



Pakistan's National AI Policy 2025: A Comparative Analysis with US, EU, and China's AI Governance Frameworks

Ali Shafqat Khan

Lecturer, Department of Governance and Public Policy, National University Of Modern Languages, Islamabad

ashafqat@numl.edu.pk

ABSTRACT

Artificial Intelligence (AI) governance has evolved into a core issue for comparative public policy but, much of the scholarship has concentrated upon the United States (US), the European Union (EU), and China. Much less emphasis has been placed upon how emerging states create their own AI policy relative to these competitive governance models. The study fills this void by comparing the Pakistan's National AI Policy (2025) using comparative policy analysis. By applying Qualitative Comparative Policy Analysis the National AI Policy of Pakistan is compared to the AI governance models of the US, EU, and China based upon seven dimensions: governance philosophy, legal and regulatory style, risk, ethics, privacy, and rights, institutional architecture and oversight, innovation and industrial policy, human capital and capacity development, and implementation and enforcement. The study utilizes comparative public policy and policy emulation as theoretical bases. The findings show that the Pakistan's National AI Policy 2025 can be better understood as a hybrid governance framework as opposed to simply being an externally sourced derivative model. In terms of philosophical approach, the policy incorporates the "innovation" and "ecosystem" terminology commonly found in US-based innovation and technology strategy. In addition, the policy includes "rights", "ethics", and "privacy" terminology similar to that found within EU-based AI governance initiatives. Finally, the policy reflects strategic planning logic consistent with China's state-led economic development approaches. However, the authors conclude that the policy's potential success will likely rely less upon the scope of its ambitions than upon the government's ability to establish and enforce institutional arrangements which support those ambitions. Therefore, the findings from this case contribute to comparative AI governance by demonstrating that emerging state AI governance policies are formed at the same time they are subject to both international policy learning opportunities and domestic development challenges.

Keywords Artificial Intelligence (AI) Governance; Pakistan AI Policy 2025; Comparative Public Policy; Policy Emulation; AI Regulation; European Union; United States; China

1. Introduction

Artificial Intelligence (AI) governance is a key regulatory issue of our time. With AI's increasing influence over government operations, healthcare, financial transactions, education, work, and security, there is growing pressure on governments to establish a governing structure that will allow innovation while providing protections for people's rights, holding parties accountable and reducing institutional risks associated with implementing AI (Taeiagh, 2021; Nitzberg & Zysman, 2022).



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Comparative studies have identified three primary models of AI governance. The United States is typically characterized as a decentralized, market-driven and "first-innovation" country, the European Union is typically seen as a human-centered, right-oriented, tiered-risk based approach, and China is typically characterized as a state driven, strategically focused and security-orientated (Bal & Gill, 2020; Davtyan, 2025; Roberts et al., 2020; Roberts et al., 2023; Wang et al., 2025). These models have received much scholarly attention however relatively little research exists about how emerging states create their own AI policies vis-a-vis these models.

Pakistan's National AI Policy 2025 represents a vital example for the above-mentioned literature. It is the first structured effort made by Pakistan to provide a national AI governance framework and frames AI as a potential tool for socio-economic reform, public sector modernization, innovation and secure digital development through international cooperation (Government of Pakistan, 2025). Based on six pillars which include innovation ecosystem, awareness and readiness, secure AI ecosystem, transformation and evolution, AI infrastructure and international partnerships, the policy goes beyond high-level declarations regarding a vision for Pakistan's future use of AI by outlining an AI Council, a Policy Implementation Cell, performance measures and other implementation mechanisms (Government of Pakistan, 2025). On the other hand, Pakistan specific research indicates low levels of digital readiness within Pakistan, institutional disintegration, outdated public institutions and significant capacity deficiencies that can impede successful implementation (Nazir & Gul, 2023). Therefore, Pakistan provides an ideal case study to examine the process of AI governance formation under institutional constraint.

Pakistan's National AI Policy 2025 should be viewed as neither simply imitating any one external model nor simply adopting all elements of any single model. Rather, the policy should be viewed as a hybrid AI governance framework shaped by selective borrowing from the United States' model of innovation first governance, the European Union's model of human centered risk regulation, and China's model of state led strategic governance. Through employing comparative public policy as the main analytical frame for examining Pakistan's policy and using policy emulation as a secondary perspective this article seeks to understand how Pakistan adapts various foreign AI governance logics to meet both domestic economic development needs and domestic administrative challenges.

The study makes two contributions. Firstly, it expands comparative AI governance studies by looking at an emerging power. Secondly, it demonstrates that emerging power AI governance is shaped by more than normative aspirations and international learning; instead, it is shaped by state capability, sequencing and implementation feasibility.

The study responds to the following research questions:

- (1) How does Pakistan's National AI Policy 2025 differ from the AI governance frameworks established by the United States, European Union and China?
- (2) Is the primary logical basis for shaping Pakistan's policy model one of innovation-first governance, rights-based risk regulation or state-led strategic governance?

Following these questions are three objectives. To identify the core characteristics of Pakistan's National AI Policy 2025; to conduct systematic comparisons of those characteristics to those found in the dominant AI governance frameworks of the United States, European Union and China; and to determine if the National AI Policy 2025 represents either policy emulation or policy adaptation or perhaps even develops a unique type of governance logic.

The focus of this article is strictly upon national or supranational AI governance frameworks and excludes isolated sector specific regulation. The article employs a



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comparison of the four cases along seven dimensions: Governance Philosophy; Legal & Regulatory Style; Risk, Ethics, Privacy, and Rights; Institutional Architecture & Oversight; Innovation & Industrial Policy; Human Capital & Capacity Building; and Enforcement & Implementation. Qualitative documentary analysis forms the methodological foundation for this study. Although this method enables detailed examination of policy design; it does not enable complete assessment of outcome related to implementation. Additionally, since AI governance is an area of law where developments occur rapidly; even though the U.S., EU and China represent the most salient references to understand the developing trajectory of Pakistan's emerging AI governance framework.

2. Literature Review

The literature on governance of artificial intelligence (AI) has grown dramatically, however, it still varies in respect to how well concepts are integrated and geographically covered. At a very basic level, AI governance relates to the "rules", "processes", "institutions" and "normative frameworks" that guide or constrain AI systems' use in social, economic and political life. Birkstedt et al. (2023) define the field of AI governance as fragmented, with little commonality of conceptually relevant ideas and an ongoing gap between ethical principles and implementation practices. Taeihagh (2021) similarly suggests that while governments face issues related to the use of autonomous system, risks associated with them, their accountability, and the transition of technologies to new forms of social organization, as these relate to issues of AI governance, the rate of development of these areas lags significantly behind the rapid expansion of AI applications. As noted in this literature, AI is no longer viewed solely as a technical issue, but as a general purpose technology with extensive implications for various aspects of public administration, markets, labor, security and citizenship (Taeihagh, 2021; Nitzberg & Zysman, 2022).

Research concerning one aspect of AI governance is focused on the principles-to-practice problem of AI ethics. Jobin et al. (2019) indicate there is significant international agreement regarding ethical terminology relating to AI including transparency, fairness, privacy, responsibility and human oversight. However, this apparent consensus belies significant variations in interpretation based on political regimes. For example, Fung and Etienne (2023) have shown that similar ethical terms are used differently depending on the type of political regime under which countries operate. Therefore, Birkstedt et al. (2023) conclude that ethical principles provide little assurance unless these principles are implemented through regulatory mechanisms, institutional arrangements and oversight mechanisms. The significance of this literature to Pakistan lies in the fact that much of the country's policy regarding AI uses ethical language. Thus, the issue facing Pakistan does not concern whether such language exists within its policy; rather, it concerns how such language will be operationalized in a context where administrative capacity is relatively low.

There is a large body of comparative research on AI governance with most being concentrated on the US, EU and China. These three jurisdictions have become the primary centers of gravity for global AI governance as each represents fundamentally different governing logics. Using a structural topic modeling approach to analyze AI policies Wang et al. (2025) identified that China emphasized the research and application dimensions of AI governance; the EU emphasized social impacts; and the US emphasized the government role and coordinating functions necessary for successful AI governance. Bal and Gill (2020) opines that when it comes to US, EU, and China structural approach, a clear distinction is evident as US follows a private sector led innovation compared to EU's focus



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on citizens' rights and China's top down AI led development. Similarly, Roberts et al. (2023), Hine and Floridi (2024), Djeflal et al. (2022), and Mokry and Gurol (2024) support this perspective as well. Comparative literature, therefore, is not simply characterizing degrees of regulation; rather it is identifying fundamentally different philosophical perspectives on how to govern AI through politics and institutions.

2.1 The United States: Decentralized, Sector-Specific, and Innovation-First Governance

The typical characterization of the U.S. model of AI governance is as decentralized, sector specific and innovation first. Davtyan (2025) has demonstrated that U.S. AI governance relies upon a combination of executive direction, federal agency action, state initiative action, technical standardization and voluntary commitment actions rather than a single comprehensive federal statute regulating AI. Although this decentralized and multi-agency system provides regulators and firms with great flexibility to experiment with new ways to develop and implement AI, preserve existing pathways for developing AI and fit with other broader U.S. priorities to promote openness, competition and technological leadership (Davtyan, 2025); it results in non-uniform levels of protection provided to consumers and workers using AI systems, accountability gaps due to lack of oversight by multiple agencies and unequal treatment for industries subject to different regulatory frameworks (Al-Maamari, 2025; Davtyan, 2025; Kulothungan & Gupta, 2025).

The decentralized nature of the U.S. model of AI governance reflects a broader political economy of digital capitalism. Nitzberg and Zysman (2022) argue that the development of regulations for AI cannot be divorced from the way dominant platform companies structure the practical rules of digital society unless public authority takes a more direct role in establishing rules. Hine and Floridi (2024) further suggest that U.S. AI policy is rooted in "American values." However, these American values often emphasize openness, innovation and competitive superiority over centralized legal controls. Thus, although the U.S. is not unregulated, it is regulated through a dispersed form of authority shared among agencies, states, private corporations and technical standards bodies. While this dispersed form of authority allows for great agility in responding to changing conditions in the marketplace, it also results in uneven protections afforded to consumers and workers who are impacted by the increasing presence of AI systems in their lives.

2.2 The European Union: Human-Centric, Rights-Based, and Risk-Tiered Governance

The European Union has developed a strong model of rights-based and precautionary AI. Smuha (2019) explains how the EU's approach to developing ethics for trustworthy AI was intended to connect technical reliability, legal compliance, and ethical standards in a single structure. This was eventually developed into the risk-based architecture of the AI Act. Kusche (2024) provides evidence of how the EU develops AI-related harm using the language of fundamental rights and risk. As a result, the EU uses rights as both the basis for regulating AI and the method for predicting potential harm and categorizing such harm. One of the strengths of the EU model is that it provides legal certainty and procedural clarity. The AI Act establishes differentiated obligations based upon risk levels, particularly with respect to high-risk systems, creating a more formalized regulatory framework compared to that established by the U.S. model (Arora et al., 2025; Kuzior et al., 2024; Cancela-Outeda, 2024).

Cancela-Outeda (2024) adds that the EU model does not only include prohibitions or compliance requirements but also promotes cooperative governance through multiple



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layers of governance including an AI office, an AI board, advisory boards/committees, and national authority bodies. Normatively, the EU model is founded upon the principles of trustworthiness, fairness, transparency, accountability, and rights protection (Brattberg et al., 2020; Roberts et al., 2023). However, this model can be very demanding. Bal and Gill (2020), Davtyan (2025) and Al-Maamari (2025) explain that enforcement of these regulations will largely depend on the ability of member states to coordinate their efforts and establish sustained institutional commitment.

2.3 China: State-Led, Strategic, and Security-Conscious Governance

China is the third major model, and it differs significantly from both the U.S. and EU. Roberts et al. (2020) explain that China's AI governance is primarily state-led and strategically coordinated to promote national development, social governance, and international competition. Wu et al. (2020) provide evidence that China's New Generation Artificial Intelligence Development Plan serves as a blue-print for a complete AI ecosystem, ranging from research to education, ethics and market & state coordination. While the majority of the literature portrays China as highly centralized and directive, with significant ties to industrial policy and national security (Bal & Gill, 2020; Roberts et al., 2023), other authors portray China as having a number of positive attributes including being able to develop and deploy AI at scale, rapidly and strategically, in ways that support the country's long-term development goals.

The two primary features of China's AI model are strategic coordination and developmental integration. Hine and Floridi (2024) explain that China's AI policy reflects "Chinese Characteristics" i.e. that it exists within a larger philosophical context regarding technology and society/states relationships. Social stability/security issues are a key priority for China. Al-Maamari (2025) demonstrates that China's regulation focuses on algorithmic controls, registrations, cybersecurity, content moderation, etc. Li and Li (2025) demonstrate how the EU pursues a rights-oriented, universal, and risk-based approach to AI governance while China prefers a sector-specific, security driven model based on technological competition and state interests. Nevertheless, scholars caution against portraying China as a frictionless command system. As per Zeng (2021), the application of whole of nation approach is hindered by complex interplay among domestic stakeholders, various initiatives at local level, and resource competition. Additionally, Cheng and Zeng (2023) illustrate how China's aspiration to transition from a norm-taker to a norm-shaper in global AI governance continues to be limited due to geopolitical tensions.

2.4 Cross-Cutting Themes in Comparative Literature

There are several cross-cutting themes found throughout the comparative literature regardless of whether one examines the U.S., EU or China. One theme is how ethics relates to enforceability. Jobin et al. (2019) illustrates convergent ethical language among all three models. However, Fung and Etienne (2023) and Birkstedt et al. (2023) illustrate divergent approaches to implementing those same ethics. Another theme is data governance. Cui (2023), examining algorithmic pricing in terms of the U.S., EU and China, indicates that comprehensive data-protection regimes tend to be more effective than fragmented ones; however, each system emphasizes empowerment, prevention, oversight, and remedy differently. The final subject is institutional design. Djeflal et al. (2022) illustrate how governance varies depending on how states present themselves as regulators, enablers, entrepreneurial actors, and coordinators of responsibility.



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Comparative AI Governance Frameworks

Dimension	United States	European Union	China
Governance philosophy	Market-driven, innovation-first, pluralist	Human-centric, rights-based, precautionary	State-led, strategic, security-conscious
Legal style	Sector-specific, decentralized, agency-led, soft-law heavy	Comprehensive, cross-sector, risk-tiered regulation	Directive-based, sectoral, state-coordinated, security-linked
Core normative focus	Innovation, competitiveness, flexibility, risk management	Fundamental rights, trustworthiness, accountability	Development, state capacity, social stability, national security
Institutional architecture	Federal agencies, executive orders, state laws, voluntary commitments	AI Office, AI Board, national competent authorities, multi-level coordination	Central ministries, strategic plans, national platforms, algorithm registration systems
Ethics and rights	Ethics present, but often through guidance and voluntary standards	Strong emphasis on fairness, transparency, privacy, rights protection	Ethics recognized, but often subordinated to state priorities and public order
Data governance	Patchwork privacy regime, sectoral data governance	Strong privacy and data-protection orientation	Strong data sovereignty and cybersecurity orientation
Innovation strategy	Enable innovation while avoiding heavy ex ante constraints	Regulate to enable trustworthy innovation	Build national champions and strategic AI ecosystems
Main strength	Flexibility and sectoral adaptability	Legal coherence and procedural safeguards	Strategic coherence and rapid implementation
Main weakness	Fragmentation and uneven protection	Enforcement complexity and possible overregulation	Limited public recourse and weaker liberal-rights safeguards

Figure 1. Comparative AI governance Frameworks. Sources: Bal and Gill (2020), Roberts et al. (2023), Davtyan (2025), Roberts et al. (2020), Li and Li (2025), Cancela-Outeda (2024), Al-Maamari (2025), and Wang et al. (2025).

A major issue exists within this body of research. In fact, emerging states have been largely overlooked in comparative AI-governance scholarship although they are currently creating many domestic strategies and policy-frameworks. Pakistan represents an opportunity for study in this area. For example, as reported in Nazir and Gul (2023), Pakistan's public sector has continuing issues with obsolete technology, lack of digital preparedness, inadequate infrastructure, budgetary limitations, and poor coordination. However, Pakistan's National AI Policy 2025 shows a transition from prior digitalization agendas that include both the principles of governance based on ethics and those based upon skill development, infrastructure creation, innovation financing, R&D support, and multi-stakeholders in its implementation mechanisms (Government of Pakistan, 2025). Therefore, Pakistan does not appear to be a follower state at the periphery; rather, it is representative of an instance of policy adaptation under constraint. The primary gap in current research is not whether Pakistan is like the U.S., EU or China, but rather what way(s) Pakistan will selectively translate the various governance paradigms present in its national policy framework to address development, ethics, coordination, and feasibility.

3. Methodology

The Qualitative Comparative Policy Analysis methodology was used for this study. It was selected because the focus will be to understand governance frameworks instead of measuring the quantitative impact of policies. The study is explanatory and interpretive as it describes how Pakistan's AI Policy 2025 is structured, which external governance logics are reflected within its structure, and what this illustrates regarding AI governance formation in an emerging-state context.

This study has been guided by both comparative public policy and policy emulation perspectives. Comparative Public Policy views AI strategies as policy outcomes based upon a country's priorities, traditional institutional arrangements, government style, and regulatory preferences. Policy Emulation assists with explaining how Pakistan chose to emulate dominant models and then select components of those models to borrow from, but did not copy a single model fully. Furthermore, the role of state perspective was also applied to study how government acting in different capacities such as regulator, enable, and key actor, influence comparative policy (Djeffal et al., 2022).



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The comparison of Pakistan's National AI policy 2025 with that of US, EU, and China, was done, based on the literature review, across seven analytical dimensions which include governance philosophy, regulatory style, risk ethics, privacy and rights, institutional architecture and oversight, innovation and industrial policy, human capital and capacity development, and implementation.

The Pakistan's National AI Policy 2025 document served as data set for the study. Research articles, governmental documents, and AI governance frameworks literature of the United States, European Union, and China served as secondary source of data. Each case was compared through seven analytical dimensions, using structured documents comparison.

4. Pakistan's National AI Policy 2025

Pakistan's National AI Policy 2025 is a watershed moment for Pakistan as it aims to create a comprehensive national framework for Artificial intelligence for socio-economic transformation, public sector modernization, promoting innovations, and international collaborations Based on four strategies which include development, ethics, capacity building, and governance, this policy is aiming for a comprehensive AI transformation across all sectors (Government of Pakistan, 2025).

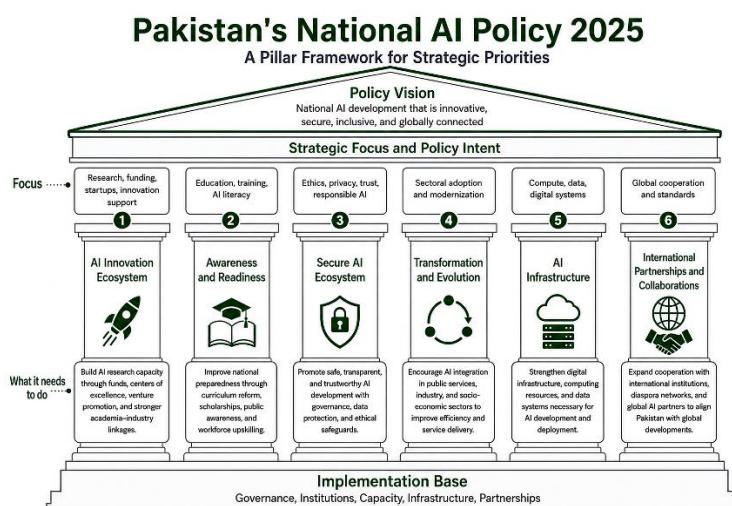


Figure 2: Pakistan National AI Policy 2025. Source: Government of Pakistan (2025).

The policy stands on six pillars which include AI Innovation ecosystem, mass awareness and readiness, secure and ethical AI ecosystem, sectoral Transformation, Nationwide AI infrastructure, and international collaboration and partnership. Through its six pillars, it aims to establish Ai council, National AI fund, centers of excellence, scholarships, trainings, access to high quality data, and involvement of stakeholders (Government of Pakistan, 2025).

5. Comparative Analysis

The type of political system, regulatory culture, and state capacity define distinct AI governance frameworks of the US, EU, China, and Pakistan. For instance, US has decentralized, sectoral, and innovation-based approach to AI governance, whereas the EU focuses more on data security and risk management. China on the other hand, leads a state led and directed approach. Pakistan follows a hybrid approach by focusing on innovation, security, and institutional building, therefore, embodying a development mixed approach



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(Bal & Gill, 2020; 2025; Roberts et al., 2020; Wang et al., 2025).

5.1 Governance Philosophy

Comparing the philosophies behind the four models of AI governance demonstrates that there are significant differences in how each jurisdiction views the role of AI governance. For example, the EU views AI governance as a human-centered endeavor designed to promote democratic values, public trust, and protect fundamental rights (Roberts et al., 2023; Smuha, 2019). The U.S. is driven by the desire to create a competitive market environment and thus emphasizes experimentation and avoids regulatory approaches that may limit technological leadership (Davtyan, 2025). China views AI as part of a broader national strategy, and thus ties AI to industrial modernization, social governance, and security (Wu et al., 2020; Roberts et al., 2020). Pakistan's policy reflects a fourth paradigm, a hybrid orientation. Thus, Pakistan views AI as a tool for both inclusive development and responsible competitiveness, modernization and rights-protection. Therefore, Pakistan's philosophy cannot be classified as rights-based, market-led or control-oriented. Instead, it is developmental/mixed.

5.2 Legal and Regulatory Style

Regulatory style and method also differentiate the four cases. The EU has the most formalized model, specifically the AI Act creates a risk-based tiered regulatory framework which imposes strict obligations on high-risk systems (Al-Maamari, 2025; Kuzior et al., 2024). The U.S. utilizes a more decentralized and sector-specific system based upon agencies, executive actions, standards and voluntary commitments, as opposed to a single comprehensive federal AI statute (Al-Maamari, 2025; Daryan, 2025). China uses a top-down approach utilizing central government directives and strategic plans which include algorithm governance in specific sectors (Li & Li, 2025; Roberts et al., 2020). Pakistan's policy does not constitute a "hard" regulatory framework, as it serves primarily as a policy-governance framework which guides future regulation and provides mechanisms such as sandboxes and more formal oversight institutions. While providing Pakistan with some degree of regulatory flexibility, it still leaves its regulatory authority less consolidated than the EU model and less operationalized than the U.S. model.

5.3 Risk, Ethics, Privacy, and Rights

Finally, comparing the dimensions of risk, ethics, privacy and rights also highlights another area of difference. Specifically, the EU explicitly links all forms of AI risk to fundamental rights (Kusche, 2024) including safety, transparency and accountability (Smuha, 2019). The U.S. deals with fairness, privacy and transparency, however, through fragmented and guidance-based methods which provide inconsistent levels of protection (Al-Maamari, 2025; Daryan, 2025). China recognizes risk, however, frames them much stronger through security content control social stability and state-priorities (Roberts et al., 2020; Al-Maamari, 2025). Pakistan's policy language aligns itself with the EU as it includes fairness, transparency, accountability, privacy, security & human rights and rule of law in its objectives, it also calls for ethical testing regulatory guidance for generative AI governance standards focused on audit and compliance. However, this normative alignment does not necessarily translate to regulatory strength. Specifically, Pakistan's policy commitments are strongest at the level of stated principles, weakest when it comes to enforcing those principles institutionally.

5.4 Institutional Architecture and Oversight



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Finally institutional architecture and oversight clarify the distinctions between the four models. The U.S. divides oversight responsibilities across agencies/states/courts/standards bodies (Daryan, 2025). The EU's governance of AI is achieved via multi-level governance, using EU institutions as well as competent national authorities (Cancela-Outeda, 2024). China's structure is more centralized, relying on ministerial and state-party priorities (Roberts et al., 2020). Pakistan's policy seeks to establish a more formal institutional structure from a relatively thin foundation. It establishes an AI Council to oversee strategy and implementation, a Policy Implementation Cell for coordination purposes, along with broader multi-stakeholder participation involving regulators, academia, industry, legal experts, and civil society. On paper this is more centralized than the U.S.'s, less formally codified than the EU's, and more explicitly participatory than China's. The test now will be if such an institutional structure can sustain itself as an actual mechanism of oversight rather than continuing solely in the realm of the abstract and schematic.

5.5 Innovation and Industrial Policy

The U.S. and European Union focus on linking governance to technological leadership, private sector innovation and entrepreneurship, and ecosystem preservation (Davtyan, 2025) while the People's Republic of China combines artificial intelligence governance with industrial strategy, national competitiveness, and long-term ecosystem creation (Wu et al., 2020). Pakistan's AI Policy 2025 is very innovative regarding innovation and industrial policy. The first pillar of its policy focuses on developing a National Artificial Intelligence Fund, creating "centers of excellence", supporting entrepreneurship, commercializing technology, developing compute infrastructure, and developing indigenous solutions. Thus, in this regard, Pakistan's approach is more similar to China than to either the United States or European Union in considering AI policy as an instrument of economic development. However, such comparisons are limited because Pakistan lacks the scale, bureaucracy, and industry of China.

5.6 Human Capital and Capacity Development

Pakistan's National AI Policy 2025 is unique in terms of human capital and capacity development approach. The US focuses on producing and attracting talented people through its market driven incentives approach (Bal & Gill, 2020). The European Union AI approach focuses on skills development and public trust (Brattberg et al., 2020). China invests in educating and skills development to cater for long term AI planning (Wu et al., 2020). Pakistan National AI Policy 2025 aims to invest in education, training, reforming of curriculum, providing scholarships, building AI literacy, and ensuring inclusive access to AI.

5.7 Implementation and Enforcement

The U.S. AI framework is often criticized for being fragmented and unevenly protective due to reliance on voluntary standards, state-level initiatives, and actions taken by agencies (Davtyan, 2025; Al-Maamari, 2025) while the European Union has developed the strongest formal enforcement mechanisms for ensuring compliance with its laws/regulations (Davtyan, 2025; Al-Maamari, 2025). The People's Republic of China generally receives high marks for rapidly implementing its plans for AI-related development/implementation (Al-Maamari, 2025). Pakistan's AI Policy 2025 addresses issues related to implementation directly via identified stakeholders, timelines, metrics/data collection, and an action matrix. On paper, that is a strength. However, Pakistan is the least institutionally capable of the four countries studied herein. Rather than



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lack of implementation language in the policy document itself being the problem facing Pakistan i.e. whether the State has sufficient administrative capacity, resources, coordinating capacity and time continuity necessary to ensure realization of the commitments contained within these documents represents the greatest challenge.

Together, the above comparison indicates that Pakistan's AI Policy 2025 is best understood as an aspirational hybrid governance framework. It incorporates rights language ("trustworthy AI") from the EU, entrepreneurial and innovative logic from the U.S., and planning-oriented development logic from China. However, unlike each of the three countries, there are several ways in which Pakistan's AI Policy 2025 is different from them. For example, unlike the EU, Pakistan's AI Policy 2025 does not currently operate within a mature, binding regulatory environment. Similarly, unlike the U.S., Pakistan's AI Policy 2025 is significantly less reliant upon market forces and more heavily influenced by direct governmental direction and control. Finally, unlike China's approach to integrating AI-related governance with other types of governance, Pakistan's AI Policy 2025 includes substantially greater amounts of multi-stakeholder engagement & collaboration and human rights language. Therefore, the central comparative question is not which country or model does Pakistan resemble most closely, but rather how effectively Pakistan can convert its hybrid design into functioning institutions/human capital/enforceable governance structures.

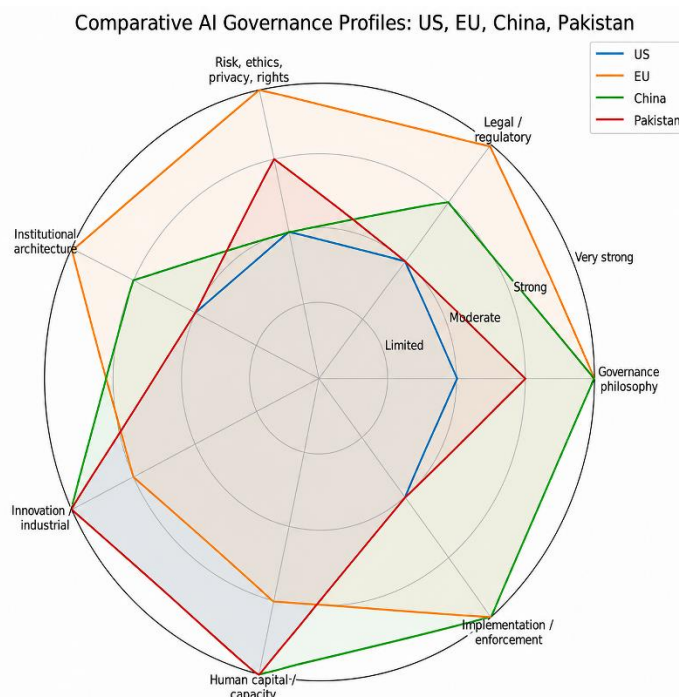


Figure 3: Comparative AI Governance Profiles: US, EU, China, Pakistan

6. Discussion

The major findings of the research are that Pakistan's AI Policy 2025 cannot be viewed as a mere imitation of the U.S., EU, or China. Rather, it can best be understood as a hybrid policy framework for AI development, which selects and combines features from each of those countries. Comparative Public Policy and policy emulation are both particularly relevant here. Comparative Public Policy focuses on how states translate values, interests, and institutional constraints into the design of policies. Policy Emulation provides an



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explanation of why governments adopt foreign ideas either to legitimate their actions, resolve problems, or align themselves globally (Djeffal et al., 2022). While Pakistan has borrowed the language of innovation ecosystems from the United States, the conceptual vocabulary of rights and trustworthiness in artificial intelligence from the European Union, and the developmental planning logic from China (Roberts et al., 2023; Davtyan, 2025; Roberts et al., 2020; Wu et al., 2020), it does so without reproducing any of them fully. Therefore, its value lies not in originality, but in recombinant strategy.

This hybridity is important because it questions a common supposition in comparative studies of AI governance: i.e. that states have to make a choice among coherent external models. For example, an emerging country will typically take some parts from one model, other parts from another and then add its own unique components. Thus, the recumbency inherent in the Pakistani policy is a manifestation of strategic eclecticism. However, such eclecticism is rational and therefore defensible. However, there may exist internal tensions within such an eclectic approach. An approach that seeks to achieve multiple goals at once (e.g. promoting innovation, protecting individual rights through the promotion of human capital via building physical infrastructure and coordinating government activity) may risk promising too much unless the sequence of goals is carefully prioritized.

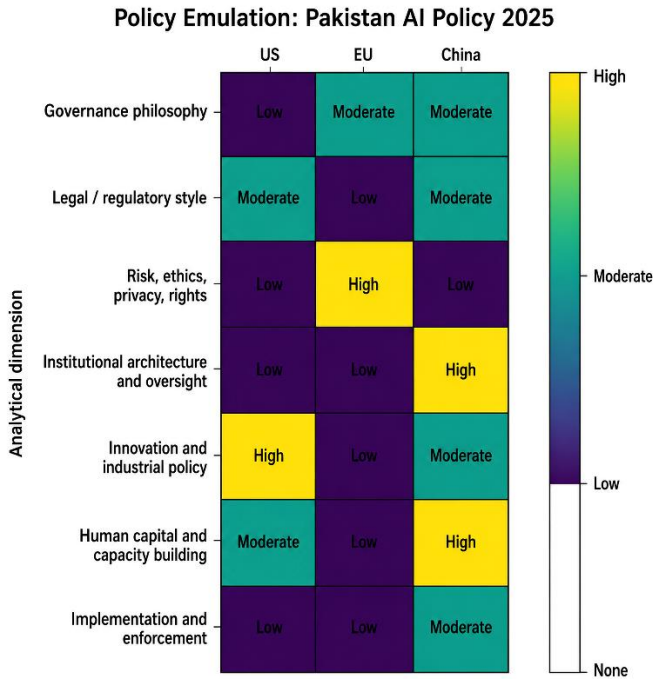


Figure 4: Policy Emulation: Pakistan AI Policy 2025.

The main comparative fault line is the role of the state. Djeffal et al. (2022) found that the way government has positioned itself (as regulator, enabler, entrepreneurial actor, etc.) is the primary driver for differences in AI governance. The United States State has taken a governing stance to avoid being overly dominant; its legitimacy stems from its ability to enable innovation and create an environment that allows for private sector companies, agencies, and standard-setting organizations to operate. The European Union State positions itself much more overtly as a protector of public values, legal protections and rights (Smuha, 2019; Roberts et al., 2023). The Chinese State is similarly strategic and directive, as well as embedded in larger development efforts for industrial modernization, governance and control (Wu et al., 2020; Roberts et al., 2020). In comparison to these other states, Pakistan's policy is unique due to its call upon the state to assume all three roles



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simultaneously. It positions the state as the regulator, investor, promoter, coordinator, educator and ethicist. While this reflects both a strength and weakness of Pakistan's policy, it acknowledges that without the state assuming some role in facilitating the development of AI capabilities within Pakistan through direct investment, regulation or promotion, that capabilities will likely never develop. At the same time, however, Pakistan's policy assumes a level of state coherence that may not yet exist.

Another key issue is the distinction between normative legitimacy and regulatory capacity. Pakistan's AI Policy 2025 contains an abundance of language related to ethics and rights. It prioritizes fairness, accountability, privacy, transparency, inclusion and human rights. While this type of rhetoric serves an important function in creating legitimacy for Pakistan's policy actions in the context of an increasingly globalized world policy environment defined largely by EU discourse, such language also enables Pakistan to position itself as meeting international standards for human centeredness. To this extent, we see the greatest impact of the EU in terms of establishing a "grammar" of legitimacy.

Legitimacy and enforceability are two distinct concepts. Therefore, while Pakistan's AI Policy 2025 may contain EU style language relative to ethical expectations regarding AI, there is no evidence to date that Pakistan possesses the necessary regulatory capacity to effectively implement those expectations. Kusche (2024), in his study of the translation of AI-related harm into rights-based risk categories in Europe demonstrates the conceptual and institutional difficulties in doing so. Provided the limited laws and policies on data protection, oversight, and enforcement mechanisms in Pakistan, ethical issues may arise. Likewise, although Pakistan borrow innovation led approach of US, lack of investment, limited research institutions, and independent regulator may hinder the intended outcome. Thus, Pakistan's innovation agenda continues to rely on state coordination and public investments regardless of whether it frames itself in entrepreneurial terms.

Pakistan takes a more positive lesson from China than from China's political control logic. Specifically, Pakistan uses more of China's strategic planning logic than its control logic. For example, Pakistan's use of pillars, infrastructure investments, public sector transformations, funds and long term capacity building reflect a more traditional developmental planning approach. Nonetheless, China implements AI governance through a higher level of bureaucratic coordination and policy continuity than exists in Pakistan (Wu et al., 2020). Therefore, the potential risk for Pakistan is developing plans without executing them; using visible tools for coordination (e.g. funding programs) without having the less visible administrative capacity needed to make those tools work.

Each of these issues points toward a common factor that runs across each of the seven analytical dimensions discussed above – namely state capacity. While Pakistan's policy is not conceptually poor, indeed it is broad, globally aware and sophisticated, ultimately it is unclear if it has enough capability to translate that comprehensiveness into actual action. Nazir & Gul (2023) consistently note limitations in public sector digital preparedness; in physical infrastructure; in technical skills; and in coordination. Each of these represent significant barriers to translating a hybrid policy structure into an operational governance system rather than merely serving as a theoretical vision for future development.

Pakistan's AI Policy 2025 is at its best when viewed as a directional setting for a State Project and at its worst when viewed as an immediate operational government system. The strength of this document lies in establishing what type of state Pakistan wishes to establish through AI-based capabilities.

7. Conclusion

Pakistan's AI Policy 2025 is most accurately described as a hybrid AI governance



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framework composed of select borrowings from the United States, European Union, and China. The comparison indicates that Pakistan has adopted the US focus on innovation ecosystems and commercialization, EU references to fairness, transparency, accountability, privacy and rights and China's strategy-based approach to building infrastructure and coordinating activities (Davtyan, 2025; Roberts et al., 2020; Roberts et al., 2023).

The study found that major contribution of the article was demonstrating that AI governance in emerging countries can't be seen solely as delayed convergence to pre-dominant models. Rather AI governance in emerging countries is developed through policy emulation under constraint. Pakistan's AI Policy 2025 is normatively ambitious, development focused, and institutionally comprehensive, however the success of its provisions will be heavily dependent upon the ability of the Pakistani State to implement those provisions.

The study demonstrated that although the adoption of governance models of US, EU, and China serves as benchmark, but real success depends on local knowledge, effort, and national priorities while designing such frameworks. In this regards, Pakistan National AI Policy 2025 is visionary and ambitious enough to bring positive dividends but its major success will depend on state's capacity to timely enforcement and implementation.

8. References

- Al-Maamari, A. (2025). *Between innovation and oversight: A cross-regional study of AI risk management frameworks in the EU, U.S., UK, and China* [Preprint]. arXiv. <https://arxiv.org/abs/2503.05773>
- Arora, A. S., Saboia, L., Arora, A., & McIntyre, J. R. (2025). Human-centric versus state-driven: A comparative analysis of the European Union's and China's artificial intelligence governance using risk management. *International Journal of Intelligent Information Technologies*, 21(1). <https://doi.org/10.4018/IJIT.367471>.
- Bal, R., & Gill, I. S. (2020). *Policy approaches to artificial intelligence based technologies in China, European Union and the United States*. <http://dx.doi.org/10.2139/ssrn.3699640>
- Birkstedt, T., Minkkinen, M., Tandon, A., & Mäntymäki, M. (2023). AI governance: Themes, knowledge gaps and future agendas. *Internet Research*, 33(7), 133–167. <https://doi.org/10.1108/INTR-01-2022-0042>
- Brattberg, E., Csernaton, R., & Rugova, V. (2020). *Europe and AI: Leading, lagging behind, or carving its own way?* Carnegie Endowment for International Peace.
- Cancela-Outeda, C. (2024). The EU's AI Act: A framework for collaborative governance. *Internet of Things*, 27, 101291. <https://doi.org/10.1016/j.iot.2024.101291>
- Cheng, J., & Zeng, J. (2023). Shaping AI's future? China in global AI governance. *Journal of Contemporary China*, 32(143), 794–810. <https://doi.org/10.1080/10670564.2022.2107391>
- Cui, H. (2023). *Data protection in the era of algorithmic pricing: A comparative analysis of the USA, EU, and China*. <http://doi.org/10.31219/osf.io/g6z3h>.
- Davtyan, T. (2025). The U.S. approach to AI regulation: Federal laws, policies, and strategies explained. *Journal of Law, Technology, & the Internet*, 16(2). <https://scholarlycommons.law.case.edu/jolti/vol16/iss2/2>.
- Djeffal, C., Siewert, M. B., & Wurster, S. (2022). Role of the state and responsibility in governing artificial intelligence: A comparative analysis of AI strategies. *Journal of European Public Policy*, 29(11), 1799–1821.



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<https://doi.org/10.1080/13501763.2022.2094987>

Fung, P., & Etienne, H. (2023). Confucius, cyberpunk and Mr. Science: Comparing AI ethics principles between China and the EU. *AI and Ethics*, 3, 505–511.

<https://doi.org/10.1007/s43681-022-00180-6>

Government of Pakistan. (2025). *National artificial intelligence policy 2025*. Ministry of Information Technology and Telecommunication.

Hine, E., & Floridi, L. (2024). Artificial intelligence with American values and Chinese characteristics: A comparative analysis of American and Chinese governmental AI policies. *AI & Society*, 39, 257–278. <https://doi.org/10.1007/s00146-022-01499-8>

Jobin, A., Ienca, M., & Vayena, E. (2019). Artificial intelligence: The global landscape of ethics guidelines. *Nature Machine Intelligence*, 1(9), 389–399.

<https://doi.org/10.1038/s42256-019-0088-2>

Kawaguchi, K. F. (2025). National values matter for AI: Comparative analysis of AI regulations in the US, the EU, and China. *Brooklyn Journal of International Law*.

<https://brooklynworks.brooklaw.edu/bjil/vol51/iss1/2>.

Kulothungan, V., & Gupta, D. (2025). Towards adaptive AI governance: Comparative insights from the U.S., EU, and Asia. In *2025 IEEE 11th Conference on Big Data Security on Cloud (BigDataSecurity)* (pp. 32–38). IEEE.

<https://doi.org/10.1109/BigDataSecurity66063.2025.00018>

Kusche, I. (2024). Possible harms of artificial intelligence and the EU AI Act: Fundamental rights and risk. *Journal of Risk Research*.

<https://doi.org/10.1080/13669877.2024.2350720>

Kuzior, A., Sira, M., Zozul'aková, V., & Hetenyi, M. (2024). Navigating AI regulation: A comparative analysis of EU and US legal frameworks. *Materials Research Proceedings*, 45, 258–266. <https://doi.org/10.21741/9781644903315-30>

Li, X., & Li, X. (2025). Regulating AI in a fragmented world: The diverging paths of the EU and China and their impact on global governance. *Innovation and Development Policy*, 7, 27–47.

Mokry, S., & Gurol, J. (2024). Competing ambitions regarding the global governance of artificial intelligence: China, the US, and the EU. *Global Policy*, 15, 955–968.

<https://doi.org/10.1111/1758-5899.13444>

Nazir, S., & Gul, Y. (2023). Embracing artificial intelligence challenges for public sector organizations in Pakistan. *Journal of Contemporary Studies*, 12(1).

<https://doi.org/10.54690/jcs.v12i1.244>

Nitzberg, M., & Zysman, J. (2022). Algorithms, data, and platforms: The diverse challenges of governing AI. *Journal of European Public Policy*, 29(11), 1753–1778. <https://doi.org/10.1080/13501763.2022.2096668>

Paltieli, G. (2022). The political imaginary of national AI strategies. *AI & Society*, 37, 1613–1624. <https://doi.org/10.1007/s00146-021-01258-1>

Roberts, H., Cows, J., Hine, E., Morley, J., Wang, V., Taddeo, M., & Floridi, L. (2023). Governing artificial intelligence in China and the European Union: Comparing aims and promoting ethical outcomes. *The Information Society*, 39(2), 79–97.

<https://doi.org/10.1080/01972243.2022.2124565>

Roberts, H., Cows, J., Morley, J., Taddeo, M., Wang, V., & Floridi, L. (2020). The Chinese approach to artificial intelligence: An analysis of policy, ethics, and regulation. *AI & Society*, 36, 59–77. <https://doi.org/10.1007/s00146-020-00992-2>

Smuha, N. A. (2019). The EU approach to ethics guidelines for trustworthy artificial intelligence: A continuous journey towards an appropriate governance framework for AI. *Computer Law Review International*, 20(4), 97–115.



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https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3443537.

Taeihagh, A. (2021). Governance of artificial intelligence. *Policy and Society*, 40(2), 137–157. <https://doi.org/10.1080/14494035.2021.1928377>

Wang, S., Zhang, Y., Xiao, Y., & Liang, Z. (2025). Artificial intelligence policy frameworks in China, the European Union and the United States: An analysis based on structure topic model. *Technological Forecasting and Social Change*, 212, 123971.

<https://ideas.repec.org/a/eee/tefoso/v212y2025ics0040162525000022.html>.

Wu, F., Lu, C., Zhu, M., Chen, H., Zhu, J., Yu, K., Li, L., Li, M., Chen, Q., Li, X., Cao, X., Wang, Z., Zha, Z., Zhuang, Y., & Pan, Y. (2020). Towards a new generation of artificial intelligence in China. *Nature Machine Intelligence*, 2, 312–316.

<https://doi.org/10.1038/s42256-020-0183-4>

Zeng, J. (2021). China's artificial intelligence innovation: A top-down national command approach? *Global Policy*, 12(1), 27–37.

<https://ideas.repec.org/a/bla/glopol/v12y2021i3p399-409.html>.