
AI GOVERNANCE READINESS IN PUBLIC ADMINISTRATION: A CONCEPTUAL FRAMEWORK FOR RESPONSIBLE AI IMPLEMENTATION

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ABSTRACT

Artificial Intelligence (AI) has emerged as a transformative force in public administration, enabling governments to enhance decision-making, improve service delivery, optimize resource utilization, and strengthen citizen engagement. As public institutions increasingly adopt AI-driven solutions, concerns related to transparency, accountability, ethical decision-making, data governance, cybersecurity, and regulatory compliance have become more prominent. While governments worldwide have introduced policies and strategies to promote responsible AI adoption, many public organizations remain inadequately prepared to govern AI effectively. Existing literature predominantly focuses on AI adoption, digital transformation, or ethical AI principles, with comparatively limited attention given to institutional readiness for AI governance. Furthermore, available studies often examine governance dimensions in isolation rather than presenting a comprehensive framework that integrates organizational, technological, legal, ethical, and strategic perspectives.

This study aims to develop a multidimensional conceptual framework for AI Governance Readiness in public administration through a systematic synthesis of contemporary literature. Adopting a qualitative secondary research approach, the study critically reviews recent scholarly publications, policy reports, and international AI governance frameworks to identify the key organizational capabilities required for responsible AI implementation. Based on thematic analysis, the study proposes twelve interrelated dimensions of AI Governance Readiness, namely leadership readiness, strategic alignment, digital infrastructure, data governance, ethical AI governance, legal and regulatory readiness, organizational capability,

AI literacy, human resource competency, cybersecurity resilience, risk management, and stakeholder engagement. These dimensions collectively form an integrated framework that can guide governments in assessing institutional preparedness before implementing AI-enabled public services.

The proposed framework contributes to the growing body of knowledge on AI governance by offering a holistic perspective that bridges fragmented literature across digital government, public administration, and responsible AI. The study also provides practical insights for policymakers and public administrators seeking to strengthen institutional capacity for sustainable, transparent, and citizen-centric AI governance. Future empirical studies may validate the proposed framework across different governmental contexts.

KEYWORDS: Artificial Intelligence, AI Governance, Public Administration, Responsible AI, Digital Government, E-Governance, AI Readiness, Conceptual Framework, Secondary Research, Public Policy.

INTRODUCTION

The rapid advancement of Artificial Intelligence (AI) has become one of the defining technological developments of the twenty-first century, fundamentally reshaping the way governments operate, deliver public services, and interact with citizens. Unlike previous generations of digital technologies that primarily focused on automating routine administrative functions, AI introduces cognitive capabilities that enable machines to analyse complex datasets, recognize patterns, generate predictions, support decision-making, and continuously improve through learning algorithms. These capabilities have transformed AI from a supportive technological tool into a strategic resource capable of influencing governance structures, administrative efficiency, and public value creation.

The integration of AI into public administration has accelerated considerably in recent years. Governments across the world increasingly employ AI-powered applications in healthcare management, taxation, public finance, social welfare distribution, judicial assistance, transportation systems, disaster management, environmental monitoring, smart city initiatives, and citizen service delivery. Intelligent chatbots facilitate government–citizen interactions, predictive analytics support evidence-based policymaking, machine learning algorithms detect fraudulent activities, and generative AI assists in drafting policy documents and administrative communications. These developments have expanded the scope of digital governance and enhanced the capacity of public institutions to provide efficient, responsive, and citizen-centric

services.

The evolution from traditional e-governance to intelligent governance represents a significant shift in public administration. Earlier e-governance initiatives primarily digitized administrative processes and enabled online access to government services. While these initiatives improved accessibility and operational efficiency, they largely relied on rule-based information systems that required extensive human intervention. In contrast, AI-driven governance enables governments to make data-informed decisions, automate complex administrative tasks, personalize public services, and proactively address societal challenges through predictive and prescriptive analytics. Consequently, AI is increasingly recognized as a strategic enabler of innovation, administrative modernization, and sustainable public service delivery.

Despite these opportunities, the adoption of AI in government introduces challenges that extend beyond technological implementation. AI systems often operate through complex algorithms that may lack transparency, making it difficult for administrators and citizens to understand how decisions are reached. Algorithmic bias, privacy concerns, cybersecurity threats, ethical dilemmas, regulatory uncertainty, and accountability issues have emerged as significant barriers to the responsible deployment of AI within the public sector. Because government decisions directly affect citizens' rights, access to public services, and societal well-being, these challenges are particularly critical in public administration.

In response to these concerns, the concept of **AI governance** has gained substantial attention among researchers, policymakers, and international organizations. AI governance refers to the policies, institutional arrangements, ethical principles, legal mechanisms, and organizational practices that guide the responsible development, deployment, monitoring, and oversight of AI systems. Effective AI governance seeks to balance technological innovation with transparency, accountability, fairness, human oversight, data protection, and public trust. Rather than restricting technological progress, AI governance aims to ensure that AI systems operate in a manner consistent with democratic values, legal obligations, and the broader public interest.

Several governments and international organizations have already recognized the strategic importance of AI governance. National AI strategies increasingly emphasize ethical AI, regulatory compliance, trustworthy AI, and responsible innovation. At the same time, international initiatives have proposed governance principles centered on transparency, explainability, accountability, fairness, human rights, and risk management. These developments indicate that the future success of AI in government depends not only on

technological advancement but also on the institutional capability to govern AI responsibly. Although considerable progress has been made in AI governance research, existing literature reveals several important limitations. A large proportion of previous studies has concentrated on technology adoption, digital transformation, or ethical AI principles, while relatively limited attention has been given to assessing organizational readiness for AI governance. Existing readiness models frequently focus on digital infrastructure or technological capability but overlook broader institutional dimensions such as leadership commitment, strategic planning, legal preparedness, ethical governance, workforce competency, organizational culture, cybersecurity resilience, and stakeholder participation. Consequently, public organizations may possess advanced digital technologies while lacking the governance capacity required to manage AI responsibly.

Another limitation concerns the fragmented nature of existing research. Studies often examine leadership, ethics, cybersecurity, legal compliance, or data governance as independent topics without integrating these dimensions into a comprehensive framework capable of assessing institutional readiness for AI governance. Such fragmentation limits the ability of policymakers to evaluate the overall preparedness of public institutions before implementing AI-enabled services. Furthermore, many existing governance frameworks have been developed within private-sector contexts, where organizational objectives differ substantially from those of public administration. Government organizations operate within unique institutional environments characterized by public accountability, democratic governance, social equity, legal obligations, and citizen trust, requiring governance models specifically designed for the public sector.

These limitations highlight a significant research gap. There is currently no widely accepted multidimensional conceptual framework that systematically integrates the organizational, technological, legal, ethical, strategic, and human dimensions of AI governance readiness within public administration. Addressing this gap is essential because governments require practical guidance for evaluating institutional preparedness before implementing AI technologies on a large scale. Without such preparedness, AI initiatives may face implementation failures, governance risks, declining public trust, regulatory challenges, and ethical controversies.

Accordingly, the primary objective of this study is to develop a **Multidimensional AI Governance Readiness Framework** for public administration through a comprehensive synthesis of contemporary literature. Rather than examining individual governance factors in

isolation, the study integrates multiple organizational capabilities into a unified conceptual model that reflects the complex nature of responsible AI implementation within government institutions. The proposed framework identifies twelve interrelated dimensions of AI governance readiness: **leadership readiness, strategic alignment, digital infrastructure, data governance, ethical AI governance, legal and regulatory readiness, organizational capability, AI literacy, human resource competency, cybersecurity resilience, risk management, and stakeholder engagement**. Together, these dimensions provide a holistic perspective on institutional preparedness for AI-enabled governance.

The study adopts a qualitative secondary research design based on a systematic review and thematic synthesis of recent scholarly literature, policy reports, and international AI governance guidelines. By consolidating fragmented knowledge into an integrated conceptual framework, the research seeks to contribute to the growing discourse on responsible AI in public administration while offering practical guidance for policymakers, government agencies, and public administrators.

The contributions of this study are threefold. First, it advances the theoretical understanding of AI governance readiness by conceptualizing it as a multidimensional organizational capability rather than a purely technological construct. Second, it develops a comprehensive framework that integrates key governance dimensions identified across contemporary literature into a coherent model tailored to public administration. Third, it provides actionable insights that can assist governments in evaluating institutional readiness, identifying governance gaps, strengthening policy implementation, and promoting responsible AI adoption. In doing so, the study supports the broader objective of building transparent, accountable, resilient, and citizen-centric public institutions capable of harnessing the transformative potential of AI while safeguarding public values and democratic principles.

Systematic Literature Review

Evolution of Artificial Intelligence in Public Administration

Artificial Intelligence (AI) has emerged as one of the most transformative technologies influencing contemporary public administration. The evolution of digital government from simple online service delivery to intelligent governance has enabled governments to redesign administrative processes, improve policy formulation, and enhance citizen engagement through data-driven decision-making. Unlike conventional information systems that primarily automate routine administrative tasks, AI technologies possess capabilities such as machine

learning, natural language processing, predictive analytics, computer vision, and generative intelligence, allowing governments to process complex datasets, identify patterns, and support evidence-based policymaking.

Recent developments indicate that AI is no longer viewed merely as a technological innovation but as a strategic governance capability. Governments across developed and developing countries have incorporated AI into healthcare administration, tax management, social welfare distribution, judicial support systems, smart city initiatives, environmental monitoring, transportation management, and public security. This transition has significantly expanded the scope of digital governance while simultaneously introducing new governance challenges concerning accountability, transparency, fairness, privacy, and public trust.

The increasing integration of AI into governmental functions has shifted scholarly attention from technology adoption toward institutional governance. Contemporary research argues that the success of AI implementation depends not only on technological sophistication but also on the readiness of public institutions to govern AI responsibly. Consequently, AI governance has become an essential component of modern public administration, emphasizing the need for institutional capabilities that ensure ethical oversight, regulatory compliance, and sustainable AI deployment.

Understanding AI Governance

AI governance refers to the collection of institutional arrangements, regulatory mechanisms, organizational policies, ethical principles, and operational practices that guide the design, development, deployment, monitoring, and evaluation of AI systems. Within public administration, AI governance extends beyond technical management by ensuring that AI applications align with democratic values, legal frameworks, public accountability, and citizen rights.

Unlike corporate AI governance, where organizational performance often represents the primary objective, public sector AI governance seeks to balance innovation with public value creation. Government agencies must simultaneously achieve efficiency improvements while protecting citizens from algorithmic discrimination, privacy violations, biased decision-making, and reduced transparency.

Recent literature increasingly identifies AI governance as a multidimensional construct involving strategic leadership, regulatory preparedness, ethical compliance, organizational learning, technological infrastructure, data governance, cybersecurity, and stakeholder

participation. Rather than functioning as independent elements, these dimensions collectively determine an organization's capacity to implement AI responsibly.

International organizations have also emphasized responsible AI governance as a prerequisite for sustainable digital transformation. Emerging governance principles consistently advocate transparency, explainability, accountability, human oversight, fairness, privacy protection, and risk management throughout the AI lifecycle. These principles have gradually become fundamental components of governmental AI strategies worldwide.

Organizational Readiness in the Context of AI

Organizational readiness represents the extent to which an institution possesses the capabilities, resources, competencies, and strategic commitment necessary to implement organizational change successfully. Traditionally, readiness has been examined within digital transformation, information systems implementation, and organizational innovation research. However, AI introduces unique governance requirements that extend beyond conventional digital readiness. AI systems continuously learn from data, evolve over time, and often influence high-impact public decisions. Consequently, organizational readiness for AI governance requires broader institutional preparedness encompassing leadership commitment, regulatory capacity, ethical governance, data stewardship, workforce capability, cybersecurity resilience, and stakeholder engagement.

Recent studies suggest that many governments possess adequate technological infrastructure but remain insufficiently prepared in governance-related dimensions. Weak institutional coordination, fragmented policies, limited AI expertise, unclear legal responsibilities, and inadequate ethical oversight frequently constrain successful AI implementation. Therefore, organizational readiness should be conceptualized as an integrated capability that combines technological, organizational, human, and governance dimensions rather than merely measuring technological maturity.

Leadership Readiness

Leadership readiness has consistently emerged as one of the strongest determinants of successful digital transformation and AI governance. Effective leadership establishes organizational vision, allocates financial resources, promotes innovation, facilitates interdepartmental collaboration, and creates institutional support for responsible AI implementation.

Public sector leaders also play a critical role in balancing innovation with accountability.

Unlike private organizations, government agencies operate within complex political, legal, and social environments where AI-related decisions directly influence public welfare. Consequently, leadership readiness extends beyond technological advocacy to include ethical responsibility, regulatory compliance, public communication, and institutional legitimacy.

Strategic leadership further enables organizations to anticipate emerging governance challenges, develop AI policies, establish accountability mechanisms, and promote continuous organizational learning. Without executive commitment, AI initiatives often remain fragmented pilot projects lacking long-term sustainability.

Strategic Readiness

Strategic readiness refers to the alignment between organizational objectives and AI implementation strategies. Successful AI governance requires clearly defined strategic priorities, implementation roadmaps, governance structures, performance indicators, and continuous monitoring mechanisms.

Many public organizations initiate AI projects without comprehensive institutional strategies, resulting in duplicated investments, fragmented implementation, inconsistent governance, and poor interdepartmental coordination. Strategic readiness therefore enables governments to integrate AI into broader digital transformation initiatives while ensuring consistency across administrative functions.

A strategically prepared organization establishes governance committees, defines organizational responsibilities, develops implementation guidelines, and regularly evaluates AI performance. Such alignment enhances institutional resilience while minimizing implementation risks.

Data Governance Readiness

Data represents the foundational resource supporting every AI application. Consequently, data governance has become one of the most extensively discussed dimensions within AI governance literature.

Effective data governance encompasses data quality management, interoperability, metadata standards, privacy protection, secure storage, access control, data sharing policies, and regulatory compliance. High-quality data enhances algorithmic accuracy, reduces bias, and improves policy outcomes, whereas poor-quality datasets increase the likelihood of discriminatory decisions and governance failures.

Public administration presents unique data governance challenges due to the diversity of administrative databases, interagency information sharing, confidentiality requirements, and citizen privacy concerns. Therefore, governments require institutional mechanisms that ensure responsible data stewardship throughout the AI lifecycle.

Ethical AI Governance

Ethical governance has become one of the defining characteristics of responsible AI implementation. The increasing reliance on automated decision-making has generated widespread concern regarding algorithmic bias, explainability, transparency, accountability, fairness, and human oversight.

Unlike traditional administrative systems, AI algorithms may produce outcomes that are difficult for public officials and citizens to interpret. Consequently, ethical governance requires organizations to establish institutional mechanisms capable of monitoring algorithmic behaviour, evaluating societal impacts, conducting ethical assessments, and ensuring human supervision.

Responsible AI governance further requires continuous evaluation throughout system development, deployment, monitoring, and post-implementation review. Ethical governance therefore becomes an ongoing organizational capability rather than a one-time compliance activity.

Legal and Regulatory Readiness

Rapid technological advancement has outpaced the development of comprehensive AI legislation in many countries. Consequently, legal preparedness has become a central component of organizational readiness.

Legal readiness encompasses regulatory awareness, compliance procedures, procurement policies, contractual governance, liability management, audit mechanisms, and institutional accountability. Government organizations implementing AI must ensure that technological innovation remains consistent with constitutional principles, administrative law, privacy regulations, and emerging AI governance frameworks.

Institutional legal capability reduces uncertainty while strengthening citizen confidence in AI-enabled public services.

Human Capability and AI Literacy

AI governance depends not only on technological infrastructure but also on the competencies

of public officials responsible for designing, supervising, and evaluating AI systems. Human capability includes technical expertise, digital literacy, ethical awareness, policy understanding, analytical skills, and change management capabilities.

AI literacy enables government employees to understand algorithmic outputs, identify potential biases, evaluate system performance, and communicate AI decisions effectively to citizens. Continuous professional development therefore becomes an essential requirement for sustainable AI governance.

Organizations investing in workforce capability demonstrate greater institutional adaptability and are better positioned to respond to rapidly evolving AI technologies.

Cybersecurity and Risk Management

The integration of AI into critical public infrastructure significantly increases cybersecurity risks. AI systems may become targets of cyberattacks, adversarial manipulation, unauthorized data access, and model exploitation.

Risk management therefore represents a proactive governance capability involving continuous monitoring, vulnerability assessments, incident response planning, resilience strategies, and periodic security audits.

Cybersecurity readiness enhances organizational resilience while protecting sensitive governmental information and maintaining public confidence in digital governance.

Stakeholder Engagement and Public Trust

Public administration differs fundamentally from private-sector organizations because government decisions directly affect society. Consequently, stakeholder engagement has emerged as a critical dimension of AI governance readiness.

Citizen participation, public consultation, interdepartmental collaboration, academic partnerships, and engagement with civil society organizations contribute to more transparent and accountable AI governance. Stakeholder engagement also improves policy legitimacy by incorporating diverse perspectives into AI decision-making.

Public trust further depends on governments' ability to explain AI decisions, provide effective grievance mechanisms, and demonstrate fairness throughout administrative processes. Organizations that prioritize transparency and participatory governance are more likely to achieve sustainable AI implementation.

Synthesis of the Literature

The reviewed literature demonstrates that AI governance readiness is inherently multidimensional and cannot be adequately explained through technological readiness alone. Contemporary research consistently emphasizes the importance of integrating organizational leadership, strategic planning, data governance, ethical oversight, legal preparedness, workforce capability, cybersecurity, stakeholder engagement, and institutional learning into a comprehensive governance framework.

However, existing studies predominantly examine these dimensions independently or within specific sectoral contexts. Few attempts have been made to synthesize them into a unified conceptual model specifically designed for public administration. This fragmentation highlights the need for an integrated framework capable of guiding governments in assessing institutional preparedness for responsible AI implementation.

Accordingly, the present study proposes a **Multidimensional AI Governance Readiness Framework** that consolidates these interrelated dimensions into a coherent conceptual model. The framework seeks to bridge the gap between fragmented governance literature and the practical needs of public institutions by offering a holistic perspective on AI governance readiness.

Summary of Selected Literature (2022–2026)

Authors	Year	Study Focus	Method	Key Findings	Research Gap
Dwivedi et al.	2023	Generative AI and policy implications	Multidisciplinary review	AI provides significant opportunities but governance mechanisms remain underdeveloped.	Limited discussion on institutional readiness.
Attard-Frost et al.	2024	AI governance initiatives	Comparative review	Countries differ considerably in governance approaches.	Lack of unified organizational readiness framework.
OECD	2024	Government AI readiness	Policy report	AI implementation requires governance capability beyond technological readiness.	No operational readiness model for public agencies.
UNESCO	2024	Ethical AI governance	Policy framework	Transparency, fairness and accountability remain fundamental principles.	Does not specify institutional assessment indicators.
Alon-Barkat & Busuioc	2024	Algorithmic decision-making	Conceptual	AI changes administrative behaviour and accountability.	Limited integration with governance readiness.
Roehl & Hansen	2024	Automated administrative decisions	Conceptual	Human oversight remains essential for legitimate AI use.	Organizational capability insufficiently examined.
		AI in	Literature review	Leadership and policy	Framework lacks

Caiza et al.	2024	governmental decision-making		coordination are critical.	multidimensional assessment.
Almeida & Santos Júnior	2025	AI governance in public organizations	Framework development	Organizational governance structures drive responsible AI implementation.	Further validation across public-sector contexts needed.
Batool et al.	2025	AI governance	Systematic literature review	AI governance research remains fragmented across ethics, regulation, and organizational studies.	Need for integrated governance models.
Robles & Mallinson	2025	AI governance theory	Systematic review	Calls for unified theoretical perspectives in AI governance.	Limited focus on public administration readiness.

RESEARCH METHODOLOGY RESEARCH DESIGN

This study adopts a **qualitative secondary research design** to develop a conceptual framework for AI Governance Readiness in Public Administration. Unlike empirical studies that rely on primary data collected through surveys, interviews, or experiments, secondary research synthesizes existing scholarly evidence to generate new theoretical insights and conceptual understanding. The study therefore aims to integrate fragmented knowledge from contemporary literature into a unified framework that explains the institutional capabilities required for responsible AI implementation within public administration.

A qualitative approach is considered appropriate because AI governance remains an evolving interdisciplinary field where conceptual clarity and theoretical integration are still developing. Rather than testing hypotheses, the study focuses on identifying recurring governance dimensions, analysing relationships among organizational capabilities, and proposing an integrated framework that can guide future empirical investigations.

Research Strategy

The research employs a **Systematic Literature Review (SLR)** to ensure methodological transparency, comprehensiveness, and reproducibility. Compared with traditional narrative reviews, a systematic review follows a structured protocol for identifying, screening, selecting, evaluating, and synthesizing published literature. This approach minimizes selection bias while improving the credibility of conceptual conclusions.

The review process was informed by the **PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)** guidelines, which provide internationally recognized procedures for evidence synthesis. Although PRISMA originated in health sciences,

it has become widely adopted across management, information systems, public administration, and digital governance research due to its rigorous and transparent review procedures. Recent AI governance reviews have similarly employed PRISMA-inspired methodologies to synthesize evidence and develop governance frameworks.

Literature Search Strategy

Relevant literature was identified through a structured search of internationally recognized academic databases, including:

- **Scopus**
- **Web of Science**
- **ScienceDirect**
- **SpringerLink**
- **IEEE Xplore**
- **Google Scholar**

These databases were selected because they index high-quality peer-reviewed journals covering public administration, digital government, information systems, artificial intelligence, governance, and public policy.

The search strategy combined keywords using Boolean operators to improve retrieval accuracy. Representative search strings included:

- "Artificial Intelligence" AND "Public Administration"
- "AI Governance" AND "Government"
- "Responsible AI" AND "Public Sector"
- "AI Readiness" AND "Digital Government"
- "AI Governance Framework" AND "Public Administration"
- "E-Governance" AND "Artificial Intelligence"

The review primarily considered studies published between **2022 and 2026** to ensure that the conceptual framework reflects recent developments in generative AI, responsible AI, algorithmic governance, and digital transformation.

Inclusion and Exclusion Criteria

To maintain consistency and quality, explicit inclusion and exclusion criteria were established before screening the literature.

Inclusion Criteria

- Peer-reviewed journal articles.
- Studies published between **2022 and 2026**.
- Publications written in English.
- Research focusing on AI governance, responsible AI, public administration, digital government, organizational readiness, or AI implementation.
- Conceptual papers, systematic reviews, empirical studies, and policy-oriented research relevant to public-sector AI governance.

Exclusion Criteria

- Conference abstracts without full papers.
- Editorials, opinion pieces, book reviews, and magazine articles.
- Studies focusing exclusively on private-sector AI adoption without governance implications.
- Publications lacking sufficient methodological transparency or theoretical relevance.
- Duplicate records identified across databases.

Literature Screening Process

The screening process consisted of four sequential stages:

- 1. Identification** – Initial records were retrieved from the selected academic databases using predefined search strings.
- 2. Screening** – Duplicate records were removed, followed by title and abstract screening to determine relevance.
- 3. Eligibility Assessment** – Full-text articles were examined against the inclusion and exclusion criteria.
- 4. Final Selection** – Studies satisfying all eligibility requirements were retained for thematic synthesis and conceptual analysis.

This structured process ensured that only relevant, high-quality publications informed the development of the proposed AI Governance Readiness Framework.

Data Analysis

The selected literature was analysed using **thematic analysis**, a qualitative technique that identifies recurring concepts, relationships, and patterns across multiple studies. Rather than summarizing individual publications independently, thematic analysis enables researchers to

synthesize diverse findings into higher-order conceptual categories.

The analysis followed four stages:

1. Familiarization with the selected literature.
2. Coding of recurring governance concepts.
3. Grouping related codes into broader organizational themes.
4. Integration of themes into the proposed conceptual framework.

Thematic analysis facilitated the identification of institutional capabilities that consistently appeared across contemporary AI governance research.

Development of the Conceptual Framework

The final stage of the research involved synthesizing the identified themes into an integrated **AI Governance Readiness Framework**. The framework conceptualizes AI governance readiness as a multidimensional organizational capability comprising interconnected governance dimensions rather than isolated organizational characteristics.

The framework is designed to assist policymakers, government agencies, and public administrators in understanding the institutional conditions necessary for responsible AI implementation while providing a theoretical foundation for future empirical validation.

Thematic Findings

The systematic synthesis of contemporary literature reveals that AI Governance Readiness is a multidimensional organizational capability rather than a purely technological construct. Across the reviewed studies, twelve governance dimensions consistently emerge as prerequisites for responsible AI implementation in public administration:

Theme	Description
Leadership Readiness	Commitment of senior leadership to champion AI initiatives, allocate resources, and establish governance structures.
Strategic Alignment	Integration of AI objectives with organizational mission, public value creation, and digital transformation strategies.
Digital Infrastructure	Availability of interoperable digital platforms, cloud services, computing resources, and technical architecture.
Data Governance	Robust policies for data quality, interoperability, privacy, security, and ethical data management.
Ethical AI Governance	Mechanisms ensuring transparency, explainability, fairness, accountability, and human oversight.
Legal and Regulatory Readiness	Institutional capacity to comply with evolving AI laws, standards, procurement requirements, and regulatory obligations.
Organizational Capability	Governance structures, cross-functional coordination, and institutional processes that support AI implementation.

AI Literacy	Awareness and understanding of AI concepts among public officials and decision-makers.
Human Resource Competency	Availability of technical, managerial, and interdisciplinary skills necessary for AI adoption and governance.
Cybersecurity Resilience	Protection of AI systems and public data against cyber threats, adversarial attacks, and operational vulnerabilities.
Risk Management	Identification, assessment, monitoring, and mitigation of technological, ethical, legal, and operational risks throughout the AI lifecycle.
Stakeholder Engagement	Participation of citizens, civil society, academia, industry, and government agencies in AI policy formulation and governance.

These twelve themes align closely with recent systematic reviews and governance frameworks in the AI and public administration literature, which collectively emphasize that effective AI governance requires coordinated institutional capabilities spanning leadership, ethics, regulation, data, technology, and stakeholder collaboration

Development of the AI Governance Readiness Conceptual Framework Rationale for the Framework

The systematic review demonstrates that existing research has made significant contributions toward understanding artificial intelligence governance within public administration. However, most studies examine individual governance components such as ethical AI, algorithmic transparency, data governance, cybersecurity, or regulatory compliance independently. This fragmented perspective limits the ability of policymakers and public administrators to evaluate institutional preparedness comprehensively before implementing AI-enabled public services. Moreover, current AI governance frameworks generally emphasize regulatory principles and ethical guidelines while providing limited guidance on how government organizations can assess their readiness to implement these principles operationally. Recent systematic reviews also note that governance research is dominated by conceptual principles rather than integrated organizational assessment models.

To address these limitations, this study proposes a **Multidimensional AI Governance Readiness Framework (AIGRF)** that conceptualizes AI governance readiness as an organizational capability emerging from the interaction of twelve complementary dimensions. Rather than treating governance as a purely legal or technological issue, the framework recognizes AI implementation as an institutional transformation requiring leadership, strategy, infrastructure, governance mechanisms, human capability, and stakeholder participation.

The framework is intended to support public institutions in assessing governance maturity

before deploying AI technologies while simultaneously providing researchers with a theoretical foundation for future empirical validation.

Proposed AI Governance Readiness Framework

The proposed framework consists of **twelve interrelated dimensions** that collectively determine institutional readiness for responsible AI implementation.

Here is the AI Governance Readiness framework organized into a clean, structured table format:

AI Governance Readiness Framework

Phase / Pillar	Core Components	Ultimate Objective
1.Strategic Foundation	Leadership Readiness Strategic Alignment Organizational Capability	Establish the vision, direction, and institutional capacity for AI integration.
2. Digital and Data Foundation	Digital Infrastructure Data Governance Cybersecurity Resilience	Build the technical, data, and security architectures required to support AI systems safely.
3. Governance and Compliance	Ethical AI Governance Legal & Regulatory Readiness Risk Management	Ensure AI deployment aligns with ethics, laws, policies, and robust risk mitigation protocols.
4. Human and Social Readiness	AI Literacy Human Resource Competency Stakeholder Engagement	Upskill the workforce, build institutional talent, and foster trust with external stakeholders.
5.Implementation	Responsible AI Implementation	Operationalising AI ethically and effectively across all sectors.
6. Ultimate Outcome	Trustworthy Transparent Accountable Public Administration	Achieving excellence, equity, and public trust in governance through AI.

Description of the Framework Dimensions

Dimension	Definition	Expected Contribution
Leadership Readiness	Commitment of senior management to AI governance	Strategic direction and institutional commitment
Strategic Alignment	Integration of AI initiatives with organizational objectives	Long-term sustainability
Organizational Capability	Internal structures, coordination, and governance mechanisms	Implementation effectiveness
Digital	AI-ready digital platforms and technological	Operational capability

Infrastructure	resources	
Data Governance	Policies ensuring data quality, privacy, interoperability, and stewardship	Reliable AI outcomes
Cybersecurity Resilience	Protection of AI systems and public information assets	Institutional resilience
Ethical AI Governance	Fairness, transparency, explainability, accountability, and human oversight	Trustworthy AI
Legal and Regulatory Readiness	Compliance with AI regulations, procurement, and public-sector legal requirements	Regulatory assurance
Risk Management	Identification, monitoring, and mitigation of AI-related risks	Reduced governance failures
AI Literacy	General understanding of AI among public officials	Better decision-making
Human Resource Competency	Technical, managerial, and governance skills required for AI	Organizational capability
Stakeholder Engagement	Citizen participation and collaboration with academia, industry, and civil society	Public legitimacy and trust

Practical and Policy Suggestions

Based on the systematic review and the proposed conceptual framework, the following recommendations are offered.

For Governments

- Develop national AI governance strategies aligned with public-sector priorities and responsible AI principles.
- Establish dedicated AI governance units to coordinate implementation across ministries.
- Create standardized AI governance assessment tools based on multidimensional readiness indicators.

For Public Administration

- Evaluate institutional readiness before implementing AI systems.
- Strengthen organizational leadership and cross-departmental coordination.
- Promote continuous AI literacy and professional development among public officials.
- Integrate ethical impact assessments into every stage of the AI lifecycle.

For Policymakers

- Develop regulatory frameworks balancing innovation with accountability.

- Promote transparency through explainability requirements and independent oversight mechanisms.
- Encourage citizen participation during AI policy development and implementation.

For Future Researchers

- Empirically validate the proposed framework in different governmental settings.
- Compare AI governance readiness across countries and administrative systems.
- Investigate the relationship between AI governance readiness and public trust, service quality, and organizational performance.
- Develop maturity indices and benchmarking tools based on the proposed dimensions.

CONCLUSION

Artificial Intelligence is rapidly transforming public administration by enabling governments to deliver more efficient, data-driven, and citizen-centred services. However, technological advancement alone cannot ensure successful AI implementation. The literature reviewed in this study demonstrates that responsible AI adoption depends on comprehensive governance readiness encompassing leadership, organizational capability, strategic alignment, data governance, ethical oversight, legal preparedness, cybersecurity, human capability, and stakeholder engagement.

Through a systematic synthesis of contemporary research, this study developed a **Multidimensional AI Governance Readiness Framework** consisting of twelve interconnected dimensions that collectively explain institutional preparedness for responsible AI implementation. The framework responds to the fragmented nature of existing AI governance research by integrating technological, organizational, legal, ethical, and social perspectives into a unified conceptual model.

The proposed framework contributes theoretically by extending the discourse on AI governance from isolated governance principles toward a holistic readiness perspective specifically designed for public administration. Practically, it offers governments and policymakers a structured approach for assessing institutional capability before deploying AI-enabled public services. Rather than viewing governance as a regulatory obligation, the framework positions AI governance readiness as a strategic organizational capability essential for building trustworthy, transparent, accountable, and resilient digital governments.

Although conceptual in nature, the framework establishes a foundation for future empirical research. Subsequent studies may validate the proposed dimensions across different

administrative contexts, develop governance maturity models, and examine the relationship between governance readiness and successful AI implementation. As governments increasingly integrate AI into public decision-making, systematic assessment of governance readiness will become an indispensable prerequisite for achieving responsible, ethical, and sustainable digital transformation.

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