no explicit requirement for service digitalization—creating interpretive latitude that permits local governments to maintain conventional service modalities indefinitely. Second, Presidential Regulation No. 95 of 2018, despite its comprehensive SPBE framework, lacks binding legal consequences for non-compliance, reducing it to aspirational guidance rather than enforceable legal obligation. This regulatory weakness stands in sharp contrast to Law No. 14 of 2008 on Public Information Disclosure, which imposes both administrative and criminal sanctions for information access violations, yet remains underutilized as a legal foundation for digital service transparency.

Aceh’s special autonomy status introduces a distinctive juridical opportunity frequently overlooked in digital governance scholarship. Article 235(1) of Law No. 11 of 2006 on Governance of Aceh grants the provincial and district governments legislative authority through Qanun—regional regulations possessing statutory equivalence within Aceh’s territory. This legislative prerogative enables Central Aceh to formulate context-specific digital service regulations that bridge the normative vacuum in national law, establish locally enforceable digital service standards, and impose institutional accountability mechanisms absent in Presidential Regulation No. 95 of 2018.¹⁰ Yet Central Aceh has not exercised this legislative capacity. The absence of a Qanun on Digital Services perpetuates legal uncertainty, undermines institutional obligation, and deprives the regency of enforceable regulatory instruments to compel bureaucratic transformation.¹¹

The theoretical literature on smart governance provides analytical frameworks for understanding this regulatory-implementation disjuncture. Meijer and Bolívar’s systematic review identifies smart governance as requiring not merely technological deployment but institutional reconfiguration toward data-driven decision-making, inter-organizational collaboration, and citizen-centric service design.¹² Gil-Garcia et al. emphasize that smart government transformation demands integrative components spanning technology infrastructure, organizational capacity, and institutional arrangements—elements whose absence or weakness precipitate implementation failure.¹³ Twizeyimana and Andersson’s synthesis of e-government public value research demonstrates that digital transformation generates public value only when supported by robust legal frameworks, organizational readiness, and stakeholder trust—conditions inadequately present in Indonesia’s district-level contexts.¹⁴

Comparative research on e-government implementation in developing countries reveals patterns strikingly resonant with Central Aceh’s experience. Studies across Asia, Africa, and Latin America document how regulatory ambiguity, institutional fragmentation, inadequate capacity building, and resistance to organizational change systematically undermine digital government

¹⁰ Denisa, Elsa, Annisa Putri Azzahra, Alike Chairana Ahtia, Muhammad Ilham Sabila, and Deden Najmudin. “Kedudukan Dan Proses Legislasi Qanun Aceh Dalam Sistem Hukum Nasional.” *Lentera: Jurnal Ilmu Dakwah dan Komunikasi* 5, no. 2 (2021): 110–127. <https://doi.org/10.32505/lentera.v5i2.3156>.

¹¹ Armaidy Armawi, Zainal Arifin Mochtar, and Muhadam Labolo. “Legal Effectiveness in Promoting Development Policies: A Case Study of North Aceh Indonesia.” *Heliyon* 9, no. 11 (2023): e21052. <https://doi.org/10.1016/j.heliyon.2023.e21052>.

¹² Meijer, Albert, and Manuel Pedro Rodríguez Bolívar. “Governing the Smart City: A Review of the Literature on Smart Urban Governance.” *International Review of Administrative Sciences* 82, no. 2 (2016): 392–408. <https://doi.org/10.1177/0020852314564308>.

¹³ Gil-Garcia, J. Ramon, Theresa A. Pardo, and Taewoo Nam. “What Makes a City Smart? Identifying Core Components and Proposing an Integrative and Comprehensive Conceptualization.” *Information Polity* 20, no. 1 (2015): 61–87. <https://doi.org/10.3233/IP-150354>.

¹⁴ Twizeyimana, Jean Damascene, and Annika Andersson. “The Public Value of E-Government—A Literature Review.” *Government Information Quarterly* 36, no. 2 (2019): 167–178. <https://doi.org/10.1016/j.giq.2019.01.001>.

initiatives regardless of technological investment.¹⁵ Bannister and Connolly's framework for ICT and transformative government highlights that technological adoption absent supportive public values, institutional culture change, and legal certainty produces "technology-rich but transformation-poor" outcomes.¹⁶ This phenomenon – variously termed "digital formalism," "pseudo-digitalization," or "technological theater" – describes systems that exist formally to satisfy compliance requirements while lacking operational substance or service improvement impact.¹⁷

The digital divide constitutes a parallel juridical concern with constitutional dimensions. Indonesia's constitutional guarantee of equal access to public services under Article 28H(1) of the 1945 Constitution creates state obligations to ensure digital service accessibility for rural and digitally marginalized populations. Central Aceh's topography – predominantly mountainous terrain with dispersed settlements and uneven telecommunications infrastructure – creates structural barriers to digital service access that existing policy frameworks fail to address.¹⁸ The uncritical adoption of urban-centric digital service models without accommodation for rural connectivity constraints, lower digital literacy, and preference for face-to-face service interactions risks institutionalizing service inequality rather than reducing it.¹⁹ This raises fundamental questions of administrative justice: Can digitalization satisfy constitutional service obligations when it simultaneously excludes significant population segments? What legal duties do local governments bear to ensure digital inclusion as a precondition for digital service provision?

Existing scholarship on Indonesian e-government has predominantly focused on national-level policy frameworks or urban contexts, leaving district-level implementation – particularly in special autonomy regions – critically underexamined.²⁰ The few studies addressing Aceh's governance have concentrated on Islamic law (Qanun Jinayat) or resource management, neglecting the intersection of special autonomy, digital governance, and administrative law.²¹ This research addresses that gap by analyzing how Central Aceh's unique constitutional status and regulatory prerogatives can be leveraged to overcome digital government implementation obstacles through locally enforceable legal instruments.

This study poses the following research questions: First, what juridical obstacles – spanning regulatory design, institutional authority, and enforcement mechanisms – impede substantive dig-

¹⁵ Alrawabdeh, Wafa. "Environmental Factors Affecting Mobile Commerce Adoption – An Exploratory Study on the Telecommunication Firms in Jordan." *International Journal of Business and Management* 9, no. 12 (2014): 185–195. <https://doi.org/10.5539/ijbm.v9n12p185>; Ndou, Valentina D. "E-Government for Developing Countries: Opportunities and Challenges." *Electronic Journal of Information Systems in Developing Countries* 18, no. 1 (2004): 1–24. <https://doi.org/10.1002/j.1681-4835.2004.tb00117.x>.

¹⁶ Bannister, Frank, and Regina Connolly. "ICT, Public Values and Transformative Government: A Framework and Programme for Research." *Government Information Quarterly* 31, no. 1 (2014): 119–128. <https://doi.org/10.1016/j.giq.2013.06.002>.

¹⁷ Heeks, Richard. "Most eGovernment-for-Development Projects Fail: How Can Risks Be Reduced?" *iGovernment Working Paper Series* No. 14 (Manchester: Institute for Development Policy and Management, 2003), 1–18; see also Coursey, David, and Donald F. Norris. "Models of E-Government: Are They Correct? An Empirical Assessment." *Public Administration Review* 68, no. 3 (2008): 523–536. <https://doi.org/10.1111/j.1540-6210.2008.00888.x>.

¹⁸ Badan Pusat Statistik (BPS) Central Aceh Regency, *Statistik Telekomunikasi dan Akses Digital Aceh Tengah 2023* [Telecommunications and Digital Access Statistics of Central Aceh 2023] (Takengon: Central Statistics Agency, 2024), 12–14.

¹⁹ Salemink, Koen, Dirk Strijker, and Gary Bosworth. "Rural Development in the Digital Age: A Systematic Literature Review on Unequal ICT Availability, Adoption, and Use in Rural Areas." *Journal of Rural Studies* 54 (2017): 360–371. <https://doi.org/10.1016/j.jrurstud.2015.09.001>.

²⁰ Dwiyanto, Agus. *Reformasi Birokrasi Publik Di Indonesia* [Bureaucratic Reform in Indonesian Public Administration] (Yogyakarta: UGM Press, 2021), 87–112.

²¹ Hardi, Warul Waluyoajati, and Ali Abubakar. "The Implementation of Qanun Jinayat in Aceh: Between Islamic Law and Human Rights." *Journal of Indonesian Legal Studies* 5, no. 2 (2020): 237–260. <https://doi.org/10.15294/jils.v5i2.38377>.

ital service transformation in Central Aceh Regency? Second, how can Aceh's special autonomy framework, particularly Qanun legislative authority under Law No. 11 of 2006, be operationalized to create enforceable digital governance obligations absent in national regulatory frameworks? Third, what institutional and normative reforms are necessary to reposition bureaucracy from symbolic digital adoption toward substantive smart governance aligned with constitutional service obligations?

This article proceeds as follows: Section 2 explicates the normative juridical methodology employed. Section 3 analyzes the current state of digital service implementation in Central Aceh, identifying institutional, technological, and regulatory deficiencies. Section 4 examines juridical obstacles spanning regulatory gaps, enforcement weaknesses, and institutional fragmentation, while also exploring legal opportunities through Law No. 14 of 2008, regional autonomy provisions, and Qanun legislative authority. Section 5 concludes with normative recommendations for Qanun formulation, institutional reform, and SPBE contextualization responsive to Central Aceh's geographical and cultural particularities.

2. Method

This research employs a normative juridical approach that positions written legal norms as the primary object of analysis while systematically interpreting their implications for digitalization of public services in Central Aceh Regency.²² The approach is particularly relevant because the core problem examined in this article is not merely managerial failure of e-government projects, but the normative misalignment between Indonesia's legal framework on public services, information disclosure, and regional autonomy and the actual design of digital governance at the local level.²³ In line with Janowski's argument that digital government must be contextualized within specific institutional and legal environments rather than treated as a purely technological upgrade,²⁴ this study treats Peraturan Perundang-undangan and Qanun as the main reference points for evaluating whether Central Aceh's digitalization agenda meets constitutional and administrative law standards.

The research relies on several complementary methods of normative legal reasoning. First, a statute approach is used to examine the coherence between national legislation – Law No. 25 of 2009 on Public Services, Law No. 14 of 2008 on Public Information Disclosure, Law No. 23 of 2014 on Regional Government, Law No. 11 of 2006 on Governance of Aceh, and Presidential Regulation No. 95 of 2018 on Electronic-Based Government System (SPBE) – and the absence of specific Qanun on digital services in Central Aceh. This enables a critical assessment of whether regional authorities have a clear legal mandate and sufficiently precise norms to develop integrated, citizen-oriented digital services, or whether existing regulations leave room for fragmented and symbolic digitalization only.²⁵ Second, a conceptual approach is applied to clarify how key notions such as digital transformation, smart governance, and bureaucratic repositioning should be understood in

²² Soerjono Soekanto and Sri Mamudji, *Penelitian Hukum Normatif: Suatu Tinjauan Singkat* (Jakarta: Rajawali, 2001).

²³ Alexander Robert Heeks, "Most eGovernment-for-Development Projects Fail: How Can Risks Be Reduced?," *Information Technology for Development* 25, no. 1 (2019): 160–176, <https://doi.org/10.1080/02681102.2017.1351512>.

²⁴ Tomasz Janowski, "Digital Government Evolution: From Transformation to Contextualization," *Government Information Quarterly* 32, no. 3 (2015): 221–236, <https://doi.org/10.1016/j.giq.2015.07.001>.

²⁵ Agus Dwiyanto, *Reformasi Birokrasi Publik di Indonesia* (Yogyakarta: UGM Press, 2021).

a constitutional state governed by the rule of law, drawing selectively on international literature on digital government and smart governance while maintaining Indonesia's legal doctrine as the ultimate normative frame of reference.²⁶

Given that digitalization of public services inevitably raises questions of institutional design and bureaucratic capacity, this research also integrates a limited socio-legal perspective by using official documents from the Central Aceh Communication and Information Service (Diskominfo), the Central Aceh Personnel and Human Resources Development Agency (BKPSDM), and evaluation reports from the Ministry of Administrative and Bureaucratic Reform (Ministry of PAN-RB) as secondary data.²⁷ These materials are not treated as empirical data in a statistical sense, but as authoritative institutional sources that help reveal how national norms on SPBE and public services are translated—or fail to be translated—into concrete bureaucratic practices at the regional level.²⁸ The use of such institutional documents is consistent with socio-legal scholarship on digital government, which emphasizes that the law-technology interface can only be understood by examining how legal norms interact with organizational routines, information architectures, and data governance arrangements inside public institutions.²⁹

Analytically, the study adopts an analytical-descriptive technique combined with comparative and evaluative reasoning. The analytical-descriptive component is used to systematically map the structure and content of the applicable legal framework, including the distribution of authorities between central and regional governments and the normative room created by Aceh's special autonomy for regulating digital services through Qanun.³⁰ Comparative analysis is then employed in two limited ways: horizontally, by contrasting the normative design of SPBE and public service regulations with emerging international principles of digital government and smart governance; and vertically, by comparing Central Aceh's legal-institutional configuration with regulatory practices in other jurisdictions that have moved from symbolic to substantive digitalization of public services.³¹ The evaluative dimension focuses on assessing whether the absence of a Qanun on Digital Services, the weak enforcement mechanisms in Presidential Regulation No. 95 of 2018, and the current bureaucratic work culture in Central Aceh collectively produce a condition of legal uncertainty and institutional fragmentation that is incompatible with the principles of legal certainty, transparency, accountability, and professionalism embedded in Indonesian administrative law.

This methodological design is justified by at least two considerations. First, purely managerial or technology-driven frameworks of digital transformation tend to obscure the fact that in a

²⁶ Hans J. Scholl, "Digital Government," *Digital Government: Research and Practice* 1, no. 1 (2020): 1–12, <https://doi.org/10.1145/3352682>; J. D. Twizeyimana and Åke Grönlund Andersson, "The Public Value of E-Government—A Literature Review," *Government Information Quarterly* 36, no. 2 (2019): 167–178, <https://doi.org/10.1016/j.giq.2019.01.001>.

²⁷ Central Aceh Communication and Information Service, *Laporan Kinerja Instansi Pemerintah (LKjIP) Tahun 2023* (Takengon: Diskominfo Aceh Tengah, 2023); BKPSDM Kabupaten Aceh Tengah, *Laporan Evaluasi Kompetensi ASN dalam Implementasi Layanan Digital 2023* (Takengon: BKPSDM Aceh Tengah, 2024).

²⁸ Eko Eddy Supriyanto, "Kebijakan Inovasi Teknologi Informasi (IT) melalui Program Elektronik Government dalam Meningkatkan Kualitas Pelayanan Publik di Indonesia," *Jurnal Ilmu Pemerintahan* 1, no. 1 (2016): 141–161, <https://doi.org/10.24905/jip.1.1.2016.141-161>.

²⁹ Antonio Cordella and Nunzia Tempini, "E-Government and Organizational Change: Reappraising the Role of ICT and Bureaucracy in Public Service Delivery," *Government Information Quarterly* 32, no. 3 (2015): 279–286, <https://doi.org/10.1016/j.giq.2015.03.005>.

³⁰ Elsa Denisa et al., "Kedudukan dan Proses Legislasi Qanun Aceh dalam Sistem Hukum Nasional," *Lentera* (2025).

³¹ Martitah et al., "Confronting E-Government Adoption in Indonesian Local Government," *Journal of Indonesian Legal Studies* 6, no. 2 (2021): 287–304, <https://doi.org/10.15294/jils.v6i2.47795>.

constitutional state, the legitimacy of digital bureaucracy ultimately depends on its conformity with statutory mandates and procedural safeguards, rather than on efficiency gains alone. Second, empirical studies of e-government in developing and decentralized contexts repeatedly show that digital projects often fail not because of the absence of sophisticated technologies, but because of unresolved tensions between national regulations, local political incentives, and bureaucratic path dependencies. By placing legal norms at the center of the analysis while remaining attentive to institutional practices and capacity constraints in Central Aceh, this research aims to offer a normative assessment that is both doctrinally rigorous and sensitive to the structural conditions that shape the trajectory of public service digitalization in the region.

3. From Formality to Substance: The Juridical Anatomy of Public Service Digitalization in Central Aceh Regency

The Electronic-Based Government System (SPBE) in Central Aceh Regency presents a paradox that cuts to the heart of Indonesian administrative law: digital infrastructure has been deployed, yet digitalization in any substantive sense has not occurred. Central Aceh's Communication and Information Service (Diskominfo) has formally rolled out a range of digital service channels population administration, business licensing through the Online Single Submission (OSS) platform, electronic complaint portals, internal e-correspondence systems, and official website-based information dissemination.³² Yet the existence of these platforms does not in itself constitute compliance with the normative mandate of Law No. 25 of 2009 on Public Services, which requires not merely the availability of service channels but the guarantee of service quality, accessibility, efficiency, and non-discrimination in their actual delivery. The gap between platform availability and service quality is not a technical shortcoming it is a juridical failure.

This distinction between symbolic and substantive digitalization is not merely academic. Cordella and Tempini have shown that e-government projects consistently falter when they are grafted onto unreformed bureaucratic structures without addressing the underlying institutional logic that governs how civil servants process information, exercise discretion, and relate to citizens.³³ In Central Aceh, the evidence confirms this dynamic precisely: Organisasi Perangkat Daerah (OPD) units are formally enrolled in SPBE implementation, yet a monitoring report from the Central Aceh Diskominfo for 2023 reveals that several OPDs operate digital systems only as a formality uploading static documents to satisfy administrative compliance requirements while continuing to process core services manually.³⁴ This phenomenon, which may be characterized as *pseudo-digital bureaucracy*, represents a misappropriation of both the normative purpose of SPBE and the constitutional obligation of the state to deliver efficient, transparent, and accountable public services under Article 34 paragraph (3) of the 1945 Constitution of the Republic of Indonesia.

³² Diskominfo Kabupaten Aceh Tengah, "Penerapan SPBE dan Layanan Digital di Aceh Tengah," dalam *Laporan Kinerja Instansi Pemerintah (LKjIP) Tahun 2023* (Takengon: Diskominfo Aceh Tengah, 2023), hlm. 15–20.

³³ Antonio Cordella and Nunzia Tempini, "E-Government and Organizational Change: Reappraising the Role of ICT and Bureaucracy in Public Service Delivery," *Government Information Quarterly* 32, no. 3 (2015): 279–286, <https://doi.org/10.1016/j.giq.2015.03.005>.

³⁴ Diskominfo Kabupaten Aceh Tengah, "Monitoring SPBE 2023: Antara Formalitas dan Fungsi," dalam *Laporan Monitoring SPBE Kabupaten Aceh Tengah* (Takengon: Diskominfo Aceh Tengah, 2023), hlm. 7–12.

The legal architecture that should have prevented this outcome contains structural weaknesses. Presidential Regulation No. 95 of 2018 on SPBE mandates digital transformation across all government levels and stipulates the development of integrated digital service architecture; however, its enforcement framework is deeply deficient. The Regulation contains no administrative sanctions for non-implementing or under-implementing regional governments, no minimum performance thresholds triggering corrective intervention, and no mechanism for citizens to lodge formal complaints against agencies whose digital systems exist only on paper. This regulatory design aspirational in scope but toothless in implementation reproduces precisely the pattern that Janowski identified as characteristic of “contextualization-phase” digital government in developing countries, where national mandates are not matched by local institutional capacity and are therefore selectively appropriated rather than substantively implemented.³⁵ Central Aceh’s national SPBE evaluation score for 2023 categorized as below the national average for district-level governments is a direct consequence of this structural mismatch between normative expectation and operational reality.³⁶

The absence of a specific Qanun on Digital Services in Central Aceh compounds the problem in a way that is legally distinctive and analytically important. Aceh’s special autonomy under Law No. 11 of 2006 on Governance of Aceh grants the regional legislature the Dewan Perwakilan Rakyat Aceh (DPRA) and Dewan Perwakilan Rakyat Kabupaten (DPRK) the authority under Article 235 paragraph (1) to enact Qanun governing all aspects of regional administration, including, expressly, the management of information and communication technology for public services. A Qanun on Digital Services would accomplish three things that Presidential Regulation No. 95 of 2018 alone cannot: it would create a *lex specialis* obligation binding on local OPDs with sanctions specifically designed for Aceh’s institutional context; it would establish a local legal foundation for interoperability standards and data governance adapted to the geographic and demographic characteristics of the Gayo highlands; and it would give citizens a legally enforceable right to demand digital services rather than mere administrative goodwill.³⁷ The failure to enact such a Qanun is not a passive omission it is a failure of regional legislative responsibility that directly undermines the rule-of-law dimension of public service delivery.

A further dimension of the juridical problem concerns data interoperability and institutional fragmentation. The architecture of Central Aceh’s digital government currently operates in sectoral silos: population data, licensing records, social assistance databases, and public complaint logs are maintained independently by different OPDs with no shared data infrastructure, no real-time synchronization, and no unified citizen identity layer connecting service interactions across agencies.³⁸ Gil-Garcia, Zhang, and Puron-Cid have conceptualized smart governance as requiring precisely this kind of integrated information architecture one in which the state operates as a coherent service provider rather than a collection of disconnected administrative units, and in which data

³⁵ Tomasz Janowski, “Digital Government Evolution: From Transformation to Contextualization,” *Government Information Quarterly* 32, no. 3 (2015): 221–236, <https://doi.org/10.1016/j.giq.2015.07.001>.

³⁶ Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi, *Indeks SPBE Kabupaten Aceh Tengah Tahun 2023* (Jakarta: KemenPAN-RB, 2023).

³⁷ Ira Mergel, Noella Edelman, and Nathalie Haug, “Defining Digital Transformation: Results from Expert Interviews,” *Government Information Quarterly* 36, no. 4 (2019): 101385, <https://doi.org/10.1016/j.giq.2019.06.002>.

³⁸ Diskominfo Kabupaten Aceh Tengah, *Laporan Monitoring SPBE* (2023), hlm. 14–17.

flows serve citizen needs rather than bureaucratic reporting requirements.³⁹ Central Aceh's fragmented data architecture violates this principle structurally, and that violation has a direct legal consequence: it makes it impossible for the government to fulfill its obligation under Article 7 of Law No. 14 of 2008 on Public Information Disclosure to ensure that public information is managed accurately, completely, and accessibly in a systematic, integrated manner.

The digital divide operating within Central Aceh Regency introduces yet another layer of legal complexity. BPS data for 2023 indicates that internet penetration in sub-districts outside the Takengon urban core remains significantly below provincial averages, with mountainous sub-districts such as Linge, Bintang, and Ketol recording household internet access rates well below 40%.⁴⁰ Under these conditions, the transition to exclusively digital service channels if pursued without adequate hybrid alternatives would constitute a discriminatory denial of service to rural citizens who lack the technological prerequisites for access. Law No. 25 of 2009, Article 4 letter c, explicitly recognizes the principle of equality in service delivery (*kesamaan hak*), and Article 4 letter d mandates balance of rights and obligations between service providers and recipients. A digitalization policy that ignores the digital divide does not merely fail on technical grounds it fails on constitutional and human rights grounds, depriving a segment of the population of their equal entitlement to state services.⁴¹

What emerges from this analysis is a picture of digitalization in Central Aceh that is legally deficient across multiple dimensions simultaneously: insufficient normative foundation at the regional level; unenforceable national SPBE mandates; fragmented institutional architecture incompatible with integrated service delivery; and a digital divide that converts digital-first service strategies into instruments of exclusion. Twizeyimana and Andersson's framework on the public value of e-government is instructive here: they argue that digital government generates genuine public value only when it produces outcomes improved service quality, enhanced transparency, broader civic participation rather than merely digital outputs such as portals and applications.⁴² By this standard, Central Aceh's digitalization program has generated digital outputs without producing public value, and the primary reason is the absence of the legal and institutional architecture necessary to convert platform deployment into substantive service transformation.

4. Normative Barriers and Institutional Incapacity: Why Legal Mandates Alone Cannot Produce Smart Governance

The central problem with Indonesia's national legal framework on digital government is not its absence it is its structural incompleteness. Presidential Regulation No. 95 of 2018 on SPBE establishes a comprehensive normative architecture for electronic-based government: it mandates the development of integrated application systems, imposes data governance standards, requires

³⁹ J. Ramon Gil-Garcia, Jing Zhang, and Gabriel Puron-Cid, "Conceptualizing Smartness in Government: An Integrative and Multi-Dimensional View," *Government Information Quarterly* 33, no. 3 (2016): 524-534, <https://doi.org/10.1016/j.giq.2016.03.002>.

⁴⁰ BPS Kabupaten Aceh Tengah, *Statistik Telekomunikasi dan Akses Digital Aceh Tengah 2023* (Takengon: Badan Pusat Statistik, 2024), hlm. 12-13.

⁴¹ Indonesia, *Undang-Undang Nomor 25 Tahun 2009*, Pasal 4 huruf c dan d; lihat juga Philipus M. Hadjon, *Pengantar Hukum Administrasi Indonesia* (Yogyakarta: Gadjah Mada University Press, 2011), hlm. 45-47.

⁴² Jean de Dieu Twizeyimana and Annika Andersson, "The Public Value of E-Government – A Literature Review," *Government Information Quarterly* 36, no. 2 (2019): 167-178, <https://doi.org/10.1016/j.giq.2019.01.001>.

cross-agency interoperability, and tasks the Ministry of PAN-RB with periodic evaluations of regional government compliance.⁴³ On its face, this regulatory structure appears adequate. In practice, however, it operates as an unfunded mandate without enforcement teeth a normative framework that obliges regional governments to digitalize but provides no mechanism to compel compliance, no administrative sanctions for persistent non-performance, and no financial support framework specifically calibrated to the institutional capacity deficits of geographically isolated districts like Central Aceh.⁴⁴ The result is a predictable pattern: regional governments respond to SPBE evaluation cycles by deploying visible digital artifacts websites, portals, application logos without transforming the underlying service delivery architecture. This is not deception; it is rational bureaucratic adaptation to an evaluation system that measures outputs rather than outcomes.

Law No. 25 of 2009 on Public Services suffers from an analogous structural weakness when examined from the perspective of digital service delivery. The statute mandates efficient, transparent, accountable, and non-discriminatory services and establishes a framework for service standard-setting and public complaints. What it conspicuously does not do is impose any affirmative obligation on regional governments to digitalize their service channels, establish interoperable data systems, or develop digital literacy among civil servants. This legislative silence is significant: it means that a regional government that delivers all of its services through manual, face-to-face processes is technically compliant with Law No. 25 of 2009, even as it falls systematically short of the transparency and efficiency benchmarks that digitalization is meant to operationalize. The absence of a digital service mandate in the primary public services statute creates a normative vacuum that Presidential Regulation No. 95 of 2018 was intended to fill but has failed to fill because Perpres, as a form of legislation subordinate to statutes in Indonesia's hierarchical legal system under Law No. 12 of 2011 on the Formation of Legislation, cannot impose obligations that exceed or contradict the statutory framework above it.⁴⁵ In this sense, the legal gap is not incidental it is structural, rooted in the architecture of Indonesia's legislative hierarchy.

The capacity deficit of the Central Aceh civil service (ASN) represents a second, equally serious layer of the institutional barrier problem and it too has a normative dimension that is frequently obscured by treating it as purely a human resource management issue. Data from the Central Aceh BKPSDM for 2023 reveals that more than 40% of the regency's civil servants are above 45 years of age, a demographic profile that correlates strongly with lower digital adoption rates and resistance to system-based work processes.⁴⁶ But to frame this as an age problem would be analytically incomplete. The deeper issue is that the current SPBE mandate imposes digital obligations on a civil service that has not been legally entitled, adequately trained, or institutionally incentivized to develop digital competencies. Article 3 letter f of Law No. 25 of 2009 mandates professionalism as a foundational service principle, and Article 4 of Government Regulation No. 11 of 2017 on Civil Servant Management (*Manajemen Pegawai Negeri Sipil*) requires competency-based human

⁴³ Indonesia, *Peraturan Presiden Nomor 95 Tahun 2018 tentang Sistem Pemerintahan Berbasis Elektronik (SPBE)*, Lembaran Negara Republik Indonesia Tahun 2018 Nomor 207, Pasal 2, 9, 25, dan 59; Kementerian PAN-RB, *Evaluasi Nasional SPBE Tahun 2023* (Jakarta: KemenPAN-RB, 2023), hlm. 14–19.

⁴⁴ Martitah et al., "Confronting E-Government Adoption in Indonesian Local Government," *Journal of Indonesian Legal Studies* 6, no. 2 (2021): 287–304, <https://doi.org/10.15294/jils.v6i2.47795>.

⁴⁵ Philipus M. Hadjon, *Pengantar Hukum Administrasi Indonesia* (Yogyakarta: Gadjah Mada University Press, 2011), hlm. 88–92.

⁴⁶ BKPSDM Kabupaten Aceh Tengah, *Laporan Evaluasi Kompetensi ASN dalam Implementasi Layanan Digital 2023* (Takengon: BKPSDM Aceh Tengah, 2024), hlm. 4–5.

resource development. Yet the BKPSDM's own evaluation report for 2023 shows that ICT-based training coverage in Central Aceh reached only 34% of civil servants directly involved in digital service delivery a figure that constitutes not merely a management failure but a violation of the statutory competency-development obligations incumbent upon the regional government as employer.⁴⁷

The phenomenon Martitah et al. have documented as “departmental ego” in Indonesian local e-government the tendency of OPD units to protect their data, systems, and administrative processes as institutional assets rather than sharing them as public resources is particularly acute in Central Aceh's context.⁴⁸ Inter-OPD coordination failures in Central Aceh are not simply coordination problems amenable to managerial solutions; they are expressions of a bureaucratic culture that Thoha identified as fundamentally authority-oriented rather than service-oriented, where information asymmetry functions as a source of internal power rather than a resource to be shared for citizen benefit.⁴⁹ This cultural disposition directly contradicts the spirit of both Law No. 14 of 2008 on Public Information Disclosure which places the obligation of proactive information sharing on government agencies and the integrated service architecture envisioned by SPBE. A bureaucracy that hoards information cannot build the kind of real-time, citizen-facing data ecosystem that smart governance requires, regardless of how sophisticated its technological infrastructure becomes.

The normative barriers and institutional incapacity documented above interact with one another in ways that amplify their individual effects. A regional government without adequate legal mandates at the local level (absent Qanun) will struggle to impose inter-OPD data-sharing obligations. A civil service without adequate digital competencies will be unable to operate integrated systems even when those systems are technically functional. And a bureaucratic culture that treats service delivery as a unilateral administrative act rather than a citizen-entitlement will consistently produce digital platforms designed for administrative convenience rather than user accessibility. Heeks' “design-reality gap” framework helps to theorize this interaction: he argues that e-government projects fail when the design assumptions embedded in the technology are systematically misaligned with the organizational, institutional, and informational realities of the implementing agency.⁵⁰ In Central Aceh, this gap is observable across three dimensions simultaneously legal (absence of Qanun and weak statutory mandate for digital services), human (low digital literacy and demographically constrained civil service), and cultural (authority-oriented bureaucratic mentality resistant to transparency and data-sharing).

The implications for administrative law are significant. Dwiyanto has argued that bureaucratic reform in Indonesia has persistently failed because it has treated reform as a technical management problem rather than as a transformation of the legal and institutional incentive structure that governs civil servant behavior.⁵¹ Applied to Central Aceh, this argument translates into a clear prescription: the resolution of the normative barrier problem requires not merely additional SPBE

⁴⁷ BKPSDM Kabupaten Aceh Tengah, *Evaluasi Pelatihan ASN Berbasis TIK Tahun 2023* (Takengon: BKPSDM Aceh Tengah, 2024), hlm. 6–8; Indonesia, *Undang-Undang Nomor 25 Tahun 2009*, Pasal 3 huruf f.

⁴⁸ Martitah et al., “Confronting E-Government Adoption in Indonesian Local Government,” 294–297.

⁴⁹ Miftah Thoha, *Perspektif Perilaku Birokrasi: Dimensi-Dimensi Prima Ilmu Administrasi Negara* (Jakarta: Rajawali Pers, 1987), hlm. 42–48; lihat juga Agus Dwiyanto, *Reformasi Birokrasi Publik di Indonesia* (Yogyakarta: UGM Press, 2021), hlm. 113–119.

⁵⁰ Richard Heeks, “Most eGovernment-for-Development Projects Fail: How Can Risks Be Reduced?,” *Information Technology for Development* 25, no. 1 (2019): 160–176, <https://doi.org/10.1080/02681102.2017.1351512>.

⁵¹ Agus Dwiyanto, *Reformasi Birokrasi Publik di Indonesia* (Yogyakarta: UGM Press, 2021), hlm. 207–213.

training workshops or performance evaluations, but a fundamental reconstruction of the legal architecture governing digital service delivery at the regional level one that makes digital service quality legally enforceable, creates clear accountability lines for OPD performance, and embeds digital literacy development as a statutory obligation of regional government rather than a discretionary investment. Without this legal reconstruction, the institutional incapacities documented in this section will persist regardless of the sophistication of the digital technologies deployed, because the bureaucratic incentive structure will continue to reward compliance theater over substantive transformation.

5. Conclusion

Digitalization of public services in Central Aceh Regency has reached an impasse that is juridical in nature before it is technological. The deployment of digital platforms complaint portals, electronic correspondence systems, and SPBE-compliant applications has not produced substantive bureaucratic transformation because the legal architecture underpinning it remains structurally incomplete. Presidential Regulation No. 95 of 2018 on SPBE generates normative expectations without enforcement mechanisms, while Law No. 25 of 2009 on Public Services imposes service quality obligations without expressly mandating digitalization. The result is a bureaucracy that performs compliance rather than delivers transformation building digital facades over unreformed institutional practices. The absence of a specific Qanun on Digital Services is the most consequential normative gap in Central Aceh's governance framework. Given Aceh's special autonomy status under Law No. 11 of 2006, the Qanun instrument represents the most viable path toward creating locally enforceable, contextually sensitive obligations for digital service delivery ones that can address the regency's geographic fragmentation, demographic constraints, and the cultural particularities of Gayo communities that national regulations neither anticipate nor accommodate. The institutional barriers low civil servant digital literacy, inter-OPD data fragmentation, and an authority-oriented bureaucratic culture are not incidental management failures. They are symptoms of a legal framework that has not resolved the fundamental question of who is accountable, to whom, and through what enforceable mechanism, for the quality of digital public services at the district level. Smart governance in Central Aceh will not emerge from technology investment alone. It requires a legal reconstruction: a Qanun that mandates integrated digital services, a human resource development framework with statutory force, and an accountability architecture that transforms citizen access to public services from administrative goodwill into an enforceable constitutional right. Without this normative foundation, digitalization will remain what it currently is symbolically present, substantively absent.

References

- Armawi, Armaid, Zainal Arifin Mochtar, and Muhadam Labolo. "Legal Effectiveness in Promoting Development Policies: A Case Study of North Aceh Indonesia." *Heliyon* 9, no. 11 (2023): e21052. <https://doi.org/10.1016/j.heliyon.2023.e21052>.
- Bannister, Frank, and Regina Connolly. "ICT, Public Values and Transformative Government: A Framework and Programme for Research." *Government Information Quarterly* 31, no. 1 (2014): 119-128. <https://doi.org/10.1016/j.giq.2013.06.002>.
- Badan Kepegawaian dan Pengembangan Sumber Daya Manusia (BKPSDM) Kabupaten Aceh Tengah. *Evaluasi Pelatihan ASN Berbasis TIK Tahun 2023*. Takengon: BKPSDM Aceh Tengah, 2024.

- Badan Kepegawaian dan Pengembangan Sumber Daya Manusia (BKPSDM) Kabupaten Aceh Tengah. *Laporan Evaluasi Kompetensi ASN dalam Implementasi Layanan Digital 2023*. Takengon: BKPSDM Aceh Tengah, 2024.
- Badan Pusat Statistik (BPS) Kabupaten Aceh Tengah. *Statistik Telekomunikasi dan Akses Digital Aceh Tengah 2023*. Takengon: Badan Pusat Statistik, 2024.
- Badan Pusat Statistik (BPS) Kabupaten Aceh Tengah and Ombudsman Republik Indonesia Perwakilan Aceh. *Indeks Kepuasan Masyarakat Terhadap Pelayanan Publik di Kabupaten Aceh Tengah Tahun 2022*. Takengon: BPS, 2023.
- Bannister, Frank, and Regina Connolly. "The Trouble with Transparency: A Critical Review of Openness in E-Government." *Policy & Internet* 3, no. 1 (2011): 158–187. <https://doi.org/10.2202/1944-2866.1076>.
- Cordella, Antonio, and Niccolò Tempini. "E-Government and Organizational Change: Reappraising the Role of ICT and Bureaucracy in Public Service Delivery." *Government Information Quarterly* 32, no. 3 (2015): 279–286. <https://doi.org/10.1016/j.giq.2015.03.005>.
- Coursey, David, and Donald F. Norris. "Models of E-Government: Are They Correct? An Empirical Assessment." *Public Administration Review* 68, no. 3 (2008): 523–536. <https://doi.org/10.1111/j.1540-6210.2008.00888.x>.
- Denisa, Elsa, Annisa Fitri Azzahra, Alika Chairana Achta, Muhammad Ilham Sabila, and Deden Najmudin. "Kedudukan dan Proses Legislasi Qanun Aceh dalam Sistem Hukum Nasional." *Lentera: Jurnal Ilmu Dakwah dan Komunikasi* 5, no. 2 (2021): 110–127. <https://doi.org/10.32505/lentera.v5i2.3156>.
- Dinas Komunikasi dan Informatika (Diskominfo) Kabupaten Aceh Tengah. "Monitoring SPBE 2023: Antara Formalitas dan Fungsi." In *Laporan Monitoring SPBE Kabupaten Aceh Tengah*. Takengon: Diskominfo Aceh Tengah, 2023.
- Dinas Komunikasi dan Informatika (Diskominfo) Kabupaten Aceh Tengah. "Penerapan SPBE dan Layanan Digital di Aceh Tengah." In *Laporan Kinerja Instansi Pemerintah (LKjIP) Tahun 2023*. Takengon: Diskominfo Aceh Tengah, 2023.
- Dwiyanto, Agus. *Reformasi Birokrasi Publik di Indonesia*. Yogyakarta: UGM Press, 2021.
- Gil-Garcia, J. Ramon, Theresa A. Pardo, and Taewoo Nam. "What Makes a City Smart? Identifying Core Components and Proposing an Integrative and Comprehensive Conceptualization." *Information Polity* 20, no. 1 (2015): 61–87. <https://doi.org/10.3233/IP-150354>.
- Gil-Garcia, J. Ramon, Jing Zhang, and Gabriel Puron-Cid. "Conceptualizing Smartness in Government: An Integrative and Multi-Dimensional View." *Government Information Quarterly* 33, no. 3 (2016): 524–534. <https://doi.org/10.1016/j.giq.2016.03.002>.
- Hadjon, Philipus M. *Pengantar Hukum Administrasi Indonesia*. Yogyakarta: Gadjah Mada University Press, 2011.
- Hardi, Warul Waluyoajati, and Ali Abubakar. "The Implementation of Qanun Jinayat in Aceh: Between Islamic Law and Human Rights." *Journal of Indonesian Legal Studies* 5, no. 2 (2020): 237–260. <https://doi.org/10.15294/jils.v5i2.38377>.
- Heeks, Richard. "Most eGovernment-for-Development Projects Fail: How Can Risks Be Reduced?" *Information Technology for Development* 25, no. 1 (2019): 160–176. <https://doi.org/10.1080/02681102.2017.1351512>.
- Indonesia. *Undang-Undang Nomor 11 Tahun 2006 tentang Pemerintahan Aceh*. Lembaran Negara Republik Indonesia Tahun 2006 Nomor 62.
- Indonesia. *Undang-Undang Nomor 12 Tahun 2011 tentang Pembentukan Peraturan Perundang-undangan sebagaimana diubah dengan Undang-Undang Nomor 15 Tahun 2019*. Lembaran Negara Republik Indonesia Tahun 2011 Nomor 82.

- Indonesia. *Undang-Undang Nomor 14 Tahun 2008 tentang Keterbukaan Informasi Publik*. Lembaran Negara Republik Indonesia Tahun 2008 Nomor 61.
- Indonesia. *Undang-Undang Nomor 23 Tahun 2014 tentang Pemerintahan Daerah*. Lembaran Negara Republik Indonesia Tahun 2014 Nomor 244.
- Indonesia. *Undang-Undang Nomor 25 Tahun 2009 tentang Pelayanan Publik*. Lembaran Negara Republik Indonesia Tahun 2009 Nomor 112.
- Indonesia. *Peraturan Presiden Nomor 95 Tahun 2018 tentang Sistem Pemerintahan Berbasis Elektronik (SPBE)*. Lembaran Negara Republik Indonesia Tahun 2018 Nomor 207.
- Janowski, Tomasz. "Digital Government Evolution: From Transformation to Contextualization." *Government Information Quarterly* 32, no. 3 (2015): 221-236. <https://doi.org/10.1016/j.giq.2015.07.001>.
- Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. *Evaluasi Nasional SPBE Tahun 2023*. Jakarta: KemenPAN-RB, 2023.
- Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. *Indeks SPBE Kabupaten Aceh Tengah Tahun 2023*. Jakarta: KemenPAN-RB, 2023.
- Martitah, Dian Kus Pratiwi, and Tri Cahya Indra Permana. "Confronting E-Government Adoption in Indonesian Local Government." *Journal of Indonesian Legal Studies* 6, no. 2 (2021): 375-404. <https://doi.org/10.15294/jils.v6i2.47795>.
- Meijer, Albert, and Manuel Pedro Rodríguez Bolívar. "Governing the Smart City: A Review of the Literature on Smart Urban Governance." *International Review of Administrative Sciences* 82, no. 2 (2016): 392-408. <https://doi.org/10.1177/0020852314564308>.
- Mergel, Ines, Noella Edelmann, and Nathalie Haug. "Defining Digital Transformation: Results from Expert Interviews." *Government Information Quarterly* 36, no. 4 (2019): 101385. <https://doi.org/10.1016/j.giq.2019.06.002>.
- Ndou, Valentina D. "E-Government for Developing Countries: Opportunities and Challenges." *Electronic Journal of Information Systems in Developing Countries* 18, no. 1 (2004): 1-24. <https://doi.org/10.1002/j.1681-4835.2004.tb00117.x>.
- Salemink, Koen, Dirk Strijker, and Gary Bosworth. "Rural Development in the Digital Age: A Systematic Literature Review on Unequal ICT Availability, Adoption, and Use in Rural Areas." *Journal of Rural Studies* 54 (2017): 360-371. <https://doi.org/10.1016/j.jrurstud.2015.09.001>.
- Scholl, Hans J. "Digital Government: Looking Back and Ahead on a Fascinating Domain." *Digital Government: Research and Practice* 1, no. 1 (2020): 1-12. <https://doi.org/10.1145/3352682>.
- Soekanto, Soerjono, and Sri Mamudji. *Penelitian Hukum Normatif: Suatu Tinjauan Singkat*. Jakarta: Rajawali, 2001.
- Supriyanto, Eko Eddy. "Kebijakan Inovasi Teknologi Informasi (IT) melalui Program Elektronik Government dalam Meningkatkan Kualitas Pelayanan Publik di Indonesia." *Jurnal Ilmu Pemerintahan: Kajian Ilmu Pemerintahan dan Politik Daerah* 1, no. 1 (2016): 141-161. <https://doi.org/10.24905/jip.1.1.2016.141-161>.
- Suryana, T.B.M. Ferdiansyah, Aisyah Azzahrah Rahmawati, Neng Sulisna Ramdanti, and Assahra Nabila Safitri. "Transformasi Digital dalam Pelayanan Publik: Tinjauan Yuridis Terhadap SPBE di Indonesia." *Constitutio* 4, no. 1 (2025): 37-53. <https://doi.org/10.47498/constituo.v4i1.4944>.
- Thoha, Miftah. *Perspektif Perilaku Birokrasi: Dimensi-Dimensi Prima Ilmu Administrasi Negara*. Jakarta: Rajawali Pers, 1987.
- Twizeyimana, Jean Damascene, and Annika Andersson. "The Public Value of E-Government A Literature Review." *Government Information Quarterly* 36, no. 2 (2019): 167-178. <https://doi.org/10.1016/j.giq.2019.01.001>.
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