

Human-Centered AI for Shared Prosperity: A Multi-Stakeholder Framework Bridging Innovation, Ethics, and Inclusion in Southeast Asia

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ABSTRACT

The rapid proliferation of artificial intelligence across Southeast Asia's digital economy has created an urgent policy tension between fostering innovation, safeguarding human rights, and ensuring inclusive prosperity, yet existing governance frameworks remain fragmented and insufficiently attentive to the region's diverse socio-political realities. Drawing on a systematic interdisciplinary review spanning computer science, law, ethics, and social sciences, combined with policy analysis of ASEAN's AI governance instruments including the ASEAN Guide on AI Governance and Ethics (2024) and the ASEAN Responsible AI Roadmap (2025-2030), this study develops a multi-stakeholder human-centered governance framework through comparative analysis of AI policy approaches across Indonesia, Malaysia, Singapore, Thailand, and Vietnam. The analysis reveals three governance deficits: fragmented institutional coordination, predominance of non-binding guidelines lacking enforcement, and inadequate participation of civil society and underrepresented communities. In response, the proposed framework operationalizes four interconnected pillars rights-based regulation mandating AI impact assessments, structured multi-stakeholder engagement, strategic localization of global best practices, and sustained capacity building demonstrating that responsible AI governance serves not as a brake on progress but as a strategic enabler of sustainable development and shared prosperity. This study contributes the first comprehensive human-centered AI governance framework specifically tailored to the Southeast Asian context, providing actionable guidance for policymakers navigating complex tradeoffs between technological advancement, human rights protection, and equitable development.

Keywords: *Human-Centered AI, AI Governance, Multi-Stakeholder Framework, Southeast Asia.*

1. INTRODUCTION

Artificial intelligence (AI) has moved from a peripheral technological curiosity to a central pillar of economic policy across Southeast Asia. The ASEAN Ministerial Meeting on Science, Technology and Innovation projected that AI could increase regional gross domestic product by 10 to 18 percent by 2030, with applications spanning health, manufacturing, transportation, smart cities, and agriculture (ASEAN, 2024). Yet this optimism sits uneasily alongside a governance landscape that remains uneven, voluntary, and only recently formalized. In February 2024, ASEAN member states endorsed the ASEAN Guide on AI Governance and Ethics, a non-binding regional instrument built around seven guiding principles transparency and explainability, fairness and equity, security and safety, robustness and reliability, human-centricity, privacy and data governance, and accountability and integrity (ASEAN, 2024). One year later, this was supplemented by an expanded guide addressing generative AI-specific risks such as hallucination, disinformation, and embedded social bias (ASEAN, 2025).

At the national level, member states have pursued markedly different trajectories. Indonesia's National Strategy on Artificial Intelligence (Stranas KA 2020--2045) laid out ethics, talent, infrastructure, and priority-sector goals through 2045, later operationalized through a 2025--2029 implementation roadmap (Badan Pengkajian dan Penerapan Teknologi [BPPT], 2020). Singapore has built what is arguably the region's most mature governance ecosystem not through a single binding statute, but through a layered architecture of national strategy, the Model AI Governance Framework, sectoral guidance, and testing toolkits such as AI Verify. Malaysia has combined a National AI Roadmap with National Guidelines on AI Governance and Ethics and, in 2024, established a National Artificial Intelligence Office to coordinate policy. Thailand and Vietnam are advancing national planning and sector-specific initiatives, though both face persistent infrastructure and enforcement gaps (National Bureau of Asian Research, 2025). The result is a patchwork: countries at very different stages of institutional readiness are nominally bound by the same voluntary regional guide, but implementation, enforcement capacity, and stakeholder inclusion diverge sharply.

This divergence is not merely academic. Comparative assessments using the Oxford Insights Government AI Readiness Index show Singapore ranked 2nd globally, while Malaysia, Thailand, Indonesia, and Vietnam rank 23rd, 37th, 42nd, and 59th respectively (Tun et al., 2025). Such disparities raise a governance question that is distinct from a purely technical one: how can a region with such heterogeneous institutional capacity build AI governance that is genuinely human-centered that is, oriented toward human agency, wellbeing, and rights rather than narrowly toward innovation velocity or compliance minimalism (Shneiderman, 2022)? The concept of human-centered AI (HCAI) has gained traction in global policy discourse, yet critics note that when the term appears in national strategies it is frequently used as a rhetorical umbrella for a loosely bundled set of ethical principles rather than as an operational design and governance commitment (Sigfrids et al., 2023). Translating human-centricity from aspiration into enforceable practice particularly in a region marked by wide gaps in regulatory capacity, civil society strength, and digital literacy remains an unresolved challenge.

1.1 Research Gap

Three gaps in the existing literature motivate this study. First, much of the scholarship on AI ethics and governance is produced from, and normalized around, the regulatory experience of the European Union, the United States, and China (Jobin et al., 2019); comparatively little work systematically examines how human-centered governance principles translate into the institutional, legal, and socio-political conditions of middle-income and developing Southeast Asian states. Second, existing analyses of ASEAN AI governance tend to describe the content of regional instruments most notably the ASEAN Guide on AI Governance and Ethics without empirically comparing how differently positioned member states operationalize (or fail to operationalize) those principles domestically (Putra, 2024). Third, the literature rarely integrates the three strands that this study argues must be read together: technical AI governance mechanisms, human-rights-based regulatory theory, and multi-stakeholder participation theory, into a single, actionable framework tailored to Southeast Asia's institutional diversity. This study addresses these gaps directly.

1.2 Research Objectives

This study pursues three objectives: (1) to map and compare the AI governance approaches of Indonesia, Malaysia, Singapore, Thailand, and Vietnam against the human-centricity principles embedded in the ASEAN Guide on AI Governance and Ethics; (2) to identify recurring structural deficits that limit the practical realization of human-centered AI governance across these five states; and (3) to propose a multi-stakeholder governance framework grounded in rights-based regulation, structured stakeholder engagement, contextual localization of global best practices, and capacity building that offers policymakers an actionable pathway toward AI governance that advances both innovation and shared prosperity.

2. LITERATURE REVIEW

2.1 Human-Centered AI as a Theoretical Foundation

Human-centered AI (HCAI) reframes AI system design and governance around human self-efficacy, creativity, dignity, and social participation rather than around algorithmic performance alone (Shneiderman, 2020a). Shneiderman (2020b, 2022) proposes a multi-layered governance architecture spanning team practices, organizational safety cultures, industry standards, and independent government oversight, arguing that reliability, safety, and trustworthiness are achieved not through any single mechanism but through the interaction of all four layers. This layered view is instructive for Southeast Asia, where governance capacity is unevenly distributed: a country lacking strong regulatory oversight may still advance human-centricity through organizational and industry-level mechanisms, provided national strategies deliberately cultivate them.

Sigfrids et al. (2023) offer a complementary and more critical reading. They argue that human-centricity in AI policy documents is frequently adapted from human-centered design traditions in human-computer interaction, which historically privileged individual users, and is therefore ill-equipped to address AI's community-wide and society-wide externalities. They propose disaggregating human-centricity into three nested levels: user-centeredness, community-centeredness, and society-centeredness and argue that meaningful HCAI governance must integrate all three, anchored by trust, transparency, and inclusive communication. This distinction is directly relevant to the Southeast Asian context, where AI deployment in areas such as public service delivery, credit scoring, and content moderation affects entire communities and vulnerable groups whose interests are rarely represented in narrowly user-centered design processes.

These theoretical foundations converge with international soft-law instruments. The European Commission's High-Level Expert Group on Artificial Intelligence (2019) grounded its Ethics Guidelines for Trustworthy AI in human dignity, while the OECD's AI Principles (OECD, 2019) and UNESCO's Recommendation on the Ethics of Artificial Intelligence (UNESCO, 2021) established human rights, sustainability, and inclusiveness as cross-cutting governance benchmarks that have since diffused into regional instruments worldwide, including ASEAN's own guide.

2.2 Global AI Ethics Principles and Their Diffusion

Jobin et al. (2019) conducted the first systematic mapping of global AI ethics guidelines and found substantial convergence around five core principles transparency, justice and fairness, non-maleficence, responsibility, and privacy but significant divergence in how those principles are interpreted, prioritized, and, most importantly, enforced. Fjeld et al. (2020) similarly identified eight thematic clusters common to AI governance instruments worldwide, from human control of technology to promotion of human values, while cautioning that principle convergence should not be mistaken for practical alignment. Floridi et al. (2018), in the AI4People framework, went further by translating bioethical principles beneficence, non-maleficence, autonomy, justice, and explicability into twenty concrete policy recommendations, explicitly warning that unenforced ethical principles risk becoming "ethics washing." This body of work establishes an important theoretical baseline: principle convergence across global AI ethics guidelines is high, but enforcement convergence is low. The ASEAN Guide reproduces this same pattern regionally.

2.3 AI Governance in ASEAN: Prior Studies

Putra (2024) argues that ASEAN has struggled to build a genuine regional AI governance framework because of the "ASEAN Way" a normative commitment to non-interference, consensus, and dialogue over binding regulation and recommends elevating AI governance within regional forums, building reskilling-oriented education policy, and establishing a working group to close readiness gaps among member states. The National Bureau of Asian Research (2025) similarly documents an "uneven yet gaining ground" trajectory: Malaysia has paired a National AI Roadmap (2021--2025) with ethics guidelines and a dedicated National AI Office; Vietnam has advanced sector-specific initiatives while facing infrastructure and coordination gaps; Thailand has combined national planning with sector initiatives but lags in binding legislation. The Tech For Good Institute (2026) observes that Malaysia, Thailand, Indonesia, and the Philippines are now moving toward AI-specific legislation, making Vietnam's regulatory trajectory among the most advanced in the region a possible bellwether, while Singapore continues to rely exclusively on a voluntary, framework-driven model without any indication of a binding AI statute forthcoming.

Tun et al. (2025), focusing on the health sector, provide one of the few studies to systematically benchmark ASEAN member states using the Oxford Insights Government AI Readiness Index, finding wide disparities between leading states (Singapore, Malaysia) and lagging ones, and recommending that lower-readiness states prioritize clear governmental vision, dedicated policy, and human-capital investment to narrow the region's digital divide. What remains largely absent from this literature, however, is a synthesis that moves from description and benchmarking toward a normative, operational governance framework one that explains not only where the gaps are, but what a human-centered, multi-stakeholder response to those gaps would concretely look like. This study positions itself at that synthesis point.

2.4 Multi-Stakeholder Governance Theory

Multi-stakeholder governance theory holds that legitimacy and effectiveness in the regulation of complex, fast-moving technologies depend on structured participation by government, industry, academia, and civil society, rather than on state-centric rulemaking

alone. In the AI rights literature, this is closely tied to the argument that affected communities should be treated as rights-holders with a basis for engagement grounded, for instance, in the Universal Declaration of Human Rights' guarantees of freedom of association and political participation rather than merely as "stakeholders" whose input is solicited at the state's discretion. Applied to AI governance specifically, this reframes multi-stakeholder engagement from a consultative courtesy into a rights-based governance requirement, with direct implications for how ASEAN member states design public consultation, impact assessment, and oversight mechanisms.

Taken together, the literature reviewed here supports three propositions that structure the remainder of this study. First, human-centricity in AI governance is theoretically well-developed but practically underspecified, particularly regarding enforcement and multi-level community representation. Second, ASEAN-level and national-level AI governance instruments in Southeast Asia have converged rhetorically around human-centered and rights-respecting principles but diverge sharply in enforcement capacity and institutional maturity. Third, no existing study offers an integrated, operational framework that connects human-centered design theory, rights-based regulatory theory, and multi-stakeholder participation theory specifically to the institutional conditions of Southeast Asia. This is the gap the present study addresses.

3. METHODS

3.1 Research Design

This study adopts a qualitative literature review and comparative policy analysis design. Rather than generating new primary survey or experimental data, the study systematically synthesizes secondary sources peer-reviewed journal articles, regional and national policy documents, and reports from recognized international and regional bodies to construct a comparative account of AI governance across five ASEAN member states and to derive an original, theoretically grounded governance framework. This design is appropriate given the study's objective: producing an actionable, cross-national synthesis rather than testing a narrow causal hypothesis.

3.2 Data Sources

Three categories of sources were used. The first is primary regional and national policy documents, including the ASEAN Guide on AI Governance and Ethics (2024) and its 2025 generative AI expansion, Indonesia's Stranas KA (2020--2045), Malaysia's National AI Roadmap and National Guidelines on AI Governance and Ethics, Singapore's National AI Strategy 2.0 and Model AI Governance Framework, and comparable national strategy documents for Thailand and Vietnam. The second is peer-reviewed and preprint academic literature on human-centered AI, AI ethics principle convergence, and ASEAN AI governance, drawn from journals including *Frontiers in Artificial Intelligence*, *Nature Machine Intelligence*, and *Minds and Machines*. The third is comparative benchmarking data, principally the Oxford Insights Government AI Readiness Index (2024, 2025), used descriptively to illustrate

institutional-capacity disparities across the five countries rather than as an original empirical contribution of this study.

3.3 Data Collection Technique

Sources were identified through structured searches of academic databases and institutional repositories, supplemented by direct retrieval of primary policy texts from ASEAN and national government portals. Search terms combined "AI governance," "human-centered AI," "multi-stakeholder," and each country name with "Southeast Asia" and "ASEAN." Sources published within the last five years were prioritized, with foundational theoretical works (e.g., Shneiderman's HCAI scholarship, global AI ethics principle mappings) retained regardless of date given their continued centrality to the field.

3.4 Data Analysis Technique

Data were analyzed using qualitative thematic and comparative document analysis. Policy documents and secondary literature were coded against the seven principles of the ASEAN Guide on AI Governance and Ethics (transparency and explainability, fairness and equity, security and safety, robustness and reliability, human-centricity, privacy and data governance, and accountability and integrity), allowing systematic comparison of stated commitments across the five countries. A second analytical pass identified structural implementation gaps distinguishing, for each country, between principles that are merely declared and mechanisms that are institutionally operationalized (e.g., a dedicated oversight body, a binding legal instrument, a funded public consultation process). The resulting comparative matrix (Table 1) and the three cross-cutting governance deficits it reveals (Section 4.2) provide the empirical basis from which the study's four-pillar framework (Section 4.3) is inductively derived.

4. RESULTS AND DISCUSSIONS

4.1 Comparative Landscape of National AI Governance

Table 1 synthesizes the governance posture of the five focal countries against the ASEAN Guide's core principles, based on the policy documents and secondary sources reviewed in Section 3.2. The comparison shows that all five countries have published a national AI strategy or roadmap and profess commitment to broadly similar ethical principles, echoing the global principle-convergence pattern documented by Jobin et al. (2019). What differs substantially is institutional operationalization: whether a dedicated coordinating body exists, whether guidance is binding or voluntary, and how far civil society participation extends beyond consultation.

Table 1. Comparative Overview of National AI Governance Approaches in Five ASEAN Member States

Country	Strategy / Roadmap	Coordinating Body	Legal Status	Civil Society Role
Indonesia	Stranas KA 2020–2045; National AI Roadmap 2025–2029	Ministry of Communication and Digital (coordinating, non-exclusive)	Voluntary / aspirational	Limited; largely consultative
Malaysia	National AI Roadmap 2021–2025	National Artificial Intelligence Office (est. 2024)	Voluntary guidelines; draft AI law forthcoming	Emerging; open stakeholder dialogues
Singapore	National AI Strategy 2.0 (2023)	Smart Nation and Digital Government Office; IMDA	Fully voluntary (no AI statute)	Structured via sectoral consultations
Thailand	National AI strategy and sector initiatives	Multiple sectoral regulators	Mixed; legislative development ongoing	Limited; sector-specific
Vietnam	National AI Roadmap (sector-focused)	Ministry-level, fragmented across sectors	Voluntary; Personal Data Protection Law from 2026	Limited; early-stage

Singapore stands out for institutional maturity built entirely on voluntary instruments the Model AI Governance Framework, the AI Verify testing toolkit, and Project Moonshot for large language model evaluation layered under National AI Strategy 2.0, without any binding AI-specific statute. Malaysia has moved furthest toward centralized coordination through its 2024 National Artificial Intelligence Office, pairing a sectoral roadmap with governance guidelines. Indonesia's Stranas KA is the most long-horizon strategy in the region (2020--2045) but has been criticized for remaining aspirational, lacking measurable indicators, independent oversight, and enforcement mechanisms. Thailand and Vietnam are both advancing sector-specific initiatives and legislative groundwork, with Vietnam's trajectory widely regarded as a bellwether for whether the region moves toward binding AI law (Tech For Good Institute, 2026).

Figure 1 situates these qualitative differences against an independent quantitative benchmark: the Oxford Insights Government AI Readiness Index, which scores government AI readiness across 188--195 countries using indicators of governance and ethics capacity, technology sector maturity, and data and infrastructure. The pattern corroborates the qualitative

comparison in Table 1 readiness broadly tracks the extent of institutional operationalization rather than the mere existence of a strategy document.

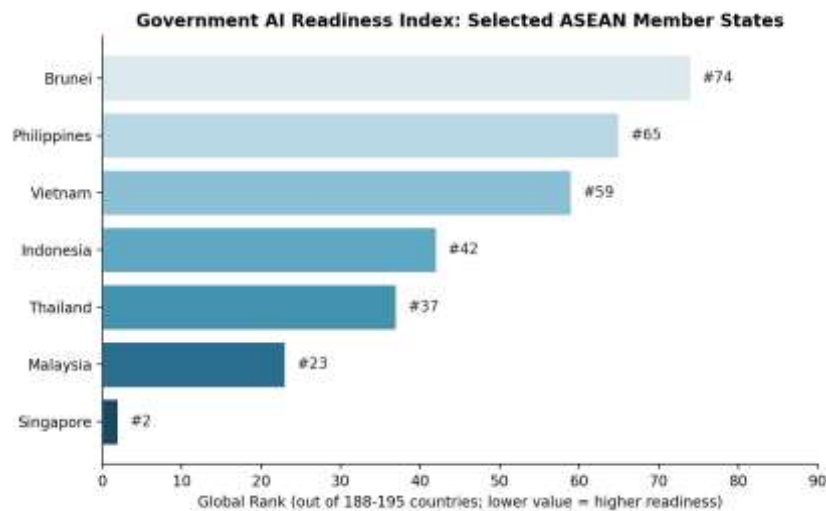


Figure 1. Government AI Readiness Index Rank of Selected ASEAN Member States, 2024--2025 (Source: Oxford Insights Government AI Readiness Index, as reported in Tun et al., 2025)

The nearly forty-place gap between Singapore (2nd) and Vietnam (59th), and the still wider gap to Brunei Darussalam (74th), is not simply a story of national income differences; Malaysia (23rd) and Thailand (37th) outperform their income-adjusted regional peers, suggesting that deliberate institutional design choices a dedicated coordinating office, structured ethics guidelines, sustained investment in AI talent matter independently of GDP per capita. This reinforces the argument advanced by Sigfrids et al. (2023) that human-centered governance outcomes depend on institutional architecture, not merely on the rhetorical adoption of human-centered principles.

4.2 Three Governance Deficits

Cross-reading the comparative analysis in Section 4.1 against the theoretical literature in Section 2 surfaces three recurring governance deficits common to the region, summarized in Table 2.

Table 2. Three Cross-Cutting Governance Deficits Identified Across ASEAN AI Governance Frameworks

Governance Deficit	Manifestation	Framework Response
Fragmented institutional coordination	AI policy functions dispersed across multiple ministries and regulators without a single accountable authority in most member states	Pillar 1 (rights-based regulation) anchored to a designated coordinating authority

Governance Deficit	Manifestation	Framework Response
Non-binding guidelines without enforcement	ASEAN Guide and most national instruments are explicitly voluntary and do not supersede existing law	Pillar 1 introduces mandatory impact assessments as an incremental enforcement mechanism
Inadequate civil society participation	AI strategies developed predominantly through government–industry–academia consultation; affected communities marginally represented	Pillar 2 (structured multi-stakeholder engagement) mandates resourced, representative advisory mechanisms

The first deficit, fragmented institutional coordination, reflects the fact that AI governance functions in most member states are distributed across multiple ministries communications, science and technology, trade, and sectoral regulators without a single accountable authority. Where such an authority does exist, as in Malaysia's National AI Office, coordination improves markedly. The second deficit, predominance of non-binding guidelines lacking enforcement, is structural to the ASEAN Guide itself, which explicitly states that it "does not replace or supersede any existing or upcoming laws" (ASEAN, 2024) and functions as a voluntary reference rather than a regulatory instrument. This mirrors the broader "ASEAN Way" of consensus-based, non-binding regional cooperation (Putra, 2024), which preserves sovereignty and flexibility but weakens accountability for AI harms. The third deficit, inadequate civil society participation, is the least visible in policy documents precisely because it is a deficit of omission: national AI strategies across the region were predominantly developed through government--industry--academia consultation, with organized civil society and directly affected communities labor groups, disability rights organizations, indigenous and minority communities playing a marginal or largely symbolic role. This is consistent with the theoretical concern raised in Section 2.4 that stakeholder engagement is too often treated as consultative courtesy rather than as a rights-based governance requirement.

These three deficits interact. Fragmented coordination makes it structurally difficult to embed binding accountability mechanisms, because no single institution owns the mandate to enforce them; the absence of binding enforcement in turn reduces the incentive for government agencies to invest in costly, resource-intensive stakeholder engagement processes, since non-binding guidance carries limited legal or political consequence for skipping them. Addressing any one deficit in isolation is therefore unlikely to be sufficient a finding that directly motivates the integrated, four-pillar framework proposed in Section 4.3.

4.3 A Four-Pillar Human-Centered AI Governance Framework

Building on the comparative findings above and the theoretical foundations reviewed in Section 2, this study proposes a four-pillar framework for human-centered AI governance in Southeast Asia, illustrated in Figure 2. The framework is intended as a policy-design reference rather than a prescriptive template to be adopted uniformly; consistent with the ASEAN Way,

it is designed to accommodate differentiated implementation timelines across member states with different institutional starting points.

Figure 2. Four-Pillar Human-Centered AI Governance Framework for Southeast Asia

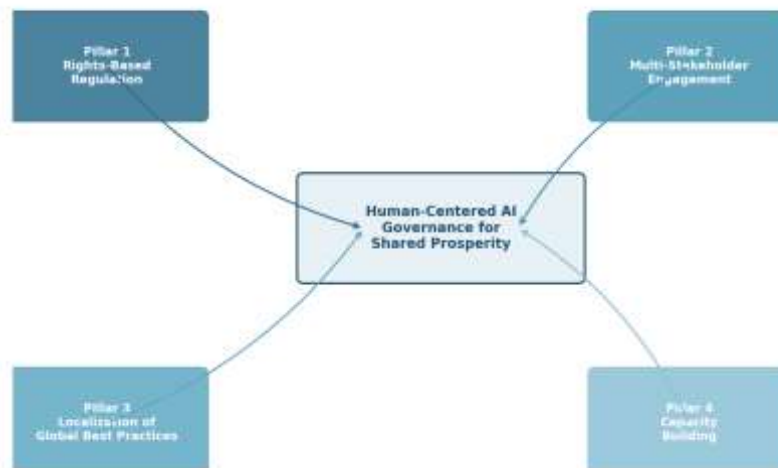


Figure 2. Proposed Four-Pillar Human-Centered AI Governance Framework for Southeast Asia

Pillar 1, rights-based regulation, translates the human-rights-centered arguments reviewed in Section 2.4 into a concrete instrument: mandatory AI impact assessments for high-risk applications credit scoring, public-sector automated decision-making, biometric surveillance, and content moderation modeled on but adapted to regional legal traditions rather than directly transplanted from the EU AI Act's risk-tiering approach. Unlike voluntary ethics guidelines, an impact-assessment requirement creates a documented, auditable trail that can anchor future enforcement even where a comprehensive AI statute does not yet exist, offering a incremental legal pathway compatible with the ASEAN Way's preference for gradualism.

Pillar 2, structured multi-stakeholder engagement, responds directly to the third governance deficit identified in Section 4.2. It calls for formalized, resourced consultation mechanisms such as standing multi-stakeholder AI advisory councils with guaranteed civil society and affected-community representation rather than ad hoc or symbolic consultation. Embedding such councils within the same coordinating authority responsible for AI strategy (addressing the first deficit) would ensure stakeholder input is structurally linked to policymaking rather than procedurally separate from it.

Pillar 3, localization of global best practices, addresses the risk that Southeast Asian states adopt globally circulating AI ethics principles (Jobin et al., 2019; Fjeld et al., 2020) without adapting them to local legal systems, religious and cultural values, and resource constraints. Indonesia's integration of Pancasila principles into its AI governance discourse and its healthcare policy framing (Tun et al., 2025) illustrates one form of contextual localization; the framework proposed here generalizes this into a deliberate step in the policy design process, rather than an incidental feature of any single country's approach.

Pillar 4, capacity building, targets the readiness disparities shown in Figure 1. It encompasses technical capacity (AI literacy among regulators and judiciary), institutional

capacity (dedicated, adequately funded coordinating bodies, as Malaysia has begun to establish), and civic capacity (digital and AI literacy among the general public and civil society organizations, enabling substantive rather than token participation under Pillar 2). Regional mechanisms such as an ASEAN AI Working Group with a genuine capacity-transfer mandate could help lower-readiness states such as Vietnam, Thailand, and Indonesia close the gap with Singapore and Malaysia without each state having to build capacity entirely independently.

The four pillars are deliberately interdependent rather than sequential: rights-based regulation (Pillar 1) is more legitimate and better calibrated when it is informed by structured stakeholder input (Pillar 2); stakeholder engagement is more meaningful when supported by civic AI literacy (Pillar 4); and localization (Pillar 3) prevents both regulation and engagement mechanisms from being uncritically imported in ways that fail to resonate with local institutional and cultural realities. This interdependence is the framework's central contribution: it reframes human-centered AI governance not as a single policy lever but as a coherent system of mutually reinforcing institutional commitments.

4.4 Implications for Policy and Practice

For Indonesia specifically, the framework suggests that Stranas KA's next implementation phase (2025--2029) should prioritize converting aspirational ethics commitments into measurable indicators and an independent oversight mechanism (Pillar 1), while formalizing the still-nascent role of civil society and academic institutions including Islamic higher-education institutions engaged in Sharia-compliant fintech and digital-economy research within AI policy consultation processes (Pillar 2). Regionally, the framework implies that ASEAN's Guide on AI Governance and Ethics, and its expanded generative AI edition, would benefit from an accompanying peer-review or self-assessment mechanism through which member states report progress against the seven guiding principles, converting a purely voluntary instrument into one backed by reputational and diplomatic accountability, consistent with the consensus-based character of ASEAN cooperation (Putra, 2024) while still narrowing the enforcement deficit identified in Section 4.2.

The framework also carries a broader theoretical implication: it suggests that debates over whether Southeast Asian AI governance should converge with EU-style binding regulation or remain closer to Singapore's voluntary, framework-driven model may be a false dichotomy. The comparative evidence in Section 4.1 shows that Singapore achieves comparatively high institutional readiness through purely voluntary mechanisms combined with strong technical infrastructure (AI Verify, Project Moonshot) and a well-resourced coordinating authority precisely the combination of Pillars 1, 2, and 4 that this framework recommends, achieved without a binding AI statute. This suggests that binding legislation is one possible pathway to human-centered AI governance, but not the only one; what appears necessary across pathways is institutional coherence, resourced participation, and sustained capacity investment, rather than any single regulatory instrument.

5. CONCLUSION

This study set out to compare AI governance approaches across five ASEAN member states against the human-centricity principles articulated in the ASEAN Guide on AI Governance and Ethics, to identify structural deficits limiting the practical realization of those principles, and to propose an actionable governance framework in response. The comparative analysis shows that while Indonesia, Malaysia, Singapore, Thailand, and Vietnam have converged rhetorically around similar ethical principles echoing the global pattern of principle convergence documented in the broader AI ethics literature they diverge sharply in institutional operationalization, producing measurable disparities in government AI readiness. Three cross-cutting deficits were identified: fragmented institutional coordination, an over-reliance on non-binding guidelines without enforcement mechanisms, and inadequate participation of civil society and affected communities in AI policymaking.

In response, this study proposed a four-pillar human-centered AI governance framework rights-based regulation, structured multi-stakeholder engagement, localization of global best practices, and capacity building designed as an interdependent system rather than a checklist of isolated interventions. The framework's central contribution is to demonstrate, both theoretically and through comparative evidence, that human-centered AI governance and innovation-friendly AI governance are not competing objectives: Singapore's experience suggests that institutional coherence and resourced participation can advance both simultaneously, even absent binding legislation. For Southeast Asian policymakers navigating the tradeoffs between technological advancement, human rights protection, and equitable development, this study offers a framework for treating human-centricity as an operational governance commitment rather than a rhetorical aspiration.

This study is limited by its reliance on secondary and documentary sources rather than primary stakeholder interviews or fieldwork, and its focus on five of ASEAN's ten member states, excluding Brunei, Cambodia, Laos, Myanmar, and the Philippines, whose inclusion would likely reveal an even wider readiness gradient. Future research should empirically test the proposed framework through case studies of specific AI impact-assessment or multi-stakeholder consultation mechanisms as they are implemented, and should extend the comparative analysis to the remaining ASEAN member states to build a fuller regional picture of human-centered AI governance in practice.

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