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M-Paspor Implementation in Island Regions: Evidence from Tobelo Immigration Office

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ABSTRACT

Digital transformation has become central to public service reform in Indonesia, yet technology-based services can produce uneven outcomes when they are implemented in island regions with unstable connectivity, electricity constraints, and unequal digital capability. This study analyzes the implementation of the M-Paspor service at the Class II Non-TPI Tobelo Immigration Office by examining communication, resources, implementer disposition, and bureaucratic structure within the specific administrative context of an archipelagic area. A qualitative descriptive case-study approach was used, drawing on interviews with office leadership, M-Paspor service staff, and service users, together with observation and documentation, while the data were organized through the four dimensions of the Edwards implementation framework. The findings show that internal briefings, circulars, messaging groups, direct service communication, and social media support information delivery, while staff commitment, service procedures, and clear task division provide an institutional basis for implementation. However, unstable internet connections, electricity disruptions, and differences in users' digital literacy continue to limit service reliability, indicating that adequate organizational capacity does not automatically remove geographically embedded barriers. The study contributes an island-responsive implementation perspective by showing that the four implementation dimensions operate through local infrastructure and citizen capability, so digital immigration services require not only application-based innovation but also assisted access, service continuity mechanisms, targeted digital literacy support, and adaptive coordination.

ABSTRAK

Transformasi digital telah menjadi bagian penting dalam reformasi pelayanan publik di Indonesia, tetapi pelayanan berbasis teknologi dapat menghasilkan capaian yang tidak merata ketika diterapkan di wilayah kepulauan yang menghadapi keterbatasan konektivitas, gangguan listrik, dan kemampuan digital masyarakat yang berbeda. Penelitian ini menganalisis implementasi layanan M-Paspor pada Kantor Imigrasi Kelas II Non TPI Tobelo melalui dimensi komunikasi, sumber daya, disposisi pelaksana, dan struktur birokrasi dalam konteks administratif wilayah kepulauan. Penelitian menggunakan pendekatan deskriptif kualitatif dengan studi kasus, berdasarkan wawancara dengan pimpinan kantor, petugas layanan M-Paspor, dan pengguna layanan, disertai observasi serta dokumentasi, kemudian data diorganisasikan menggunakan empat dimensi dalam kerangka implementasi Edwards. Hasil penelitian menunjukkan bahwa briefing internal, surat edaran, grup pesan, komunikasi langsung, dan media sosial mendukung penyampaian informasi, sedangkan komitmen pegawai, prosedur pelayanan, dan pembagian tugas yang jelas memperkuat pelaksanaan kebijakan. Namun, jaringan internet yang tidak stabil, gangguan listrik, dan perbedaan literasi digital masyarakat masih membatasi keandalan pelayanan, sehingga kapasitas organisasi yang relatif memadai belum

sepenuhnya mengatasi hambatan yang melekat pada kondisi geografis. Penelitian ini menawarkan perspektif implementasi responsif kepulauan dengan menegaskan bahwa keberhasilan empat dimensi implementasi dipengaruhi oleh infrastruktur lokal dan kemampuan pengguna, sehingga layanan keimigrasian digital memerlukan akses berbantuan, mekanisme keberlanjutan layanan, dukungan literasi digital yang terarah, dan koordinasi yang adaptif.

INTRODUCTION

Digital transformation has moved public administration beyond the simple conversion of paper forms into electronic formats and toward the redesign of service processes, organizational routines, and citizen interactions. In Indonesia, this direction is reinforced by the national Electronic-Based Government System framework, which places digital integration and service quality at the center of government modernization (Republic of Indonesia, 2018). M-Paspor represents this broader transformation in immigration services because it enables applicants to enter personal data, upload required documents, select an immigration office, and arrange a service schedule through a mobile application. Official immigration information describes M-Paspor as the standard digital channel for new and replacement passport applications, while physical verification and other required procedures remain linked to the immigration office (Directorate General of Immigration, 2022). The policy therefore combines digital self-service with face-to-face administrative verification rather than replacing the service encounter entirely.

The benefits of this model are not distributed evenly across geographic settings because digital services depend on infrastructure, user capability, and organizational readiness at the point of implementation. Research on public-sector digital transformation shows that technology changes the relationship between citizens and public officials, but its value depends on whether the new arrangement remains accessible, understandable, and reliable for different user groups (Lindgren et al., 2019; Mergel et al., 2019). This issue is especially relevant in island regions, where connectivity, electricity, distance, and digital capability can influence the practical use of an otherwise standardized national application. Evidence from North Halmahera has shown that e-government services in an archipelagic setting may generate important administrative benefits while still facing network, electricity, and access constraints (Uang & Bataha, 2024). These conditions make Tobelo an important setting for examining how a national digital service is translated into everyday administrative practice.

Previous studies of M-Paspor have generally reported improvements in efficiency, transparency, and service simplification, but they also identify technical failures, uneven user readiness, and the need for stronger institutional support. Studies in Denpasar and Medan, for example, show that the application can support service reform while implementation problems persist in system performance, resources, public understanding,

and operational readiness (Harahap & Trimurni, 2023; Pradnyandari & Mahyuni, 2024). Research in Ternate similarly indicates that digital passport services can reduce administrative friction while remaining sensitive to infrastructure and digital literacy constraints (Taher et al., 2025). More recent user-level evidence also records substantial dissatisfaction in app reviews, suggesting that digital availability alone is not equivalent to dependable public service performance (Hariwibowo & Setiawan, 2026). What remains less developed is an implementation analysis that places these organizational dimensions inside the specific constraints of an island service environment.

This study addresses that gap by analyzing M-Paspor implementation at the Class II Non-TPI Tobelo Immigration Office through four dimensions of policy implementation: communication, resources, implementer disposition, and bureaucratic structure. The study asks how these four dimensions support or constrain digital passport service delivery in an island-region context and how local geographic conditions shape their practical effects. Its empirical contribution lies in documenting implementation from the perspective of a service unit operating outside Indonesia's major urban centers and facing conditions that can disrupt digital continuity. Its conceptual contribution is an island-responsive implementation perspective that treats connectivity, electricity, and digital literacy as contextual conditions that influence how the four implementation dimensions work together. This framing is relevant to LOKANUSA because it links public policy implementation, local administrative capacity, and regional inequality in access to digital public services.

LITERATURE REVIEW

Policy implementation concerns the process through which formal policy decisions are translated into organizational action and public outcomes. Edwards (1980) identifies communication, resources, disposition, and bureaucratic structure as four central variables that influence whether implementation can proceed as intended. Communication concerns the clarity, consistency, and transmission of policy information among decision makers, implementers, and target groups, while resources include the personnel, information, authority, and facilities required for implementation. Disposition refers to the commitment and orientation of implementers toward policy objectives, whereas bureaucratic structure concerns operating procedures, coordination, and the distribution of responsibilities. In digital public services, these variables are interdependent because clear instructions have little effect when infrastructure fails, while adequate technology can still produce weak results when implementers are unprepared or procedures are fragmented.

Digital government research adds an important service perspective to this implementation framework by emphasizing that digital transformation changes both organizational processes and the citizen-government encounter. Mergel et al. (2019) define public-sector digital transformation as a broader organizational change process rather than a narrow shift from analog to digital tools, while Lindgren et al. (2019) show that digitalization changes the skills, timing, and form of interaction between citizens and public officials. This means that service quality must be assessed not only by whether an application exists but also by whether it creates administrative value, reduces burdens, and supports meaningful access. Twizeyimana and Andersson (2019) similarly argue that e-government should create public value through improved services, better administration, and broader social benefits. For M-Paspor, the relevant question is therefore whether digitalization improves the passport process under the actual conditions faced by service users and frontline staff.

The digital divide literature further explains why nationally standardized applications can generate different outcomes across regions. Digital inequality includes not only access to devices and networks but also differences in skills, support, quality of connection, and the capacity to convert digital access into useful outcomes (Lythreatis et al., 2022; Vassilakopoulou & Hustad, 2023). This perspective is consistent with Indonesian research showing that M-Paspor implementation requires stronger public literacy, system reliability, and service readiness in addition to application availability (Suryani et al., 2024). It is also consistent with evidence from North Halmahera, where digital public services remain shaped by island geography, electricity reliability, internet access, and institutional adaptation (Uang & Bataha, 2024). Combining these literatures suggests that the four Edwards dimensions should be examined as implementation capacities whose effectiveness is conditioned by the physical and social environment of the service area.

RESEARCH METHODS

This research used a qualitative descriptive case-study approach to examine the implementation of M-Paspor at the Class II Non-TPI Tobelo Immigration Office. The case was selected because the office provides a nationally standardized digital immigration service within an island-region context where connectivity and geographic access may differ from conditions in major urban centers. The source manuscript identifies three categories of participants: office leadership, personnel involved in M-Paspor services, and members of the public using the service. These categories allow the study to compare institutional expectations, frontline implementation practices, and user-facing service conditions without assuming that one perspective alone represents the entire implementation process. The unit

of analysis was the implementation process of M-Paspor as experienced within the Tobelo office and its service environment.

Data were collected through interviews, direct observation, and documentation as stated in the original study design. Interview material was used to identify how staff and users understood communication, service resources, implementation commitment, work procedures, and recurring obstacles, while observation was used to examine the visible operation of the service process. Documentation provided contextual support concerning procedures, internal guidance, and public information related to passport services. The three data types were read comparatively so that a finding was treated more cautiously when it appeared in only one source and more strongly when it was consistent with the wider field record. Because the source manuscript does not report a fixed number of informants, this revised article does not introduce an unsupported sample size.

Analysis was organized deductively around the four implementation dimensions proposed by Edwards and then extended inductively to identify island-specific contextual conditions. Statements and observations related to information transmission were grouped under communication, those concerning personnel and facilities under resources, those concerning commitment and service orientation under disposition, and those concerning procedures and coordination under bureaucratic structure. Recurring references to internet instability, electricity disruption, and differences in digital literacy were coded as contextual conditions because they affected more than one implementation dimension. The analysis then compared these patterns with recent research on digital public services, M-Paspor implementation, and digital inequality to distinguish case-specific findings from wider implementation problems. The final synthesis was used to develop an island-responsive M-Paspor implementation framework that remains grounded in the empirical patterns reported by the study.

Table 1
Research Design, Data Sources, and Analytical Framework

Component	Description
Research design	Qualitative descriptive case study
Study setting	Class II Non-TPI Tobelo Immigration Office in an island-region administrative context
Participant categories	Office leadership; M-Paspor service staff; service users
Data sources	Interviews; direct observation; documentation
Core analytical framework	Communication; resources; implementer disposition; bureaucratic structure
Contextual conditions	Internet connectivity; electricity continuity; user digital capability

Source: Authors' analytical organization of the original field-study design.

RESULTS AND DISCUSSION

Communication and Multichannel Service Information

Communication emerged as a relatively strong component of M-Paspor implementation at the Tobelo Immigration Office. Internal communication was supported by routine briefings, circular information, and an internal WhatsApp group that helped employees receive service targets, task allocations, and operational updates. External communication was provided through direct explanation at service counters, public outreach, and social media, including Instagram, so applicants could obtain information before and during the service process. These channels reduced dependence on a single source of information and supported coordination between staff members who handled different stages of passport services. The finding indicates that communication capacity is not limited to formal written instructions but includes the practical combination of face-to-face and digital channels used to keep the service understandable.

The communication finding also shows why a multichannel approach is important in an island context. Digital communication can expand reach, yet it cannot be assumed that every user has stable connectivity, sufficient data access, or the same level of confidence in using an application. This is consistent with research showing that digital public services change citizen-government interaction and can create new skill requirements for users (Lindgren et al., 2019). M-Paspor studies elsewhere have likewise identified public understanding and application use as continuing implementation issues even when information is available online (Harahap & Trimurni, 2023; Suryani et al., 2024). For Tobelo, the practical implication is that digital communication should complement rather than replace direct explanation and assisted information for users who face access or literacy constraints.

Resources and Digital Service Reliability

Resources were generally sufficient at the organizational level but remained vulnerable to local technical conditions. The service unit had personnel who understood the M-Paspor procedure and supporting equipment such as computers, printers, photographic equipment,

and other facilities needed for passport processing. Staff capacity was reinforced through service experience and training, enabling personnel to explain procedures and operate the system during normal conditions. The main constraints reported in the source manuscript were unstable internet connections and electricity interruptions, both of which could slow or interrupt service even when staff and office equipment were available. This pattern demonstrates that resource adequacy in digital administration must be evaluated as a complete service chain rather than as a simple inventory of personnel and hardware.

The resource problem is therefore better understood as a reliability issue than as a straightforward absence of administrative capacity. A digital service depends on the continuous interaction of devices, electricity, network connectivity, application performance, staff competence, and user access, so weakness in one element can reduce the value of the others. Digital divide research identifies infrastructure quality, skills, and social support as connected dimensions of unequal digital outcomes (Lythreatis et al., 2022; Vassilakopoulou & Hustad, 2023). Evidence from North Halmahera similarly shows that electricity and network conditions remain central challenges for e-government in island areas (Uang & Bataha, 2024). The Tobelo case therefore suggests that service resilience, including contingency arrangements and assisted channels, should be treated as part of public-sector resource planning.

Disposition and Frontline Adaptation

Implementer disposition was characterized by a service-oriented attitude, discipline, commitment, and an effort to maintain consistent treatment of applicants. The source manuscript links this orientation to the office's integrity-zone agenda and to the expectation that employees should understand public service as a responsibility rather than merely a routine administrative task. Staff continued to provide explanations and assistance when applicants had difficulty using the application or when technical constraints disrupted the normal digital process. This behavior is important because digital systems do not eliminate frontline discretion, especially when users need clarification, troubleshooting, or procedural guidance. The Tobelo case therefore supports the Edwards argument that implementation depends not only on formal authority and resources but also on the willingness of implementers to pursue policy objectives in everyday practice.

Positive disposition, however, cannot substitute for system reliability or user capability, and this distinction is important for interpreting the finding. Frontline commitment can reduce confusion, provide reassurance, and help users navigate procedures, but staff cannot fully control external network failures, electricity interruptions, or software problems.

Recent evaluation of M-Paspor user reviews found that negative sentiment remained substantial, illustrating how public perceptions can deteriorate even when an institution formally provides the digital service (Hariwibowo & Setiawan, 2026). This means that employee commitment should be supported by technical escalation procedures, clear problem-reporting channels, and realistic service-continuity protocols. In island regions, disposition is most effective when it is connected to institutional mechanisms that allow staff to respond adaptively rather than depend on personal initiative alone.

Bureaucratic Structure and Coordination

Bureaucratic structure provided a relatively clear organizational basis for M-Paspor implementation in Tobelo. The service process was supported by a division of responsibilities between relevant passport and immigration service functions, coordination between supervisors and staff, and the use of standard operating procedures as a reference for task execution. Routine briefings and internal messaging also helped connect the formal structure with day-to-day coordination, reducing the risk that procedural updates would remain isolated within one unit. This arrangement is consistent with the implementation principle that clear procedures and responsibility allocation reduce ambiguity and help organizations use available resources more consistently (Edwards, 1980). The finding suggests that the principal structural challenge is not the absence of procedures but the need to make those procedures sufficiently adaptive when technical disruptions affect a standardized digital workflow.

Table 2
Implementation Findings and Island-Region Implications

Dimension	Main empirical finding	Island-region constraint	Policy implication
Communication	Briefings, circulars, internal messaging, counters, outreach, and social media support information flow.	Unequal connectivity and digital literacy can limit the reach of digital information.	Maintain multichannel and assisted communication.
Resources	Staff and core service equipment are available for routine M-Paspor operations.	Internet instability and electricity interruptions reduce service reliability.	Treat continuity and technical resilience as service resources.
Disposition	Staff commitment and service orientation support assistance during normal and disrupted conditions.	Frontline commitment cannot fully compensate for external technical failures.	Link staff initiative to escalation and contingency procedures.
Bureaucratic structure	Task division, coordination, and standard operating procedures provide implementation clarity.	Standard workflows may become rigid when the digital chain is disrupted.	Build adaptive but accountable procedures for service disruption.

Source: Synthesized from interview, observation, and documentation findings reported in the source manuscript.

Cross-Dimensional Synthesis: Island-Responsive Implementation

The combined findings show that the four implementation dimensions do not operate independently. Communication can be strong, staff can be committed, equipment can be available, and procedures can be clear, yet the service can still become unreliable when internet or electricity failures interrupt the digital chain. Conversely, technical constraints

become more manageable when staff communicate clearly, assist users, coordinate responses, and apply procedures flexibly within legal and organizational limits. This interaction supports a broader understanding of digital transformation as organizational change rather than simple technology adoption (Mergel et al., 2019). It also explains why the public value of e-government depends on whether administrative efficiency is converted into a service that citizens can actually access and trust (Twizeyimana & Andersson, 2019).

The Tobelo evidence therefore supports an island-responsive implementation model in which the Edwards dimensions form the organizational core while island conditions act as contextual enablers or constraints. In this model, communication, resources, disposition, and bureaucratic structure influence service delivery through three cross-cutting conditions: digital connectivity, electricity continuity, and user digital capability. When these conditions are stable, the application can reduce administrative friction and support faster, more predictable interaction, but when they are weak, the service needs additional institutional support to prevent exclusion. This interpretation extends previous M-Paspor studies by making geographic context an explicit part of policy implementation rather than treating technical problems as isolated operational incidents (Pradnyandari & Mahyuni, 2024; Taher et al., 2025). Figure 1 summarizes this relationship and positions adaptive support mechanisms as the bridge between standardized digital policy and equitable service outcomes.

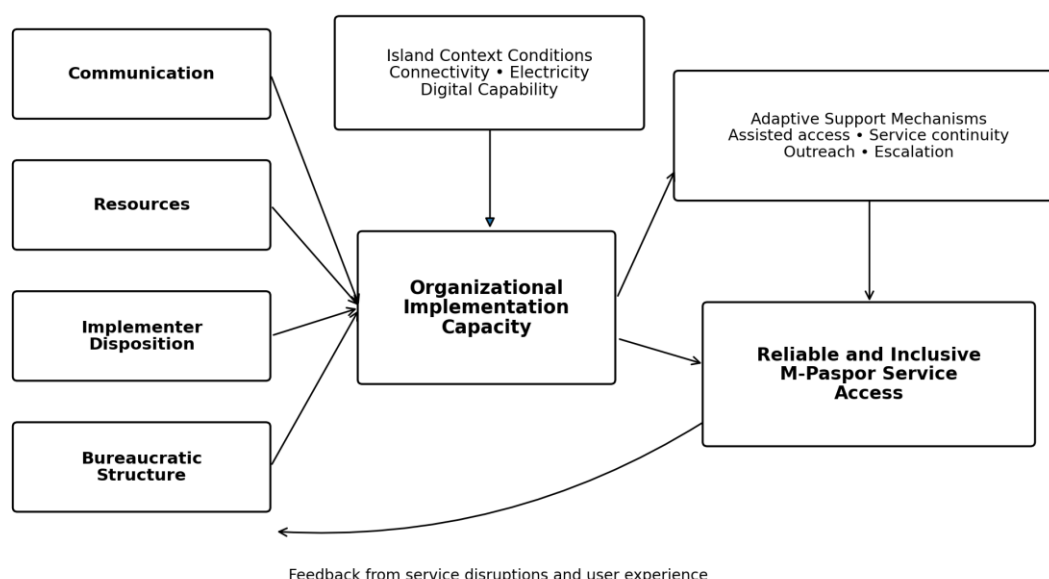


Figure 1. Island-Responsive M-Paspor Implementation Framework

Source: Authors' synthesis based on the four implementation dimensions and island-specific conditions identified in the study.

Policy and Regulatory Implications

Several policy implications follow from this synthesis for immigration offices and other public agencies operating in island regions. First, assisted digital service should remain available for applicants who have difficulty completing online steps, because an exclusively self-service model can transfer administrative burden to users with weaker digital capability. Second, offices need service-continuity procedures for internet or electricity disruptions, including clear communication about delays, alternative scheduling, and escalation routes when the system cannot be accessed. Third, public communication should combine social media with direct outreach and simple service guidance so that information reaches users beyond highly connected groups. Fourth, infrastructure problems that repeatedly interrupt national applications should be documented systematically and communicated upward so local service units can contribute evidence to central system improvement rather than absorb the consequences informally.

The current regulatory environment also reinforces the need to connect digital innovation with clear administrative standards. Indonesia's passport framework was updated in 2026 through the Regulation of the Minister of Immigration and Corrections Number 11 of 2026, which replaced earlier passport regulations and provides the current legal basis for ordinary passports and travel documents (Ministry of Immigration and Corrections, 2026). The Tobelo Immigration Office continues to present M-Paspor as the entry point for passport registration before applicants attend the office for subsequent service stages (Tobelo Immigration Office, n.d.). This combination of national regulation, digital application, and local service execution means that implementation quality depends on vertical consistency between central rules and frontline operating conditions. Island-responsive administration should therefore be understood as a way to preserve national service standards while adjusting support mechanisms to unequal local infrastructure and user capacity.

CONCLUSION

This study concludes that M-Paspor implementation at the Class II Non-TPI Tobelo Immigration Office is supported by relatively effective communication, adequate frontline resources, positive implementer disposition, and a clear bureaucratic structure. Internal briefings, messaging channels, direct public communication, social media, service equipment, committed staff, standard procedures, and task division together provide an institutional foundation for digital passport services. The main limitations of implementation are not located in one organizational dimension but in the interaction between the digital system and island-region conditions, particularly unstable internet

connections, electricity disruptions, and unequal digital literacy. These findings show that national digital services can function differently across territories even when the formal policy, application, and administrative procedures are standardized. The study therefore contributes an island-responsive implementation perspective in which organizational capacity must be matched with local service resilience and citizen access.

For policy and practice, immigration offices in island regions should combine digital self-service with assisted access, multichannel communication, technical contingency arrangements, targeted digital literacy support, and systematic reporting of recurring infrastructure constraints. These measures can reduce the risk that digitalization shifts administrative burdens from government offices to citizens who have weaker connectivity or digital skills. The study is limited by its focus on one immigration office and by the absence of a reported fixed informant count in the source manuscript, so its findings are analytically rather than statistically generalizable. Future research should compare multiple island and mainland immigration offices, incorporate service-user experience measures, and examine whether infrastructure reliability changes the relationship between the four implementation dimensions and perceived service quality. Such comparative evidence would strengthen the design of digital public services that are nationally consistent while remaining responsive to the administrative realities of Indonesia's diverse regions.

REFERENCES

- Directorate General of Immigration. (2022, February 7). Tata cara penggunaan M-Paspor. Kantor Imigrasi Kelas I Khusus TPI Batam. <https://www.batam.imigrasi.go.id/page/info-publik/tata-cara-penggunaan-m-paspor>
- Edwards, G. C., III. (1980). *Implementing public policy*. Congressional Quarterly Press.
- Harahap, R., & Trimurni, F. (2023). The implementation of Mobile Paspor (M-Paspor) policy in passport application at Immigration Office Class I Special TPI Medan. *Indonesian Journal of Social Sciences, Policy and Politics*, 1(1), 88–105. <https://doi.org/10.69745/ijsspp.v1i1.10>
- Hariwibowo, I. N., & Setiawan, W. Y. (2026). Evaluation of the M-Paspor app as a public service: A sentiment analysis. *Jurnal Manajemen Pelayanan Publik*, 10(1), 206–219. <https://doi.org/10.24198/jmpp.v10i1.68645>
- Lindgren, I., Madsen, C. Ø., Hofmann, S., & Melin, U. (2019). Close encounters of the digital kind: A research agenda for the digitalization of public services. *Government Information Quarterly*, 36(3), 427–436. <https://doi.org/10.1016/j.giq.2019.03.002>
- Lythreitis, S., Singh, S. K., & El-Kassar, A.-N. (2022). The digital divide: A review and future research agenda. *Technological Forecasting and Social Change*, 175, 121359. <https://doi.org/10.1016/j.techfore.2021.121359>
- Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. *Government Information Quarterly*, 36(4), 101385. <https://doi.org/10.1016/j.giq.2019.06.002>
- Ministry of Immigration and Corrections. (2026). Regulation of the Minister of Immigration and Corrections Number 11 of 2026 concerning ordinary passports and travel documents in lieu of passports. <https://peraturan.bpk.go.id/Details/352504/permen-imipas-no-11-tahun-2026>
- Pradnyandari, P. A., & Mahyuni, L. P. (2024). M-Pasport digital application-based public service system reform. *DIA: Jurnal Administrasi Publik*, 22(1), 166–182. <https://doi.org/10.30996/dia.v22i01.9506>
- Republic of Indonesia. (2018). Presidential Regulation Number 95 of 2018 concerning the Electronic-Based Government System. <https://www.peraturan.go.id/id/perpres-no-95-tahun-2018>
- Suryani, L., Albintani, M., Sari, N., Dharma, A. B., & Fauzi, A. (2024). Literature review: Implementasi aplikasi M-Paspor dalam mewujudkan digitalisasi pelayanan publik. *Jurnal Niara*, 16(3), 459–466. <https://doi.org/10.31849/niara.v16i3.18199>

- Taher, N. H., Dai, S. L., & Mansur, M. (2025). Transformasi digital dalam pelayanan publik: Analisis efektivitas aplikasi M-Paspor di Kantor Imigrasi Kelas I TPI Ternate. *Jurnal Penelitian Mahasiswa Pariwisata*, 3(1), 224–230. <https://jurnal.fe.unram.ac.id/index.php/jimpar/article/view/1708>
- Tobelo Immigration Office. (n.d.). Layanan paspor: Prosedur pembuatan paspor. Retrieved September 2, 2026, from <https://tobelo.imigrasi.go.id/index.php/layanan-1/>
- Twizeyimana, J. D., & Andersson, A. (2019). The public value of e-government: A literature review. *Government Information Quarterly*, 36(2), 167–178. <https://doi.org/10.1016/j.giq.2019.01.001>
- Uang, Y., & Bataha, K. (2024). Problematika pelayanan publik berbasis e-government pada daerah kepulauan: Studi kasus Dinas Kependudukan dan Pencatatan Sipil Kabupaten Halmahera Utara. *Dinamika Governance: Jurnal Ilmu Administrasi Negara*, 14(1), 17–22. <https://doi.org/10.33005/jdg.v14i1.4345>
- Vassilakopoulou, P., & Hustad, E. (2023). Bridging digital divides: A literature review and research agenda for information systems research. *Information Systems Frontiers*, 25(3), 955–969. <https://doi.org/10.1007/s10796-020-10096-3>