International Journal of Humanities and Social Sciences Reviews

E-ISSN: 3047-5295
P-ISSN: 3047-5287

Research Article

Implementing Mobile Public Services in Archipelagic Contexts: An Archipelagic Implementation Framework from Raja Ampat, Indonesia

Genova Furu [1], Dian Ferriswara [2]*, Sarwani [3]

[1] Faculty of Administrative Sciences, Magister Administration Science, Universitas Dr. Soetomo, Indonesia; email: ghenovano@gmail.com
[2] Faculty of Administrative Sciences, Magister Administration Science, Universitas Dr. Soetomo, Indonesia; email: dianferriswara@unitomo.ac.id
[3] Faculty of Administrative Sciences, Magister Administration Science, Universitas Dr. Soetomo, Indonesia; email: sarwani@unitomo.ac.id
* Corresponding Author: dianferriswara@unitomo.ac.id

Abstract: This research examines the implementation of mobile public services in archipelagic contexts, where dispersed settlements, dependence on sea transportation, weather uncertainty, and limited digital connectivity significantly constrain service access and continuity. Although digital government has developed rapidly, most previous studies focus on urban or mainland settings and rarely consider geography as a determining factor. This creates a gap in understanding how archipelagic conditions interact with governmental capacity, governance structures, and frontline practices. The study aims to explain the mechanisms of mobile service implementation under these constraints and to develop an Archipelagic Implementation Framework that integrates context, capacity, governance, and outcomes. Using a qualitative single-case study approach in Raja Ampat Regency, Indonesia, data were collected through in-depth interviews, policy documents, and limited observation, then analyzed using hybrid thematic analysis. The findings reveal that archipelagic constraints lead to frequent rescheduling, hybrid online–offline service delivery, increased coordination demands, and connectivity challenges. Service sustainability depends on staff rotation, portable infrastructure, and adaptive strategies by frontline actors. The proposed framework highlights how contextual constraints shape administrative capacity, coordination, and service outcomes, offering practical insights for resilient public service delivery.

Received: March 14, 2026
Revised: March 23, 2026
Accepted: April 05, 2026
Published: April 08, 2026
Curr. Ver.: April 08, 2026

Keywords: Archipelagic Governance; Digital Government; Mobile Public Services; Policy Capacity; Street-Level Bureaucracy.

1. Introduction

Digital government has shifted from building back-office information systems to delivering citizen-facing, value-oriented services through integrated digital channels, with mobile access increasingly treated in many jurisdictions as a default interface for everyday public services. Within the digital government literature, "public value" has become a core evaluative lens, emphasizing not only efficiency but also service quality, transparency, and social value outcomes that matter to citizens and communities. A synthesis of the e-government public value field shows that contemporary digital services are expected to improve public services, strengthen open government capabilities, and contribute to trust and social wellbeing, while simultaneously raising new demands for governance, coordination, and capacity to sustain these gains at scale (Twizeyimana & Andersson, 2019). At the same time, multi-actor collaboration is increasingly treated as essential for scaling digital service ecosystems across agencies and sectors (Torfing, 2019). In Indonesia, national digital-government reforms and the expansion of online service channels have accelerated, Mobile-

first delivery heightens expectations for accessible, timely, and responsive services everywhere. but persistent territorial disparities mean that the transition toward mobile public services is uneven across regions and governance contexts, making implementation dynamics—rather than adoption intentions alone—an increasingly salient research problem in public administration and public policy.

Archipelagic regions pose distinct implementation constraints because service delivery must cope with fragmented settlements, long travel times, weather-dependent transport, and uneven connectivity, which together shape how citizens can actually access the state. Spatial accessibility research in Indonesia demonstrates that geography and network structure materially influence how quickly and reliably communities can reach essential services, reinforcing that "distance" is an institutional condition rather than a mere logistical inconvenience (Leosari et al., 2023). In Raja Ampat, these constraints are visible in routine disruptions of sea transport and mobility, including high-wave conditions that require route adjustments and affect passenger access to island destinations (Ministry of Administrative and Bureaucratic Reform, 2019; Sorong News, 2023). Digital connectivity is also uneven: initiatives to extend 4G access in 3T areas indicate the state's commitment to digital inclusion, but the significance of BTS provision underscores that connectivity remains a binding constraint for service use in remote archipelagos (Secretariat Cabinet of the Republic of Indonesia, 2023; Ministry of Women's Empowerment and Child Protection, 2018). Consequently, implementation hinges on administrative capacity and frontline discretion, because local offices must continuously adapt processes, manage scarce resources, and reconcile formal rules with field realities under severe coordination pressures (Busch & Henriksen, 2018; Madubun, 2024).

Prior research has clarified important pieces of the puzzle—digital government's value propositions, collaborative governance arrangements, and the role of frontline actors—yet it remains fragmented when applied to mobile public services in archipelagic settings. Collaborative innovation studies explain why multi-actor interaction can enable coordination, learning, and problem solving in complex public service systems, but they rarely theorize how collaboration interacts with place-based constraints (Torfing, 2019). Similarly, administrative capacity has been linked to digital-government performance and citizen uptake, but the mechanisms through which capacity is translated into effective service delivery under crisis-like conditions and infrastructural volatility require deeper qualitative explanation (Tran et al., 2023). From the policy capacity perspective, contemporary scholarship notes that operationalizations of capacity and its links to outcomes remain incompletely specified, especially across analytical levels and governance arenas (Brenton et al., 2023; Roy et al., 2023). Meanwhile, accountability research highlights that citizens' and officials' perceptions of answerability shape behavior and legitimacy, yet these dynamics are seldom embedded in implementation models for remote digital services (Overman & Schillemans, 2022). Accordingly, a research gap persists: we lack an integrative implementation framework that connects archipelagic constraints with administrative and policy capacities, street-level adaptation, and service outcomes in a single explanatory architecture.

Building on this gap, the study investigates how mobile public services are implemented in an archipelagic jurisdiction through a single-case qualitative design in Raja Ampat, Indonesia in situ. Empirically, Raja Ampat provides a critical case because service delivery occurs while local government simultaneously pursues connectivity expansion, infrastructure upgrading, and sectoral programs that affect citizens' administrative inclusion—such as initiatives on civil registration and outreach in remote districts (Antara News Papua Tengah, 2025; Ministry of Women's Empowerment and Child Protection, 2018). Recent institutional reporting also signals ongoing efforts to manage telecommunications facilities and public connectivity, alongside state investments in transport assets and energy solutions (Corruption Eradication Commission, 2025; PLN, 2023). These sources are used strictly to contextualize constraints and initiatives; the study's explanatory claims are derived from peer-reviewed implementation and capacity scholarship. The research pursues three objectives: (1) to map implementation processes and bottlenecks for mobile public services across islands; (2) to explain how archipelagic constraints interact with administrative capacity, policy capacity, cross-level administrative routines, collaborative governance, and street-level discretion; and (3) to synthesize these mechanisms into an Archipelagic Implementation Framework that specifies pathways from context and capacity conditions to service performance, accountability, and equity outcomes (Ferraro & Failler, 2024).

This article advances a conceptually integrated explanation of mobile public service implementation in archipelagic settings by proposing an Archipelagic Implementation

Framework. The framework links policy implementation dynamics to administrative capacity and policy capacity, showing how archipelagic constraints shape coordination choices, resource deployment, street-level discretion, and feedback mechanisms that ultimately condition public value outcomes (Twizeyimana & Andersson, 2019; Busch & Henriksen, 2018). In doing so, it responds to calls to clarify how capacities at different analytical levels translate into observable performance, accountability, and equity results in complex service systems (Brenton et al., 2023; Roy et al., 2023; Overman & Schillemans, 2022). The policy relevance is direct: for Indonesia and other multi-island jurisdictions, the findings point to actionable leverage points—connectivity and inter-island service logistics, cross-agency collaboration, and accountability design—that can reduce exclusion and improve legitimacy in practice. An explicit epistemological separation is maintained throughout: online news and institutional web reports are used only to contextualize the Raja Ampat setting and illustrate practical constraints, while theoretical arguments, research gaps, and causal interpretations are grounded in peer-reviewed scholarship. The remainder of the article is organized as follows: Literature Review; Materials and Method; Results; Discussion; Comparison with international studies; Conclusion; and References.

2. Literature Review

Policy implementation theory has progressively moved beyond linear "design–delivery" assumptions to explain why policy intentions are routinely transformed, delayed, or reconstituted in practice under conditions of complexity, interdependence, and territorial variation. Contemporary work emphasizes that implementation performance is shaped by the configuration of problems, institutions, and coordination tasks, rather than by formal compliance alone. For example, research on policy growth shows that expanding policy portfolios can overload implementation systems, generating fragmentation and coordination failures that are not easily resolved through additional rules or mandates (Knill et al., 2024). Similarly, efforts to "move beyond" prior generations of implementation research argue for explanatory frameworks that treat implementation as a complex, processual phenomenon in which multiple causal pathways are plausible and context-sensitive (Miller, 2025). Within policy process scholarship, multi-stream approaches demonstrate that political problem framing and policy-path dependencies can influence implementation trajectories even after formal adoption, complicating standard principal–agent narratives (Sager & Thomann, 2017; Fowler, 2022). These advances are valuable for archipelagic contexts because they foreground how territorial heterogeneity and operational uncertainty challenge policy coherence and demand adaptive implementation strategies. However, much of the implementation literature remains empirically anchored in settings where spatial accessibility is taken for granted and service delivery relies on stable physical and digital infrastructures, leaving a conceptual blind spot for island jurisdictions where "territory" is a persistent constraint rather than a background condition.

A territorially grounded perspective further suggests that implementation quality depends on coordination architectures that can cope with distance, dispersion, and multi-level governance. Studies of remote areas highlight that "implementation in place" requires aligning policy goals with local institutional capacity and logistical feasibility; in conservation governance, for instance, implementation outcomes vary substantially across geographically remote territories because enforcement and service coordination are constrained by remoteness, fragmented administrative reach, and limited operational capabilities (Ferraro & Failler, 2024). Coordination research similarly shows that the quality of inter-organizational coordination—its clarity, timeliness, and problem-solving capacity—becomes a decisive determinant of service delivery, especially where tasks span multiple administrative units and where shocks (e.g., transport disruptions, connectivity outages) are recurrent (Kårtvedt, 2024). Work on policy integration and institutional capacity reinforces that implementation is often a cross-sectoral task requiring alignment of goals, instruments, and organizational routines, which can be particularly fragile in multi-level systems (Domorenok et al., 2021). In archipelagic regions, these insights imply that implementation cannot be understood without examining how territorial constraints structure coordination demands and how local governments compensate through organizational design, collaboration, and adaptive frontline practice. Yet, existing territorial implementation studies rarely specify how such constraints translate into mobile or hybrid service delivery choices, leaving an empirical and conceptual gap for archipelagic service systems.

Administrative capacity research provides an essential lens for explaining why some local governments can operationalize public services effectively under constraints while others cannot. Administrative capacity encompasses human resources (skills, staffing, leadership), organizational routines (SOPs, monitoring, learning), and administrative systems (information, budgeting, coordination mechanisms) that enable consistent service production. Empirical evidence indicates that governmental administrative capacity is associated with improved e-government performance and citizen uptake, implying that digital service delivery is fundamentally capacity-dependent rather than merely technology-dependent (Tran et al., 2023). In decentralized settings, local government capacity has also been linked to variation in public service delivery outcomes, suggesting that territorial disparities in capacity contribute to unequal service experiences for citizens (Setiawan et al., 2022). However, administrative capacity studies often operationalize capacity as static "inputs" (headcount, budgets, formal structures) and under-specify how capacity is mobilized and reconfigured when service delivery is disrupted by infrastructural volatility or geographical barriers. This limitation is consequential for archipelagic regions, where delivery systems must be continually re-optimized for travel time, weather windows, and connectivity reliability. Moreover, capacity discussions can drift into normative prescriptions ("build capacity") without specifying which capacity dimensions matter most for mobile service delivery and how they interact with territorial constraints to shape implementation pathways.

The digital government literature further complicates administrative capacity by showing that capacity deficits can generate implementation failure modes that are organizational rather than technical. The "knowledge vacuum" argument, for example, explains how e-government innovations fail when organizations lack learning routines, institutional memory, and cross-unit knowledge integration, leading to recurring implementation breakdowns even when technology is available (Choi & Chandler, 2020). Studies of digitally induced change in public sector organizations underscore that successful digital transformation requires reconfiguring work processes, roles, and governance arrangements—changes that depend on managerial and organizational capacity to absorb and steer transformation (Haug et al., 2024). Research on service centers in rural contexts likewise demonstrates that last-mile e-government delivery faces persistent operational challenges—staff competencies, connectivity constraints, and service coordination—that can undermine service reliability and citizen trust (Sharma et al., 2021). Digital innovation scholarship also cautions that "digitization" can accelerate social innovation only when public organizations can translate innovation into sustained, routinized delivery, rather than isolated pilot projects (Ly, 2023). Together, these findings imply that archipelagic mobile public services require more than ICT deployment: they require organizational capabilities to coordinate travel-based outreach, manage hybrid online–offline processes, and stabilize service quality under disruption. Yet, empirical research remains limited on how such capacity is assembled and exercised specifically for mobile public service implementation in territorially fragmented settings.

Policy capacity scholarship complements administrative capacity by foregrounding the state's ability to design, coordinate, and legitimate policy choices under uncertainty. The policy capacity framework typically distinguishes analytical capacity (diagnosis, evidence use, targeting), operational capacity (delivery systems, budgeting, coordination), and political capacity (coalition-building, legitimacy, communication), which together shape whether policy designs are implementable and resilient. Reviews argue that effective policy design depends on policy capacities that connect problem understanding to feasible instrument mixes and delivery architectures, especially when contexts are complex and contested (Mukherjee & Howlett, 2021). Recent contributions highlight missing links in policy capacity theory, including how capacities vary across levels and how they are mobilized in real implementation settings rather than measured as abstract attributes (Brenton et al., 2023). Capacity also appears consequential for policy innovation and effectiveness, suggesting that stronger policy capacity can enable governments to craft adaptive solutions and sustain performance (Capano et al., 2025). Yet, policy capacity work often remains macro-oriented—focused on advisory systems, evidence use, or institutional design—without sufficiently connecting to the operational realities of frontline service delivery in remote territories. For archipelagic mobile services, the key question is not only whether governments possess policy capacity, but how analytical, operational, and political capacities interact with territorial constraints to produce implementable service configurations and to manage trade-offs between reach, reliability, and equity.

Street-level bureaucracy research provides a micro-foundation for understanding implementation under constraint because frontline officials routinely translate abstract policy

into practical judgments, especially when resources and information are incomplete. In digital contexts, discretion is not eliminated; rather, it can be "digitally mediated," shifting how officials interpret rules, allocate attention, and document decisions. A systematic review of ICT and street-level discretion shows that digital systems can both constrain and expand discretion by embedding rules while creating new coping opportunities, such as workarounds when systems fail or when citizen needs do not fit standard categories (Busch & Henriksen, 2018). Empirical work on frontline digital transformation emphasizes coping behaviors and adaptive practices as officials manage new technologies alongside legacy routines and situational demands (Afzal, 2024). Related scholarship argues that street-level bureaucrats can function as de facto policymakers through interpretive and discretionary work, especially in complex service environments (Rossi, 2025). Even under "new public governance" arrangements, officials may comply formally while selectively ignoring incompatible demands to pursue workable goals, demonstrating hybridity management as a practical coping mechanism (Nielsen & Andersen, 2024). For archipelagic mobile services, these insights imply that implementation success depends on how frontline staff exercise discretion to maintain service continuity amid travel constraints and connectivity disruptions. However, existing studies rarely theorize how digital discretion interacts with territorial constraints and capacity conditions to generate specific patterns of service reliability and accountability.

Collaborative and network governance literatures explain why implementation increasingly depends on cross-boundary coordination among public agencies, private providers, and community actors, particularly for digitally enabled services and last-mile delivery. Collaborative innovation scholarship argues that complex public problems and service systems require collaboration to pool resources, mobilize expertise, and co-create workable solutions beyond the capacities of single organizations (Torfing, 2019). In data-intensive contexts, the governance of data collaboratives illustrates how cross-sector coordination, accountability arrangements, and institutional design determine whether data sharing actually improves service delivery and decision-making (Ruijer, 2021). Similarly, research on cross-boundary e-government systems shows that performance depends on governance and coordination mechanisms that manage interdependencies across organizations, technologies, and administrative jurisdictions (Chen et al., 2019). These insights are directly relevant for archipelagic settings where mobile service delivery is typically interdependent with transport operators, telecommunications infrastructure, district-level administration, and community intermediaries. Yet, collaborative governance research often assumes that collaboration is feasible once incentives are aligned, underestimating how spatial fragmentation raises transaction costs of coordination and creates asymmetries in information, authority, and service reach. For mobile public services in archipelagic regions, a key unresolved issue is how collaboration architectures are structured to mitigate territorial constraints while maintaining accountability and service standards across dispersed delivery nodes.

Digital government and mobile public services research provides substantive knowledge on how digital services are designed, scaled, and evaluated, but it often privileges user adoption and service interface issues over implementation mechanisms in territorially constrained environments. Stage-model work suggests that e-government evolution is moving toward "no-stop" service delivery where citizens receive services seamlessly through integrated channels, implying that back-end integration and organizational redesign are central to performance (Scholta et al., 2019). Service design research in public administration also shows that citizen satisfaction depends on multi-dimensional service quality, including reliability and responsiveness, which are shaped by organizational processes as much as by technology (Chan et al., 2021). Importantly, public value approaches insist that digital government must be evaluated by outcomes that matter to society—effectiveness, transparency, and equity—rather than by digitization metrics alone (Twizeyimana & Andersson, 2019). In parallel, open government data research highlights that value creation depends on governance and capability conditions that enable data to be translated into usable public benefits (Benmohamed et al., 2024). While these literatures establish why mobile and integrated services matter, they leave open how digital service aspirations are operationalized where infrastructure is unstable and physical access is costly. Consequently, archipelagic mobile public services require an implementation-focused synthesis that connects digital service design to territorial constraints, capacity conditions, and governance arrangements.

Spatial accessibility research and outcome-oriented public administration theories help specify what "success" means in archipelagic service delivery and why equity and accountability should be central outcome dimensions. Spatial analyses of accessibility in

Indonesian archipelagic communities demonstrate that geographic dispersion shapes service reach in measurable ways, reinforcing that access is structurally produced by spatial networks rather than individual choice alone (Leosari et al., 2023). Complementary work on perceived administrative burden shows that citizens can experience digital services as burdensome when processes are complex, unreliable, or poorly aligned with rural livelihoods—suggesting that mobile or digital channels can reproduce exclusion if not adapted to local contexts (Reissig et al., 2022). Accountability scholarship further indicates that perceptions of answerability and oversight shape behavior within public organizations; "felt accountability" affects how officials manage discretion and how citizens judge legitimacy (Overman & Schillemans, 2022). Transparency and accountability frameworks also stress that governance arrangements influence corruption risks and trust, implying that mobile services must embed accountability mechanisms rather than merely extend reach (Vian, 2020). Moreover, citizen participation and social capital can condition public sector performance, highlighting that outcome pathways are social and institutional as well as technical (Suebvises, 2018). The limitation across these literatures is that they are seldom integrated into a single implementation account that explains how archipelagic constraints interact with capacities and governance to produce service quality, accountability, public value, and equity outcomes.

Taken together, the state of the art suggests the need for an integrative, mechanism-focused framework that links territory, capacity, governance, and outcomes for mobile public services in archipelagic regions. Policy implementation theory explains why implementation is contingent and processual, but it under-specifies territorial mechanisms unless connected to spatial accessibility and remote governance evidence (Miller, 2025; Ferraro & Failler, 2024). Administrative capacity identifies enabling resources and routines, but it requires a clearer articulation of how capacity is mobilized under infrastructural volatility and coordination complexity typical of archipelagic delivery (Tran et al., 2023; Choi & Chandler, 2020). Policy capacity adds design-oriented leverage—analytical, operational, and political capacities—but must be connected to frontline realities and to the governance architectures that translate designs into routinized service delivery (Mukherjee & Howlett, 2021; Brenton et al., 2023). Street-level bureaucracy clarifies adaptation and digital discretion, while collaborative governance explains cross-actor coordination, yet neither alone captures how spatial fragmentation shapes both discretion and collaboration costs (Busch & Henriksen, 2018; Torfing, 2019). Finally, digital government and public value literatures provide outcome lenses - service quality, accountability, equity—but rarely embed them in territorially grounded implementation models (Twizeyimana & Andersson, 2019; Overman & Schillemans, 2022). This synthesis logically motivates developing an Archipelagic Implementation Framework that treats archipelagic constraints as structural context; administrative and policy capacities as enabling conditions; governance and frontline adaptation as operational mechanisms; and service quality, accountability, public value, and equity as evaluative outcomes - forming the primary analytical basis for the Results and Discussion.

3. Materials and Method

Research design (single case study). This study adopts a qualitative single case study design to examine how mobile public services are implemented under archipelagic constraints and how such constraints interact with administrative and policy capacities to shape implementation dynamics and service outcomes. A single-case strategy is methodologically appropriate when the aim is to generate an in-depth, context-sensitive explanation of "how" and "why" implementation unfolds in a real-life setting, including the mechanisms through which actors respond to complex institutional and territorial conditions. In case-study scholarship, single cases are defensible when they are analytically informative and capable of producing theoretical contribution through explanation, process tracing, and conceptual refinement rather than statistical representativeness. This design is aligned with the logic that a carefully selected case can illuminate causal pathways, boundary conditions, and situated adaptations that are often obscured in large-N approaches, especially in public administration settings where implementation is shaped by multi-level governance, organizational routines, and street-level discretion. The study therefore positions Raja Ampat as a "theory-informing" site that enables analytical generalization by articulating transferable propositions about archipelagic service implementation. (Flyvbjerg, 2006; Ridder, 2017)

Study locus and context (Raja Ampat as a critical case). The empirical locus is Raja Ampat Regency, Indonesia, an archipelagic jurisdiction characterized by dispersed islands, long travel

times, limited transport options, and uneven connectivity—conditions that commonly produce high transaction costs for public service access and coordination. Archipelagic governance research in Indonesia shows that island geographies generate distinctive administrative challenges, including fragmented service catchments, difficulties in supervising frontline delivery, and a persistent need for geographically tailored governance arrangements. From a spatial accessibility perspective, distance, time, and transport availability materially influence whether citizens can reach state services and whether the state can reach citizens, making archipelagic settings analytically consequential for studying mobile services as an implementation response. Raja Ampat is treated as a critical case because it combines (i) pronounced archipelagic constraints, (ii) high reliance on public-sector coordination across units and territorial levels, and (iii) strong salience of last-mile delivery problems that amplify the importance of administrative capacity, policy capacity, and frontline adaptation. The case therefore provides a rigorous test bed for developing an implementation framework explicitly grounded in island-region realities rather than assuming mainland conditions. (Leosari et al., 2023; Madubun, 2024)

Object and analytical focus (implementation mechanisms and outcomes). The object of analysis is the implementation of mobile public services in an archipelagic context, operationalized as policies, programs, and organizational practices aimed at extending public service reach through mobile/field-based delivery mechanisms (e.g., outreach units, mobile service points, or digitally enabled mobile delivery). Analytically, the study focuses on the interaction between (a) archipelagic constraints (spatial dispersion, mobility barriers, infrastructure and connectivity limits), (b) administrative capacity (human resources, organizational arrangements, routines, and systems enabling delivery), and (c) policy capacity (analytical, operational, and political capacities supporting design, coordination, and execution). The focus further incorporates (d) governance and coordination patterns (cross-unit and cross-level), and (e) street-level bureaucratic practices (discretion, coping strategies, and adaptive implementation) as mechanisms that translate capacity conditions into service performance. The outcome domain includes service accessibility, continuity, responsiveness, and accountability-oriented signals—treated as implementation results rather than as mere descriptive service features. This conceptualization aligns with public administration research that frames capacity as a multilevel condition shaping implementation feasibility, while emphasizing that implementation is realized through actor strategies and organizational arrangements under constraints. (Brenton et al., 2023; Mukherjee & Howlett, 2021)

Participants and sampling (purposive selection and saturation). Informants are selected through purposive sampling to capture the institutional and operational chain of implementation—from policy direction to frontline delivery and supporting coordination. The core informant groups include: (1) local government officials responsible for public service delivery and digitalization initiatives; (2) street-level bureaucrats and field implementers involved in mobile service operations; and (3) supporting stakeholders relevant to cross-sector and community coordination (e.g., inter-agency coordinators, local facilitators, or community representatives involved in service mobilization). Inclusion criteria prioritize direct involvement in planning, coordinating, delivering, supervising, or using mobile services; knowledge of operational constraints; and capacity to describe implementation processes and adaptations. Sampling proceeds iteratively: initial key informants are identified to map actors and processes, followed by targeted additions to fill conceptual gaps emerging from analysis. Data sufficiency is determined using a saturation-informed logic—tracking whether new interviews yield substantively new codes or meanings—while recognizing that "meaning saturation" may require more depth than simple code repetition. (Guest et al., 2006; Hennink et al., 2017)

Data sources and collection procedures. Data collection integrates multiple qualitative sources to strengthen contextual richness and analytic credibility. First, in-depth semi-structured interviews are conducted using an interview guide aligned with the theoretical constructs (implementation dynamics, administrative capacity, policy capacity, governance coordination, and frontline adaptation), while allowing emergent issues to surface. Second, document analysis covers regulations, policy documents, program guidelines, internal memos where accessible, official reports, service SOPs, performance summaries, and other formal records that evidence design intent and implementation routines. Document analysis follows a systematic protocol of relevance screening, authenticity checks, and analytic extraction to support triangulation and contextual interpretation. Third, limited observation is used when feasible (e.g., observing service points, workflow, or coordination meetings) to capture enacted routines and the materiality of service delivery. Fourth, official secondary data

(institutional web documents, official statistics, and audited/administrative reports) is used to contextualize implementation scope and constraints. Importantly, online news reports are not treated as primary analytic evidence; they may be used only to enrich background context and illustrate publicly reported conditions, consistent with document analysis principles that distinguish contextual materials from core evidentiary sources used for analytic inference. (Bowen, 2009; Carter et al., 2014)

Thematic analysis (phases and analytic outputs). The study employs thematic analysis to identify patterned meanings across interviews, documents, and field notes, and to connect those patterns to implementation mechanisms relevant to archipelagic service delivery. Analysis proceeds through: (1) familiarization (repeated reading and memoing across transcripts and documents); (2) initial coding (systematic line-by-line coding, combining semantic and latent codes where appropriate); (3) theme development (clustering codes into candidate themes representing implementation processes, constraints, capacity conditions, governance patterns, and adaptive practices); (4) theme review (iteratively checking coherence within themes and distinctiveness across themes, including negative case checks); (5) theme definition and naming (clarifying conceptual boundaries and linking themes to analytic constructs); and (6) thematic synthesis (building higher-order explanatory patterns that articulate how archipelagic constraints interact with capacities and governance/adaptation to shape outcomes). Rigor is supported through a documented decision trail (codebook evolution, memos, and theme maps) and systematic linking between data excerpts and claims. This approach is well-established for producing transparent and theoretically flexible qualitative insights when the goal is both description of patterns and analytic explanation. (Braun & Clarke, 2006; Nowell et al., 2017)

Linking themes to theory (analytical—not merely descriptive—interpretation). To ensure that thematic analysis produces explanatory contribution, the study uses a theory-informed analytic strategy that iteratively connects emergent themes to the core theoretical lenses: Policy Implementation Theory, Administrative Capacity, and the Policy Capacity Framework. Practically, this is implemented through a hybrid logic: inductive coding captures context-specific meanings, while deductive sensitizing concepts guide interpretation toward implementation mechanisms (e.g., coordination failures, capacity bottlenecks, discretionary adaptations, and feedback effects). The analytic process therefore moves between empirical material and theoretical constructs to refine propositions and identify the interaction patterns that are distinctive to archipelagic settings. This iterative movement aligns with abductive reasoning in case research, which supports theoretical development through systematic combining rather than forcing data into pre-fixed categories. The output is a structured set of theme-to-theory linkages (e.g., which capacity dimensions are activated under which archipelagic constraints, and through what governance/adaptation mechanisms), forming the empirical basis for constructing the Archipelagic Implementation Framework as a conceptual contribution. (Dubois & Gadde, 2002; Mukherjee & Howlett, 2021)

Trustworthiness and research ethics. Quality assurance follows established criteria for qualitative trustworthiness: credibility (triangulation across interviews, documents, and observation; member checking where feasible; negative case analysis), dependability (clear documentation of procedures, interview protocols, and analytic steps; auditable decision trail), confirmability (reflexive memoing on positionality and assumptions; transparent linkage between evidence and interpretations), and transferability (thick description of context and implementation arrangements to support analytical generalization). Triangulation is applied as a purposeful strategy to examine convergence and divergence across sources rather than as a mechanical validation exercise. Ethical safeguards include informed consent, voluntary participation, confidentiality protections (de-identification of transcripts and sensitive organizational details), secure data storage, and careful handling of politically or administratively sensitive information, consistent with qualitative ethics guidance in applied public-sector research. Where required, formal ethics clearance is obtained through the relevant institutional process prior to fieldwork. (Carter et al., 2014; Orb et al., 2001; Shenton, 2004)

Methodological affirmation. In sum, the qualitative single case study design and thematic analysis employed in this research are methodologically adequate and internationally standard for addressing the study's objective: to explain the dynamics of mobile public service implementation in an archipelagic jurisdiction and to develop a conceptually grounded Archipelagic Implementation Framework. The design enables deep examination of implementation mechanisms under geographically induced constraints, while the analytic strategy ensures that findings are not presented as descriptive narratives but as theoretically

interpreted patterns linked to administrative and policy capacity dimensions, governance coordination, and street-level adaptation. The transparent analytic trail and trustworthiness procedures provide a defensible basis for presenting Results and Discussion in a form consistent with reputable international public administration journals, including clear separation of empirical themes and their theoretical implications, and supporting analytical generalization beyond the case through transferable propositions. (Braun & Clarke, 2006; Ridder, 2017).

4. Results and Discussion

Results

This Results section reports the empirical themes generated through thematic analysis of the field materials (interview transcript summary, service flyers on civil registration requirements, and the official service-flow poster). The coding process yielded four higher-order thematic categories—archipelagic mobility constraints, administrative capacity and operational arrangements, policy capacity dynamics in digital/mobile service implementation, and frontline adaptation and governance practices—each containing multiple sub-themes. The empirical focus is on what happened in practice, how procedures were enacted, and how recurrent patterns were described across sources. No theoretical interpretation, literature comparison, or normative claims are introduced in this section.

Theme 1. Archipelagic geography as a recurring constraint on mobility and service continuity

Informants consistently described Raja Ampat's archipelagic geography as the primary background condition shaping the feasibility and timing of mobile services. The program was framed as a response to a dispersed island territory, with field operations dependent on sea transport and exposed to seasonal variability in wind and wave conditions. The interview material emphasizes that extreme weather and sea conditions can significantly disrupt access to villages that are only reachable by speedboat, making mobility risks a routine operational consideration rather than an occasional contingency. When these conditions intensify, service deployment is adjusted through route changes, reliance on alternative vessels when available, or suspension of operations as a safety measure during peak extreme-weather periods. The same accounts link geography to uneven connectivity, noting that internet availability differs widely across villages and that some areas remain effectively outside stable network coverage. Taken together, these empirical descriptions show that the service system operates under a continuous trade-off between planned schedules and environmental/transport constraints, with mobility and connectivity acting as coupled constraints on service continuity.

Theme 2. Mobile service delivery as an outreach model to reduce citizen travel to the regency capital

Across the materials, the mobile service ("jemput bola") model was described as a proactive approach intended to reduce the need for residents to travel to the regency capital for civil registration services. The interview source states that the program aims to decentralize service reach so that administrative services are not concentrated in the capital but extend to districts and villages, implemented through field teams that bring equipment to process and issue documents on site. The flyer materials further indicate that the service scope covers a wide range of civil registration outputs (e.g., family card, civil registration certificates, child identity card), while listing documentary requirements that vary by service type, implying that field delivery must manage heterogeneous cases and documentation completeness. In practice, mobile delivery was described as combining on-site intake, verification, and processing steps with digital submission to the central system, thereby attempting to convert travel barriers into a locally accessible service encounter. Empirically, this theme is characterized by two repeated patterns: (a) outreach visits are designed to shift the "burden of movement" from citizens to the service provider; and (b) field service effectiveness depends on the ability to carry and operate standalone equipment reliably at remote locations.

Theme 3. Standardized internal workflow and time-bounded processing steps at the service point

The service-flow poster depicts a standardized sequence of internal steps that structures the citizen experience and the internal division of labor during service encounters. The flow begins with queue taking and queue calling, followed by operator-led completeness checking and document processing, an additional verification step by a designated verifier, an electronic signature review by the head of office, and final printing by the operator with stated time estimates for several steps (e.g., initial processing, verification, e-signature, printing). This

visual material indicates that the service system is designed around a staged, role-differentiated workflow with multiple handoffs and time-bounded tasks. Empirically, this staged flow is consistent with interview accounts that emphasize the importance of maintaining data validity and ensuring that field operations do not compromise routine office operations. The combination of workflow staging and time estimates suggests that implementers rely on process standardization to manage variability in case types and to coordinate multiple roles under time constraints. The visual evidence also implies that service completion is contingent on successful progression through verification and authorization steps, which becomes operationally sensitive when connectivity is unstable or when staffing is limited at the service point.

Theme 4. Administrative capacity organized around a small technical team and equipment independence

Administrative capacity constraints were reported most concretely in staffing and equipment arrangements. The interview material specifies that approximately 12 staff/operators are involved, and that the team is managed through a rotation or division strategy so that mobile operations can proceed without creating service backlog at the main office. The same source notes that mobile service equipment (laptops and biometric devices for electronic ID recording) is considered adequate and is maintained separately from the equipment used at the main service counters, indicating an explicit strategy to avoid "cannibalizing" core office infrastructure when teams travel. Operational logistics are further highlighted through references to travel orders and operational costs (SPPD), which are treated as recurring requirements for sustaining field deployment. Empirically, this theme shows a capacity pattern built on three elements: (a) a limited pool of technically skilled staff, (b) deliberate workload partitioning between office and field operations, and (c) equipment redundancy/independence to keep both channels functioning in parallel. These arrangements reveal how the program's feasibility depends on practical staffing rotation and portable infrastructure at the point of service.

Theme 5. Digital connectivity as a bottleneck, with a documented shift from delayed manual input to real-time submission

Connectivity was repeatedly described as a binding operational constraint, especially in villages without reliable internet access. The interview material reports that earlier attempts using machine-to-machine (M2M) solutions were limited because they depended on 4G coverage; in 3T areas and "blank spot" locations, this dependence resulted in slow or halted data input processes. A key empirical development described in the same source is the adoption of satellite-based connectivity (Starlink) to support real-time synchronization from villages to the centralized population administration system (SIAK Terpusat). Informants characterized this as a shift from a "manual-delay" routine—collecting documents and entering them later at the regency level—toward "real-time processing" during field service delivery, where data can be input and validated immediately. The empirical pattern here is not merely technological substitution; it is an operational change in when and where data entry occurs, reducing lag time between service encounter and registration, while also increasing the dependency of field success on the availability and functioning of portable connectivity solutions.

Theme 6. Policy capacity signals in regulatory reliance, local-rule gaps, and field-driven proposals for institutionalization

The interview evidence indicates that mobile service implementation is anchored in national regulatory mandates that encourage proactive civil registration service delivery, and that the operational procedures also reference higher-level legal bases for population administration. At the same time, informants reported the absence of a dedicated local regulation (regional bylaw or regent regulation) specifically governing the "jemput bola" mechanism, while noting plans or needs to develop such a local rule to better fit village-level conditions and to stabilize operational legitimacy and budgeting practices. In the field narrative, this local-rule gap appears as a practical issue connected to routine operational costs (travel orders and logistics) and the desire for more tailored technical procedures suited to archipelagic conditions. The empirical pattern can be summarized as follows: implementation proceeds through national guidance and internal routines, while local institutionalization is discussed as an unmet requirement to formalize and sustain the operational model. This theme is reported as a description of administrative planning needs and procedural alignment challenges, without introducing evaluative claims about policy adequacy.

Theme 7. Frontline adaptation through transport substitution, contingency decisions, and procedural flexibility under constraints

Frontline adaptation was evident in how implementers described coping with weather and connectivity volatility. When sea conditions are unsafe for small boats, teams reported using larger public vessels when available; otherwise, operations are postponed or halted during peak extreme conditions, framed as a safety-driven decision. Connectivity adaptation was described through the progression from M2M limitations to satellite-enabled field connectivity and real-time data entry. The service-flow poster and flyers, when read alongside interview notes, also imply procedural flexibility at the point of service: multiple verification steps, role handoffs, and reliance on documentary completeness requirements require staff to manage variations in citizen preparedness and case complexity across services. Empirically, the adaptation pattern is characterized by "on-the-spot" operational decisions about route feasibility, service timing, and data processing mode (delayed versus real-time), as well as coordination of roles (operator–verifier–authorizer–printer) to keep the service encounter moving. These adaptations are reported as observed and described practices, not as theoretical constructs, and they reflect routine coping behaviors under archipelagic operational uncertainty.

In summary, the thematic analysis identified a consistent empirical storyline: archipelagic mobility and connectivity constraints shape service continuity; administrative capacity is operationalized through a small technical team, equipment independence, and workload partitioning; digital delivery hinges on a connectivity shift that enables real-time data submission; and implementers rely on transport substitution, contingency decisions, and process staging to deliver services across dispersed islands. The next section (Discussion) interprets these empirical patterns analytically by connecting them to the study's theoretical lenses and by explaining how the observed mechanisms jointly inform the proposed Archipelagic Implementation Framework.

Discussion

The findings position archipelagic geography as a constitutive implementation condition rather than a neutral background. In Raja Ampat, mobility risks, sea-transport dependence, and uneven connectivity shape when services can be delivered, where they can be delivered, and what counts as "successful completion" in practice. This aligns with evidence that service delivery in island sub-districts requires governance arrangements that explicitly incorporate geography into administrative planning and routine operations (Madubun, 2024). It also extends spatial-accessibility scholarship showing that distance and transport constraints are structural determinants of service reach and timeliness in archipelagic settings (Leosari et al., 2023). The empirical shift from citizen travel to provider travel—through outreach and mobile teams—can therefore be interpreted as an access-substitution mechanism that converts spatial barriers into operational burdens borne by government. This substitution has implementation consequences: it increases exposure to disruptions, raises coordination complexity, and elevates the salience of capacity and contingency planning. Theoretically, the case suggests that archipelagic constraints should be modeled as a key contextual variable that reconfigures implementation tasks, rather than as an "external shock" or residual factor in digital-government deployment.

From a policy implementation perspective, the case demonstrates that implementation trajectories are shaped by recurring coordination problems, operational interdependencies, and cumulative burdens that are intensified by territorial fragmentation. Implementation studies argue that policy expansion and complexity can overload delivery systems, producing fragmentation and coordination failures unless coordination architectures evolve accordingly (Knill et al., 2024). The Raja Ampat evidence fits this logic: multi-step workflow staging (intake–verification–authorization–printing) and route-dependent scheduling create multiple points where transport or connectivity disruptions can cascade into delays and backlogs. Coordination-quality research further indicates that service delivery performance is strongly conditioned by how well actors synchronize tasks, clarify responsibilities, and solve problems under uncertainty (Kårtvedt, 2024). Compared to studies conducted in territorially continuous contexts, this case underscores how "distance" amplifies coordination costs and increases the probability of partial completion, rescheduling, or hybrid processing routines. The implication for implementation theory is that territorial fragmentation systematically increases coupling among logistics, information systems, and authorization routines, making implementation success dependent on adaptive coordination capacities rather than formal compliance alone.

The results also foreground administrative capacity as an operational capability that is actively configured—through staffing rotations, portable equipment, and parallel channel management—rather than a static attribute. Evidence linking government administrative capacity to e-government performance and citizen uptake supports the idea that digital services remain capacity-dependent even when platforms exist (Tran et al., 2023). In Raja Ampat, capacity is manifested in practical arrangements: maintaining separate equipment sets for mobile and counter services and managing a limited pool of technically skilled operators to avoid collapsing routine office operations. This resonates with organizational learning arguments that digital innovations fail when agencies lack routines for knowledge integration and operational learning, leading to recurring breakdowns despite technological availability (Choi & Chandler, 2020). The archipelagic context sharpens this mechanism: learning and redundancy are not optional "best practices," but prerequisites for continuity when disruptions are predictable. Compared with much capacity literature that emphasizes inputs (budgets/headcounts), this case highlights capacity as a set of field-relevant design choices—redundancy, rotation, and portable infrastructure—that enable delivery under spatial and connectivity volatility.

The case further illustrates policy capacity as the design-and-governance capability required to translate mobile-service intentions into feasible delivery architectures under archipelagic constraints. Reviews of policy capacity argue that effective design depends on analytical, operational, and political capacities that connect problem diagnosis to implementable instrument mixes and delivery systems (Mukherjee & Howlett, 2021). Raja Ampat's reported reliance on national mandates combined with a perceived need for local institutionalization (e.g., a dedicated local rule for "jemput bola" operations) reflects a policy-capacity gap at the operational and political interfaces: budgeting certainty, legitimacy, and cross-level alignment become harder when local rules lag behind operational realities. The broader literature notes "missing links" in how policy capacity is mobilized across levels and connected to observable outcomes (Brenton et al., 2023). This case contributes by showing that in archipelagic settings, policy capacity is revealed through choices about where data entry occurs (real-time vs delayed), how contingency governance is authorized, and how recurring operational costs are normalized into routine financing. Thus, policy capacity is not merely advisory or analytic; it is enacted in delivery-system design decisions that stabilize implementation under territorial risk.

Frontline practice in the case is consistent with street-level bureaucracy accounts that discretion persists—and can intensify—when digital systems meet unstable field conditions. A systematic review of ICT and street-level discretion shows that digital systems can both constrain and expand discretion by embedding rules while enabling workarounds when systems do not fit situational demands (Busch & Henriksen, 2018). Raja Ampat's patterns—route changes, postponements, offline/online sequencing, and triage under time and connectivity constraints—represent discretion as a continuity mechanism rather than a deviation from policy. Evidence from frontline digital transformation similarly documents coping behaviors when new tools and legacy constraints collide, requiring pragmatic adaptation to sustain service delivery (Afzal, 2024). The archipelagic setting adds a distinctive dimension: discretion is shaped not only by workload and rules, but by environmental risk and transport feasibility that can abruptly invalidate plans. This implies that accountability design must accommodate legitimate discretionary space while ensuring traceability and consistency. The case therefore supports an implementation view where SLB adaptation is an essential operational mechanism in mobile public services, with the archipelagic context defining the boundaries and triggers of discretionary decision-making.

The results also reinforce that archipelagic mobile services are embedded in collaborative/network governance, because effective delivery depends on cross-boundary coordination among service agencies, local intermediaries, and infrastructure actors. Cross-boundary e-government research shows that system performance depends on governance arrangements that manage interdependencies across organizations, technologies, and jurisdictions (Chen et al., 2019). Similarly, governance perspectives on data collaboratives emphasize that coordination, accountability, and institutional design determine whether shared resources translate into service improvements (Ruijer, 2021). In Raja Ampat, coordination is empirically visible in the dependence on transport availability, the need to align village-level mobilization with field-team schedules, and the operational consequences of connectivity solutions for real-time processing. This pattern extends collaborative innovation arguments that complex service systems require cross-actor problem-solving capacity (Torfing, 2019), but it adds that spatial fragmentation raises collaboration transaction

costs and increases the likelihood of coordination breakdowns. Hence, governance capacity in archipelagic contexts must be assessed not only by formal networks but by the reliability of operational coordination under mobility and connectivity constraints.

Synthesizing these insights, the study develops an Archipelagic Implementation Framework that explains mobile public services through interacting layers of context, capacity, governance/adaptation, and outcomes. The framework posits that archipelagic constraints (spatial dispersion, transport dependence, weather exposure, connectivity volatility) shape the feasible set of delivery options and raise the marginal costs of coordination and reliability. These constraints activate and test administrative capacity (staffing, routines, redundancy, portable infrastructure) and policy capacity (analytical targeting, operational design and financing, political authorization and legitimacy), which together determine whether mobile delivery is routinized or remains episodic. Implementation proceeds through governance and street-level adaptation mechanisms—coordination across levels and pragmatic discretion that reconfigures schedules, processing modes, and verification sequences under uncertainty. Outcomes are assessed through service quality and public value lenses: reliability and responsiveness, accountability and traceability, and equity of access across dispersed settlements (Chan et al., 2021; Twizeyimana & Andersson, 2019). Relative to generic digital-government stage models that emphasize integration toward "no-stop" service (Scholta et al., 2019), this framework specifies why integration is fragile in archipelagic settings and identifies capacity-and-adaptation pathways that sustain continuity.

Policy and practical implications follow directly from the framework's mechanism logic. First, archipelagic governments should treat mobility and connectivity risk as routine design parameters, investing in redundancy (portable equipment, backup connectivity) and operational learning to prevent "knowledge vacuum" failure modes (Choi & Chandler, 2020). Second, administrative capacity building should prioritize field-operational capabilities—rotation systems, standard operating procedures for offline/online sequencing, and traceability protocols—rather than focusing only on platform deployment (Tran et al., 2023). Third, strengthening policy capacity requires institutionalizing mobile-service governance through clear local authorization and sustainable financing, ensuring that discretionary adaptation remains legitimate and accountable (Mukherjee & Howlett, 2021). Finally, evaluation should emphasize public value and equity outcomes—who gains reliable access and who remains excluded—because digital/mobile services can reproduce administrative burden when processes and infrastructure are misaligned with local conditions (Reissig et al., 2022). Theoretically, the case advances implementation and capacity literatures by demonstrating that archipelagic geography systematically reshapes the causal architecture of mobile service implementation, warranting explicit conceptualization in future comparative research.

5. Comparison

Compared with mainstream digital-government and implementation scholarship, this study foregrounds archipelagic geography as a structuring condition that systematically shapes implementation tasks, coordination costs, and service continuity. Most international e-government research has been produced in mainland or metropolitan settings where physical access is implicitly assumed and where digital channels are evaluated primarily in terms of user adoption or service integration outcomes (Scholta et al., 2019; Twizeyimana & Andersson, 2019). Even where "place" is considered, it is frequently treated as a background variable rather than as an explicit mechanism shaping service feasibility. By contrast, studies closer to remote-territory governance show that implementation outcomes vary substantially in geographically remote settings because enforcement and service coordination are constrained by remoteness and fragmented administrative reach (Ferraro & Failler, 2024). Raja Ampat extends this remote-area insight by specifying how archipelagic constraints—sea transport dependence, weather exposure, and uneven connectivity—drive recurring rescheduling and hybrid delivery routines. The comparative contribution is therefore not simply "another remote case," but a mechanism-based demonstration that archipelagic fragmentation amplifies coupling between logistics, connectivity, and workflow authorization in ways rarely modeled in general implementation accounts.

Regarding capacity, international studies often examine administrative capacity or digital capability as a partial determinant of e-government performance, but they typically treat capacity as a static input rather than as a configured operational system designed to survive

disruptions. Empirical work links administrative capacity to e-government performance and citizen uptake, supporting the general claim that digital services remain capacity-dependent (Tran et al., 2023). However, such studies rarely specify how capacity is operationalized in field delivery under unstable infrastructure. Raja Ampat's emphasis on staffing rotation, equipment independence for mobile teams, and portable infrastructure differs from dominant capacity measures and instead mirrors organizational learning accounts that emphasize how capacity deficits create failure modes even when technologies exist (Choi & Chandler, 2020). Policy capacity research, meanwhile, highlights analytical–operational–political capacities as preconditions of effective design, but often leaves unclear how these capacities connect to frontline delivery routines and territorial constraints (Mukherjee & Howlett, 2021; Brenton et al., 2023). The distinctive contribution of this study is the empirical integration of administrative and policy capacities as interacting constraints-and-enablers—showing that in archipelagic contexts, policy capacity is expressed through delivery-system choices (e.g., real-time vs delayed processing) and institutionalization strategies, not only through advisory or analytic processes.

In the domain of governance, coordination, and street-level adaptation, international literature acknowledges that cross-boundary coordination and frontline discretion shape implementation outcomes, yet tends to examine these dynamics in settings where spatial fragmentation is not the principal driver of uncertainty. Cross-boundary e-government scholarship shows that performance depends on governance arrangements that manage interdependencies across organizations and jurisdictions (Chen et al., 2019), while governance perspectives on data collaboratives similarly stress coordination and accountability as conditions for translating shared resources into service value (Ruijer, 2021). Street-level scholarship has also shown that discretion persists and is reconfigured by digital systems, producing "digital discretion" and coping strategies (Busch & Henriksen, 2018), including coping in digitally transforming frontline services (Afzal, 2024). Raja Ampat complements these studies by demonstrating that archipelagic conditions increase the frequency and stakes of discretionary decisions (route changes, postponements, offline/online sequencing), while simultaneously raising the transaction costs of collaboration. Thus, compared with urban-centered accounts, this study shows that coordination quality and discretionary adaptation are not peripheral phenomena but core operational mechanisms required to maintain service continuity in a geographically discontinuous service territory.

With respect to performance, service quality, and equity, much international digital-government work has advanced outcome concepts such as citizen satisfaction, service quality, and public value, yet typically without specifying how territorial constraints systematically shape these outcomes. Service design research demonstrates that citizen satisfaction depends on multidimensional service quality, including reliability and responsiveness shaped by organizational processes (Chan et al., 2021). Public value syntheses similarly argue that digital government should be assessed by societal outcomes (effectiveness, transparency, equity) rather than digitization metrics alone (Twizeyimana & Andersson, 2019). However, the archipelagic case underscores a distinct pathway: spatial fragmentation and connectivity volatility generate predictable service interruptions and delays that can reintroduce administrative burdens for citizens when the system is forced into deferred processing routines. This resonates with research on administrative burden perceptions in rural contexts, where procedural complexity and unreliable service conditions can make digital services feel burdensome rather than empowering (Reissig et al., 2022). By anchoring public value and equity claims in mechanisms (mobility risk, capacity configuration, coordination and discretion), the study contributes a territorialized explanation of why "equal digital access" is insufficient unless coupled with delivery resilience and accountable adaptation.

Overall, the novelty of this research lies in offering an integrative Archipelagic Implementation Framework that combines (1) archipelagic constraints as structural context, (2) administrative and policy capacities as interacting enabling conditions, (3) collaborative governance and street-level adaptation as operational mechanisms, and (4) service quality, accountability, public value, and equity as evaluative outcomes. While stage-model perspectives in e-government emphasize integration toward seamless delivery (Scholta et al., 2019), and implementation scholarship highlights complexity and coordination burdens (Knill et al., 2024; Kårtvedt, 2024), few studies integrate these strands with an explicit archipelagic territorial mechanism. By building a framework that explains how and why mobile services are operationalized under archipelagic fragmentation—and how capacities and adaptations mediate outcomes—this study expands policy implementation and public administration discourse into a geographically under-theorized domain. Its contribution is therefore globally

relevant for island states, archipelagic regions, and other territorially fragmented jurisdictions seeking robust and equitable digital-era service delivery.

6. Conclusion

The study shows that implementing mobile public services in an archipelagic jurisdiction is best understood as an ongoing effort to convert spatial and infrastructural constraints into manageable operational routines. In Raja Ampat, dispersed settlement patterns, sea-transport dependence, weather volatility, and uneven connectivity do not merely slow delivery; they reconfigure implementation tasks by increasing rescheduling frequency, elevating coordination costs, and making real-time processing contingent on portable connectivity. Administrative capacity is therefore expressed less as aggregate resources than as field-operational arrangements—staff rotation to protect core office services, equipment independence for mobile teams, and workflow staging to preserve verification and authorization under time pressure. Policy capacity becomes visible through delivery-system design choices (notably the shift from delayed entry to real-time submission) and the pursuit of institutionalization that stabilizes budgeting, authority, and routinized deployment. Frontline practice operates as a continuity mechanism: street-level decisions about route feasibility, triage, and sequencing mediate the effects of constraints and capacity on service performance. Taken together, these interacting elements shape observable outcomes in service quality and accountability, and determine whether mobile delivery reduces access barriers equitably across dispersed communities.

This article's principal contribution is the Archipelagic Implementation Framework, which advances policy implementation and public administration scholarship by specifying a mechanism-based account of how geography systematically structures implementation. The framework integrates four analytically linked components: archipelagic constraints as structural context; administrative and policy capacities as enabling conditions that determine the feasible set of delivery designs; governance coordination and street-level adaptation as operating mechanisms that translate designs into practice; and service outcomes framed in terms of reliability, accountability, public value, and equity. In doing so, the framework complements established implementation perspectives by making territorial fragmentation conceptually central rather than residual, and by showing how capacity and adaptation interact to sustain continuity under predictable disruption. For practitioners, the framework yields clear leverage points: treat mobility and connectivity risks as routine design parameters; invest in capacity configurations that enable redundancy, portable infrastructure, and parallel channel management; formalize operational authorization and financing for mobile services; and embed traceable procedures that preserve accountability while allowing legitimate discretionary space for frontline adaptation in volatile settings. These implications are immediately relevant for archipelagic local governments seeking resilient, inclusive, and performance-oriented mobile and digital service delivery.

Several limitations qualify the study's claims and motivate future research. As a single-case qualitative design, the findings are intended for analytical generalization rather than statistical inference; patterns identified in Raja Ampat may manifest differently where island geographies, institutional arrangements, and infrastructure profiles vary. The analysis also relies on the depth and accessibility of interviews, administrative documents, and limited observation, which may not capture all informal coordination practices or seasonal extremes across the full annual cycle. Future research should therefore test the framework in other archipelagic and territorially fragmented jurisdictions using comparative multi-case designs to identify boundary conditions and refine mechanism specifications. Complementary quantitative or mixed-method approaches could measure variation in service reliability, delays, and equity impacts, and link these to capacity indicators and connectivity disruptions to strengthen causal inference. Further work is also warranted on the governance of portable connectivity solutions and the accountability implications of real-time versus deferred processing modes in remote digital services. Overall, this study strengthens global public administration discourse by elevating archipelagic context as a central explanatory factor and by providing an actionable, theory-informed framework for designing and governing mobile public services where geography fundamentally conditions implementation.

Author Contributions: "Conceptualization, G.F.; D.F.; Methodology, G.F.; D.F.; S.; Formal analysis, G.F.; S.; Writing, G.F. The authors has read and agreed to the published version of the manuscript"

Funding: "This research received no external funding"

Data Availability Statement: "This article is a literature review and does not generate new primary data. All materials analyzed in this study are derived from publicly available secondary sources, including peer-reviewed journal articles and conference proceedings indexed in recognized academic databases."

Acknowledgments: "The authors gratefully acknowledges institutional and academic support that facilitated the completion of this review. The author also acknowledges the use of artificial intelligence assisted tools for language refinement and editorial support, applied in accordance with responsible research and publication ethics, without altering the scholarly interpretation or substantive content of the manuscript."

Conflicts of Interest: "The authors declare no conflict of interest.".

References

Afzal, M. (2024). Coping with digital transformation in frontline public services: Policing. *Government Information Quarterly*, *41*(4), 101977. https://doi.org/10.1016/j.giq.2024.101977

Benmohamed, N., El Mezouar, C., & Kriouile, A. (2024). Public value creation through open government data: A systematic review. *Government Information Quarterly*, *41*(2), 101930. https://doi.org/10.1016/j.giq.2024.101930

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, *9*(2), 27–40. https://doi.org/10.3316/QRJ0902027

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brenton, S., Baekkeskov, E., & Hannah, A. (2023). Policy capacity: Evolving theory and missing links. *Policy Studies*, *44*(3), 297–315. https://doi.org/10.1080/01442872.2022.2043266

Busch, P. A., & Henriksen, H. Z. (2018). Digital discretion: A systematic literature review of ICT and street-level discretion. *Information Polity*, *23*(1), 3–28. https://doi.org/10.3233/IP-170050

Capano, G., Pritoni, A., & Vicentini, G. (2025). Does policy capacity matter for policy innovation? *Governance*. Advance online publication. https://doi.org/10.1111/gove.70027

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, *41*(5), 545–547. https://doi.org/10.1188/14.ONF.545-547

Chan, F. K. Y., Thong, J. Y. L., Brown, S. A., & Venkatesh, V. (2021). Service design and citizen satisfaction with e-government services: A multidimensional perspective. *Public Administration Review*, *81*(5), 874–894. https://doi.org/10.1111/puar.13370

Chen, Y.-C., Hu, L.-T., Tseng, K.-C., Juang, W.-J., & Chang, C.-K. (2019). Cross-boundary e-government systems: Determinants of performance. *Government Information Quarterly*, *36*(3), 449–459. https://doi.org/10.1016/j.giq.2019.02.001

Choi, T., & Chandler, S. M. (2020). Knowledge vacuum: An organizational learning dynamic of how e-government innovations fail. *Government Information Quarterly*, *37*(1), 101416. https://doi.org/10.1016/j.giq.2019.101416

Domorenok, E., Graziano, P., & Polverari, L. (2021). Introduction: Policy integration and institutional capacity. *Policy and Society*, *40*(1), 1–18. https://doi.org/10.1080/14494035.2021.1902058

Dubois, A., & Gadde, L.-E. (2002). Systematic combining: An abductive approach to case research. *Journal of Business Research*, *55*(7), 553–560. https://doi.org/10.1016/S0148-2963(00)00195-8

Ferraro, G., & Failler, P. (2024). Biodiversity, multi-level governance, and policy implementation in Europe: A comparative analysis at the subnational level. *Journal of Public Policy*, *44*, 546–572. https://doi.org/10.1017/S0143814X24000072

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, *12*(2), 219–245. https://doi.org/10.1177/1077800405284363

Fowler, L. (2022). Using the multiple streams framework to connect policy adoption to implementation. *Policy Studies Journal*, *50*(3), 615–639. https://doi.org/10.1111/psj.12381

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, *18*(1), 59–82. https://doi.org/10.1177/1525822X05279903

Haug, N., Dan, S., & Mergel, I. (2024). Digitally induced change in the public sector: A systematic review and research agenda. *Public Management Review*, *26*(7), 1963–1987. https://doi.org/10.1080/14719037.2023.2234917

Hennink, M. M., Kaiser, B. N., & Marconi, V. C. (2017). Code saturation versus meaning saturation: How many interviews are enough? *Qualitative Health Research*, *27*(4), 591–608. https://doi.org/10.1177/1049732316665344

Kårtvedt, L. E. (2024). Explaining coordination quality in public service delivery. *Public Performance & Management Review*, *47*(4), 849–872. https://doi.org/10.1080/15309576.2024.2315016

Knill, C., Tosun, J., & Schmidt, A. (2024). How policy growth affects policy implementation: A theoretical and comparative assessment. *Journal of European Public Policy*, *31*(4), 782–801. https://doi.org/10.1080/13501763.2022.2158208

Leosari, Y., Uelmen, J. A., & Carney, R. M. (2023). Spatial evaluation of healthcare accessibility across archipelagic communities of Maluku Province, Indonesia. *PLOS Global Public Health*, *3*(3), e0001600. https://doi.org/10.1371/journal.pgph.0001600

Ly, B. (2023). Digital innovation in public service delivery: How digitalisation can accelerate social innovation. *Government Information Quarterly*, *40*(1), 101712. https://doi.org/10.1016/j.giq.2022.101712

Madubun, J. (2024). Public services in island sub-districts: Towards geography-based governance. *Australian Journal of Public Administration*, *83*(3), 308–327. https://doi.org/10.1111/1467-8500.12586

Miller, E. A. (2025). Moving beyond third generation policy implementation studies: A framework based on the analogies of complexity and cooking. *Policy Studies Journal*, *53*(2), 207–227. https://doi.org/10.1111/psj.70078

Ministry of Administrative and Bureaucratic Reform of the Republic of Indonesia. (2019, February 12). BMKG imbau masyarakat waspadai gelombang tinggi di beberapa wilayah. https://www.menpan.go.id

Ministry of Women's Empowerment and Child Protection of the Republic of Indonesia. (2018, September 5). Raja Ampat optimis capai target kepemilikan akta kelahiran [Press release]. https://kemenpppa.go.id

Mukherjee, I., Coban, M. K., & Bali, A. S. (2021). Policy capacities and effective policy design: A review. *Policy Sciences*, *54*, 243–268. https://doi.org/10.1007/s11077-021-09420-8

Nielsen, M. H., & Andersen, N. Å. (2024). Ignoring by complying: How public officials handle hybridity to pursue the goals of new public governance. *Public Administration*, *102*(4), 1382–1396. https://doi.org/10.1111/padm.12979

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16*, 1–13. https://doi.org/10.1177/1609406917733847

Orb, A., Eisenhauer, L., & Wynaden, D. (2001). Ethics in qualitative research. *Journal of Nursing Scholarship*, *33*(1), 93–96. https://doi.org/10.1111/j.1547-5069.2001.00093.x

Overman, S., & Schillemans, T. (2022). Toward a public administration theory of felt accountability. *Public Administration Review*, *82*(1), 43–55. https://doi.org/10.1111/puar.13417

Reissig, L., Stoinescu, A., & Mack, G. (2022). Why farmers perceive the use of e-government services as an administrative burden: A conceptual framework on influencing factors. *Journal of Rural Studies*, *89*, 387–396. https://doi.org/10.1016/j.jrurstud.2022.01.002

Ridder, H.-G. (2017). The theory contribution of case study research designs. *Business Research*, *10*, 281–305. https://doi.org/10.1007/s40685-017-0045-z

Rossi, U. (2025). Street-level bureaucrats as policymakers: Rethinking political work in public services. *Public Management Review*. Advance online publication. https://doi.org/10.1080/14719037.2024.2362247

Roy, M. J., Maetz, A., Wolff, M., Bua, J., & Anand, S. (2023). Factors affecting policy capacity during the implementation of a community health worker programme in Rwanda. *Policy and Society*, *42*(1), 90–103. https://doi.org/10.1093/polsoc/puac032

Ruijer, E. (2021). Designing and implementing data collaboratives: A governance perspective. *Government Information Quarterly*, *38*(4), 101612. https://doi.org/10.1016/j.giq.2021.101612

Sager, H., & Thomann, E. (2017). Multiple streams in member state implementation: Politics, problem construction and policy paths in Swiss asylum policy. *Journal of Public Policy*, *37*(3), 287–316. https://doi.org/10.1017/S0143814X16000273

Scholta, H., Mertens, W., Kowalkiewicz, M., & Becker, J. (2019). From one-stop shop to no-stop shop: An e-government stage model. *Government Information Quarterly*, *36*(1), 11–26. https://doi.org/10.1016/j.giq.2018.11.010

Setiawan, A., Tjiptoherijanto, P., Mahi, B. R., & Khoirunurrofik, K. (2022). The impact of local government capacity on public service delivery: Lessons learned from decentralized Indonesia. *Economies*, *10*(12), 323. https://doi.org/10.3390/economies10120323

Sharma, S. K., Metri, B., Dwivedi, Y. K., & Rana, N. P. (2021). Challenges common service centers face in delivering e-government services in rural India. *Government Information Quarterly*, *38*(2), 101573. https://doi.org/10.1016/j.giq.2021.101573

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, *22*(2), 63–75. https://doi.org/10.3233/EFI-2004-22201

Suebvises, P. (2018). Social capital, citizen participation in public administration, and public sector performance in Thailand. *World Development*, *109*, 236–248. https://doi.org/10.1016/j.worlddev.2018.05.007

Torfing, J. (2019). Collaborative innovation in the public sector: The argument. *Public Management Review*, *21*(1), 1–11. https://doi.org/10.1080/14719037.2018.1430248

Tran, P. T. K. (2023). Government administrative capacity, e-government performance and citizen's e-government adoption: Evidence from a transition country. *Transforming Government: People, Process and Policy*, *17*(3), 443–458. https://doi.org/10.1108/TG-09-2022-0120

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

Vian, T. (2020). Anti-corruption, transparency and accountability in health: Concepts, frameworks, and approaches. *Global Health Action*, *13*, 1694744. https://doi.org/10.1080/16549716.2019.1694744

PLN. (2023, October 2). Inovasi PLN "SuperSUN", raih juara SDG Innovation Summit 2023 di New York, Amerika. https://web.pln.co.id

Secretariat Cabinet of the Republic of Indonesia. (2023, December 28). Rasa senang warga atas kehadiran BTS 4G dan akses internet di daerah 3T. https://setkab.go.id

Sorong News. (2023, December 22). Alasan cuaca, Pelni alihkan pelayaran KM Sabuk Nusantara. https://sorongnews.com

Antara News Papua Tengah. (2025, September 9). Pemkab Raja Ampat lakukan pendataan OAP di distrik dan kampung. https://papuatengah.antaranews.com/berita/71417/pemkab-raja-ampat-lakukan-pendataan-oap-di-distrik-dan-kampung

Komisi Pemberantasan Korupsi. (2025, December 15). Optimalisasi aset negara, KPK fasilitasi serah terima pelabuhan dan bandara Rp106 miliar di Papua Barat Daya. https://kpk.go.id/id/berita/siaran-pers/3336-optimalisasi-aset-negara-kpk-fasilitasi-serah-terima-pelabuhan-dan-bandara-rp106-miliar-di-papua-barat-daya