

Digital Transformation in Religious Public Administration: Policy Innovation for Inclusive Services

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Article History	Received (August 3 rd , 2026)	Revised (September 5 th , 2026)	Accepted (October 12 th , 2026)
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Keywords:

Digital
Transformation;
Administrative
Burden;
Digital Inclusion;
Public Service Logic;
Religious Public
Administration.

Abstract

Digital transformation can expand access to public services, yet fragmented administrative responsibilities and unequal digital capabilities may prevent users from benefiting from these changes. This study examines how policy innovation can connect institutional coordination and responsiveness to diverse user needs to support inclusive services in religious public administration. Adopting an interpretive approach, the study employs qualitative conceptual synthesis of theoretical contributions and published empirical research selected for their conceptual and substantive relevance. Analysis involves repeated reading, thematic interpretation, and comparison of concepts and arguments, guided by collaborative governance and public service logic. The synthesis indicates that policy innovation can support coordination by clarifying responsibilities, aligning procedures, and establishing arrangements for resolving problems across administrative units. Alongside these organizational arrangements, responsiveness requires attention to users' ability to complete service processes and their opportunities to influence service decisions through accessible participation and appropriate assistance. Bringing these dimensions together suggests that identified barriers can inform procedural adjustment when connected to institutions with the authority and capacity to respond. Moreover, experiences of unsuccessful access provide relevant input for policy revision alongside feedback from users who complete services. The study proposes a conceptual model linking organizational capacity with user inclusion and offers guidance for reviewing service responsibilities, participation arrangements, and support mechanisms. These relationships remain propositions for empirical examination within public institutions administering religious affairs.

To cite this article: M. Isroul Laili, Yayah Dwi Hayatun, Singh Dhepa Manggala. (2026). Digital Transformation in Religious Public Administration: Policy Innovation for Inclusive Services. *AMUYA: Indonesian Journal of Management Reviews*, Volume 2 (2), Page: 567-590. DOI: <https://doi.org/10.61860/amuya.v2i2.119>



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INTRODUCTION

Research Background

Digital transformation has become an important agenda in public administration. It extends beyond converting paper records into electronic formats to changes in organizational processes, working practices, and service relationships ([Mergel et al., 2019](#); [Vial, 2019](#)), shaped by organizational factors that facilitate or constrain the integration of technology ([Haug et al., 2024](#); [Tangi et al., 2021](#)). At the service level, it changes how citizens encounter officials, exchange information, and navigate administrative procedures ([Lindgren et al., 2019](#)).

Religious public administration is a particular setting within this transformation. It refers here to the activities of state agencies that administer religious affairs on behalf of citizens, such as marriage registration, pilgrimage organization, halal certification, zakat and waqf management, and religious education. The study addresses Indonesia, where the Ministry of Religious Affairs and its sub-district offices (*Kantor Urusan Agama*, KUA) deliver services digitalized through the marriage management information system (SIMKAH) and the integrated hajj information system (SISKOHAT) ([Hafiz & Nurdianty, 2024](#); [Sulistiani et al., 2025](#)), while halal certification runs through SIHALAL ([Law No. 33 of 2014](#); [Bidin et al., 2026](#)); the analysis may be transferred with caution to other states that administer religious affairs. This setting must be distinguished from the internal activities of religious organizations, where digital adoption also varies across functions ([Izquierdo-Iranzo, 2025](#)).

Several features distinguish this setting. First, eligibility is tied to religious status, so that conversion, the recognition of minority religions and local belief systems (*penghayat kepercayaan*), and interfaith circumstances produce cases that standard procedures do not anticipate ([Constitutional Court Decision No. 97/PUU-XIV/2016, 2017](#)). Second, religious organizations and leaders often mediate between citizens and the state, facilitating access but also shaping whose needs are represented ([Jati et al., 2024](#)). Third, these services process data on religious affiliation, a special category of personal data in the European Union ([European Parliament & Council of the European Union, 2016](#)) that is also protected under Indonesian law ([Law No. 27 of 2022](#)). Fourth, marriage administration raises gender-specific questions, for example where marriage below the minimum age of 19 requires a court dispensation ([Law No. 16 of 2019](#)).

Indonesian-language studies report that SIMKAH has improved the efficiency, accuracy, and transparency of marriage registration but is constrained by limited human resources and infrastructure, unreliable internet connections, and uneven digital literacy ([Sulistiani et al., 2025](#)); that low digital skills, weak rural internet access, and insufficient technical assistance limit SIHALAL among micro and small businesses ([Bidin et al., 2026](#)); and that SISKOHAT has been effective for special hajj registration in Jakarta ([Hafiz & Nurdianty, 2024](#)). Reform in this sector has also been driven by integrity concerns, as when marriage

registration at the KUA was made free of charge during office hours to curb gratification ([Government Regulation No. 48 of 2014](#); [Republika, 2014](#)).

Inclusion matters because digital inequality involves more than connectivity: devices, costs, skills, and patterns of use shape the benefits people obtain from digital technologies ([Scheerder et al., 2017](#); [van Deursen & van Dijk, 2019](#)). Digital self-service may transfer tasks from caseworkers to citizens ([Madsen et al., 2022](#)), automation may cover some citizens while others depend on alternative processes ([Larsson, 2021](#)), and European research treats access, skills, user interaction, social conditions, and outcomes as interconnected dimensions of inclusion ([Morte-Nadal & Esteban-Navarro, 2025](#)).

Empirical indicators show why these concerns matter. Internet penetration in Indonesia reached 79.5% in 2024 ([ANTARA, 2024](#)), but only 60.52% among Baby Boomers and 32% among those born before 1946 ([Databoks, 2024](#)), a gap that is consequential for services used by older citizens, such as hajj registration. Systematic public data on complaints and on the completion and abandonment of digital religious services are not available, which itself limits the evaluation of inclusion; the model proposed here treats such data as a necessary input for policy revision.

Decisions about procedures, assistance channels, and the allocation of responsibilities therefore accompany the introduction of digital technologies ([Mergel et al., 2019](#); [Tangi et al., 2021](#)). Inclusion recommendations stress simple interaction, digital skills, and assistance for people who encounter difficulties ([Morte-Nadal & Esteban-Navarro, 2025](#)), while the effects of digitally supported co-production remain contingent on how technologies are embedded ([Lember et al., 2019](#)). The public value of digital government lies in improved services and social value experienced by citizens rather than in technologies themselves ([Panagiotopoulos et al., 2019](#); [Twizeyimana & Andersson, 2019](#)).

Existing frameworks explain parts of this problem. Digital-era governance emphasizes reintegration and needs-based holism ([Dunleavy et al., 2006](#); [Margetts & Dunleavy, 2013](#)), administrative burden theory explains the learning, compliance, and psychological costs that procedures impose on citizens ([Herd & Moynihan, 2018](#); [Moynihan et al., 2015](#)), and digital inclusion recommendations specify dimensions of access and support ([Morte-Nadal & Esteban-Navarro, 2025](#)). What remains unexplained is how information about users who fail to complete digital services reaches the units with authority to change procedures, particularly where services involve several agencies and are mediated by religious organizations. This study addresses that gap by proposing a model in which unsuccessful access is a formal input to policy revision and responsibility for reported barriers is explicitly assigned.

Problem Identification

The central problem concerns the alignment between institutional coordination and user inclusion. Research on government platforms identifies tensions in coordinating data access, organizational responsibilities, and collaborative innovation ([Gong & Li, 2023](#)), while research on digital co-production shows that participation arrangements can limit whose needs are represented ([Perikangas & Tuurnas, 2024](#)). Digital religious services may

therefore become administratively integrated without accommodating users who have limited opportunities to influence them, as in Indonesia, where platforms have been introduced while staffing, infrastructure, and digital-literacy constraints persist ([Bidin et al., 2026](#); [Sulistiani et al., 2025](#)). Because direct evidence is limited, the problem is treated as a general public-administration problem for which religious administration serves as a distinctive illustrative domain.

Research Questions

1. What policy mechanisms does the literature suggest for supporting coordination across administrative units in the digital transformation of religious public administration?
2. What does the literature suggest about how the needs of users with differing digital capabilities and opportunities for participation can be incorporated into the design and delivery of religious administrative services?
3. Under what conditions do institutional coordination and responsiveness to diverse user needs reinforce or conflict with each other in inclusive digital service provision?

Because the study is a conceptual synthesis, the answers to these questions take the form of propositions (P1–P3) rather than empirical findings.

Research Objectives and Significance

This study examines how policy innovation can connect digital transformation with inclusive service provision in religious public administration. It analyzes policy arrangements that support coordination across administrative units, examines how differences in users' digital capabilities and opportunities for participation can be considered in service design and delivery, and clarifies how institutional coordination and responsiveness to user needs can jointly inform inclusive digital services.

Theoretically, the study connects institutional coordination with user inclusion in this setting. Practically, it can inform administrators when reviewing service responsibilities, participation arrangements, and support for users facing digital barriers. Socially, it draws attention to people whose needs may be under-represented in digital processes, such as elderly prospective pilgrims, rural couples registering marriages, adherents of minority religions and local beliefs, people with disabilities, and micro-entrepreneurs applying for halal certification.

LITERATURE REVIEW

Research on digital public administration approaches service transformation through organizational redesign, coordination, and collaboration. Reviews identify potential gains in efficiency, citizen involvement, and accountability, and studies of digital service teams emphasize supporting organizational arrangements ([Latupeirissa et al., 2024](#); [Mergel, 2019](#)).

[Cordella and Paletti \(2019\)](#) locate public value creation in the orchestration of services within government platforms, innovation scholarship frames adoption as a collaborative process across organizational boundaries ([Bekkers & Tummers, 2018](#); [de Vries et al., 2018](#)), and Danish evidence links stakeholder involvement with public value ([Scupola & Mergel, 2022](#)). Collaboration also raises questions of responsibility, since digitalization may enable horizontal accountability while blurring organizational roles ([Agostino et al., 2022](#); [Grossi & Argento, 2022](#)). Evidence of organizational innovation does not, however, demonstrate inclusive outcomes.

User-centred research qualifies these accounts. [Harvey et al. \(2023\)](#) identify digital exclusion in UK council services, particularly for older and marginalized users; an integrative review highlights connectivity, skills, language, and cost barriers ([Raihan et al., 2025](#)); research on marginalized communities stresses interacting infrastructural, capability-related, and institutional constraints ([Djarmiko et al., 2025](#)); and [Zhuang et al. \(2025\)](#) find fragmented treatment of online and offline services. These studies differ in coverage and scale, but public service logic offers a common lens by locating value in service use rather than organizational outputs ([Osborne, 2018](#)), and an ecosystem perspective connects value creation with participation that combines lived experience and professional expertise ([Strokosch & Osborne, 2020](#)).

The reviewed literature is predominantly European and North American; only [Djarmiko et al. \(2025\)](#) and [Latupeirissa et al. \(2024\)](#) relate to Indonesia, and South Asian evidence is absent. Because the state administers religious affairs more prominently in countries such as Indonesia, Malaysia, and India than in most European settings, European findings should be transferred to religious administration only with caution.

Digital religion scholarship examines religious practices and spirituality in digital environments ([Campbell & Evolvi, 2020](#)) but does not establish how public institutions coordinate religious administrative services. The selected literature contains no English-language peer-reviewed study that directly examines the digital administration of state-run religious services, such as religious-affairs ministries, pilgrimage, marriage registration, halal certification, or zakat and waqf administration; the religious framing of this study is therefore developed analytically rather than drawn from direct empirical evidence.

Indonesian-language studies published in nationally accredited (SINTA-indexed) journals were therefore consulted as contextual evidence on SIMKAH ([Sulistiani et al., 2025](#)), SISKOHAT ([Hafiz & Nurdianty, 2024](#)), and SIHALAL ([Bidin et al., 2026](#)). They are mainly descriptive single-site assessments of efficiency and implementation constraints, were not part of the coded corpus, and are used to illustrate how the proposed relationships may appear in the target setting.

The synthesis therefore examines how policy innovation aligns coordination across administrative units with responsiveness to users whose capabilities and opportunities for participation differ. Table 1 shows that organizational studies rarely examine users who fail to complete services, while user-centred studies rarely identify which units are responsible for addressing barriers.

Table 1. Synthesis of key studies and their relevance to religious public administration

Study	Country/ Context	Service Context	Focus	Main Finding	Relevance to Religious Administration
Cordella & Paletti (2019)	Italy	Government platform	Organizational	Orchestration is a managerial task in platform-based public value creation	Shared platforms (e.g., SIMKAH) need assigned orchestration across units
Gong & Li (2023)	China	Government platforms	Organizational	Boundary resources govern interactions in collaborative service innovation	Rules for cross-unit data access and responsibility
Agostino et al. (2022)	International review	Public services	Organizational	Digitalization enables horizontal accountability but can blur roles	Accountability in multi-agency religious services
Scupola & Mergel (2022)	Denmark	Digital transformation strategy	Organizational/co-production	Stakeholder involvement is linked to public value creation	Which stakeholders are involved in service design
Harvey et al. (2023)	United Kingdom	Council services	User-centred	Digital exclusion imposes costs on older and marginalized users	Elderly applicants and rural users
Madsen et al. (2022)	Nordic context	Digital self-service	User-centred	Self-service shifts administrative work to citizens	Burdens of online religious-service procedures
Larsson (2021)	Sweden	Automated decisions	User-centred	Automation covers some citizens but not others	Uneven coverage of digital procedures
Giest & Samuels (2023)	Netherlands	Library e-inclusion programmes	User-centred	Social infrastructure reduces burdens in digital services	KUA offices and religious extension workers as support
Perikangas & Tuurnas (2024)	Finland	Digital co-production	User-centred/participation	Inclusion dilemmas arise throughout co-production	Consultation beyond established religious organizations
Djarmiko et al. (2025)	Indonesia	E-government for marginalized groups	User-centred	Infrastructural, capability, and institutional constraints interact	Closest contextual evidence from the target country
Morte-Nadal & Esteban-Navarro (2025)	European Union	European digital public services	User-centred	Recommendations on access, skills, interaction, and assistance	Benchmark for inclusion dimensions
Sulistiani et al. (2025)*	Indonesia	SIMKAH marriage registration	Organizational and user	Efficiency gains; human-resource, infrastructure, and literacy constraints	Direct evidence on a religious service
Bidin et al. (2026)*	Indonesia	SIHALAL halal certification	User-centred	Low digital skills, weak rural internet, and limited assistance	Direct evidence on a religious service

* Indonesian-language contextual study; not part of the coded corpus.

Source: Authors' synthesis of the reviewed literature.

THEORETICAL AND CONCEPTUAL FRAMEWORK

Theoretical Framework

This study integrates collaborative governance and public service logic. Collaborative governance explains how institutional design, facilitative leadership, trust, and shared understanding shape collective action ([Ansell & Gash, 2008](#)), extends to cooperation across administrative and sectoral boundaries ([Emerson et al., 2012](#)), and explains how collaborative platforms sustain cooperation through dedicated resources ([Ansell & Gash, 2018](#)). Because the coordination problem is largely intra-governmental—digital religious services cross units within the ministry, connect it with civil registration offices (Dukcapil) and religious courts, and link national, provincial, and sub-district levels—relations among public units are analyzed through the whole-of-government lens ([Christensen & Lægreid, 2007](#)), while religious organizations, religious leaders, and halal auditors are treated as non-state collaborative partners.

Collaborative innovation connects diverse actors' knowledge to new policy and service arrangements, although its suitability depends on context ([Hartley et al., 2013](#); [Sørensen & Torfing, 2011](#)). Public service logic locates value creation in users' experiences rather than administrative outputs ([Osborne, 2018](#)) and connects service interactions with wider institutional and individual circumstances ([Osborne et al., 2021, 2022](#)), while digital inequality scholarship shows that motivation, material access, skills, and use shape participation in digital services ([van Dijk, 2006](#)).

The perspectives have distinct roles: whole-of-government and collaborative governance explain who coordinates and how; public service logic explains where value is created; digital inequality explains why users differ in their capacity to use digital services; administrative burden theory explains what procedures demand by distinguishing learning, compliance, and psychological costs ([Herd & Moynihan, 2018](#); [Moynihan et al., 2015](#)); and digital-era governance provides the overarching account of transformation as reintegration and needs-based holism ([Dunleavy et al., 2006](#)). The model links the institutional capacity to act with the costs and capabilities that determine whether users can complete services.

Conceptual Framework

The framework positions digital transformation as the administrative context, policy innovation as the institutional intervention, and inclusive service provision as the evaluative concern. Policy innovation refers to substantively new arrangements governing service responsibilities, procedures, and participation ([Hartley et al., 2013](#); [Sørensen & Torfing, 2011](#)), distinct from service innovation, which changes how a particular service is delivered, and from routine reform, which improves the implementation of existing rules. An arrangement counts as policy innovation when it changes the rules that allocate authority or obligations—for example, by formally assigning responsibility for cross-unit cases, creating an entitlement to assisted or offline completion, or requiring that abandoned applications be reviewed.

Two dimensions specify its contribution: institutional coordination, concerning procedural alignment and capacity for joint action ([Emerson et al., 2012](#)), and responsiveness, concerning how arrangements accommodate differing capabilities and experiences ([Osborne, 2018](#); [van Dijk, 2006](#)). Their reciprocal relationship—coordination enables agencies to address identified barriers, while user feedback informs adjustment across levels of the service ecosystem ([Osborne et al., 2022](#))—is the provisional starting point of the synthesis (Figure 1). Inclusion is examined through opportunities to access and complete services, obtain assistance, and communicate needs.

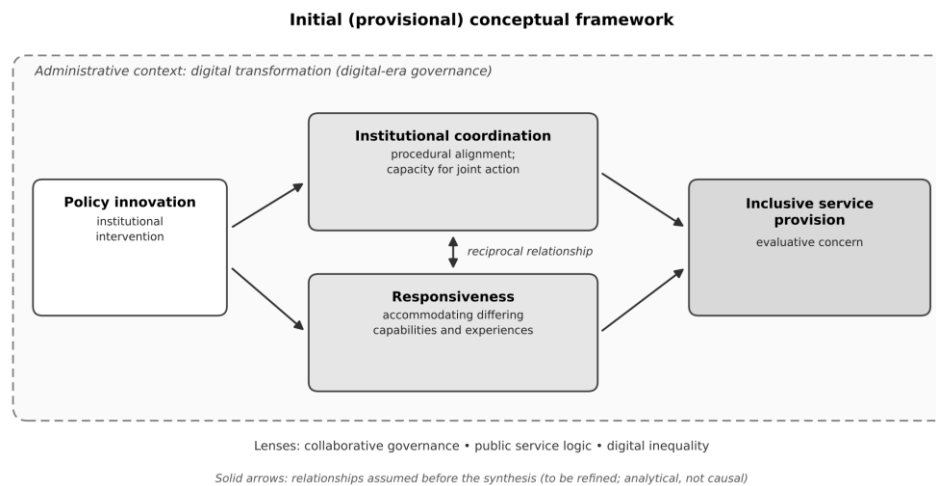


Figure 1. Initial (provisional) conceptual framework

Note: The framework was specified before the synthesis and served as its starting point; the refined model is presented in Figure 2. Source: Authors' elaboration.

METHODOLOGY

This study adopts an interpretive approach and qualitative conceptual synthesis, which brings theoretical arguments and published findings into dialogue to clarify relationships among concepts ([Jaakkola, 2020](#)). Of the four approaches to conceptual papers distinguished by [Jaakkola \(2020\)](#)—theory synthesis, theory adaptation, typology, and model—it follows the model approach, which builds a framework explaining relationships between concepts; the results are therefore stated as numbered propositions (P1–P3) with boundary conditions. The scope covers public institutions administering religious affairs, and the study develops a theoretically informed interpretation rather than testing causal relationships or measuring service effectiveness.

Sources were selected for their conceptual and substantive relevance to digital public administration, policy innovation, institutional coordination, and user inclusion, emphasizing contributions to the research questions rather than comprehensive coverage ([Snyder, 2019](#)). Searches in Scopus and Google Scholar combined keywords on digital transformation, digital government, policy innovation, collaborative governance, public service logic, digital inclusion and exclusion, administrative burden, co-production, and digital religion, and covered English-language journal articles published between 2006 and 2025. Sources were excluded when they were not directly relevant to digital public administration, institutional coordination, or user inclusion. The analytical corpus

comprises 44 sources (Appendix Table A1); methodological references and references added during revision to strengthen the theoretical discussion and the Indonesian context are not part of it.

Searches were conducted in February–June 2026 in three rounds, following the hermeneutic approach ([Boell & Cecez-Kecmanovic, 2014](#)): keyword searches in Scopus (TITLE-ABS-KEY) and Google Scholar, which retrieved [n] Scopus records and [n] screened Google Scholar results; backward and forward citation chaining from key sources; and targeted searches on digital religion and digital religious services. After title and abstract screening ([n] records) and full-text assessment ([n] sources), 44 sources were retained. The period begins with the shift toward digital-era governance and the multidimensional account of the digital divide ([Dunleavy et al., 2006](#); [van Dijk, 2006](#)). The English-language restriction ensures comparability with the international literature but is consequential, because most research on state religious administration in Indonesia is published in Indonesian; such studies were therefore used as contextual evidence, and the restriction is listed as a key limitation.

Analysis proceeded through repeated reading, thematic interpretation, and comparison of arguments, following a hermeneutic review ([Boell & Cecez-Kecmanovic, 2014](#)) organized around the three research questions. Each source was entered into an extraction matrix recording its context, service domain, type of evidence, key concepts, findings, and the propositions it informed; the first and second authors extracted the data, the third reviewed the matrix, and disagreements were resolved through discussion. Themes were refined when sources qualified or contradicted an emerging interpretation, competing explanations (for example, that standardization and self-service improve efficiency) were sought deliberately, and an open field for other observations produced the boundary conditions and the distinction between feedback from completed and abandoned applications.

The second author works at the Regional Office of the Ministry of Religious Affairs in Central Java, which informed the choice of illustrative services (marriage registration, hajj registration, and halal certification); no internal documents or non-public data were used, and interpretations were checked against published sources to limit insider bias. No formal quality appraisal was carried out, because the corpus combines theoretical and empirical contributions of different types; instead, the evidential scope and setting of each source were recorded and considered in interpretation.

RESULTS AND DISCUSSION

Research Findings

The synthesis develops three connected propositions, which integrate theoretical arguments and published evidence and apply to religious public administration as conceptual propositions rather than observed institutional outcomes:

P1 (coordination). Digital integration improves service completion only when responsibility for problems that cross administrative units is formally assigned and procedures across participating units are aligned.

P2 (responsiveness). Digital religious services are more inclusive when they reduce the learning, compliance, and psychological costs borne by users—through clear requirements, assisted and offline channels, and routes for reviewing non-standard cases—and when participation extends beyond established religious representatives to users who do not complete services.

P3 (integration). Inclusion improves when experiences of unsuccessful access are recorded and routed to units with the authority and capacity to revise procedures, and when the effects of those revisions are reviewed.

Compared with the initial framework (Figure 1), which posited only a reciprocal relationship between coordination and responsiveness, the propositions add three elements: the specific mechanisms through which the relationship operates, the boundary conditions under which it may not hold, and sources of variation specific to religious administration. Table 3 reports the evidential base of each proposition.

Policy Innovation as an Organizational Basis for Coordination

The first proposition distinguishes connecting digital systems from coordinating administrative action. Collaborative governance locates collective action in arrangements that enable shared understanding and work across organizational boundaries ([Ansell & Gash, 2008](#); [Emerson et al., 2012](#)), but a shared platform does not establish who must resolve incomplete applications, reconcile inconsistent records, or respond when a service crosses departmental responsibilities. Policy innovation can translate connectivity into collective action by substantively revising rules, responsibilities, or participation arrangements; routine coordination alone does not constitute policy innovation.

Platform research reinforces this distinction: [Cordella and Paletti \(2019\)](#) identify orchestration as a managerial task in public value creation, and [Gong and Li \(2023\)](#) show how boundary resources govern interactions in collaborative service innovation. P1 is informed by 11 corpus sources, three of them empirical ([Cordella & Paletti, 2019](#); [Gong & Li, 2023](#); [Mergel, 2019](#)), all from outside religious administration, while [Agostino et al. \(2022\)](#) point partly in the opposite direction by showing that digitalization can blur organizational roles. Applied to religious administration, coordination involves responsibility for each service stage, compatibility between units' procedures, and arrangements for problems no single unit can resolve.

In Indonesian marriage administration, for example, a couple may register through SIMKAH, but completion depends on several units: the KUA verifies documents and conducts the registration, the population database maintained by civil registration offices is used to check identity and marital status ([Sulistiani et al., 2025](#)), and, where a partner is below the minimum marriage age of 19, a court must grant a dispensation ([Law No. 16 of 2019](#)). A failure at any point—an inconsistent population record, a missing dispensation, or an unrecognized document—can stall the application without any unit being responsible for resolving it. P1 implies that such cases need a designated unit, typically the KUA, with authority to coordinate their resolution.

Coordination also involves a tension between procedural consistency and contextual responsiveness, since collaborative arrangements remain sensitive to institutional circumstances ([Ansell & Gash, 2018](#); [Hartley et al., 2013](#)). Shared procedures therefore need mechanisms for legitimate variation in documentation, language, geographical access, or assistance, as well as variation specific to religious administration: requirements tied to religious status or conversion, the recognition of minority religions and local beliefs in population records ([Constitutional Court Decision No. 97/PUU-XIV/2016, 2017](#)), gender-specific requirements and court dispensations ([Law No. 16 of 2019](#)), and religious leaders acting as informal intermediaries. P1 is thus organizational: integration supports inclusion when service responsibilities become actionable across administrative boundaries.

Responsiveness through Accessible Services and Meaningful Participation

The second proposition distinguishes opportunities to use services from opportunities to influence their design. Differences in motivation, material access, skills, and use mean that an online service does not guarantee benefit ([van Dijk, 2006](#)), and public service logic locates value in users' experiences ([Osborne, 2018](#); [Osborne et al., 2021](#)). Responsiveness therefore lies in the relationship between administrative requirements and users' capacities to meet them, and inclusion concerns the ability to complete a service process, not merely the availability of a digital entry point.

The allocation of administrative work is central. [Madsen et al. \(2022\)](#) show how digital self-service shifts work to citizens, an administrative-burden argument: procedures impose learning, compliance, and psychological costs ([Herd & Moynihan, 2018](#); [Moynihan et al., 2015](#)). Digital religious services can shift each to users: learning costs when marriage or hajj requirements are explained only online, compliance costs when documents must be uploaded in prescribed formats, and psychological costs when applicants with contested religious status must justify it repeatedly. Arrangements that simplify internal processing can thus demand substantial user effort; clear instructions, accessible communication, and assisted channels are possible responses rather than interventions whose effectiveness this study establishes.

Participation presents a related challenge. [Perikangas and Tuurnas \(2024\)](#) show that inclusion dilemmas extend throughout digital co-production, so feedback channels may reveal the experiences of current participants while saying little about people unable to reach or use a service. Representation and institutional response are therefore complementary: whose needs become visible, and how they enter administrative decisions. In Indonesia, consultation on religious matters often relies on established religious organizations and interreligious harmony forums (*Forum Kerukunan Umat Beragama*, FKUB), whose membership has been drawn largely from leaders of officially recognized religions and described as elitist and generationally narrow ([Jati et al., 2024](#)). Relying on such channels risks excluding minority denominations, adherents of local beliefs, women, young people, and rural or less organized communities; P2 implies complementing them with direct channels for users, including those who abandoned their applications.

Connecting Coordination and Responsiveness for Inclusive Provision

The third proposition connects the organizational and user dimensions ([Emerson et al., 2012](#); [Osborne et al., 2022](#)). Coordination without attention to user experience may produce consistent but hard-to-navigate procedures, whereas recognizing user needs has limited consequence when agencies lack the authority or arrangements to act on them; these are conceptual possibilities rather than observed outcomes.

Policy innovation occupies the connection when it establishes how information about service difficulties leads to administrative adjustment. The synthesis proposes a reciprocal process: users' experiences identify problems, responsibility arrangements determine which units can respond, and procedural changes create a basis for reviewing whether problems have been addressed ([Ansell & Gash, 2018](#); [Osborne et al., 2022](#)). Figure 2 brings these relationships together, with experiences of unsuccessful access providing input for administrative adjustment.

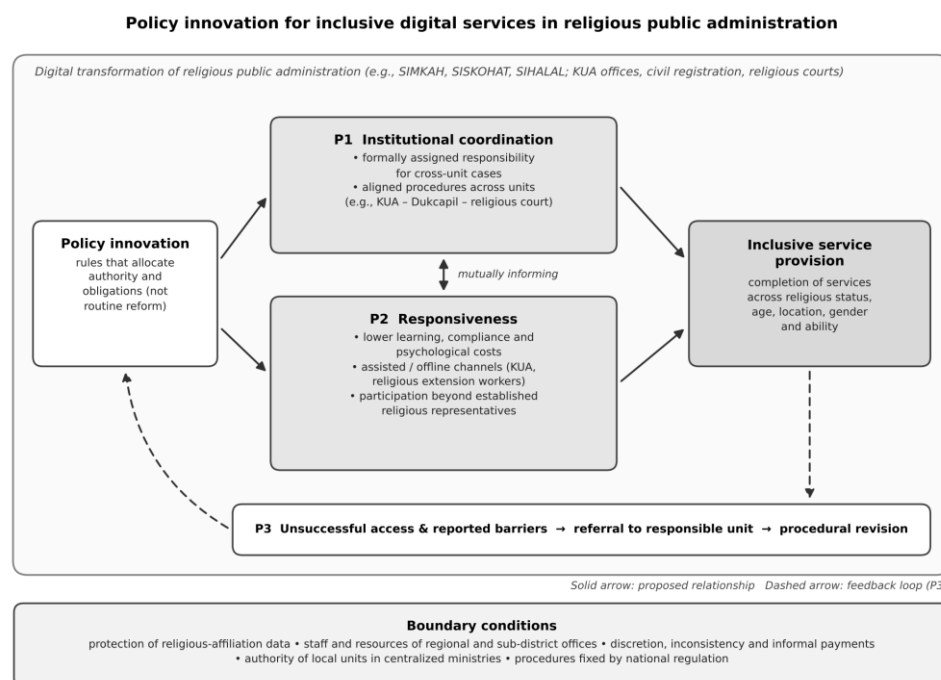


Figure 2. Proposed conceptual model of policy innovation for inclusive digital services in religious public administration.

Note: Solid arrows indicate proposed relationships; dashed arrows indicate the feedback loop specified in P3. The relationships are analytical propositions, not empirically established effects. Source: Authors' synthesis.

In this model, user experiences and access barriers enter independently of successful completion, allowing exclusion itself to inform policy revision. Table 2 details the propositions and proposed mechanisms, and Table 3 reports their evidential base, illustrations from religious administration, and possible indicators.

Table 2. Conceptual synthesis of policy innovation and inclusive digital service provision

Analytical Dimension	Conceptual Proposition	Proposed Administrative Mechanism	Relevance to Inclusive Services
Institutional coordination	Digital integration requires clear responsibilities and aligned procedures to support coordinated service delivery.	Allocation of service responsibilities, alignment of procedures, and arrangements for resolving problems across units.	May reduce fragmented responses and difficulties when users move between administrative units.
Responsiveness in service use	Access depends on users' ability to navigate and complete service procedures, beyond the availability of digital channels.	Adjustment of instructions, assistance, and service channels to differing user capabilities and access barriers.	May enable users with differing support needs to complete administrative processes.
Responsiveness in participation	Recognition of diverse needs depends on whose experiences inform decisions and how institutions respond to their contributions.	Accessible participation arrangements and explicit consideration of feedback from underserved users.	May bring overlooked barriers into service design and revision.
Integration of coordination and responsiveness	Identified user needs can become administratively actionable when feedback is connected to responsible units with the authority and capacity to respond.	Referral of identified barriers to responsible units, coordinated procedural revision, and review of subsequent user experiences.	May connect the recognition of exclusion with sustained adjustments to service provision.

Note. The table summarizes conceptual relationships proposed through literature synthesis, not empirically verified outcomes.

Table 3. Evidential base, illustrations from religious administration, and indicators for each proposition

Proposition	Supporting Sources in the Corpus (n; Empirical)	Contrary or Qualifying Evidence	Illustration from Religious Administration	Possible Indicators for Empirical Testing
P1 Coordination	11 (3 empirical: Cordella & Paletti, 2019; Gong & Li, 2023; Mergel, 2019)	Agostino et al. (2022) : digitalization can blur roles; Christensen & Lægveid (2007) : coordination carries its own costs	Marriage registration through SIMKAH involving the KUA, civil registration, and courts for marriage dispensation	Time to resolve cross-unit cases; share of stalled applications with an assigned responsible unit
P2 Responsiveness	15 (7 empirical, e.g., Madsen et al., 2022; Giest & Samuels, 2023; Perikangas & Tuurnas, 2024)	Hafiz & Nurdianty (2024) : digital hajj registration assessed as effective in Jakarta	Hajj registration by older applicants; SIHALAL applications by micro-enterprises; consultation through FKUB	Service abandonment rate; share of applications completed through assisted channels; applicant-reported effort
P3 Integration	10 (2 empirical: Scupola & Mergel, 2022; Perikangas & Tuurnas, 2024)	Giest & Samuels (2023) : operational constraints of support arrangements; no direct test of feedback loops	Referral of barriers reported by KUA staff or religious extension workers to regional offices	Number of procedural revisions triggered by reported barriers; change in abandonment after revision

Note. Counts refer to the 44 sources in Appendix Table A1; sources may inform more than one proposition. Illustrations and indicators are proposed for future research and are not empirical findings.

Discussion

The synthesis positions policy innovation as an institutional means of connecting digital transformation with inclusive provision by revising the rules and responsibilities through which institutions address users' difficulties. Collaborative governance explains the capacity for joint action and public service logic the value users realize ([Emerson et al., 2012](#); [Osborne et al., 2021](#)), consistent with accounts of digital transformation as organizational change ([Hanelt et al., 2021](#)) and of orchestration in platform-based value creation ([Cordella & Paletti, 2019](#)). Innovation and inclusion are thus linked by whether administrative changes improve the conditions under which diverse users obtain services.

At the organizational level, the key distinction is between sharing information and assigning responsibility: where authority remains ambiguous, integrated systems circulate records without enabling decisions, leaving users to negotiate the boundaries between units ([Emerson et al., 2012](#)). Coordination depends on how technical resources and administrative authority combine ([Cordella & Paletti, 2019](#); [Gong & Li, 2023](#)), although additional coordination can create delays when it introduces unnecessary approval stages ([Christensen & Lægreid, 2007](#)); clear responsibility for shared problems and proportionate referral procedures are therefore central.

For service use, digital procedures redistribute administrative work: tasks transferred to users may simplify internal processing while increasing effort for people with limited administrative knowledge, digital skills, or access to assistance ([Madsen et al., 2022](#)), and social infrastructure can support those encountering difficulties ([Giest & Samuels, 2023](#)). In religious administration, such infrastructure may include KUA offices, religious extension workers (*penyuluh agama*), places of worship, and community religious leaders who already help citizens with marriage and hajj procedures. Using them as assisted channels could reduce burdens but raises the state–religion boundary noted in the Introduction: safeguards are needed so that assistance does not become gatekeeping or disadvantage users outside these communities. Unsuccessful access therefore reflects procedural complexity and inadequate assistance, not only limited digital literacy.

For participation, feedback collected only from active users is incomplete, because people who cannot enter or complete a process are less likely to appear in consultation channels. Co-production studies in Denmark and Finland ([Perikangas & Tuurnas, 2024](#); [Scupola & Mergel, 2022](#)) suggest that participation must accommodate diverse experiences and that institutions need arrangements for acting on them; consultation with religious organizations provides contextual knowledge, but its representativeness depends on users also having direct opportunities to express needs.

A further tension lies between procedural consistency and contextual flexibility. Standardization makes requirements predictable, but rigid procedures preserve barriers when assumptions about documentation, language, or assistance do not fit users' situations ([Osborne et al., 2022](#)). Because the suitability of arrangements depends on institutional context and inequalities in participation ([Bonina et al., 2021](#); [Giest & Samuels, 2023](#)), flexibility requires transparent grounds for reviewing non-standard cases while preserving accountability and consistent treatment.

Inclusive provision thus involves an ongoing relationship between institutional action and user experience ([Hanelt et al., 2021](#); [Osborne et al., 2022](#)). Completed transactions alone are an incomplete basis for evaluating services, because unsuccessful access may reveal problems that routine performance measures overlook; connecting such experiences to responsible units gives practical meaning to the relationship between coordination and responsiveness.

Comparison with alternative frameworks clarifies what the model explains. Digital-era governance expects reintegration to improve services ([Dunleavy et al., 2006](#); [Margetts & Dunleavy, 2013](#)) but says little about feeding failed interactions back into policy; administrative burden theory explains how procedures impose costs ([Herd & Moynihan, 2018](#)) but not which unit is responsible when burdens arise between agencies; and whole-of-government research explains coordination inside government ([Christensen & Lægreid, 2007](#)) without centring users who drop out. The model specifies a route from unsuccessful access to an accountable unit. Contrary evidence also applies: digitalization can blur roles ([Agostino et al., 2022](#)), automation can cover some citizens but not others ([Larsson, 2021](#)), and digital hajj registration has been effective where procedures are well established ([Hafiz & Nurdianty, 2024](#)).

Competing views and boundary conditions qualify these interpretations. A competing view treats standardization and self-service as the main route to efficiency, making case review and assisted channels appear costly or discretionary, and the model may apply less well where procedures are fixed by national regulation, where users are homogeneous in digital capability, or where religious organizations mediate access ([Bonina et al., 2021](#); [Giest & Samuels, 2023](#)). Four boundary conditions are specific to religious administration. First, data on religious affiliation is a special category of personal data ([European Parliament & Council of the European Union, 2016](#); [Law No. 27 of 2022](#)), so routing information about unsuccessful applications must respect purpose limitation and data minimization. Second, regional and sub-district offices may lack resources for assisted channels and case review. Third, case review increases discretion and the risk of informal payments, as the marriage-fee reform intended to curb gratification illustrates ([Government Regulation No. 48 of 2014](#); [Republika, 2014](#)). Fourth, in centralized ministries, barriers may need to travel upward before local units can address them.

Novelty and Contribution

This study offers a conceptual account of how policy innovation can connect institutional coordination with responsiveness to diverse users in religious public administration, specifying how access barriers become actionable through assigned responsibility, procedural adjustment, and review of subsequent user experiences. Unlike inclusion recommendations that specify dimensions of digital inclusion ([Morte-Nadal & Esteban-Navarro, 2025](#)), it specifies how reported barriers reach responsible units. Administrative-burden research shows how policy design creates or reduces burdens ([Herd & Moynihan, 2018](#); [Giest & Samuels, 2023](#); [Madsen et al., 2022](#)), and the failure-demand literature holds that service failures should inform redesign ([Seddon, 2008](#)); the model adds a narrower contribution by specifying which units must act on burdens arising between agencies

and by treating abandoned applications as a formal input to policy revision. For digital-era governance, it implies that reintegration should include feedback loops returning information about failed interactions to the units designing procedures ([Dunleavy et al., 2006](#); [Margetts & Dunleavy, 2013](#)).

Limitations and Suggestions for Further Research

The most important limitation is that the corpus contains no direct study of state-run religious services, so the application of the model rests on analytical transfer and a few Indonesian-language contextual studies and requires empirical validation. As a conceptual synthesis, the study does not establish causal relationships; relevance-based selection may leave competing perspectives underrepresented; the corpus was restricted to English-language sources and is predominantly European; and no formal quality appraisal was carried out. Future research could compare marriage registration, hajj registration, and halal certification across regional offices with different digital capacity, using complaint-handling records, logs of abandoned applications, and interviews with KUA staff, religious extension workers, and applicants, including those who abandoned services; longitudinal and mixed-method studies could then examine whether procedural adjustments improve access. Given one author's institutional affiliation, such a study could begin in Central Java.

CONCLUSIONS

This study develops a conceptual explanation of how policy innovation can support inclusive digital services in religious public administration. Its core proposition is that these services become inclusive when experiences of unsuccessful access are routed to administrative units that are formally responsible and authorized to revise procedures. In response to the first research question, policy innovation supports coordination through clear responsibilities, aligned procedures, and arrangements for resolving cross-unit problems; in response to the second, incorporating diverse user needs entails accessible processes, appropriate assistance, and participation that includes people facing digital barriers.

In response to the third research question, inclusion depends on connecting identified needs with institutions authorized and equipped to respond. Ministries and agencies administering religious affairs should therefore formally assign responsibility for cases that cross units (for example, between KUA offices, civil registration, and the courts) and maintain assisted offline channels while monitoring abandoned applications. Because the model rests on general public-administration literature, these implications guide institutional assessment and require empirical validation in religious administrative settings.

To make the model operational, administrators can ask four questions. Which unit is responsible when an application stalls between agencies? What share of applications is abandoned, and at which stage? Can applicants complete the service through an assisted or offline channel? How are barriers reported by users and religious intermediaries

referred to units that can revise procedures? These questions, together with the indicators in Table 3, provide a starting point for testing the model.

AUTHOR CONTRIBUTIONS STATEMENT

M. Isroul Laili contributed to the conceptualization, methodology development, and drafting of the manuscript; **Yayah Dwi Hayatun** contributed to literature synthesis, analysis, and critical revision; and **Singh Dhepa Manggala** contributed to the construction of the policy framework, interpretation of the findings, and final review and approval of the manuscript.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest related to the research, authorship, or publication of this article.

DECLARATION OF GENERATIVE AI USE

During manuscript preparation, generative artificial intelligence tools were used in a limited supporting capacity to assist with language editing, organization of arguments, and preparation of visual presentation. The tools were not treated as sources of evidence, and they did not replace the authors' responsibility for the research design, interpretation of the literature, verification of references, or final conclusions. All AI-assisted content was reviewed and edited by the authors, who take full responsibility for the accuracy, originality, and integrity of the manuscript.

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APPENDIX

Table A1. Sources in the analytical corpus (n = 44)

No.	Source	Type	Country/Context	Service Domain	Informs
1	Agostino et al. (2022)	Review	International	Accounting and accountability in public services	P1
2	Ansell & Gash (2008)	Theoretical	General	Collaborative governance	P1, P3
3	Ansell & Gash (2018)	Theoretical	General	Collaborative platforms	P1, P3
4	Bekkers & Tummers (2018)	Theoretical	General	Public-sector innovation	B

No.	Source	Type	Country/Context	Service Domain	Informs
5	Bonina et al. (2021)	Review	Development contexts	Digital platforms	P2
6	Campbell & Evolvi (2020)	Review	International	Digital religion	B
7	Cordella & Paletti (2019)	Empirical	Italy	Government platform	P1
8	de Vries et al. (2018)	Review	International	Diffusion of public-sector innovation	B
9	Djarmiko et al. (2025)	Empirical	Indonesia	E-government for marginalized communities	P2
10	Dunleavy et al. (2006)	Theoretical	International	Digital-era governance	P1, P3
11	Emerson et al. (2012)	Theoretical	General	Collaborative governance	P1, P3
12	Giest & Samuels (2023)	Empirical	Netherlands	Library programmes for e-inclusion	P2
13	Gong & Li (2023)	Empirical	China	Government platforms	P1
14	Grossi & Argento (2022)	Review	International	Accounting for public governance	P1
15	Hanelt et al. (2021)	Review	International	Digital transformation and organizational change	P3
16	Hartley et al. (2013)	Theoretical	General	Collaborative innovation	P1
17	Harvey et al. (2023)	Empirical	United Kingdom	Council services	P2
18	Haug et al. (2024)	Review	International	Digitally induced public-sector change	B
19	Izquierdo-Iranzo (2025)	Empirical	Spain and Latin America	Religious organizations (contextual)	B
20	Janowski et al. (2018)	Theoretical	International	Platform governance	B
21	Larsson (2021)	Empirical	Sweden	Automated government decisions	P2
22	Latupeirissa et al. (2024)	Review	International	Digitization of public service delivery	B
23	Lember et al. (2019)	Theoretical	General	Digital co-production and co-creation	P3
24	Lindgren et al. (2019)	Theoretical	General	Digitalization of public services	B
25	Madsen et al. (2022)	Empirical	Nordic context	Digital self-service	P2
26	Mergel (2019)	Empirical	International	Digital service teams	P1
27	Mergel et al. (2019)	Empirical	International	Defining digital transformation	B
28	Morte-Nadal & Esteban-Navarro (2025)	Review	European Union	European digital public services	P2
29	Osborne (2018)	Theoretical	General	Public service logic	P2
30	Osborne et al. (2021)	Theoretical	General	Value creation in public services	P2
31	Osborne et al. (2022)	Theoretical	General	Public service ecosystems	P3
32	Panagiotopoulos et al. (2019)	Theoretical	General	Public value in digital government	B

No.	Source	Type	Country/Context	Service Domain	Informs
33	Perikangas & Tuurnas (2024)	Empirical	Finland	Digital co-production	P2, P3
34	Raihan et al. (2025)	Review	Developed countries	Digital equity	P2
35	Scheerder et al. (2017)	Review	International	Digital divide (second and third level)	P2
36	Scupola & Mergel (2022)	Empirical	Denmark	Digital transformation strategy	P3
37	Sørensen & Torfing (2011)	Theoretical	General	Collaborative innovation	P1
38	Strokosch & Osborne (2020)	Theoretical	General	Ecosystem approach to value creation	P3
39	Tangi et al. (2021)	Empirical	Italy	Digital government transformation	B
40	Twizeyimana & Andersson (2019)	Review	International	Public value of e-government	B
41	van Deursen & van Dijk (2019)	Empirical	Netherlands	Digital divide (material access)	P2
42	van Dijk (2006)	Review	International	Digital divide research	P2
43	Vial (2019)	Review	International	Digital transformation	B
44	Zhuang et al. (2025)	Review	Smart-city contexts	ICT-driven public services	P2

Note: B = background source informing the research problem and context rather than a specific proposition. Number of sources informing each proposition: P1 = 11; P2 = 15; P3 = 10; background = 13 (sources may inform more than one proposition). Indonesian-language studies and other references added during revision are not part of this corpus.

Source: *Authors' compilation.*