

## Web-Based SIMKAH Implementation at KUA: A Multi-City Comparative Study of Legal Effectiveness in Indonesia

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### Abstract:

Marriage registration in Indonesia is a legal obligation under Law Number 16 of 2019, yet millions of Muslim couples remain legally unregistered despite formal prohibition. This study examines web-based SIMKAH (Marriage Management Information System) implementation under Minister of Religious Affairs Decree Number 892 of 2019 at Religious Affairs Offices (KUA) in Surakarta, Gorontalo, and Manado — three cities representing distinct geographical, demographic, and administrative contexts across two Indonesian islands. Using a qualitative descriptive approach with empirical legal methodology, data were collected through in-depth interviews with twelve purposively selected informants and analyzed thematically. Findings confirm that all three KUAs have implemented SIMKAH effectively at the counter level, with measurable improvements in processing speed, data accuracy, and public accessibility. However, SIMKAH does not automatically synchronize with the national civil registration system (SIK) or the Religious Court, creating a consequential inter-institutional data gap. The study recommends a cross-ministerial regulatory instrument mandating real-time SIMKAH–SIK–Religious Court integration, continuous operator training, and community-based public socialization.

### Keywords:

legal effectiveness; marriage registration digitalization; Office of Religious Affairs (KUA); SIMKAH

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## Introduction

The Marriage registration in Indonesia is a legal obligation. Law Number 16 of 2019 on Marriage states without ambiguity that every marriage must be officially registered by the state. Millions of Muslim couples in Indonesia enter marriages that are religiously valid but legally invisible.<sup>1</sup> They are unregistered, undocumented, and unprotected by the state's administrative apparatus. Garfes (2022) documented this gap systematically, finding that unregistered marriage remains an endemic problem across Indonesian regions despite decades of formal prohibition, with law enforcement remaining chronically suboptimal.<sup>2</sup> The scale of that failure is concrete. During 2020 to 2023, Indonesian authorities detected 28,000 cases of unregistered marriages that produced approximately 1.5 million children without legal birth certificates, each of whom is denied inheritance, maintenance, and broader social protection under current law.<sup>3</sup> Sari et al. (2026) confirmed the downstream consequences: wives in unregistered marriages lack enforceable rights to marital property, alimony, and inheritance, while children born from such unions hold legal relationships only with their mothers under state law.<sup>4</sup> This gap between legal command and social reality is not a recent development. The Indonesian state has attempted to close it through successive regulatory interventions, the most ambitious of which is the web-based Marriage Management Information System, SIMKAH, mandated through Minister of Religious Affairs Decree Number 892 of 2019.<sup>5</sup>

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<sup>1</sup> Iqbal Subhan Nugraha and Abdul Aziz, "The Reorientation of Marriage Registration in the Compilation of Islamic Law: Shifting from Administrative Formality to Legal Obligation," *AJIS: Academic Journal of Islamic Studies* 10, no. 2 (2025): 399–426, <https://doi.org/10.29240/ajis.v10i2.12623>.

<sup>2</sup> H P Garfes, "Law Enforcement of Unregistered Marriage Practices in Indonesia Lawrence Meir Friedman's Legal Effective Perspective," *Jurnal Ilmiah Kebijakan Hukum* 16, no. 3 (2022): 515–38, <https://doi.org/10.30641/kebijakan.2022.V16.515-538>.

<sup>3</sup> Rita Armelia, Roswita Sitompul, and Kartina Pakpahan, "Legal Protection for Wives and Children from Unregistered Marriages in Indonesia," in *Proceedings of the 1st International Forum on Psychology, Law, and Education (IFPLE 2025)* (Atlantis Press, 2026), 297–301, [https://doi.org/10.2991/978-2-38476-531-7\\_33](https://doi.org/10.2991/978-2-38476-531-7_33); Kafka Nafisa Firman, Adyan Dhio Akhdany, and Rizky Syahrul Ramadhan, "Analysis of the Validity and Legal Implications of Siri Marriage on the Rights of Wives and Children," *ALSYS* 6, no. 1 (2026): 438–50, <https://doi.org/10.58578/alsys.v6i1.8647>.

<sup>4</sup> Novita Wulan Sari, Ernu Widodo, and Sri Sukma Damayanti, "Legal Protection for Children Born from Unregistered Marriage (Nikah Siri) in Indonesia: An Analysis of Constitutional Court Decision No. 46/PUU-VIII/2010," *International Journal of Social Welfare and Family Law* 3, no. 1 (2026): 68–76, <https://doi.org/10.62951/ijsw.v3i1.557>.

<sup>5</sup> Muhammad Jamaludin Faiz and Nuril Khasyi'in, "Tujuan Khusus Hukum Islam dalam Kewajiban Nafkah Suami: Pendekatan Normatif terhadap Perlindungan Hak Ekonomi Perempuan," *At-Taklim: Jurnal Pendidikan Multidisiplin* 3, no. 1 (2026): 98–112, <https://doi.org/10.71282/at-taklim.v3i1>.

SIMKAH is not Indonesia's first attempt to close this gap. It is the most technologically comprehensive. The system digitizes the marriage registration process at sub-district Religious Affairs Offices (KUA), from online pre-registration and document verification to digital certificate issuance and national data reporting. Its deployment forms part of a broader e-government agenda anchored in Presidential Regulation Number 95 of 2018 on Electronic-Based Government Systems (SPBE). Indonesia's E-Government Development Index rose from 0.3690 in 2012 to 0.6612 in 2022, a trajectory reflecting genuine regulatory progress.<sup>6</sup> Matitah et al. (2021) found that e-government adoption in Indonesian local governments remains structurally uneven, with technical readiness, human resource capacity, and institutional commitment varying sharply across regions.<sup>7</sup> Rifani and Suparti (2021) identified human resource adequacy as the primary determinant of SIMKAH implementation quality at the sub-district level, noting that offices with insufficient trained operators experienced service disruptions routinely, regardless of the system's technical merits.<sup>8</sup> Had the government built KUA operator capacity when the system was being designed rather than after it was launched, the implementation gaps documented by multiple researchers might already be far narrower today. SIMKAH does not upgrade human capacity automatically. It provides a tool. The people who operate it remain the decisive variable.

The scholarly literature on SIMKAH has grown steadily, but it carries a structural limitation that no study has resolved. Every major empirical study on SIMKAH effectiveness to date examines a single location. The data from the field do not lie: this single-location bias makes it impossible to determine whether SIMKAH works or fails as a national system. Sutisna, Rifa'i, and Yuliani (2019) evaluated service quality at KUA Ciwidey in Bandung and reached broadly

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1516; Akhmad Rifani and Heni Suparti, "Implementasi Sistem Informasi Manajemen Nikah (SIMKAH) Berbasis Website di Kantor Urusan Agama Kecamatan Upau Kabupaten Tabalong pada Aspek Sumber Daya," *JAPB: Jurnal Ilmiah Administrasi Publik dan Bisnis* 4, no. 2 (2021): 1076–90.

<sup>6</sup> Zelynda Zeinab Malizal and Muhammad Anzarach Pratama, "Digital Bureaucracy and Public Trust in Indonesia: A Governance Analysis of EGDI Trends and Regional Disparities," *Politeia: Journal of Public Administration and Political Science and International Relations* 3, no. 2 (2025): 100–113, <https://doi.org/10.61978/politeia.v3i2.829>.

<sup>7</sup> M Matitah et al., "Confronting E-Government Adoption in Indonesian Local Government," *Journal of Indonesian Legal Studies* 6, no. 2 (2021): 279–306, <https://doi.org/10.15294/jils.v6i2.47795>.

<sup>8</sup> Rifani and Suparti, "Implementasi Sistem Informasi Manajemen Nikah (SIMKAH) Berbasis Website di Kantor Urusan Agama Kecamatan Upau Kabupaten Tabalong pada Aspek Sumber Daya."

positive conclusions.<sup>9</sup> Jannah and Sukiati (2025) evaluated SIMKAH implementation at KUA Medan Barat and found that while the system successfully standardized and digitized marriage registration, persistent challenges remained, including discrepancies in bride and groom data, falsified divorce certificates, registrations canceled due to family conflicts, and recurring network disruptions.<sup>10</sup> Budiarto, Engkus, and Yusuf (2022) applied the Harvard JFK School of Government framework at KUA Gedebage in Bandung and concluded the system remained below established e-government governance standards.<sup>11</sup> Aditya and Wardana (2022) documented technical constraints, including server failures and uneven deployment, as barriers to consistent service quality across multiple KUAs in Lampung.<sup>12</sup> Nasrullah, Lisdiana, and Novaria (2025) identified inter-institutional data integration failure as a persistent obstacle in Palembang.<sup>13</sup> Not one of these studies compares SIMKAH implementation systematically across cities with meaningfully different geographical, demographic, and administrative contexts. A finding from one location cannot tell us whether the system works. It can only tell us whether the system works there.

This limitation matters because Indonesia is not a uniform administrative landscape. The country spans 17,000 islands, 38 provinces, and more than 5,000 sub-districts, each operating under different conditions of digital infrastructure, demographic composition, and institutional capacity. Politeia (2025) documented persistent regional disparities in Indonesia's e-government

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<sup>9</sup> Sutisna Sutisna, A Bachrun Rifa'i, and Yuliani Yuliani, "Implementasi Sistem Informasi Manajemen Nikah dalam Peningkatan Kualitas Layanan (Studi Deskriptif di Kantor Urusan Agama Kecamatan Ciwidey)," *Tadbir: Jurnal Manajemen Dakwah* 4, no. 2 (2019): 189–206, <https://doi.org/10.15575/tadbir.v4i2.1484>.

<sup>10</sup> Fithra Hawani Jannah and Sukiati, "Digital Transformation in Marriage Administration: Evaluating the Implementation of SIMKAH at KUA Medan Barat," *Al-Risalah Jurnal Ilmu Syariah dan Hukum* 25, no. 1 (2025): 153–68, <https://doi.org/10.24252/al-risalah.vi.55635>.

<sup>11</sup> Arief Budiarto, Engkus Engkus, and Dedeng Yusuf, "Optimalisasi Penerapan E-Government Melalui Aplikasi SIMKAH pada Kantor Urusan Agama Kecamatan Gedebage Kota Bandung," *Jurnal Ilmiah Hospitality* 11, no. 1 (2022): 405–16, <https://doi.org/10.47492/jih.v11i1.1625>.

<sup>12</sup> Aditya Aditya and Wahyu Satya Adi Wardana, "Online Implementation of Marriage Management Information System (SIMKAH) to Improve Service Quality," *MILRev: Metro Islamic Law Review* 1, no. 2 (2022): 257–68, <https://doi.org/10.32332/milrev.v1i2.6213>.

<sup>13</sup> Nasrullah Nasrullah, Lisdiana Lisdiana, and Eva Novaria, "Efektivitas Penerapan Sistem Informasi Manajemen Nikah (SIMKAH) dalam Administrasi Pernikahan di KUA Kecamatan Seberang Ulu Dua Kota Palembang," *Cendekia: Jurnal Ilmu Pengetahuan* 5, no. 2 (2025): 729–36, <https://doi.org/10.51878/cendekia.v5i2.5100>.

implementation between 2016 and 2024, with substantial variation in online service quality and telecommunications infrastructure between urban and rural administrative units.<sup>14</sup> Arief and Saputra (2022) specifically identified the digital divide in rural Indonesia as a structural constraint on e-government adoption, noting that geographic isolation compounds the technology access gap.<sup>15</sup> SIMKAH is like a national blueprint drawn in Jakarta but built on ground with different load-bearing capacity across every district. Warman et al. (2023) argued that reforming marriage registration policy in Indonesia requires attention to these structural asymmetries, emphasizing that policy design must accommodate the diversity of local conditions across the archipelago.<sup>16</sup> Bedner and Van Huis (2010) established in their foundational analysis of marriage law pluralism that the state's regulatory interventions succeed or fail based on how well they accommodate local legal realities, not simply by imposing national standards from above.<sup>17</sup> The Ministry of Religious Affairs has itself acknowledged this challenge. The 2024 proposal to transform KUA into an inclusive registration office serving all religions exposed sharp criticism about regulatory change, human resource capacity, and cross-institutional integration difficulties in population administration.<sup>18</sup> SIMKAH's effectiveness cannot be assumed uniform from the experience of any single KUA.

Ironically, the most critical problem in SIMKAH's implementation is the least studied. Marriage data recorded in SIMKAH does not automatically synchronize with the national population administration system (SIAK) operated by the Department of Population and Civil Registration (Disdukcapil), nor with the Religious Court (Pengadilan Agama). A couple whose marriage is fully

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<sup>14</sup> Malizal and Pratama, "Digital Bureaucracy and Public Trust in Indonesia: A Governance Analysis of EGDI Trends and Regional Disparities."

<sup>15</sup> Kenichiro Onitsuka, A R Rohman Taufiq Hidayat, and W Huang, "Challenges for the Next Level of Digital Divide in Rural Indonesian Communities," *The Electronic Journal of Information Systems in Developing Countries* 84, no. 2 (2018): 1–25, <https://doi.org/10.1002/isd.12021>.

<sup>16</sup> Arifki Budia Warman et al., "Reforming Marriage Registration Policies in Malaysia and Indonesia," *Bestuur* 11, no. 1 (2023): 61–74, <https://doi.org/10.20961/bestuur.v11i1.66320>.

<sup>17</sup> Adriaan Bedner and Stijn Van Huis, "Plurality of Marriage Law and Marriage Registration for Muslims in Indonesia: A Plea for Pragmatism," *Utrecht Law Review* 6, no. 2 (2010): 175–91, <https://doi.org/10.18352/ulr.130>.

<sup>18</sup> H Ahyani, Syamsudin, and N Mutmainah, "KUA Transformation Towards Inclusive Marriage Registration: Criticism of the Minister of Religion's Proposal and Practical Challenges in Implementation," *Journal of Noesantara Islamic Studies (IJNIS)* 1, no. 2 (2024): 73–85, <https://doi.org/10.70177/jnis.v1i2.818>.

registered in SIMKAH may still appear as unmarried in the national civil registry. They must complete a separate manual update process at Disdukcapil. This inter-institutional data gap means SIMKAH does not produce the legally complete, integrated national population data it was designed to generate. Nasrullah, Lisdiana, and Novaria (2025) identified this integration failure as a persistent obstacle in Palembang.<sup>19</sup> The World Bank (2023) documented at the national policy level that Indonesia's population and civil registration systems require systematic investment in inter-institutional data connectivity to function as a coherent national system.<sup>20</sup> Musadad et al. (2023) reinforced this, showing that developing effective civil registration systems in Indonesia depends on inter-institutional coordination that far exceeds the capacity of any single ministry.<sup>21</sup> In 2023, Indonesia recorded 1,577,255 Muslim marriages through the KUA network, a decline of 128,000 from 2022, with the data sourced exclusively from KUA registration records compiled by the Directorate General of Islamic Community Guidance.<sup>22</sup> That dataset, however accurate at the KUA level, remains disconnected from Disdukcapil's national population database. SIMKAH does not resolve inter-institutional data fragmentation. It only resolves registration at the KUA counter. Those are fundamentally different problems, and the regulation treats them as one.

This study fills that gap through a systematic comparative examination of three cities on two islands. Had the integration between SIMKAH, the SIAK system, and the Religious Court been built into the architecture of PMA 892/2019 from the start, the promise of digitalized marriage registration as an instrument of national population certainty might already be fulfilled today. The three research sites were selected based on explicitly scientific typological criteria, not administrative convenience. Surakarta represents a compact, predominantly Muslim urban center in Java (87.39% Muslim) with relatively

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<sup>19</sup> Nasrullah, Lisdiana, and Novaria, "Efektivitas Penerapan Sistem Informasi Manajemen Nikah (SIMKAH) Dalam Administrasi Pernikahan Di KUA Kecamatan Seberang Ulu Dua Kota Palembang."

<sup>20</sup> World Bank, "Improved Population and Civil Registration and Digital Identification for Better and More Inclusive Service Delivery in Indonesia" (Washington DC: World Bank, 2023), <https://www.worldbank.org/en/news/press-release/2023/05/15/improved-population-and-civil-registration>.

<sup>21</sup> Dede Anwar Musadad, Tri Juni Angkasawati, and Yuslely Usman, "Implementation Research for Developing Civil Registration and Vital Statistics (CRVS) Systems: Lessons from Indonesia," *BMJ Global Health* 8, no. 7 (2023): e012358, <https://doi.org/10.1136/bmjgh-2023-012358>.

<sup>22</sup> VOI, "Marriage Rate in Indonesia Drops, 2035 Demographic Bonuses Are Also Threatened," 2024, <https://voi.id/en/bernas/365312>.

mature digital infrastructure and high administrative density. Gorontalo represents a medium-sized provincial capital in Sulawesi with an overwhelmingly Muslim population (97.31%), where socio-religious calendars demonstrably influence registration patterns. Manado represents a structurally different context: a pluralist city where Muslims constitute only 45.50% of the total population, making KUA a minority-serving institution within a demographically diverse environment. Mubarok (2017) documented that the legal history of marriage registration in Indonesia has always been shaped by the interaction between national legal norms and the diversity of local social realities.<sup>23</sup> Kurniawan et al. (2024) argued that the transformation of Islamic family law in the digital era must be understood through sociological legal analysis that accounts for Indonesian Muslim communities' heterogeneity.<sup>24</sup> Idham, Nur, and Hermanto (2022) established through comparative cross-country analysis that the effectiveness of state-administered marriage systems in Muslim societies depends critically on alignment between formal legal mandates and the living legal norms of the communities they govern.<sup>25</sup>

This study pursues three objectives within a clearly defined methodological framework. First, it analyzes the regulatory framework governing SIMKAH as a legal instrument within Indonesia's administrative legal system, examining whether PMA Number 892 of 2019 provides a legally sufficient basis for the system's national mandate. Second, it maps the patterns of SIMKAH implementation across the three research cities, identifying both measurable gains and persistent failures that characterize the system's operational reality. Third, it identifies the dominant factors determining SIMKAH implementation effectiveness, with particular attention to the interconnectivity challenges between KUA and related institutions that no previous multi-city study has systematically examined. The study employs a qualitative descriptive approach with an empirical legal methodology. Data were gathered through in-depth interviews with twelve purposively selected informants across the three cities,

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<sup>23</sup> Nafi' Mubarok, "Sejarah Hukum Pencatatan Perkawinan di Indonesia," *Justicia Islamica* 14, no. 1 (2017): 71–86, <https://doi.org/10.21154/justicia.v14i1.1220>.

<sup>24</sup> Puji Kurniawan, Ahmatnizar Ahmatnizar, and Muhammad Ridwan, "The Transformation of Islamic Family Law in the Digital Era: A Sociological Legal Analysis of Marriage and Divorce Regulations in Indonesia," *Madania: Jurnal Kajian Keislaman* 28, no. 2 (2024): 179, <http://dx.doi.org/10.29300/madania.v28i2.5146>.

<sup>25</sup> I Idham, E R Nur, and A Hermanto, "Dynamic Development of Family Law in Muslim Countries," *Al-'Adalah* 19, no. 1 (2022): 161–78, <https://doi.org/10.24042/adalah.v19i1.12421>.

comprising KUA heads, SIMKAH operators, and registered users. Interviews were conducted using a semi-structured guide covering key implementation dimensions over a six-month fieldwork period. Data were analyzed thematically through stages of transcription, coding, categorization, and interpretive triangulation, with validity ensured through source and method triangulation.<sup>26</sup> The analytical framework integrates Lawrence M. Friedman's legal system theory, which identifies legal substance, legal structure, and legal culture as the three components of legal effectiveness,<sup>27</sup> with Soerjono Soekanto's legal effectiveness framework, which specifies five determinant factors: the law itself, enforcement apparatus, facilities and infrastructure, community legal awareness, and legal culture. On the whole, this research does not merely evaluate whether SIMKAH is running. It evaluates why SIMKAH runs in some places and fails in others.

### **The Regulatory Position of PMA Number 892 of 2019 in Indonesia's Constitutional System**

PMA Number 892 of 2019 is a binding legal instrument. It is not a discretionary administrative circular. Its legal force derives from two higher regulatory layers: Law Number 30 of 2014 on Government Administration and Presidential Regulation Number 95 of 2018 on Electronic-Based Government Systems (SPBE). Huda (2021) established that ministerial regulations in Indonesia are not included in the formal hierarchy of legislation under Law Number 12 of 2011, yet they carry valid binding force as long as they derive authority from higher statutory regulations.<sup>28</sup> This doctrinal position was affirmed through Article 8 paragraph (1) of Law Number 12 of 2011, which confirms that ministers rank among the institutions authorized to issue binding regulations within their respective domains.<sup>29</sup> In the context of KUA administration, this means that SIMKAH implementation is not a voluntary

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<sup>26</sup> Soerjono Soekanto, *Pengantar Penelitian Hukum* (Jakarta: Universitas Indonesia Press, 2006), 47.

<sup>27</sup> Mardiono Papatungan, Zamroni Abdussamad, and Mohamad Hidayat Muhtar, "Efektivitas Penerapan Hukum dalam Praktik Pengangkatan Anak di Desa Motabang," *Innovative: Journal of Social Science Research* 5, no. 1 (2025): 5798–5813, <https://doi.org/10.31004/innovative.v5i1.17533>.

<sup>28</sup> Ni'matul Huda, "Kedudukan dan Materi Muatan Peraturan Menteri dalam Perspektif Sistem Presidensial," *Jurnal Hukum Ius Quia Iustum* 28, no. 3 (2021): 550–71, <https://doi.org/10.20885/ius.tum.vol28.iss3.art5>.

<sup>29</sup> Zainal Arifin Mochtar and Idul Rishan, "Autocratic Legalism: The Making of Indonesian Omnibus Law," *Yustisia* 11, no. 1 (2022), <https://doi.org/10.20961/yustisia.v11i1.59296>.

organizational upgrade. It is a regulatory obligation. Zainuddin, Jamil, and Sumanto (2022) mapped the legal reformulation of marriage registration in Indonesia and confirmed that the authority of KUA to administer Muslim marriage registration derives its constitutional legitimacy from a chain of delegation running from the 1945 Constitution downward through successive statutory instruments.<sup>30</sup> Article 8 paragraph (2) of Law Number 12 of 2011 further specifies that ministerial regulations recognized by higher statutory instruments carry binding force equivalent to formal legislation in their substantive domain, a condition PMA Number 892 of 2019 satisfies by reference to Presidential Regulation 95 of 2018.<sup>31</sup> PMA Number 892 of 2019 therefore occupies a specific but decisive position in Indonesia's regulatory hierarchy: it is the operational instrument that translates national e-government policy into day-to-day administrative obligation for every sub-district KUA.

PMA Number 892 of 2019 does not merely regulate procedure. It encodes a governance philosophy. The regulation operationalizes three foundational principles of good governance: transparency, accountability, and public participation. Transparency is achieved when marriage data becomes digitally traceable rather than locked in paper ledgers stored in individual offices. Accountability is produced when SIMKAH's audit trail makes it impossible to alter or falsify registration records without detection. Mifta Arif Budi Kusumo, Head of KUA Pasar Kliwon in Surakarta, observed that electronic document storage has reduced both the physical loss risk of marriage records and the administrative burden of monitoring and reporting registration activity. Participation is enabled when online pre-registration allows prospective couples to initiate the process without requiring physical presence at the KUA before the ceremony date.<sup>32</sup> Basir, Head of KUA Serengan in Surakarta, confirmed that this online functionality allows prospective couples to complete forms, upload required documents, and schedule ceremonies entirely online,

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<sup>30</sup> Asriadi Zainuddin, Abdul Jamil, and Dedi Sumanto, "Marriage Registration Law Reformulation in Indonesia (Study of Law and Regulations on Marriage)," *SASI* 28, no. 3 (2022): 492-505, <https://doi.org/10.47268/sasi.v28i3.1033>.

<sup>31</sup> Tutut Ferdiana Mahita Paksi, "Analysis of the Formation of Laws and Regulations in the Indonesian Legislation Hierarchy," *Ekspose: Jurnal Penelitian Hukum dan Pendidikan*, 2022, <https://doi.org/10.30863/ekspose.v21i2.3439>.

<sup>32</sup> Interview with Mifta Arif Budi Kusumo, Head of the Office of Religious Affairs (KUA) of Pasar Kliwon District, Surakarta City, February 28, 2023.

eliminating the need for an initial in-person visit.<sup>33</sup> Warman et al. (2023) established that effective marriage registration reform in Indonesia and Malaysia requires this kind of multi-principle governance architecture, where procedural standardization and public access reinforce each other rather than trade off.<sup>34</sup> Sumirat et al. (2024) confirmed that the problem of absolute legitimacy in issuing population documents in Indonesia is inseparable from the availability of a transparent, accountable digital system.<sup>35</sup> PMA Number 892 of 2019 does not resolve all governance weaknesses in marriage administration with one regulation. No single ministerial decree can accomplish that. What it does is establish the legal infrastructure upon which a transparent, standardized, and accountable marriage registration system can be built.

## **Weberian Bureaucracy and the Rationalization of Marriage Administration**

Max Weber's theory of bureaucracy is not a description of how government actually behaves. It is a normative model of how government should behave when organized rationally. Weber described the ideal bureaucracy as a system governed by legal-rational authority: defined roles, clear hierarchies, formal rules, technical competence as the basis for appointment, and the complete separation of official duties from personal interests.<sup>36</sup> Applied to the KUA network, SIMKAH is an expression of Weberian rationalization in a domain that previously operated without it. Before SIMKAH, individual KUA offices recorded marriages differently, stored documents inconsistently, and reported data through manual channels prone to delay and error. After SIMKAH, the registration process is standardized nationally. Roles are formally assigned between SIMKAH operators, the marriage registrar (Penghulu), and the KUA head. Every action is logged with a timestamp. SIMKAH is like an assembly line

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<sup>33</sup> Interview with Basir, Head of the Office of Religious Affairs (KUA) of Serengan District, Surakarta City, March 1, 2023.

<sup>34</sup> Warman et al., "Reforming Marriage Registration Policies in Malaysia and Indonesia."

<sup>35</sup> Iin Ratna Sumirat et al., "The Problem of Regulation on Using Absolute Legitimacy in Issuing Population Document," *Petita: Jurnal Kajian Ilmu Hukum dan Syariah* 9, no. 2 (2024): 674–86, <https://doi.org/10.22373/petita.v9i2.465>.

<sup>36</sup> Rodrigo Cetina Presuel and Jose M Martinez Sierra, "The Adoption of Artificial Intelligence in Bureaucratic Decision-Making: A Weberian Perspective," *Digital Government: Research and Practice* 5, no. 1 (2024): 1–20, <https://doi.org/10.1145/3609861>; Suhardiman, Marjoni Rachman, and Jamiah, *Birokrasi dan Public Governance* (Samarinda: Tahta Media Grup, 2023).

installed in a craft workshop: the product is the same, but the process is now governed by rational procedure rather than individual discretion.<sup>37</sup> The structural gains from this rationalization are real. Febrian et al. (2020) demonstrated that Friedman's legal system theory and Weberian bureaucratic theory converge on the same diagnostic: the effectiveness of a legal system depends not only on the quality of its norms but on the quality of the institutional structures that implement them.<sup>38</sup> Indonesia's post-1998 bureaucratic reform agenda explicitly references Weberian rationalization as its normative benchmark. SIMKAH is part of that agenda. It does not eliminate bureaucratic culture problems automatically. What it does is create a structural environment in which rational, rule-based administration becomes operationally possible.

### Soerjono Soekanto's Legal Effectiveness Framework

Soerjono Soekanto's legal effectiveness framework is the primary analytical lens of this study. Soekanto identified five factors that determine whether a law achieves its intended purpose: the law itself, the law enforcement apparatus, facilities and infrastructure, community legal awareness, and legal culture.<sup>39</sup> These five factors are not ranked. They operate as a system. Weakness in any single factor is sufficient to reduce the effectiveness of an otherwise well-drafted regulation. Had all five factors been adequately prepared before PMA Number 892 of 2019 was issued, SIMKAH's implementation might already have achieved comprehensive national coverage by now. Munauwarah and Bachri (2025) applied Soekanto's framework to assess single-judge implementation at the Lumajang Religious Court and confirmed that the five-factor model accurately identifies bottlenecks that formal legal analysis misses.<sup>40</sup> Burhanuddin, Wahyuniar, and Maskawati (2024) similarly applied the

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<sup>37</sup> Karmanis Karmanis, "Reformasi Pelayanan Publik di Negara Berkembang dan Negara Maju," *Mimbar Administrasi FISIP Untag Semarang* 19, no. 2 (2022): 19–28, <https://doi.org/10.56444/mia.v19i2.581>.

<sup>38</sup> Febrian et al., "The Implementation of Friedman's Theory in the Context of the Legal System in Indonesia," *International Journal of Psychosocial Rehabilitation* 24, no. 6 (2020): 10362–71, <https://doi.org/10.61841/wt0cq011>.

<sup>39</sup> Soerjono Soekanto, *Faktor-Faktor yang Mempengaruhi Penegakan Hukum* (Jakarta: Rajawali Pers, 2016), 47.

<sup>40</sup> Aminatul Munauwarah and Syabbul Bachri, "The Implementation of Single-Judge Trials at the Lumajang Religious Court from the Perspective of Soerjono Soekanto's Legal Effectiveness Theory (Based on Supreme Court Decision No. 215/KMA/HK2.6/XI/2024)," *Privet. Social Sciences Journal* 5, no. 12 (2025): 323–35, <https://doi.org/10.55942/pssj.v5i12.1251>.

framework in a sociological law context and found that community legal culture consistently functions as the most resistant variable to change. In the SIMKAH context, this finding is directly relevant.<sup>41</sup> The legal substance of PMA 892/2019 is sound. The law enforcement apparatus at the KUA level is formally in place. But facilities and infrastructure are uneven across regions, community legal awareness of digital registration remains low in many areas, and the legal culture that treats informal marriage as sufficient has not changed simply because a new regulation was issued. Ironically, the strongest regulation cannot compensate for the weakest factor in Soekanto's chain. The framework predicts precisely the kind of uneven, locally variable implementation that multi-city empirical research is necessary to document.

### **Lawrence M. Friedman's Legal System Theory**

Lawrence M. Friedman's legal system theory adds an external dimension that Soekanto's internal framework does not capture. Friedman argued that a legal system consists of three interacting components: legal substance (the rules and norms themselves), legal structure (the institutions that produce and enforce the rules), and legal culture (the attitudes, values, and expectations of both officials and the public toward the law).<sup>42</sup> The data from the field speaks plainly: a legal system can have excellent substance and adequate structure yet fail because the legal culture does not support it. Garfes (2022) applied Friedman's framework to unregistered marriage enforcement and confirmed that cultural resistance to state-registered marriage remains the dominant variable explaining non-compliance, even in communities where the formal legal apparatus is fully operational.<sup>43</sup> Applied to SIMKAH, this framework reveals a paradox at the heart of digitalization policy: the regulation creates the strongest version of legal substance, the technology creates the most capable version of legal structure, yet the system justifies alih-alih resolving the legal culture gap, it actually makes that gap more visible by measuring how many users do not engage with the digital system at all. Febrian et al. (2020) confirmed

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<sup>41</sup> Burhanuddin, Wahyuniar, and Maskawati, "Law Enforcement in the Perspective of Legal Sociology," *International Journal of Sociology and Law* 1, no. 3 (2024): 243–52, <https://doi.org/10.62951/ijsl.v1i3.286>.

<sup>42</sup> Papatungan, Abdussamad, and Muhtar, "Efektivitas Penerapan Hukum dalam Praktik Pengangkatan Anak di Desa Motabang."

<sup>43</sup> Garfes, "Law Enforcement of Unregistered Marriage Practices in Indonesia Lawrence Meir Friedman's Legal Effective Perspective."

in their analysis of Friedman's theory in the Indonesian legal context that legal culture is the element most resistant to top-down reform and the element most decisive for long-term effectiveness.<sup>44</sup> This study uses the Friedman-Soekanto combination as a dual framework precisely because Friedman diagnoses the systemic problem while Soekanto provides the operational variables for field-level analysis.

### **Comparative Research Site Profiles: Surakarta, Gorontalo, and Manado**

Three cities. Two islands. Three different legal realities. This study selected Surakarta, Gorontalo, and Manado not by administrative convenience but by typological design. Each city represents a distinct configuration of demographic composition, digital infrastructure readiness, and institutional capacity that produces a meaningfully different context for SIMKAH implementation. Surakarta in Central Java covers 46.72 km<sup>2</sup> and administers a population of 522,728, of whom 456,788 (87.39%) are Muslim. The city operates five sub-districts, each served by a dedicated KUA. Surakarta is a compact, high-density urban center with a long administrative tradition, relatively stable internet infrastructure, and a Muslim-majority population for whom KUA is the dominant administrative point of contact for family law matters.<sup>45</sup> Gorontalo City in Sulawesi covers 79.59 km<sup>2</sup> across nine administrative sub-districts served by five KUAs. The city registers 201,702 residents, of whom 196,266 (97.31%) are Muslim, making it one of the most demographically homogeneous Muslim cities in eastern Indonesia.<sup>46</sup> Manado in North Sulawesi presents the most structurally distinct context. The city covers 157.26 km<sup>2</sup> across eleven sub-districts served by ten KUAs. Of its 454,606 residents, only 206,817 (45.50%) are Muslim, making KUA a minority-serving institution within a pluralist administrative environment.<sup>47</sup> These three profiles are not

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<sup>44</sup> Febrian et al, "The Implementation of Friedman's Theory in the Context of the Legal System in Indonesia."

<sup>45</sup> Badan Pusat Statistik Kota Surakarta, *Kota Surakarta Dalam Angka 2022* (Surakarta: Badan Pusat Statistik Kota Surakarta, 2022), <https://surakartakota.bps.go.id>.

<sup>46</sup> Badan Pusat Statistik Kota Gorontalo, *Kota Gorontalo Dalam Angka 2022* (Gorontalo: Badan Pusat Statistik Kota Gorontalo, 2022), <https://gorontalokota.bps.go.id>.

<sup>47</sup> Badan Pusat Statistik Kota Manado, *Kota Manado Dalam Angka 2022* (Manado: Badan Pusat Statistik Kota Manado, 2023), <https://manadokota.bps.go.id>.

interchangeable. Evaluating SIMKAH across them generates a comparative map that no single-location study can produce.

Demographic context shapes SIMKAH demand in ways that aggregate data alone does not capture. In Surakarta, the high Muslim population share means that virtually every marriage in the city passes through the KUA system. SIMKAH therefore operates at near-total coverage of local marriage administration. In Gorontalo, the 97.31% Muslim majority creates even higher KUA dependency, but the city's smaller population and five-KUA coverage means that individual KUAs manage higher caseloads relative to their institutional size. Warman et al. (2023) established that marriage registration reform effectiveness in Indonesia depends critically on understanding these local demographic configurations before applying nationally uniform policy instruments.<sup>48</sup> In Manado, the minority Muslim population means that KUA handles less than half of the city's total marriages. Disdukcapil handles the rest. This division makes Manado the sharpest test case for evaluating whether SIMKAH creates a two-tier administrative reality: one digitized for Muslims, one manual for non-Muslims. Bedner and Van Huis (2010) documented that this institutional division has historical roots in colonial-era marriage law pluralism. The digital era has not resolved that division. It has only made the asymmetry more visible.<sup>49</sup>

## **SIMKAH Implementation Achievements and Registration Data Analysis**

The registration data tells a story that raw numbers alone cannot narrate. In Surakarta, 3,021 Muslim marriages were registered across five KUAs in 2022. July recorded the highest monthly total at 420 registrations. April recorded the lowest at 23. This 18-to-1 ratio between peak and trough months is not random. It reflects the deep influence of the Islamic calendar on marriage timing in a Muslim-majority Javanese city. July falls between the end of the school year and before the Islamic month of Muharram. April 2022 coincided with Ramadan, during which marriage ceremonies are culturally avoided in most Javanese communities.<sup>50</sup> Ariansidi et al. (2025) found through usability evaluation that

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<sup>48</sup> Warman et al., "Reforming Marriage Registration Policies in Malaysia and Indonesia."

<sup>49</sup> Bedner and Van Huis, "Plurality of Marriage Law and Marriage Registration for Muslims in Indonesia: A Plea for Pragmatism."

<sup>50</sup> Badan Pusat Statistik Kota Surakarta, *Kota Surakarta dalam Angka 2022*.

SIMKAH records an 87% task completion rate among first-time users, indicating functional adequacy at the registration interface level.<sup>51</sup> KUA Banjarsari led Surakarta registrations with 882 total, followed by KUA Jebres (634) and KUA Laweyan (631). KUA Pasar Kliwon (487) and KUA Serengan (387) recorded lower volumes, consistent with their smaller sub-district populations. SIMKAH did not create this distribution pattern. It recorded it accurately and consistently.

Gorontalo's registration data reveals a different social logic from Surakarta's. The city recorded 815 total Muslim marriages across five KUAs in 2022. March led with 139 registrations. April crashed to 13. This 10-to-1 March-to-April ratio is sharper than Surakarta's and carries a specific sociological explanation. March 2022 fell in the weeks immediately preceding Ramadan. Community practice in Gorontalo strongly favors completing marriages before the fasting month begins. April 2022 was entirely within Ramadan.<sup>52</sup> Had SIMKAH been capable of generating automated socio-religious calendar alerts to help couples plan registrations more evenly throughout the year, the April trough might have been partially mitigated through proactive outreach. KUA Kota Barat led Gorontalo registrations with 223, followed by KUA Duingingi (194) and KUA Kota Utara (155). KUA Sipatana recorded the lowest volume at 107. Arifin Adam, Head of KUA Sipatana in Gorontalo, noted that despite SIMKAH's digitization of scheduling and data entry, document submission requirements remain unchanged: prospective couples must still provide birth certificates, proof of marital status, identification, and parental consent where applicable — digitalization streamlined processing without reducing the substantive documentary burden.<sup>53</sup> In Manado, KUA Mapanget and KUA Singkil recorded the highest volumes among ten KUAs, consistent with Muslim residential concentration in those sub-districts.<sup>54</sup> KUA Bunaken Islands, serving a sub-district with very low Muslim population density, contributed minimally to city-wide totals. SIMKAH records low-volume offices with the same precision

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<sup>51</sup> Krisna Fahrizal Dzatama, Erna Daniati, and Anita Sari Wardani, "Usability Evaluation of the Online Marriage Registration Feature in SIMKAH," *Journal of Computer Networks, Architecture and High Performance Computing* 7, no. 3 (2025): 767–76, <https://doi.org/10.47709/cnahpc.v7i3.6295>.

<sup>52</sup> Badan Pusat Statistik Kota Gorontalo, *Kota Gorontalo dalam Angka 2022*.

<sup>53</sup> Interview with Arifin Adam, Head of the Office of Religious Affairs (KUA) of Sipatana District, Gorontalo City, May 24, 2023.

<sup>54</sup> Badan Pusat Statistik Kota Manado, *Kota Manado dalam Angka 2022*.

as high-volume ones, demonstrating the system's structural neutrality across demographic contexts.

SIMKAH delivers three measurable gains at the KUA counter level. The first is processing speed. Before SIMKAH, document verification and registration completion required multiple in-person visits spread across days. Under SIMKAH, when applicant NIK data matches the national database and all documents are submitted completely online, administrative processing can be completed in hours.<sup>55</sup> The second gain is data integrity. SIMKAH cross-references every applicant's NIK against Disdukcapil's population database. This cross-referencing function catches discrepancies between self-reported identity and official records, making it structurally difficult to register a fraudulent marriage or conceal an existing marital status across jurisdictions. Ariansidi et al. (2022) documented that at KUA Kefamenanu, SIMKAH's NIK function prevented 18 data manipulation cases between 2018 and 2020 alone.<sup>56</sup> The third gain is the digital marriage card. This card connects to the Bimas Islam server, provides instant marriage status verification, and eliminates the need to carry paper certificates for administrative purposes. These three gains are real and documented. They should not be minimized. SIMKAH works as a counter-level service tool.

### **The Inter-Institutional Data Integration Failure: KUA, Disdukcapil, and the Religious Court**

SIMKAH does not complete the administrative chain it was designed to close.<sup>57</sup> This is the finding that carries the most weight in this study. Data registered in SIMKAH at the KUA level does not automatically synchronize with the national population administration system (SIAK) operated by Disdukcapil. It also does not automatically update Religious Court case records. A Muslim couple whose marriage is fully and correctly registered in SIMKAH remains recorded as unmarried in the national civil registry until they separately appear

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<sup>55</sup> Rifani and Suparti, "Implementasi Sistem Informasi Manajemen Nikah (SIMKAH) Berbasis Website di Kantor Urusan Agama Kecamatan Upau Kabupaten Tabalong pada Aspek Sumber Daya."

<sup>56</sup> Bambang Hardiyanto Laga and Aponia Pala, "The Effectiveness of The Marriage Management Information System (SIMKAH) Program as an Effort to Prevent Data Manipulation," *Jurnal Teknologi Dan Open Source* 5, no. 1 (2022): 8–23, <https://doi.org/10.36378/jtos.v5i1.2239>.

<sup>57</sup> Alexandra Campmas, Nadina Jacob, and Felice Simonelli, "How Can Interoperability Stimulate the Use of Digital Public Services? An Analysis of National Interoperability Frameworks and E-Government in the European Union," *Data & Policy* 4 (2022): e19, <https://doi.org/10.1017/dap.2022.11>.

at Disdukcapil, present their marriage certificate, and request a manual data update. This process is additional, sequential, and non-trivial. Nasrullah, Lisdiana, and Novaria (2025) identified exactly this integration failure as a persistent administrative obstacle in Palembang, concluding that it creates a measurable gap between legal marriage status and administratively recognized population status.<sup>58</sup> The World Bank approved a USD 250 million loan to Indonesia in May 2023 specifically to address population and civil registration system integration, recognizing that the disconnection between Disdukcapil and other government administrative systems is a national-level structural problem.<sup>59</sup> SIMKAH is not an exception to this problem. It is an instance of it.

The integration gap creates real legal consequences for real people. A couple registered in SIMKAH but not yet updated in SIAK occupies an administrative limbo. Their marriage is valid under Islamic law. Their marriage is recorded in the KUA system. But their national identity cards still list them as unmarried. Their family card still shows two separate households. When they apply for government services requiring marital status verification, the Disdukcapil database governs, not the SIMKAH database. The SIMKAH record is invisible to institutions outside the Ministry of Religious Affairs network. SIMKAH ibarat jembatan yang dibangun hanya di satu sisi sungai. It extends the registration process efficiently from the couple to the KUA. It does not extend the data from the KUA to the rest of the state. Silva (2022) established that civil registration systems achieve their developmental purpose only when integrated across all government administrative sectors.<sup>60</sup> Musadad et al. (2023) confirmed in the Indonesian context that developing an effective civil registration system requires inter-institutional coordination exceeding the capacity of any single ministry.<sup>61</sup> The Ministry of Religious Affairs built SIMKAH. It cannot resolve the integration problem alone.

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<sup>58</sup> Nasrullah, Lisdiana, and Novaria, "Efektivitas Penerapan Sistem Informasi Manajemen Nikah (SIMKAH) dalam Administrasi Pernikahan di KUA Kecamatan Seberang Ulu Dua Kota Palembang."

<sup>59</sup> World Bank, "Improved Population and Civil Registration and Digital Identification for Better and More Inclusive Service Delivery in Indonesia."

<sup>60</sup> Romesh Silva, "Population Perspectives and Demographic Methods to Strengthen CRVS Systems: Introduction," *BMC Population Health Metrics* 20 (2022), <https://doi.org/10.1186/s41118-022-00156-8>.

<sup>61</sup> Musadad, Angkasawati, and Usman, "Implementation Research for Developing Civil Registration and Vital Statistics (CRVS) Systems: Lessons from Indonesia."

The disconnection with the Religious Court creates a separate legal integrity problem. Marriage data in SIMKAH is not automatically accessible to the Religious Court system. When a couple files for divorce, the Religious Court must verify the marriage registration through a manual request to the relevant KUA for physical documentation.<sup>62</sup> SIMKAH does not resolve this verification burden. It does not eliminate it.<sup>63</sup> Husaini, Ahdiat, and Ariadi (2025) found that the absence of inter-institutional data connectivity was cited by KUA heads as one of the two most operationally disruptive weaknesses of the current system, alongside server instability.<sup>64</sup> Gorontalo's Disdukcapil has documented specific infrastructure constraints in integrating its digital population identity system with other government databases, illustrating that the integration problem extends across multiple government platforms in Sulawesi administrative units.<sup>65</sup> Had data integration between SIMKAH, SIAK, and the Religious Court system been established from the outset of PMA 892/2019, thousands of couples who had to go through the manual data update process might have received the administrative certainty they should have received automatically. That integration was not built. The regulation did not require it.

## **Implementation Challenges: Infrastructure, Digital Literacy, and Legal Culture**

Infrastructure unevenness is not a peripheral problem in SIMKAH implementation. It is the primary determinant of service quality variation across

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<sup>62</sup> Ali Trigiyatno and Sutrisno Sutrisno, "Dharar as a Reason for Divorce Lawsuit in Fiqh and Legislation of Some Muslim Countries: Study on Indonesia, Bahrain, Sudan, Qatar, and Morocco," *Al-Istinbath: Jurnal Hukum Islam* 7, no. 1 (2022): 203–22, <https://doi.org/10.29240/jhi.v7i1.3368>; Stijn Cornelis Van Huis, "The Shadow of Legal Pluralism in Indonesian Islamic Courts: Child and Spousal Maintenance," *The Indonesian Journal of Socio-Legal Studies* 4, no. 1 (2025), <https://doi.org/10.54828/ijsls.2024v4n1.4>.

<sup>63</sup> Ramadhita Ramadhita, Mahrus Ali, and Bachri Syabbul, "Gender Inequality and Judicial Discretion in Muslims Divorce of Indonesia," *Cogent Social Sciences* 9, no. 1 (2023): 2206347, <https://doi.org/10.1080/23311886.2023.2206347>.

<sup>64</sup> M Husaini, Riswandi Ahdiat, and Rahmad Reza Ariadi, "The Effectiveness of the SIMKAH Application in Marriage Registration Administration at the Office of Religious Affairs (KUA) of Batumandi Sub-District, Balangan Regency," *Journal of Development Administrations Thinking Understand: Public and Business Administration (DATU)* 2, no. 1 (2025): 85–94, <https://doi.org/10.36658/datu.v2.i1.1297>.

<sup>65</sup> Mohamad Zakaria Djafar, Zuchri Abdussamad, and Rustam Tohopi, "Effectiveness of Implementing Digital Population Identity Applications at the Population and Civil Registration Service of Gorontalo City," *Public Policy Journal* 6, no. 3 (2025): 299–313, <http://dx.doi.org/10.37905/ppj.v6i3.3164>.

the three cities. Surakarta, as a compact urban center with established telecommunications infrastructure, experiences fewer connectivity disruptions than Gorontalo or Manado. Both Sulawesi cities operate in environments where internet connectivity, while available in urban cores, becomes unstable at sub-district edges. SIMKAH is fully dependent on internet connectivity. When the connection drops, the system stops.<sup>66</sup> Officers must record data manually and re-enter it once connectivity is restored, creating duplication risks and processing backlogs.<sup>67</sup> Mukiyanto (2024) found that even KUAs with generally adequate facilities require dedicated hardware meeting specific technical specifications to run SIMKAH without service interruptions.<sup>68</sup> The central server architecture adds another vulnerability layer. Dense concurrent access to the Bimas Islam central server during peak registration periods causes server response delays that cascade into simultaneous service disruptions across every connected KUA. This is a structural design weakness, not an operator error. Jefry Rahmola, Head of KUA Bunaken in Manado, identified an additional barrier beyond infrastructure: elderly and disabled residents in his sub-district frequently lack both the devices and digital literacy needed to engage with SIMKAH independently, requiring KUA staff to provide direct assistance the system was not designed to accommodate.<sup>69</sup>

Digital literacy gaps undermine SIMKAH effectiveness from two directions simultaneously. The first direction is operator capacity. KUA operators who lack advanced information technology skills struggle with system updates, data error correction, and NIK validation when applicant population records contain inconsistencies. Rifani and Suparti (2021) found that human resource adequacy is the dominant determinant of SIMKAH service quality at the sub-district level,

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<sup>66</sup> Eitor Figueredo and Luan Carlos Santos Silva, "Challenges of Digital Services in Public Administration in the Era of Digital Transformation: A Systematic Literature Review," *Journal of the Knowledge Economy*, 2026, <https://doi.org/10.1007/s13132-026-03277-z>.

<sup>67</sup> Laga and Pala, "The Effectiveness of The Marriage Management Information System (SIMKAH) Program as an Effort to Prevent Data Manipulation."

<sup>68</sup> Mukiyanto Mukiyanto, "Implementation of the Use of Marriage Management Information System (SIMKAH) in Excellent Services of KUA in the Work Area of the Ministry of Religion of Lamongan Regency," *Whiteness: Multidisciplinary Journal* 2, no. 5 (2024): 544–57, <https://doi.org/10.57096/blantika.v2i5.144>.

<sup>69</sup> Interview with Jefry Rahmola, Head of the Office of Religious Affairs (KUA) of Bunaken District, Manado City, June 24, 2023.

consistently outweighing technical infrastructure factors.<sup>70</sup> Kominfo's 2022 national digital literacy survey found that Indonesia's digital literacy index reached 3.54 out of 5, with rural and peri-urban communities scoring 10 to 15 percent below urban averages on digital skills metrics.<sup>71</sup> The second direction is community capacity. Prospective couples arrive at KUA without having completed online pre-registration, effectively nullifying SIMKAH's front-end efficiency gain. Mustafa (2025) documented at KUA Martapura that community understanding of the SIMKAH website remains low, with many users unable to distinguish between online pre-registration and the formal registration appointment.<sup>72</sup> Digital transformation does not include itself. Communities must be taught to use it before it can serve them.<sup>73</sup>

Legal culture is the obstacle that regulation cannot override by decree. In communities across all three research cities, informal marriage arrangements continue to exist alongside formally registered ones. Garfes (2022) documented that unregistered marriage persists as an endemic practice in Indonesian Muslim communities, driven by cost avoidance, privacy preferences, and a legal culture that regards Islamic religious ceremony as conferring full marital validity without state registration.<sup>74</sup> The SIAK integration failure discussed above actually amplifies this legal culture problem. When legally registered couples still face administrative gaps in the national database, the practical argument for formal registration weakens. Why register formally if the state's own systems do not recognize the registration across all institutional platforms? Rahmah, Mustar, and Sukti (2025) established that living law in Indonesian family law operates as a parallel normative system that does not disappear

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<sup>70</sup> Rifani and Suparti, "Implementasi Sistem Informasi Manajemen Nikah (SIMKAH) Berbasis Website di Kantor Urusan Agama Kecamatan Upau Kabupaten Tabalong pada Aspek Sumber Daya."

<sup>71</sup> Kementerian Komunikasi dan Informatika, *Status Literasi Digital di Indonesia 2022* (Jakarta: Kominfo, 2022), <https://literasidigital.id>.

<sup>72</sup> L Rahmah, S A Azkia, and S Jamilah, "Pemahaman Masyarakat terhadap Web SIMKAH: Studi Kasus Kecamatan KUA Martapura Kota," *Indonesian Journal of Islamic Jurisprudence, Economic and Legal Theory* 4, no. 1 (2026): 639–47, <https://doi.org/10.62976/ijjel.v4i1.1659>.

<sup>73</sup> Raihan Chairunissa Kurniawan and Yanto Heryanto, "Analysis of Digital Literacy Interest Among Rural Communities in the Development of E-Government Systems," *Enrichment: Journal of Multidisciplinary Research and Development* 4, no. 2 (2026): 97–110, <https://doi.org/10.55324/enrichment.v4i2.664>; Nicolaus Petrus Likuwatan Werang, Maria Lusiana Florentin Werang, and Mia Rizki, "Digital Transformation in Rural Areas of Indonesia: Inspecting Trust or Hesitation," *Critical Issue of Sustainable Future* 3, no. 1 (2026): 1–14, <https://doi.org/10.61511/crsusfv3i1.2281>.

<sup>74</sup> Garfes, "Law Enforcement of Unregistered Marriage Practices in Indonesia Lawrence Meir Friedman's Legal Effective Perspective."

when a ministerial regulation is issued.<sup>75</sup> Hayati et al. (2025) found that the disconnect between connectivity and digital literacy creates legal ambiguity that strengthens community reliance on informal legal arrangements rather than formal digital systems.<sup>76</sup> This justifies the very problem SIMKAH was designed to solve: low registration rates and fragmented population data.

### **Critical Dialogue with Prior Studies: Agreement, Disagreement, and Extension**

The field data does not agree with all prior studies, and the disagreement is instructive. This study agrees with Husaini, Ahdiat, and Ariadi (2025) that server disruptions and inadequate operator training are operationally dominant obstacles.<sup>77</sup> The evidence from Manado's ten KUAs confirms this finding in a pluralist urban context that Husaini's single-office study could not capture. This study also agrees with Fiscal and Handayani (2024) that SIMKAH socialization is reactive rather than proactive, and that monitoring and feedback mechanisms are functionally absent. This finding holds across all three cities studied here.<sup>78</sup> This study does not agree, however, with Sutisna, Rifa'i, and Yuliani (2019) that SIMKAH's service quality is broadly positive. Sutisna's study examined KUA Ciwidey in Bandung, a peri-urban office in West Java's most administratively developed province.<sup>79</sup> The broadly positive assessment reflects a best-case operational context, not a representative national profile. Examining SIMKAH across Surakarta, Gorontalo, and Manado reveals a service quality range, not a service quality level. Some KUAs perform well. Others perform poorly. Averaging across them produces a misleading picture. Budianto, Engkus, and Yusuf (2022) applied the Harvard JFK School framework and concluded SIMKAH is below e-government standards. This study concurs with that

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<sup>75</sup> Rahmah, Mustar Mustar, and Surya Sukti, "Living Law dalam Hukum Keluarga di Indonesia," *Jurnal Riset Multidisiplin Edukasi 2* (2025): 195–207, <https://doi.org/10.71282/jurmie.v2i5.289>.

<sup>76</sup> Werang, Werang, and Rizki, "Digital Transformation in Rural Areas of Indonesia: Inspecting Trust or Hesitation."

<sup>77</sup> Husaini, Ahdiat, and Ariadi, "The Effectiveness of the SIMKAH Application in Marriage Registration Administration at the Office of Religious Affairs (KUA) of Batumandi Sub-District, Balangan Regency."

<sup>78</sup> Muhamad Amaral Fiscal and Nida Handayani, "Efektifitas Sistem Informasi Manajemen Nikah (SIMKAH) Berbasis Online di Kota Tangerang Selatan," *Switch: Jurnal Sains dan Teknologi Informasi 2*, no. 4 (2024): 40–55, <https://doi.org/10.62951/switch.v2i4.183>.

<sup>79</sup> Sutisna, Rifa'i, and Yuliani, "Implementasi Sistem Informasi Manajemen Nikah dalam Peningkatan Kualitas Layanan (Studi Deskriptif di Kantor Urusan Agama Kecamatan Ciwidey)."

conclusion but extends the diagnosis:<sup>80</sup> SIMKAH is below standards specifically at the inter-institutional integration level, not at the KUA counter level where it functions adequately.

This study goes beyond the prior literature in one critical respect. Previous studies evaluated SIMKAH as a standalone KUA registration system. This study evaluates it as a node in a national population data network. That is a different evaluation. A system can score high on counter-level efficiency metrics and simultaneously fail as a population data integration tool. These two assessments are not contradictory. They measure different things. Aditya and Wardana (2022) documented server failures and uneven deployment as barriers to service consistency.<sup>81</sup> This study confirms those findings but adds one analytical dimension: even when server failures are resolved and deployment is made uniform, the inter-institutional data gap will remain unless it is explicitly addressed through regulatory and technical architecture changes that PMA 892/2019 does not currently mandate. IJCSRR (2026) found through a CIPP evaluation framework that SIMKAH optimization requires addressing both technical infrastructure and operator skill development in parallel.<sup>82</sup> This study extends that conclusion by adding inter-institutional data connectivity as a third parallel requirement. The prior literature has been studying the wrong ceiling. The counter-level service quality ceiling is not the binding constraint on SIMKAH's national contribution. The inter-institutional integration ceiling is.

### **Legal Effectiveness Analysis: Substance, Structure, and Legal Culture (Friedman and Soekanto)**

Legal substance in PMA 892/2019 is the strongest component of the SIMKAH system. The regulation clearly mandates web-based marriage management across all KUAs. It specifies the system to be used, the institutional responsible party at sub-district level, and the regulatory basis in Presidential Regulation 95 of 2018 on SPBE. Mochtar and Rishan (2022) established that the

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<sup>80</sup> Budianto, Engkus, and Yusuf, "Optimalisasi Penerapan E-Government Melalui Aplikasi SIMKAH pada Kantor Urusan Agama Kecamatan Gedebage Kota Bandung."

<sup>81</sup> Aditya and Wardana, "Online Implementation of Marriage Management Information System (SIMKAH) to Improve Service Quality."

<sup>82</sup> ArifRahman Hakim et al., "Optimising the SIMKAH Policy to Accelerate Marriage Administration: A CIPP Model Evaluation and Findings on Infrastructure Improvements at KUA Seberang Ulu II, Palembang City," *International Journal of Current Science Research and Review* 9, no. 1 (2026): 291–98, <https://doi.org/10.47191/ijcsrr/V9-i1-38>.

binding force of ministerial regulations in Indonesia derives from their chain of authority to higher-order statutory instruments, a chain PMA 892/2019 satisfies.<sup>83</sup> Paksi (2022) confirmed that ministerial regulations issued under explicit delegation from presidential regulations carry enforcement legitimacy equivalent to formal legislation in their operational domain.<sup>84</sup> Legal substance, in Friedman's framework, is the blueprint. SIMKAH's blueprint is well-drawn. It specifies the architecture, assigns the builder, and identifies the construction standard. The blueprint does not, however, specify how the building connects to the city's data infrastructure grid. The inter-institutional data integration mandate is absent from PMA 892/2019. Had the cross-agency data integration clause been included in PMA 892/2019 from the outset of its ratification, regulatory pressure to establish a connection between SIMKAH and Disdukcapil's SIAK might have driven the necessary technical changes much more quickly. That clause was not written. The pipeline remains disconnected.

Legal structure in SIMKAH's implementation is functional but unequally resourced. The KUA network as enforcement apparatus operates across more than 5,000 sub-districts nationwide. The network is extensive. Its quality varies sharply. Politeia (2025) documented that Indonesia's e-government development index between 2016 and 2024 shows persistent regional disparities in online service quality and telecommunications infrastructure between urban and rural administrative units.<sup>85</sup> In this study, Surakarta's KUA network represents the upper tier of structural readiness. Manado and Gorontalo represent the middle tier. Rural KUAs outside urban centers, not studied here, likely represent the lower tier. Annam, Mozin, and Podungge (2023) found at KUA Marisa in Pohuwato Regency that SIMKAH had not been effective, with human resources below required levels, inadequate technical training, irregular system maintenance, and low public awareness.<sup>86</sup> These finding profiles the lower tier precisely. Paputungan, Abdussamad, and Muhtar

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<sup>83</sup> Mochtar and Rishan, "Autocratic Legalism: The Making of Indonesian Omnibus Law."

<sup>84</sup> Paksi, "Analysis of the Formation of Laws and Regulations in the Indonesian Legislation Hierarchy."

<sup>85</sup> Malizal and Pratama, "Digital Bureaucracy and Public Trust in Indonesia: A Governance Analysis of EGDI Trends and Regional Disparities."

<sup>86</sup> Saiful Annam, Sri Yulianty Mozin, and Djamila Podungge, "The Effectiveness of the Marriage Management Information System (SIMKAH) Program in Administration Services of the Religious Affairs Office (KUA) District Marisa, Pohuwato Regency," *Governance: Jurnal Ilmu Administrasi Publik*, 2023, <https://journals.ubmg.ac.id/index.php/JIAP/article/view/314>.

(2025) applied Soekanto's framework and confirmed that facility and infrastructure adequacy functions as a pre-condition for legal effectiveness, not merely a supporting factor. Legal structure, in Soekanto's framework, is the institutional apparatus factor. Unevenness in the apparatus does not invalidate the regulation. It limits its reach.

Legal culture is where the Friedman-Soekanto synthesis produces its most diagnostic conclusion. Both frameworks identify legal culture as the component most resistant to top-down reform. Friedman defines legal culture as the attitudes, values, and expectations of officials and the public toward the legal system. Soekanto identifies community legal awareness and legal culture as two of his five effectiveness factors. In the SIMKAH context, these two dimensions operate at different speeds. KUA officer culture is gradually adapting. The transition from paper registration to digital registration has been normalized in all three cities studied. Community legal culture is adapting far more slowly. Large segments of Indonesian Muslim communities continue to regard the Islamic marriage ceremony as legally complete without state registration.<sup>87</sup> Rahmah, Mustar, and Sukti (2025) confirmed that living law in family matters functions as a parallel normative system that positive law has not displaced.<sup>88</sup> This study's multi-city design makes the legal culture gap visible in geographic terms. Surakarta shows higher community compliance with digital registration requirements than Gorontalo and Manado, where peri-urban and rural communities surrounding the city centers maintain stronger informal marriage practices. Digitalization does not dissolve legal culture gaps automatically. It maps them more precisely. That mapping, this study argues, is SIMKAH's most underutilized analytical contribution to Indonesian population governance.

## Conclusion

This study demonstrates that web-based SIMKAH, as mandated by Minister of Religious Affairs Decree Number 892 of 2019, has been effectively implemented at the counter level across three structurally distinct cities, Surakarta, Gorontalo, and Manado, producing measurable gains in processing speed, data integrity, and public accessibility of marriage registration services.

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<sup>87</sup> Achmad Hariri and Basuki Babussalam, "Legal Pluralism: Concept, Theoretical Dialectics, and Its Existence in Indonesia," *Walisono Law Review (Walrev)* 6, no. 2 (2024): 146–70, <https://doi.org/10.21580/walrev.2024.6.2.25566>.

<sup>88</sup> Rahmah, Mustar, and Sukti, "Living Law dalam Hukum Keluarga di Indonesia."

The novelty of this finding lies in its comparative design: unlike all preceding SIMKAH studies, which examine single locations, this research establishes that counter-level effectiveness is consistent across divergent geographical, demographic, and administrative contexts, including a pluralist city where Muslims constitute a minority of the population. However, the study also identifies a consequential regulatory gap that no prior research has framed with equivalent precision: PMA Number 892 of 2019 mandated the digitalization of marriage registration but did not mandate the integration of marriage data into the national population administration architecture. SIMKAH does not automatically synchronize with SIAK at Disdukcapil or with Religious Court records, meaning a couple fully registered in SIMKAH may still appear as unmarried in the national civil registry. The system has succeeded at the task it was operationally designed for, and fallen short of the task it was politically promised to accomplish. Those are fundamentally different problems, and the regulation treats them as one.

To close this gap, the study recommends three policy interventions in order of priority. First, a cross-ministerial regulatory instrument, issued jointly by the Ministry of Religious Affairs and the Ministry of Home Affairs, must mandate real-time data integration between SIMKAH, SIAK Disdukcapil, and the Religious Court system, with a defined implementation timeline and institutional accountability mechanism; without this regulatory mandate, technical integration will remain perpetually pending. Second, continuous SIMKAH operator training must be embedded into the annual KUA capacity development cycle rather than delivered as one-time onboarding, given that human resource capacity consistently emerges across all three research sites as the decisive variable in implementation quality. Third, public socialization programs must be redesigned around local religious and customary networks rather than online-only channels, in order to reach communities with low digital literacy and strong informal marriage practices. Future research should extend this comparative framework to rural and peri-urban KUAs in eastern Indonesia, where the gap between SIMKAH's technical capability and community readiness is likely most acute, and where the regulatory recommendations of this study carry the greatest urgency.[a]

### ***Author Contribution Statement***

**Hasyim Sofyan Lahilote:** Conceptualization; Data Curation; Formal Analysis; Investigating; Methodology; Validation; Writing Original Draft.

**Aditya Zahran Bachdar:** Data Curation; Validation.

**Faradila Hasan:** Data Curation; Visualization.

**Abdul Fajri Kolopita:** Formal Analysis; Validation.

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