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Contextualizing Bureaucratic Reform in Madura, Indonesia: Systematic Literature Review of Institutions, Digital Transformation, and Public-Service Outcomes

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Abstract

Bureaucratic reform in decentralized Indonesia is usually assessed through formal policies, administrative capacity, and service-delivery indicators. Such approaches are insufficient for Madura, where local governance is mediated by religious authority, village leadership, strongman networks, and santri-based social norms. This study synthesizes the Scopus-indexed evidence assembled in a Scopus AI report on bureaucratic reform in Madura. The review is PRISMA-informed and uses a two-tier corpus of 53 records published between 2009 and 2026: seven studies explicitly localized in Madura or Pamekasan and 46 contextual studies on Indonesian bureaucracy, decentralization, digital government, accountability, and public services. Descriptive profiling and thematic-configurational synthesis identify five interdependent findings. First, kiai, klebun, blater, pesantren, and political patronage operate as institutional gatekeepers rather than as merely external cultural variables. Second, decentralization expands local discretion but may intensify politicization and weaken merit-based civil-service reform. Third, Online Single Submission and the Electronic-Based Government System can improve accessibility and traceability, but technological adoption is constrained by fragmented interoperability, uneven human-resource capability, and weak organizational coordination. Fourth, transparency does not automatically generate accountability, particularly in village finance. Fifth, service quality improves when leadership, employee capability, citizen participation, and bureaucratic neutrality are jointly strengthened. The review proposes an Embedded Reform Capacity Model in which formal reform instruments produce outcomes only when they are coupled with contextual legitimacy, implementation capacity, and enforceable accountability. Because the source export lacks a reproducible search string and full screening log, the study should be read as an AI-assisted systematic synthesis requiring full-text validation before journal submission.

1 Introduction

Indonesia's post-1998 Reformasi transformed the institutional architecture of government through democratization, decentralization, civil-service reform, performance management, anti-corruption policy, and an expanding digital-government agenda. Yet the implementation of these reforms has been territorially uneven. Decentralization transferred authority to local governments, but it also created new arenas in which formal bureaucratic rules interact with electoral incentives, patronage networks, and historically embedded social authority [4, 15–18, 31, 47]. Consequently, the effectiveness of a national reform instrument cannot be inferred from its formal adoption alone; it depends on how the instrument is translated into local political and administrative practice.

Madura provides an analytically important setting for examining this translation. Its local political order is shaped by the intersecting authority of klebun (village heads), kiai (religious leaders), blater (local strongmen), pesantren networks, and santri culture [1, 2, 20–22, 52]. These actors and institutions are neither uniformly resistant to reform nor automatically supportive of it. They can mobilize compliance, supply moral legitimacy, facilitate conflict resolution, and connect citizens to government. They can also reproduce clientelism, personalize authority, narrow bureaucratic neutrality, and insulate public decisions

from formal accountability. Bureaucratic reform in Madura must therefore be analyzed as a process of institutional negotiation rather than as a linear transfer of managerial technologies.

The supplied Scopus AI synthesis identifies several reform domains relevant to this negotiation: merit-based civil-service management, one-stop services, Electronic-Based Government System (Sistem Pemerintahan Berbasis Elektronik, SPBE), Online Single Submission (OSS), local performance accountability, village-fund governance, anti-corruption measures, and participatory governance [7–9, 12, 13, 23, 24, 27, 33–40]. Across these domains, the evidence repeatedly points to a gap between formal policy adoption and organizational enactment. Digital interfaces may simplify procedures without integrating back-office processes; transparency mechanisms may publish information without creating sanctions; and performance systems may produce compliance documents without changing incentives.

Despite the significance of these dynamics, the literature remains fragmented. Studies directly focused on Madura primarily examine elite relations, religion, legal culture, and local politics, whereas studies of administrative reform, digitalization, and service quality are mostly conducted at the national level or in other Indonesian regions. A systematic synthesis is therefore necessary to connect localized socio-political knowledge with the broader public-administration evidence and to identify which findings can be transferred to Madura, under what conditions, and with what limitations.

This review addresses five research questions: (RQ1) How do historical, political, religious, and cultural institutions shape bureaucratic reform in Madura? (RQ2) Which administrative and institutional barriers constrain reform implementation? (RQ3) Under what conditions can digital-government initiatives improve public services and accountability? (RQ4) What governance and service outcomes are associated with bureaucratic reform in the assembled evidence? (RQ5) Which theoretical, methodological, and policy gaps should guide a Madura-specific research agenda?

The article contributes in three ways. First, it distinguishes core localized evidence from contextual Indonesian evidence, thereby making transferability explicit. Second, it integrates political sociology, public administration, and digital-governance research into a single configurational explanation. Third, it develops an Embedded Reform Capacity Model in which reform outcomes depend on the joint presence of contextual legitimacy, implementation capacity, bureaucratic neutrality, and accountability coupling.

2 Conceptual Background

2.1 Bureaucratic reform as institutional change

Bureaucratic reform is often operationalized as the redesign of structures, procedures, personnel systems, and performance controls. In Indonesia, this agenda includes civil-service professionalization, organizational restructuring, service integration, anti-corruption controls, and the use of digital technologies. However, the literature on Indonesia's large bureaucracy shows that reform is politically contested and institutionally path-dependent [10, 15, 16]. Hierarchical legacies, loyalty-based personnel practices, and regulatory complexity can survive formal democratization. The central analytical issue is

therefore not whether reform rules exist, but whether they alter authority, incentives, routines, and resource allocation.

A useful distinction is between adoption, implementation, and institutionalization. Adoption occurs when a local government formally accepts a policy. Implementation refers to the conversion of policy into processes, staffing, budgets, information systems, and managerial practices. Institutionalization occurs when new practices become stable, legitimate, monitored, and resilient to electoral or leadership change. Many Indonesian reforms advance at the adoption stage but remain partial at the implementation and institutionalization stages [7, 13, 15, 28].

2.2 Informal institutions and local political order

Formal organizations operate within informal institutions: socially enforced rules, expectations, identities, and networks that structure behavior outside official procedures. In Madura, the authority of kiai is rooted in religious knowledge, pesantren networks, community trust, and moral leadership; klebun occupy formal village offices while also participating in local patronage; and blater possess influence derived from protection, brokerage, and coercive capacity [1, 2, 20, 21]. These relationships shape access to public authority and the perceived legitimacy of administrative decisions.

The implication is that culture should not be treated as a residual explanation for reform failure. Informal authority may substitute for weak formal coordination, complement state programs through trusted communication channels, or compete with bureaucratic rules. Santri values and pesantren-based moral discourse may strengthen ethical responsibility and public acceptance when reforms are framed in locally meaningful terms [2, 50–52]. Conversely, personalized authority and political brokerage may undermine meritocratic recruitment, service impartiality, and the enforceability of accountability systems [16, 20, 47, 49].

2.3 Digital-era governance and the transparency-accountability distinction

Digital government is a central instrument of contemporary bureaucratic reform. OSS, SPBE, digital records, and integrated data systems are expected to reduce transaction costs, standardize procedures, improve traceability, and make public services more accessible [7–9, 28, 37, 40]. These gains are not automatic. A digital interface may conceal fragmented organizational processes; a portal may be technically operational while data remain non-interoperable; and automation may reproduce discretionary or discriminatory rules embedded in the underlying workflow.

The review therefore differentiates transparency from accountability. Transparency increases the visibility of decisions, transactions, and performance. Accountability additionally requires answerability, verification, corrective action, and credible sanctions. Studies on village finance show that information disclosure alone cannot address fictitious reporting, budget mark-ups, collusion, or elite control when audit capacity and enforcement are weak [32–37]. Digital transformation can support accountability, but

only when connected to institutional ownership, data quality, oversight, complaint resolution, and consequences for non-compliance.

3 Review Methodology

3.1 Review design and reporting approach

The study uses a systematic, transparent, and theory-oriented literature synthesis. Reporting is informed by PRISMA 2020, which emphasizes explicit identification, selection, appraisal, and synthesis procedures [54]. The review also follows management-review guidance that requires a traceable link between review questions, evidence selection, coding, and analytical conclusions [55, 56]. However, the source data are not a conventional Scopus export. They consist of a Scopus AI-generated report that provides an interpretive synthesis and a list of 53 cited records. The absence of a raw database query, deduplication record, title-and-abstract screening log, exclusion reasons, and full-text extraction forms prevents a claim of complete PRISMA compliance.

Accordingly, this article is described as an AI-assisted systematic literature review. It reconstructs the evidence base contained in the supplied report, makes the classification and synthesis logic explicit, and avoids inventing unavailable screening counts. The manuscript should be upgraded through an independent Scopus search and full-text verification before submission as a definitive systematic review.

3.2 Data source and corpus construction

The sole evidence source was the document 'Bureaucratic Reform in Madura, Indonesia: Contexts, Challenges, and Outcomes,' generated by Scopus AI on 27 July 2026 [57]. The report covered the post-Reformasi period, emphasized decentralization and democratization, and cited 53 Scopus-indexed records published from 2009 to 2026. All 53 cited records were retained because the upstream AI process had already defined the evidence set and because exclusion without titles, abstracts, and full texts would be methodologically arbitrary.

The unit of analysis was the bibliographic record and the claims attributed to that record in the Scopus AI synthesis. Bibliographic metadata were used for descriptive profiling, while the report's narrative was used for thematic coding. No effect sizes were extracted, and no meta-analysis was attempted because the corpus is heterogeneous in design, outcome, geography, and level of analysis.

3.3 Eligibility logic and evidence tiers

To control overgeneralization, the corpus was divided into two evidence tiers. Core localized evidence included records whose titles explicitly referred to Madura or Pamekasan and examined local elites, religious networks, legal culture, Islamism, elections, or pesantren. Seven records met this title-level criterion [1, 2, 11, 20–22, 52]. Contextual evidence comprised 46 records on Indonesian bureaucratic reform, decentralization, digital government, civil-service systems, accountability, village finance, public-

service quality, and comparable local political settings. Contextual records were used to identify mechanisms and comparative propositions, not to claim direct empirical measurement of Madura.

Table 1
Review protocol and transparency statement

Element	Operational specification
Review objective	Synthesize the institutional, cultural, digital, and service-delivery dimensions of bureaucratic reform in Madura and identify a context-sensitive research and policy agenda.
Source	One Scopus AI report generated on 27 July 2026, containing a narrative synthesis and 53 cited Scopus records.
Coverage	Publications dated 2009–2026; substantive focus on post-1998 decentralization and reform.
Evidence tiers	Core localized evidence (n = 7) and contextual Indonesian/comparative evidence (n = 46).
Coding dimensions	Geography; actor configuration; formal institutions; reform instruments; implementation conditions; outcomes; limitations; research gaps.
Synthesis method	Descriptive bibliographic profiling, thematic synthesis, and configurational interpretation.
Quality assessment	No formal risk-of-bias assessment was possible without full texts; relevance and transferability were appraised at title and Scopus-AI-summary level.
Reporting status	PRISMA-informed, not fully PRISMA-compliant because the export lacks a reproducible search strategy and screening log.

3.4 Coding and synthesis

The coding procedure combined deductive and inductive logic. Deductive categories were derived from the research questions: socio-political context, administrative structures, reform instruments, implementation conditions, and outcomes. Inductive coding identified recurrent mechanisms, including elite brokerage, religious legitimacy, bureaucratic politicization, paternalistic leadership, mid-level connectivity, digital fragmentation, transparency-accountability decoupling, and citizen participation. Each claim was interpreted in relation to its evidence tier and geographical transferability.

The thematic synthesis proceeded in three stages. First, the records were descriptively classified by publication year, geographic relevance, and primary substantive cluster. Second, recurring findings were grouped into analytical themes. Third, the themes were connected in a configurational model. A configurational approach is appropriate because the evidence indicates that no single intervention is sufficient: digitalization, merit reform, participation, and accountability depend on combinations of legitimacy, capability, coordination, and enforcement.

3.5 Methodological integrity and limitations of the source

Scopus AI was treated as a discovery and synthesis aid rather than as an autonomous reviewer. Its output may reflect opaque ranking, retrieval, and summarization procedures. The review therefore does not infer that the 53 records are exhaustive, that all cited claims accurately represent the original studies, or that all bibliographic entries are complete. Assertions in this manuscript are bounded by the supplied evidence and should be validated against full texts, particularly where a contextual study is used to formulate a Madura-specific proposition.

4 Results

4.1 Descriptive profile of the evidence base

The evidence set contains 53 records published between 2009 and 2026. Publication activity is strongly concentrated in the recent period: 44 records (83.0%) were published from 2018 onward, and 31 records (58.5%) from 2021 onward. The largest annual counts occur in 2026 (seven records), 2021 (six), 2023 (six), 2018 (five), 2019 (five), and 2025 (five). This profile indicates increasing attention to digital government, local accountability, and public-service performance, although part of the apparent recency reflects the July 2026 generation date of the Scopus AI report.

A title-level substantive classification produced four clusters: institutional and civil-service reform (19 records), digital government and public-service delivery (14), local political-cultural order (13), and village governance and accountability (7). The seven core localized records are concentrated in the political-cultural cluster. This imbalance is itself a major result: Madura-specific scholarship explains authority, religion, and political brokerage in detail, but rarely evaluates administrative processes, digital systems, personnel management, or service outcomes directly.

Table 2
Evidence-base profile

Dimension	Category	n	Interpretive role
Geographic relevance	Core localized: Madura/Pamekasan explicit in title	7	Direct contextual grounding for local authority, religion, elections, legal culture, and pesantren.
Geographic relevance	Contextual Indonesia or comparable region	46	Mechanism identification and cautious transfer of reform, digitalization, accountability, and service findings.
Substantive cluster	Institutional and civil-service reform	19	Formal structures, merit, politicization, performance, coordination, and leadership.
Substantive cluster	Digital government and public service	14	OSS, SPBE, technology, service quality, employee behavior, and citizen satisfaction.
Substantive cluster	Local political-cultural order	13	Kiai, klebun, blater, pesantren, santri culture, clientelism, and political communication.
Substantive cluster	Village governance and accountability	7	Village funds, financial transparency, corruption modes, deliberation, and local economic governance.
Publication period	2009–2017 / 2018–2020 / 2021–2023 / 2024–2026	9 / 13 / 15 / 16	Shows a shift from foundational political and transparency studies toward digital and accountability research.

4.2 Theme 1: Informal authority functions as an institutional gatekeeper

The most distinctive feature of Madura's reform environment is the density of informal authority. The core localized literature portrays klebun, kiai, and blater as interconnected actors who shape electoral mobilization, village governance, dispute settlement, and access to state resources [1, 20, 21]. Their influence is not external to bureaucracy; it conditions how formal offices are staffed, how policies are communicated, which complaints are heard, and whether administrative decisions are socially accepted.

Kiai and pesantren occupy an especially ambivalent position. Religious networks can legitimate ethical conduct, mobilize social cooperation, and translate abstract policy into culturally resonant language [2, 51, 52]. They may therefore increase reform acceptance when public-service values are linked to responsibility, justice, and community welfare. Yet concentrated religious authority can also narrow deliberation, intensify identity politics, or support authoritarian tendencies when political competition is framed through exclusive symbolism [11, 22]. The relevant distinction is not religious versus secular governance, but whether religious authority is connected to inclusive accountability and plural public reasoning.

Klebun and blater similarly combine formal and informal power. Village heads possess legal-administrative authority but may operate through personalized networks; blater can function as brokers, protectors, and mobilizers. When these networks dominate recruitment or resource allocation, reform is filtered through loyalty and material exchange. When they are incorporated into transparent, rules-based participation, they may help overcome communication gaps and strengthen implementation reach. Thus, informal authority should be mapped, governed, and made accountable rather than ignored.

4.3 Theme 2: Decentralization expands discretion but can reproduce politicization and weak meritocracy

The contextual literature indicates that decentralization has generated institutional pluralism and local innovation, but it has also relocated competition over bureaucratic resources to subnational arenas [4, 16–18, 31]. Elections can undermine civil-service neutrality when incumbents use appointments, transfers, and access to public programs to build political support [16, 49]. In such settings, formal merit systems coexist with informal loyalty tests, and administrative careers become vulnerable to electoral turnover.

For Madura, these mechanisms are likely to be intensified by strong local brokerage networks. The risk is not simply overt patronage; it is the gradual normalization of discretionary exceptions. Recruitment, promotion, procurement, licensing, and village-fund decisions may remain formally documented while substantive choices are shaped by political or relational obligations. Institutional rigidity compounds this problem. Hierarchical structures discourage upward communication, while fragmented mandates make it difficult to assign responsibility for cross-agency reforms [5, 13, 15, 27, 48].

Mid-level bureaucrats emerge as strategically important. They translate political directives into operational routines, connect agencies, reconcile data and budgeting processes, and preserve institutional memory across leadership changes [27]. Reform that focuses only on top leaders or front-line staff overlooks this connective layer. Strengthening mid-level coordination, professional protection, and problem-solving authority can reduce the gap between policy design and implementation.

4.4 Theme 3: Digitalization is necessary but insufficient

OSS and SPBE represent the principal technological instruments in the evidence set. Their intended benefits include process simplification, standardized requirements, reduced face-to-face discretion, integrated data, and improved access [7–9, 28, 40]. Empirical studies from other Indonesian regions suggest that one-stop services can improve convenience and investment facilitation, but results vary with organizational readiness, personnel capability, infrastructure, and the integration of back-office functions [8, 23, 38–41].

Three implementation failures recur. First, interface digitalization is mistaken for process redesign. Citizens submit information online, but agencies still rely on manual verification and disconnected approvals. Second, interoperability is weak: agencies use different data standards, identifiers, and applications, preventing end-to-end service integration [7, 28]. Third, human-resource capability is

uneven. Staff may lack technical competence, change-management support, or incentives to use new systems consistently [8, 9, 23].

In Madura, digital reform must also address access and legitimacy. Systems designed without local language practices, assisted-service options, trusted intermediaries, and responsive complaint channels may exclude citizens with limited digital literacy. Conversely, using kiai, pesantren, village institutions, and community organizations as accountable communication partners can improve adoption. The central principle is socio-technical integration: technology, organizational routines, user capability, and local legitimacy must be redesigned together.

4.5 Theme 4: Transparency must be coupled with answerability and enforcement

The evidence on village funds and local financial governance demonstrates a persistent gap between transparency and accountability [32–37]. Misuse may involve fictitious reporting, concealed transactions, budget mark-ups, collusion, and the strategic reinterpretation of financial loss. These practices are enabled by pressure, opportunity, rationalization, information asymmetry, weak audit follow-up, and elite control over local decision-making [33–36].

Digital records can improve traceability, but their deterrent effect depends on verification and consequences [37]. Publishing budgets or uploading documents does not establish accountability when data are incomplete, audits are delayed, complainants are unprotected, or sanctions are negotiable. A robust accountability chain requires ex ante clarity of authority, real-time transaction records, independent verification, accessible grievance mechanisms, public explanation, corrective action, and proportionate sanctions.

The legal nuance that not every administrative irregularity constitutes corruption is also important [34]. Reform should distinguish error, incapacity, negligence, conflict of interest, and deliberate fraud. Over-criminalization can make officials risk-averse, while under-enforcement normalizes misuse. Capacity building and legal certainty must therefore accompany control systems.

4.6 Theme 5: Service quality is mediated by leadership, employee behavior, and neutrality

Studies of public-service performance show that bureaucratic reform affects citizen satisfaction through intermediate mechanisms such as good governance, service quality, empowerment, responsiveness, and employee behavior [29, 38, 39, 41, 42, 44]. This means that structural reform is not directly experienced by citizens. Citizens experience waiting time, clarity of requirements, fairness, accessibility, communication, complaint handling, and the conduct of officials.

Cultural patterns of leadership can generate both commitment and dependency. Paternalistic leadership may support cohesion and loyalty, but it can also centralize decisions, discourage criticism, and orient employees toward pleasing superiors rather than serving citizens [43–45]. Politicization similarly

damages impartiality by differentiating treatment according to political affiliation or social connection [14, 46, 47]. The public-service implication is clear: relational leadership must be bounded by transparent standards, professional discretion, and enforceable non-discrimination.

4.7 Integrated findings and review propositions

The themes converge on a configurational explanation. Formal reforms do not operate independently of local institutions. Their effects are mediated by legitimacy, organizational capability, coordination, neutrality, and accountability. The following propositions summarize the synthesis and provide testable directions for future research.

P1 - Contextual legitimacy proposition: Formal reform instruments are more likely to be implemented when their objectives and procedures are translated through locally legitimate institutions without surrendering legal equality or public accountability.

P2 - Capability-interoperability proposition: Digital-government adoption improves service outcomes only when front-office interfaces are integrated with back-office process redesign, interoperable data, adequate infrastructure, and staff capability.

P3 - Politicization proposition: Electoral and patronage pressures weaken merit-based personnel management and service neutrality, thereby reducing the durability of bureaucratic reform.

P4 - Connectivity proposition: Mid-level bureaucratic connectivity mediates the relationship between high-level reform policy and operational implementation across agencies.

P5 - Accountability-coupling proposition: Transparency reduces misuse only when information disclosure is connected to verification, answerability, citizen voice, corrective action, and credible sanctions.

P6 - Participation proposition: Deliberative participation reduces elite capture when participation rules are inclusive, information is accessible, and community representatives are themselves accountable.

Table 3
Thematic synthesis and implications

Theme	Mechanism identified	Indicative evidence	Implication for Madura
Informal authority	Kiai, klebun, blater, and pesantren mediate legitimacy, access, and political brokerage.	[1, 2, 11, 20–22, 52]	Map authority networks and create accountable partnerships rather than treating culture as an external obstacle.
Politicization and merit	Elections and patronage influence appointments, transfers, and administrative neutrality.	[15, 16, 20, 47, 49]	Protect merit decisions, document personnel actions, and strengthen independent review.
Digital transformation	OSS/SPBE can standardize services but are constrained by fragmented systems and uneven capability.	[7–9, 23, 28, 37, 40]	Prioritize process integration, interoperability, assisted access, and workforce development.
Accountability	Transparency without verification and sanctions fails to prevent misuse.	[32–37]	Build complete accountability chains for village finance and local programs.
Service quality	Citizen outcomes are mediated by employee behavior, responsiveness, leadership, and fairness.	[29, 38, 39, 41–46]	Measure citizen experience and non-discrimination, not only administrative compliance.
Coordination and participation	Mid-level connectivity and deliberative mechanisms can bridge fragmented organizations and reduce elite domination.	[12, 13, 27, 53]	Institutionalize cross-agency teams and inclusive community oversight.

5 Discussion

5.1 Theoretical contribution: embedded reform capacity

The central theoretical contribution is the concept of embedded reform capacity. Conventional reform analysis often separates administrative capability from socio-political context. The evidence from Madura suggests that the two are constitutive. Administrative routines are embedded in authority relations, moral vocabularies, electoral incentives, and community networks. Reform capacity is therefore not merely the stock of skilled personnel, budgets, and technology; it is the capacity to align formal rules with legitimate local institutions while preserving impartiality and accountability.

The model contains four jointly necessary dimensions. The first is institutional congruence: reform goals must be understandable and legitimate within the local normative order. The second is implementation capability: agencies need skilled personnel, stable processes, interoperable information, and coordination authority. The third is neutrality and inclusion: services and careers must be protected from

political, religious, or relational discrimination. The fourth is accountability coupling: transparency must lead to explanation, correction, and sanction. Weakness in any one dimension can neutralize gains in the others.

This configurational view also explains why apparently contradictory findings coexist. Kiai influence can support ethical administration or reinforce exclusion; paternalistic leadership can mobilize commitment or suppress voice; digital systems can reduce discretion or simply digitize fragmented routines. The effect depends on how these elements are combined and governed.

5.2 Reinterpreting Madura-specific reform challenges

Madura should not be described as culturally resistant to bureaucratic reform. Such a formulation essentializes culture and obscures institutional design failures. The more precise interpretation is that standardized reforms often lack mechanisms for contextual translation, power balancing, and organizational integration. Resistance may reflect threatened interests, but it may also reflect poor communication, exclusion from design, weak usability, or the perception that reform undermines legitimate community authority without providing a credible alternative.

A context-sensitive strategy does not mean exempting Madura from national standards. Merit, legality, non-discrimination, fiscal accountability, and public-service rights must remain non-negotiable. Context sensitivity concerns the means of implementation: stakeholder mapping, communication channels, sequencing, assisted digital access, local problem diagnosis, and the construction of accountable coalitions. The objective is to combine national administrative standards with locally legitimate implementation arrangements.

5.3 Policy architecture for bureaucratic reform in Madura

The synthesis supports a sequenced policy architecture rather than isolated reform projects. Five mutually reinforcing workstreams are proposed.

1. 1. Establish a political-administrative reform compact. District leaders, senior officials, civil-service managers, inspectorates, village representatives, religious leaders, pesantren, universities, media, and civil-society organizations should agree on measurable standards for merit, service equality, data integrity, and complaint protection. Participation by informal leaders should be transparent and advisory rather than a substitute for lawful authority.
2. 2. Protect merit and bureaucratic neutrality. Personnel decisions should use documented competency criteria, auditable transfer and promotion processes, conflict-of-interest disclosure, and an appeal mechanism. Monitoring should focus on patterns around electoral cycles and leadership transitions.

3. 3. Redesign services before digitizing them. OSS and SPBE implementation should begin with end-to-end process mapping, elimination of redundant approvals, data-standard alignment, responsible data ownership, and assisted service for citizens with limited connectivity or digital literacy.
4. 4. Couple transparency with enforceable accountability. Village-fund and local-budget systems should integrate transaction-level records, public summaries, risk-based audits, protected complaints, follow-up tracking, and differentiated responses to error, negligence, and fraud.
5. 5. Measure citizen-facing outcomes. Reform dashboards should include processing time, repeat visits, clarity, accessibility, complaint resolution, equal treatment, user satisfaction, employee capability, system availability, and corrective-action closure, disaggregated by district and service channel.

Table 4
Proposed policy architecture and indicators

Policy domain	Immediate action	Medium-term institutionalization	Illustrative indicators
Merit and neutrality	Audit recent recruitment, promotion, and transfer decisions; publish criteria.	Independent review, competency profiles, protected professional mobility.	Share of positions competitively filled; appeals resolved; transfer anomalies near elections.
OSS and SPBE	Map end-to-end priority services and identify manual hand-offs.	Interoperable data architecture, service owner, cybersecurity, and assisted access.	End-to-end digital completion; processing time; system uptime; repeat submissions.
Village accountability	Standardize transaction records and public budget summaries.	Risk-based audit, complaint protection, sanction tracking, and learning from non-fraud errors.	Audit follow-up rate; complaint closure; unexplained variance; procurement transparency.
Community participation	Create inclusive, recorded deliberation with accessible information.	Representative rotation, conflict-of-interest rules, feedback obligations.	Participation diversity; proposals adopted; responses published; capture-risk assessments.
Human resources	Capability assessment and targeted training for digital and service roles.	Career pathways for digital, data, audit, and service-design competencies.	Competency certification; staff retention; training application; service error rates.
Service quality	Establish common citizen-experience measures across agencies.	Independent satisfaction surveys and service-standard enforcement.	Waiting time; clarity; fairness; complaint recurrence; satisfaction by user group.

5.4 Research agenda

The strongest limitation in the corpus is the scarcity of Madura-specific administrative research. Future studies should move beyond descriptive claims about culture and test causal mechanisms across the four districts of Bangkalan, Sampang, Pamekasan, and Sumenep. Research designs should combine institutional ethnography, administrative data, surveys, process tracing, network analysis, and comparative case methods.

Table 5
Priority research agenda for Madura

Research gap	Illustrative question	Recommended design	Expected contribution
Informal-formal institutional interaction	When do kiai, klebun, and blater facilitate or obstruct merit, service equality, and accountability?	Comparative institutional ethnography and elite-network analysis across districts.	Identifies conditions under which informal authority complements or captures formal reform.
Civil-service politicization	How do electoral cycles affect appointments, transfers, absenteeism, and service performance?	Longitudinal personnel-data analysis combined with interviews and process tracing.	Provides direct evidence for neutrality safeguards.
Digital service effectiveness	Do OSS/SPBE reforms reduce time, cost, discretion, and repeat visits in Madura?	Matched service comparison, transaction-log analysis, and citizen survey.	Tests digital impact rather than technology adoption.
Digital inclusion	Which groups are excluded by online-first services, and which assisted channels work?	User-journey research disaggregated by gender, age, location, disability, and literacy.	Supports inclusive service design.
Village-fund accountability	Which combinations of audit, disclosure, participation, and sanctions reduce misuse?	Multi-case configurational analysis with financial and enforcement data.	Clarifies the transparency-accountability mechanism.
Pesantren and reform legitimacy	How can pesantren-based communication support ethical administration without reinforcing exclusion?	Participatory action research and deliberative experiments.	Develops accountable models of cultural translation.
Mid-level bureaucratic connectivity	How do middle managers coordinate cross-agency reforms and preserve continuity?	Organizational network analysis and comparative process tracing.	Explains implementation capacity and reform resilience.
Citizen outcomes	How do reform experiences affect trust, perceived fairness, and willingness to use formal services?	Panel survey and mixed-method complaint analysis.	Connects administrative change to state legitimacy.

6 Limitations

This review has six material limitations. First, it relies on a single Scopus AI output rather than an independently executed database search. The completeness and ranking logic of the source corpus are unknown. Second, no reproducible search string, field specification, language restriction, deduplication procedure, or exclusion log was available. Third, most records were not directly localized in Madura; transferability was inferred from Indonesian or regional evidence and was explicitly bounded. Fourth, coding was based on titles and the Scopus AI narrative rather than independent full-text extraction. Fifth, formal study-quality and risk-of-bias appraisal could not be performed. Sixth, several bibliographic entries contain abbreviated author lists or incomplete publication details and must be verified against Scopus and publisher records before submission.

These limitations do not eliminate the value of the synthesis. They define its appropriate use: as a theoretically structured evidence map, a transparent reconstruction of an AI-generated corpus, and a protocol for a subsequent fully reproducible review. The propositions and policy framework should be treated as analytically grounded hypotheses rather than as definitive causal estimates.

7 Conclusion

Bureaucratic reform in Madura is best understood as embedded institutional change. National policies on merit, digital government, performance accountability, anti-corruption, and public services enter a local governance arena shaped by kiai, pesantren, klebun, blater, electoral patronage, and santri-based moral authority. These institutions can supply legitimacy and implementation reach, but they can also reproduce personalized power and weaken bureaucratic neutrality. Reform success therefore depends on governing the interaction between formal and informal institutions rather than privileging one and ignoring the other.

The evidence indicates that digitalization is necessary but insufficient. OSS and SPBE can improve accessibility and traceability only when accompanied by process redesign, interoperable data, human-resource capability, assisted access, and accountable organizational ownership. Similarly, transparency improves governance only when connected to verification, answerability, corrective action, and credible sanctions. The most promising reform strategy is a hybrid but principled architecture: nationally consistent standards, locally legitimate implementation, professionally protected bureaucrats, empowered middle managers, inclusive participation, and measurable citizen-facing outcomes.

A definitive evidence base will require a new Scopus search, transparent screening, full-text quality appraisal, and direct empirical studies across Madura's four districts. The present review provides the conceptual structure and research questions for that next stage.

Declarations

Consent for Publication

All the data in our study is collected from public resources through legal channels. Thus no patient consent are required.

Ethics Approval

All analyses were based on previous published studies, and the data in our study is collected from public resources through legal channels, which will not violate any ethical rules. Thus no ethical approval and patient consent are required.

Competing Interest

The authors have no relevant financial or non-financial interests to disclose.

Author Contributions

Mohammad Afifuddin wrote the main manuscript text and Arie Wahyu Prananta checked and revised the result. All authors reviewed the manuscript.

Data and Code Availability

Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

1. Pribadi Y (2015) The klebun, the kiai and the blater: Notes from western Madura, Indonesia. *South East Asia Research.* Scopus record 84943256568
2. Pribadi Y (2014) Religious networks in Madura: Pesantren, Nahdlatul Ulama and kiai as the core of santri culture. *Al-Jami'ah.* Scopus record 84903618483
3. Sukri AI, Kusumastuti R, Lutfi A (2025) A deconstruction of rural governance policy to drive local economies. *Journal of Sustainable Development and Regulatory Issues.* Scopus record 105012191731
4. Nugroho Y, Sujarwoto (2021) Institutions, outputs and outcomes: Two decades of decentralization and state capacity in Indonesia. *Journal of Southeast Asian Economies.* Scopus record 85128626790
5. Harefa F, Aziz YM, Fauzi TH et al (2026) Portrayal of defense bureaucracy reform in Indonesia for effective public governance service. *Multidisciplinary Science Journal.* Scopus record 105033128636
6. Haryono BS, Nugroho AA, Putera F, Noor I (2024) Narrative policy of bureaucratic reform in Indonesia: Rules of narrative in mass media. *Journal of Infrastructure, Policy and Development.*

Scopus record 85179747833

7. Yulianto T, Saleh C, Noor I, Suryadi S (2026) Policy implementation in the digital era: A comprehensive analysis of the Electronic-Based Government System (SPBE) in Indonesia. *F1000Research.* Scopus record 105038234674
8. Umar A, Amrin, Madani M et al (2019) One-stop service policy as a bureaucratic reform in Indonesia. *Academy of Strategic Management Journal.* Scopus record 85065212889
9. Amancik A, Barus SI, Saifuiloh PPA et al (2024) Reforming the Indonesian bureaucracy through State Civil Apparatus reform: Could it be optimized with technology? *Journal of Law and Legal Reform.* Scopus record 85212291765
10. Wihantoro Y, Lowe A, Cooper S, Manochin M (2015) Bureaucratic reform in post-Asian Crisis Indonesia: The Directorate General of Tax. *Critical Perspectives on Accounting.* Scopus record 84938968290
11. Maimun, Syawqi AH (2020) Do sharia by-laws damage interfaith harmony? The case of sharia by-laws implementation in Pamekasan, Madura. *Mazahib: Jurnal Pemikiran Hukum Islam.* Scopus record 85153590419
12. Tresiana N, Duadji N, Pairulsyah et al (2023) Deliberative democracy innovations at citizen level: Challenges of local government in Indonesia. *Lex Localis.* Scopus record 85176112418
13. Salomo RV, Rahmayanti KP (2023) Progress and institutional challenges on local governments performance accountability system reform in Indonesia. SAGE Open Scopus record 85174563899
14. Lionardo A, Kurniawan R, Setiawan KC et al (2021) Public service motivation on the state civil apparatus: Local government policy strategy in administrative reform. *Proceedings of the International Conference on Industrial Engineering and Operations Management.* Scopus record 85121143887
15. Turner M, Prasojo E, Sumarwono R (2022) The challenge of reforming big bureaucracy in Indonesia. *Policy Studies.* Scopus record 85078590859
16. Berenschot W (2018) Incumbent bureaucrats: Why elections undermine civil service reform in Indonesia. *Public Administration and Development.* Scopus record 85054579584
17. Hosen N (2014) Promoting democracy and finding the right direction: A review of major constitutional developments in Indonesia. *Constitutionalism in Asia in the Early Twenty-First Century.* Scopus record 84923424398
18. Zanibar Z (2018) The Indonesian constitutional system after amendment of the 1945 Constitution. *Sriwijaya Law Review.* Scopus record 85106300247
19. Alfirdaus LK (2014) Islam and local politics: In the quest of kiai, politics, and development in Kebumen, 2008–2010. *Al-Jami'ah.* Scopus record 84903779016
20. Khoiri A, Zakaria A, Ulumuddin I et al (2024) The role of kiai and blater in the regional election in Madura: Discourse on legal culture. *Trunojoyo Law Review.* Scopus record 105026800285

21. Pribadi Y (2018) Islam, state and society in Indonesia: Local politics in Madura. *Islam, State and Society in Indonesia: Local Politics in Madura.* Scopus record 85097866500
22. A'La A, Zamzami M, Udin NHW, Aniq AF (2018) Islamism in Madura: From religious symbolism to authoritarianism. *Journal of Indonesian Islam.* Scopus record 85068442173
23. Yusriadi SA, Amirullah I et al (2019) Bureaucratic reform of human resources: A case study on the one-stop integrated service. *Journal of Social Sciences Research.* Scopus record 85060550421
24. Yustia DA, Arifin F (2023) Bureaucratic reform as an effort to prevent corruption in Indonesia. *Cogent Social Sciences.* Scopus record 85167340680
25. Asyikin N (2020) Legal politics of bureaucratic reform in good governance according to prophetic law. *Legality: Jurnal Ilmiah Hukum.* Scopus record 85151881387
26. Gorda AANOS, Anggreswari NPY (2020) Socialization strategy in bureaucratic reform. *Journal of Advanced Research in Dynamical and Control Systems.* Scopus record 85088256229
27. Alam S, Larisu Z, Arsyad M et al (2026) Strengthening local asset management through an integrated policy ecosystem: The role of mid-level bureaucratic connectivity. *Public Money & Management.* Scopus record 105005411514
28. Wagola R, Nurmandi A, Misran, Subekti D (2023) Government digital transformation in Indonesia. *Communications in Computer and Information Science.* Scopus record 85169414032
29. Kurniawati N, Lubis AR, Darsono N, Chan S (2019) Do good governance and service quality mediate the effect of bureaucratic reform on the performance of archival institutions in Indonesia? *Quality - Access to Success.* Scopus record 85061979724
30. Hama A, Sriyana J, Afandi A (2026) How good governance affects performance accountability in a local government. *Asian Development Policy Review.* Scopus record 105037478407
31. Priyatno H, Susilo U (2018) Democracy, decentralization and efficiency: A study of bureaucratic reforms in Indonesia. *E3S Web of Conferences.* Scopus record 85059625088
32. Kristiansen S, Dwiyanto A, Pramusinto A, Putranto EA (2009) Public sector reforms and financial transparency: Experiences from Indonesian districts. *Contemporary Southeast Asia.* Scopus record 85045165475
33. Hidajat T (2025) Village fund corruption mode: An anti-corruption perspective in Indonesia. *Journal of Financial Crime.* Scopus record 105001074206
34. Muti'ah D, Habibullah AW, Djunarto Y, Cahyono LBE (2025) Reconceptualisation of state financial losses to prevent misuse of village funds. *Trunojoyo Law Review.* Scopus record 105026825345
35. Wardhani RS, Altin D, Suhdi S (2025) Diagnosing accountability challenges in Indonesia's Village Fund: A PESTEL-PRMT multi-case analysis in post-decentralization governance. *Public Organization Review.* Scopus record 105018823730
36. Syamsul N, Nurlailah N, Nurhadi N (2026) From transparency to accountability: Determinants of village financial governance. *Multidisciplinary Science Journal.* Scopus record 105033116377

37. Tahir MI, Martini A, Gunawan AAN et al (2025) Can digital transformation improve the transparency and accountability of Indonesian public governance? *International Journal of Data and Network Science.* Scopus record 105011172331
38. Aryani YA, Gantyowati E, Nurrahmawati A et al (2023) Determinants of local government public service quality: Evidence from a developing economy. *Journal of Governance and Regulation.* Scopus record 85151486221
39. Pribadi U (2021) Bureaucratic reform, public service performance, and citizens' satisfaction: The case of Yogyakarta, Indonesia. *Public Policy and Administration.* Scopus record 85115392618
40. Hikmah Budhyatma E, Nurmandi A, Muallidin I, Kurniawan D (2022) Application of Online Single Submission in increasing investment: A case study in the Special Region of Yogyakarta. *Communications in Computer and Information Science.* Scopus record 85133176868
41. Dharmika IBMP, Subanda IN (2023) The effectiveness of public services in realizing good governance. *APTISI Transactions on Technopreneurship.* Scopus record 85182686708
42. Revida E, Nasution MA, Kusmanto H et al (2026) Bureaucracy, empowerment, and the quality of public service in North Sumatra, Indonesia. *Bureaucracy, Empowerment, and the Quality of Public Service in North Sumatra, Indonesia.* Scopus record 105042719475
43. Shomary S, Zakaria SZS, Ramli Z, Razman MR (2016) Strategic issues in the development of the civil service system in the era of globalization towards environmental sustainability. *Journal of Food, Agriculture and Environment.* Scopus record 85007550938
44. Pribadi U, Kim H-J (2022) Impacts of the cultural behavior of civil servants on citizens' satisfaction: A survey of licensing services in Indonesian local government agencies. *Journal of Public Affairs.* Scopus record 85102784503
45. Irawanto DW, Ramsey PL (2011) Paternalistic leadership and employee responses in Javanese culture. *Gadjah Mada International Journal of Business.* Scopus record 84865089907
46. Syah S, Firdaus R, Darmawati, Mahfuddin M (2021) Determinant factors in improving service-quality strategies at the National Land Agency, North Luwu Regency, South Sulawesi, Indonesia. *Proceedings of the International Conference on Industrial Engineering and Operations Management.* Scopus record 85114263007
47. Berenschot W, Mulder P (2019) Explaining regional variation in local governance: Clientelism and state-dependency in Indonesia. *World Development.* Scopus record 85066978015
48. Wijaya MPH, Ali MZ (2021) Legislative impediments to reorganising government bodies in Indonesia. *Bestuur.* Scopus record 85144349483
49. Ngusmanto N (2016) Pilkada 2015 and patronage practice among bureaucrats in West Kalimantan, Indonesia. *Asian Social Science.* Scopus record 84988001675
50. Fariza MR, Khotijah NA, Putra DKS et al (2026) Faith-filtered political communication: Negotiating meaning among first-time voters in Indonesia's 2024 presidential election. *Howard Journal of Communications.* Scopus record 105037585027

51. Assa'idi S (2021) The growth of pesantren in Indonesia as an Islamic venue and social-class status of santri. *Eurasian Journal of Educational Research.* Scopus record 85110079072
52. Mukhlis M, Jufri M, Arowosaiye YI et al (2024) The legal culture to prevent radical Islamism by a pesantren in Madura. *De Jure: Jurnal Hukum dan Syar'iah.* Scopus record 85201260505
53. Krisnajaya IM, Suripto, Dewi NP et al (2019) The political process of bureaucratic reform: Wonosobo Regional Government experience from 2011–2015. *Jurnal Ilmu Sosial dan Ilmu Politik.* Scopus record 85100552318
54. Page MJ, McKenzie JE, Bossuyt PM et al (2021) The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 372:n71. https://doi.org/10.1136/bmj.n71
55. Tranfield D, Denyer D, Smart P (2003) Towards a methodology for developing evidence-informed management knowledge by means of systematic review. Br J Manag 14(3):207–222. https://doi.org/10.1111/1467-8551.00375
56. Snyder H (2019) Literature review as a research methodology: An overview and guidelines. J Bus Res 104:333–339. https://doi.org/10.1016/j.jbusres.2019.07.039
57. Scopus AI (2026) Bureaucratic reform in Madura, Indonesia: Contexts, challenges, and outcomes. AI-generated evidence synthesis, 27 July 2026. Scopus

Figures

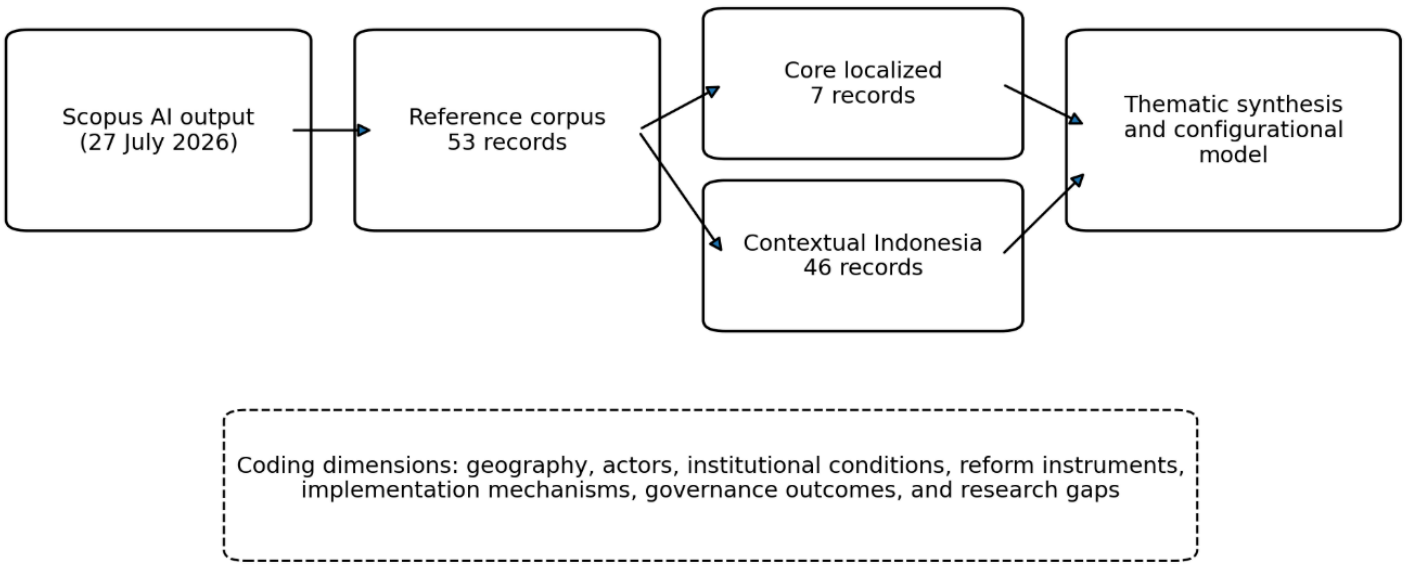


Figure 1

Evidence-base assembly and synthesis workflow. The diagram is not a conventional PRISMA flow chart because the supplied Scopus AI export does not contain upstream search and screening counts.

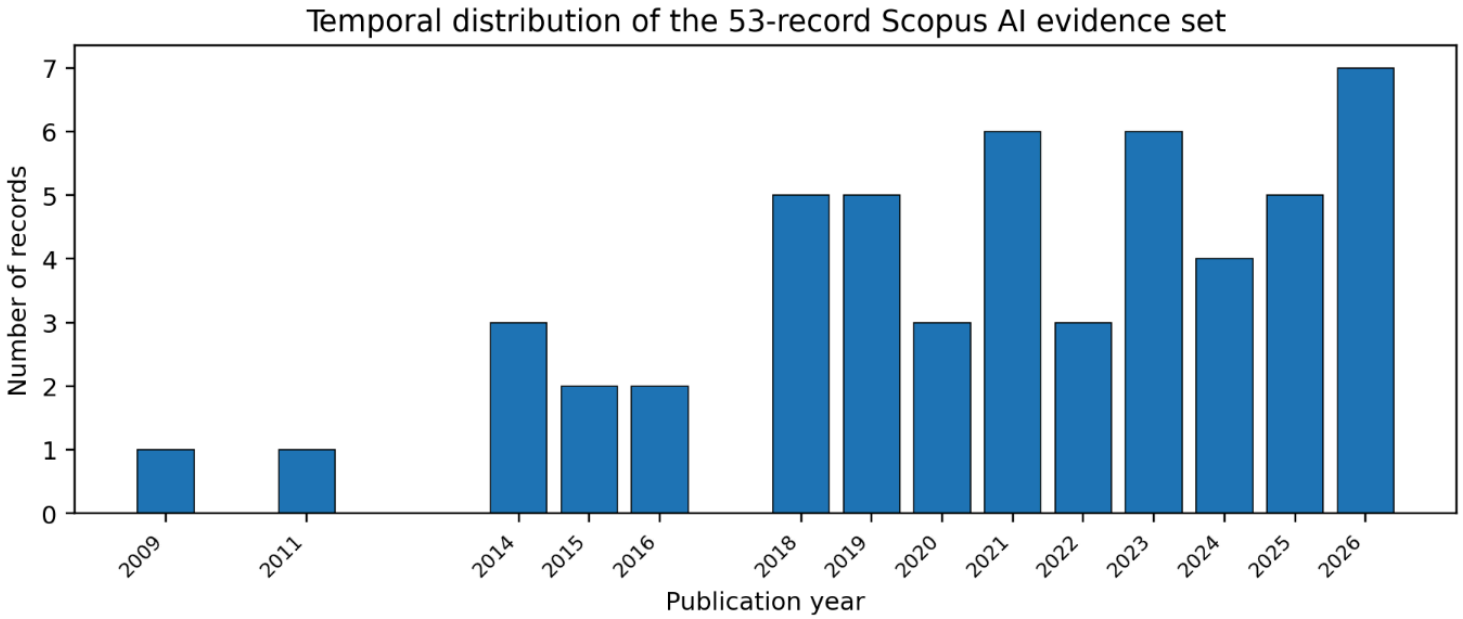


Figure 2

Publication-year distribution of the 53 records cited in the Scopus AI evidence set.

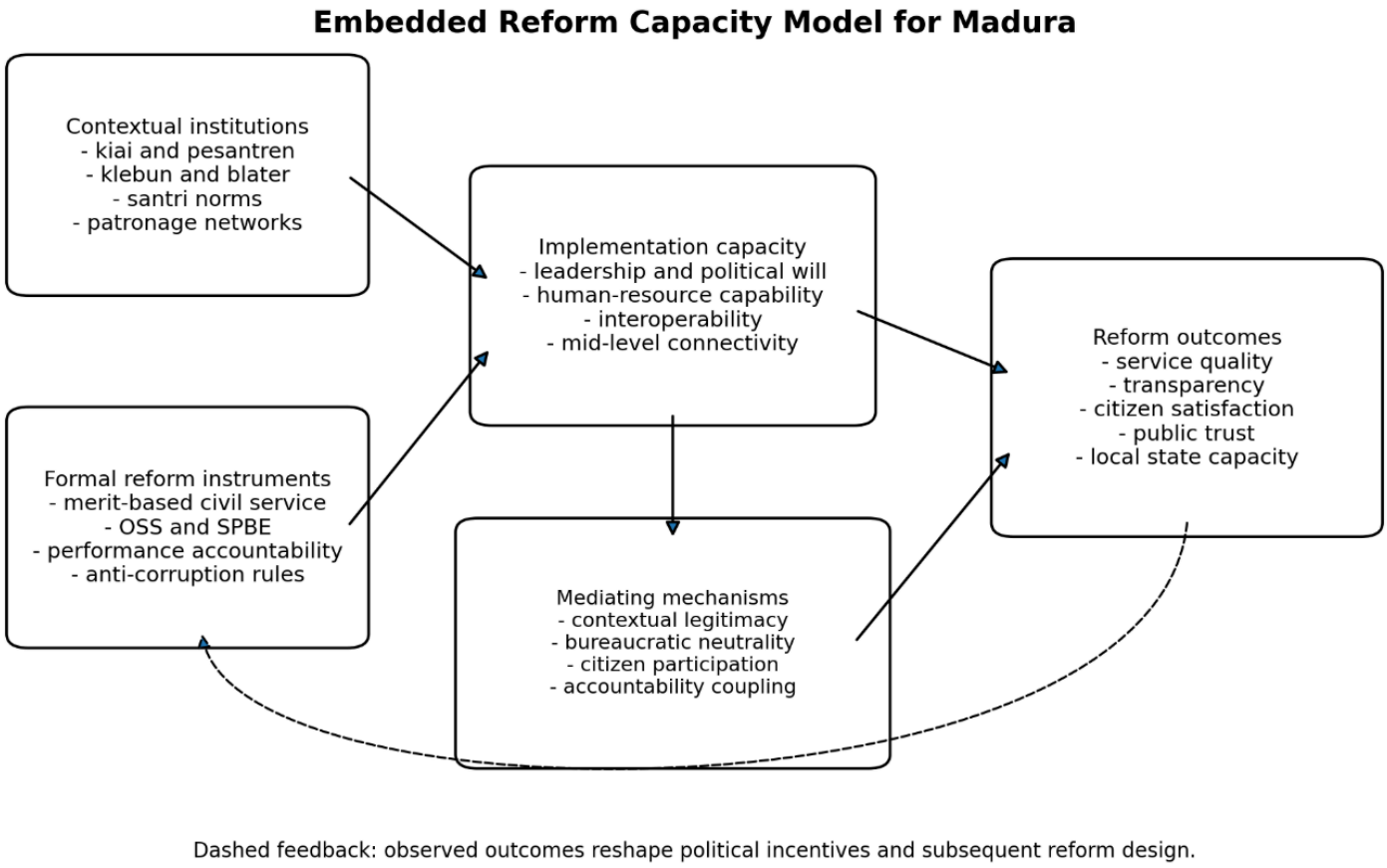


Figure 3

Embedded Reform Capacity Model. Formal reform instruments generate durable outcomes when aligned with contextual legitimacy, implementation capacity, mediating mechanisms, and accountability feedback.