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Governance of Artificial Intelligence in the Public Sector: Analysis of Public Policies in Spain and Mexico

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ABSTRACT

In recent years, governments have changed the way they solve public problems by implementing new technologies, systems, and digital platforms. Recently, Artificial Intelligence (AI) applications have been popularized, disrupting societies and organizations. Thus, national governments have started to implement AI, something that has been reflected in several strategies, projects, and public policies. The main purpose of this research is to compare the AI public policies of two countries, Spain and México, from the theoretical perspective of comparative public policy. This research seeks to understand the relevance of government public policies, strategies, and government actions in the field of AI from the theoretical perspective of comparative public policy, as well as to highlight the elements and characteristics that make up the AI public policies for these countries. The results show that both countries share a political-social intention in the establishment of public policies and the development of AI. However, while Spain has consolidated projects and institutions that throwing public policy results, Mexico has not been able to consolidate public policies and institutions that take up the issue as a priority.

摘要

摘要近年来，各国政府通过实施新技术、系统和数字平台，改变了解决公共问题的方式。人工智能(AI)应用的普及，正在颠覆社会和组织。因此，各国政府纷纷开始实施人工智能，这已体现在多项战略、项目和公共政策中。本研究的主要目的是从比较公共政策的理论视角，比较西班牙和墨西哥两国的人工智能公共政策。本研究旨在理解政府在人工智能领域的公共政策、战略和行动的相关性，并揭示构成两国人工智能公共政策的要素和特征。研究结果表明，两国在公共政策制定和人工智能发展方面均具有共同的政治社会意图。然而，西班牙已整合了能够产生公共政策成果的项目和制度，而墨西哥则未能整合将人工智能作为优先事项的公共政策和制度。

RESUMEN

En los últimos años, los gobiernos han transformado su forma de resolver problemas públicos mediante la implementación de nuevas tecnologías, sistemas y plataformas digitales. Recientemente, las aplicaciones de la Inteligencia Artificial (IA) se han popularizado, transformando sociedades y organizaciones. Por ello, los gobiernos nacionales han comenzado a implementar la IA, lo que se ha reflejado en diversas estrategias, proyectos y políticas públicas. El objetivo principal de esta investigación es comparar las políticas públicas de IA de dos países, España y México, desde la perspectiva teórica de la política pública comparada. Esta investigación busca comprender la relevancia de las políticas, estrategias y acciones gubernamentales en el ámbito de la IA

desde la perspectiva teórica de la política pública comparada, así como destacar los elementos y características que conforman las políticas públicas de IA en estos países. Los resultados muestran que ambos países comparten una intención político-social en el establecimiento de políticas públicas y el desarrollo de la IA. Sin embargo, mientras que España ha consolidado proyectos e instituciones que generan resultados en materia de políticas públicas, México no ha logrado consolidar políticas e instituciones que prioricen el tema.

1 | Introduction

Artificial Intelligence (AI) presents transformational dynamics leading towards efficiency and potential replacement of human tasks and activities within a wide range of industrial, intellectual, and societal applications (Dwivedi et al. 2021). According to Abdel-Basset et al. (2021), AI can be considered as part of a series of disruptive and emerging technologies such as the internet of things, big data, virtual reality, drones, autonomous robots, or blockchain, all of them offering a new generation of digital services in different areas of society.

The advent of large language models such as ChatGPT and Gemini has precipitated a revolution in the field of AI, reshaping key sectors of society and introducing novel challenges and opportunities (Ferrag and Bentounsi 2024; Noveski et al. 2024). These models, capable of generating coherent and creative text, have demonstrated transformative potential in diverse domains, ranging from content creation and customer service to scientific research and public service delivery (Damar et al. 2024; Noveski et al. 2024). However, their rapid evolution has raised concerns about ethical issues, including data privacy, the spread of misinformation, and algorithmic bias (Ferrag and Bentounsi 2024; Nzobonimpa et al. 2024). Consequently, governments have been compelled to develop and implement public policies that ensure the responsible and beneficial use of these technologies while mitigating potential risks.

Generative AI is revolutionizing how governments interact with their citizens (Damar et al. 2024). By enabling the creation of personalized content and simulating human conversation, these tools can facilitate communication and public engagement. For instance, AI can be employed to generate customized reports, translate documents into multiple languages, or produce summaries of intricate public policy (Nzobonimpa et al. 2024). However, it is imperative to address the risks associated with misinformation and the manipulation of public opinion (Urman and Makhortykh 2025). This underscores the need to strengthen institutions and develop public policies that promote the ethical and transparent use of AI in the public sector, ensuring accountability and safeguarding human rights.

AI innovations have succeeded in transforming numerous manual tasks and processes that had existed for decades (Dwivedi et al. 2021). The purpose of this work is to deepen into the relevance of AI in the public sector, departing from the analysis of governance strategies at national levels. In addition to distinguishing the characteristics and elements that make up national AI strategies, our aim is also to comparatively identify the similarities and differences between them, as well as the strategic dimensions that countries pose for AI strategies. The expected outcome of all this should be the provision of evidence on the current situation for the institutionalization of AI and, above all, the most appropriate future lines when establishing public policies.

Governments use different public policies and actions for the implementation of AI (Mergel et al. 2023). An example of this is national strategies, which are a fundamental part of the development of AI. AI public policies and strategies have been designed and adopted in the public sector over the past few years (Criado et al. 2021), with different actions and strategies to develop this emerging technology for different sectors of society (Garcia-Benitez and Ruvalcaba-Gómez 2022). Our study highlights Spain and Mexico, which already have a series of initiatives and use cases of AI in the public sector.

Our article poses the following research question: How have the AI public policies been configured in the Spanish and Mexican governments? In this sense, the objective of this research is to present a comparative analysis of the Spanish and Mexican AI public policies. It seeks to understand the relevance and importance of public policies, strategies, and government actions in the field of AI, as well as to highlight the elements and characteristics that make up the AI public policies in these countries.

The selection of Spain and Mexico is due to the fact that they have contributed as countries to the development of AI public policies in the contexts of the European Union (EU) and Latin America, respectively (Mejía and Torres 2020; Checa 2020). Both cases have begun to develop AI strategies and public policies; they share the same language, and both belong to the same administrative tradition, around the Napoleonic model of public administration (Painter and Peters 2010; Cancelo and Almansa 2013; Peters 2021).

This article is structured as follows. After this introduction, the second section presents the literature review on AI in the public sector, as well as governance in the development of AI in the public sector and the theoretical perspective of comparative public policy. The third section sets out the methodology of the study. The fourth section describes and analyzes AI public policies and key use cases in the public sector of Spain and Mexico. Then a comparative analysis of both countries is carried out according to a series of characteristics and elements of the AI public policies. Finally, the fifth section sets out the conclusions.

2 | Literature Review

The literature review aims to present some conceptual basis for AI in the public sector, concepts of governance in the

development of AI in the public sector, and the theoretical perspective of comparative public policy. The first part deals with the study of AI in the public sector, considering the conceptual aspects and mentioning different examples. The second part presents the concepts of governance in the development of AI in the public sector. The third part establishes the theoretical framework of comparative public policy.

2.1 | Artificial Intelligence in the Public Sector

AI is gradually becoming an integral part of the digital strategy of public organizations, although its use still lags significantly behind when compared to private organizations (Mikalef et al. 2021). The development and use of algorithms in the public sector are transforming the way of assessing and analyzing the benefits, opportunities, difficulties, and challenges of public sector organizations (Ruvalcaba-Gómez 2021; Ruvalcaba-Gomez and Garcia-Benitez 2025). Public organizations have greatly increased the adoption of smart algorithmic systems in economic matters, environmental protection, and governance functions (Marland et al. 2017; Sousa et al. 2019). In any case, the progressive deployment of AI-driven solutions for the public sector is changing the way countries are providing services such as education, agriculture, or medicine (Nagitta et al. 2022).

As different authors have highlighted, the era of new technologies with the application of AI involves advances in algorithmic machine learning and automated decision-making in the health, financial, industrial, or public service delivery sectors, generating new opportunities for continuous innovation (Dwivedi et al. 2021; Koskimies and Kinder 2022). Different public sector organizations use varied types of AI-based systems and technologies. Examples include chatbots, analyzing data traffic on a computer network, studying the risks of prisoners, exploring the relationships between criminals and crimes committed through prediction models or mechanisms to assess unemployment, big data in governance and public policy with cloud computing, and machine learning to help the judicial system (Ng 2018; Kerikmäe and Pärn-Lee 2021).

At the same time, researchers have recognized the potential of AI to create risks and abuses that can jeopardize the respect and dignity of the most vulnerable people. Therefore, different authors have suggested a stronger supervision for AI (Nagitta et al. 2022; Keller and Drake 2020). Thus, public organizations are required to establish an agenda for the use of AI, defining the objectives and a roadmap for its implementation (Wirtz and Müller 2019). As more governments and public administrations adopt intelligent systems to make decisions and deliver services, regulation is necessary to avoid bias, injustice, or the violation of human rights. Thus, policymakers must ensure that regulations protect the desired benefits of AI implementation (Green 2022; Morozovaite 2023; Ruvalcaba-Gomez and Garcia-Benitez 2025).

In this sense, attention to AI from a public policy perspective could increase the understanding of this type of technology to design an applicable and comprehensive framework. Therefore, we propose different ways to integrate technical knowledge into policymaking (e.g., collect data or knowledge generated from impact evaluations in shared data repositories and use it for evidence-based public policies) and strengthen the legitimacy of standards (Fosch and Golia Jr. 2019).

2.2 | Governance in the Development of AI in the Public Sector

The concept of governance emerges as a crucial framework capable of diagnosing and offering solutions to the substantial public debate around the positive and negative impacts of AI (Ulnicane et al. 2021). In order to optimize the benefits of AI while mitigating potential risks, governments around the world must achieve a more comprehensive understanding of the breadth of these risks and design and implement regulatory and governance mechanisms designed to effectively address these challenges (Taeihagh 2021).

As an increasing number of governments introduce national strategies and public policies related to AI, their preferences and governance approaches are becoming clearer (Radu 2021). The governance framework in AI public strategies and policies assigns more dynamic and collaborative roles to both the State and society (Ulnicane et al. 2021). It explores various institutional principles and the interaction between the public and private sectors in shaping AI governance, ranging from the initial formulation of public policies to the establishment of new oversight institutions for AI (Radu 2021).

AI governance in the public sector is defined as a crucial framework designed to optimize the benefits of AI while effectively mitigating its potential risks. This conceptualization extends beyond a mere declaration of necessity, positioning governance as a proactive and reactive mechanism, essential for navigating the disruptive transformation that AI generates in society and the economy (Zuiderwijk et al. 2021; Choi and Park 2023). AI, within the realm of public governance, is consolidating as a key tool to transform administration, enabling governments to increase productivity, personalize services, and strengthen accountability, while addressing inherent risks such as algorithmic bias, data privacy, and transparency (Kuziemski and Misuraca 2020; Chen et al. 2023). This illustrates the instrumental role of governance in achieving public value from AI, making it a critical component of the digital strategy for public organizations (Zuiderwijk et al. 2021; Wu and Thomann 2023).

Complex 21st-century issues like the effects of globalization and digitalization, as well as the rising demand for accountability and transparency, have led to the development of new approaches to governance. According to Wu and Thomann (2023), these new governance approaches are: Hybrid governance, which highlights cooperation between actors from various fields with varying problem definitions and stresses the participation of nonstate actors in complex issues like climate change. Collaborative governance emphasizes the coproduction of policies and stakeholder engagement to establish more inclusive and participatory decision-making procedures. Experimentalist governance emphasizes flexible, iterative policymaking and cooperative problem-solving, with a focus on adaptive learning and

experimentation within governance processes. Lastly, algorithmic governance is a cutting-edge field that relies on data-driven decision-making to address a variety of public policy issues by leveraging digital technologies like algorithms, AI, and machine learning.

Expanding upon the more general knowledge of these changing governance paradigms, especially algorithmic governance, this research now explores AI governance in the public sector, an essential framework intended to maximize AI's advantages while successfully reducing its possible risks. Navigating the disruptive changes that AI brings about in society requires this specialized focus.

As AI governance accelerates, one of the main tasks will be to ensure not only that AI systems are technically explainable, but that relevant norms and rules are questionable, and that institutions and governance processes are open to democratic challenge ability (Keller and Drake 2020). Therefore, efforts to regulate government algorithms should pay special attention to the social contexts in which algorithms are embedded and to empirical evidence on how they are implemented. By adopting a more sociotechnical and evidence-based regulatory approach, policymakers will facilitate more democratic and equitable decisions about algorithmic governance (Green 2022; Arroja and Camões 2022).

The integration of AI into public administration is transforming the landscape of governance. While these technologies offer immense potential for enhancing policymaking and service delivery, challenges such as data privacy, ethical considerations, and the digital divide must be carefully addressed. As AI tools like ChatGPT continue to evolve, it is crucial to explore their impact on the analytical capabilities of policy analysts. While AI can provide valuable support in analyzing complex data and generating innovative solutions, human expertise remains indispensable (Pencheva et al. 2020; Kusumasari and Yahya 2024). A balanced approach that leverages the strengths of both human and AI is essential to ensure the effective and ethical use of these technologies in the public sector. Nordström (2022) emphasizes the need for adaptive and temporal decision-making, explainability, and transparency in AI systems, as well as framing policies to align with sector-specific needs.

The integration of AI and other emerging technologies is reshaping the landscape of public administration. While these technologies offer transformative potential for operational efficiency and public service delivery, their successful implementation necessitates a skilled workforce and a curriculum that aligns with evolving technological advancements. McQuiston and Manoharan (2021) highlight the importance of developing digital competencies among public sector employees and the need for public administration programs, particularly in Asia, to bridge the gap between theoretical knowledge and practical application. Strengthening interdisciplinary approaches and fostering collaborations between academia and public organizations are crucial steps toward addressing this governance challenge.

Governance in the context of AI and public administration is explored by Criado et al. (2024) through a nuanced analytical framework encompassing macro, meso, and micro levels. At the macro level, governance focuses on institutional and regulatory frameworks, national strategies, and power dynamics, emphasizing the role of governments in shaping AI policies while responding to their inherent affordances. The meso level addresses AI's integration within government organizations and public services, highlighting transformations in service delivery, organizational strategies, and collaborative policymaking. Finally, the micro level investigates the individual impacts on public employees and citizens, including behavioral adaptations, ethical considerations, and trust-building in AI systems. This layered approach illustrates the interplay between technological advancements and public sector governance, emphasizing the need for comprehensive public policies that connect these levels to address AI's challenges and opportunities effectively.

2.3 | Comparative Public Policy

An essential field of political science, comparative public policy closely studies national policies, their execution, and their effects on a global scale. By comparing various experiences, this interdisciplinary approach aims to create more broadly applicable theories about the variables affecting the creation of policies, enabling researchers to spot trends and causal links (Leichter 1977; Peters 2020). This methodical approach provides a valuable tool for comprehending the intricacy of public action by allowing for the control of external variables and the evaluation of the influence of particular factors on policy outcomes.

Regardless of its importance, comparative public policy research has several obstacles, most notably the requirement for a rigorous and formal a priori design that steers clear of ex post facto comparisons (van der Heijden 2014). It is advised to employ mixed methods and triangulation techniques to improve validity and reliability (Wolf 2010). This field acknowledges that effective policymaking is intrinsically context-sensitive, necessitating that decision-makers take into account the distinct historical, cultural, political, and economic aspects of each country. As seen in the examination of healthcare systems in various nations, researchers can pinpoint important factors and possible hazards by contrasting policies and results across various contexts (Leichter 1977).

Comparative public policy serves as a fundamental tool for understanding development strategies and crisis responses. Examples like Sloan's (1983) study of Cuba and Brazil demonstrate how comparing distinct approaches—redistribution versus accumulation—highlights the necessity of balancing objectives for successful development. Similarly, the COVID-19 pandemic underscored the importance of analyzing how factors such as partisan politics, intergovernmental relationships, culture, and state capacity influence policy decisions during extreme crises (Liu and Geva-May 2021). By examining these diverse responses, comparative research offers valuable

insights into effective crisis management and evidence-based policymaking.

To ensure accuracy and relevance in comparative analysis, it is crucial to avoid imposing unsuitable theoretical frameworks onto specific institutional contexts (Wilder 2017). Attending to both similarities and differences in institutional settings is vital for insightful analysis, and there is a recognized need to work towards a clearer and more inclusive definition of comparative public policy (Engeli et al. 2018). This field employs a variety of methods, including case studies for in-depth understanding, statistical analysis for identifying broad patterns, and process tracing for uncovering causal mechanisms. The selection and design of triangulation strategies, particularly for mixed-methods approaches, must be carefully tailored to each specific research question (Wolf 2010).

To advance this field, Gupta (2012) proposes comparing theories across different institutional contexts and confronting theories against each other, thereby fostering multidisciplinary collaboration. However, the quality of comparative research is often compromised by the absence of a rigorous a priori comparative design (van der Heijden 2013). It is imperative to prioritize a comparative design planned from the outset, adhering to established guidelines for case selection, hypothesis development, and data analysis. This is fundamental for contributing to the accumulation of knowledge, the development of new theories, and the consolidation of comparative public policy as a robust discipline.

To compare public policies in AI in the public sector, a multifaceted approach is suggested, combining important analytical categories with OECD-identified policy tools (OECD.AI 2023; Garcia-Benitez and Ruvalcaba-Gómez 2021). First, objectives—which can include anything from promoting innovation to ensuring digital rights—are analyzed as the policies' stated goals. The essential values that inform decisions are called principles. Axes and actions, on the other hand, operationalize these concepts through tangible interventions. Lastly, long-term results like changing public services or geopolitical positioning are reflected in the vision and goals. The evaluation of strategies' internal coherence and alignment with national priorities is made possible by these categories, which were adapted from Garcia-Benitez and Ruvalcaba-Gómez (2021).

The second dimension includes the OECD's policy instruments, which are tools for classifying public AI strategies and policies. The plans and agendas put forth by institutional coordinating bodies are taken into account by governance. Standards and certification for the creation and uptake of technology are included in guidance and regulation. Mobilizing economic resources is one aspect of financial support. Conversely, platforms and cooperative networks are considered by AI enablers (OECD.AI 2023). When paired with the previously mentioned analytical categories, this typology makes it possible to identify discrepancies between the declarative design and executive capacity of governments, as well as distinct patterns among nations with different levels of institutional development.

When it comes to comparing AI public policies, we need to think more deeply about the epistemological and methodological implications, not just the problems that come with doing research across countries. There is a debate in the field about whether to look for generalizable theories or to really understand each case and its unique context (Piovani and Krawczyk 2017; Peters 2020). When looking at AI policies, this tension shows up in the need to find common patterns in how different countries, like Spain and Mexico, govern AI, while also taking into account the historical, political, and cultural factors that affect how they respond to AI. A critical epistemology requires researchers to be aware of how their underlying assumptions about the nature of knowledge and reality influence the formulation of research questions and the interpretation of findings, avoiding the imposition of conceptual frameworks that do not fit the contextual complexity (Piovani and Krawczyk 2017; Wilder 2017).

Methodologically, the choice of a qualitative descriptive approach to analyze the configuration of AI policies in Spain and Mexico is a pertinent decision given the characteristics of the object of study. The small-N problem (not enough cases for strong statistical analysis) is a common problem in comparative research (Peters 2020). However, a qualitative design lets you really get into the content of official documents and understand the strategic dimensions and OECD criteria in a more nuanced way (Roberts et al. 2023). This approach is ideal for exploring how policies materialize in specific contexts, revealing not only what is declared, but also the underlying logics and implicit priorities (Engeli and Allison 2014). Because AI policy is still new and complicated, and because regulatory solutions may look the same but have very different effects and applications (Clarke 2019; de Almeida et al. 2021), a methodology that focuses on detail and context is better than one that tries to make generalizations quickly.

Consequently, the chosen methods, focused on qualitative document analysis under the strategic dimensions and OECD criteria (Garcia-Benitez and Ruvalcaba-Gómez 2021; OECD.AI 2023), are highly suitable for answering the research question about how AI public policies are configured in the Spanish and Mexican governments. This approach allows for a detailed identification of the elements and characteristics that comprise these policies in both countries (Fatima et al. 2020). By opting for a descriptive qualitative comparison, the study not only maps the current landscape of AI policies but also establishes a solid foundation for future research that could employ more advanced comparative methods. In this way, the document lays the groundwork for a deeper analysis of AI governance dynamics in the public sector, contributing to a richer and more detailed comprehension of this evolving field.

3 | Methodology

This section presents the design and methodological strategy of this article. The research question that guides this research is: How have the AI public policies been configured in the Spanish and Mexican governments? This research should be considered

as an exploratory-descriptive study of public policies on AI in the public sector (Yang and Huang 2022) of the countries of Spain and Mexico. First, we explain how we have selected the cases. Second, we describe how we have collected the data. Finally, we present the analytical strategy for the comparative study of public policies.

3.1 | Case Selection

We have selected two cases to analyze the AI strategies: Spain and Mexico. Both countries can be considered as a reference in their respective regions (Europe and Latin America). Moreover, they have some features that make their comparison easier. For instance, both countries have the same administrative tradition, based on the Napoleonic model (Painter and Peters 2010). They have also produced a rich amount of AI-related governmental documents in the same years and also in the same language (Painter and Peters 2010; Cancelo and Almansa 2013; Peters 2021). They also present some differences. For instance, they have been influenced by different streams in relation to the consideration of AI (in Spain, linked to the EU consideration on AI; and Mexico, linked to the ideas coming from the USA). In fact, the development of public policies on AI is taking on a relevant aspect in the political and social discourse in both countries (Mejía and Torres 2020; Checa 2020; Garcia-Benitez and Ruvalcaba-Gómez 2022; Criado 2021).

Spain has set itself the challenge of not being left behind, so it is making efforts to develop this technology in all areas of society (Guinea 2022). The "Digital Strategy Spain 2025" and the "Spanish Strategy in R + D + I in Artificial Intelligence" are relevant strategies in the process of implementing AI in society, which imply the adoption of new technologies in the public sector (Sobrino-García 2021). The case of Spain stands out fundamentally for its ability to influence the development and implementation of AI in Latin America. Spain is currently promoting the use and development of AI in all sectors of society through the National Strategy for Artificial Intelligence (Pérez-Martínez 2022), which has a strong influence in the European context (Guevara-Gómez et al. 2021).

In the case of Mexico, there are different institutions and organizations that analyze and study the use and development of AI. One of them is the Mexican Society of Artificial Intelligence, considered a scientific community that has worked for more than thirty years on AI teaching and research projects (Schneider 2020). Another example is the IA2030Mx organization, which is made up of academics, companies, and civil society. This organization has generated efforts for the development of AI technological projects that are applied in different sectors of society (Ruvalcaba-Gómez 2021).

In Latin America, Mexico is considered a reference in the development of public policies for the use of AI (Mejía and Torres 2020). These public policies set out objectives that include educational, economic, political, and industrial aspects of the use of this technological development. Mexico is in the process of consolidating a comprehensive public policy agenda on AI (Criado et al. 2021).

In addition to direct geopolitical influences and administrative traditions, other pertinent factors have probably influenced the evolution of AI public policies in Mexico and Spain. First, each nation's technological capacity and innovation ecosystem—which includes investment in AI research and development, the availability of specialized talent, the maturity of their digital infrastructure, and the existence of top technology companies—is vital (Portuguez Castro et al. 2019; Campos-Blázquez et al. 2024). Second, the priorities and resources allotted to AI are directly influenced by economic factors, including the size of the domestic market, the degree of industrial development, and the preference for traditional sectors over the digital economy (Palacios 2003; del Águila et al. 2003).

The third factor is internal political dynamics and governance, which includes public trust in institutions and new technologies, the degree of civil society and private sector participation in policy design, the stability of the government, and the caliber of democratic institutions (Montero 2001; Crespo 2004; Magone 2008). Finally, each country's AI policy is heavily influenced by ethical and social factors, including public opinions on data privacy, employment, and the moral application of AI, as well as pressure from international organizations and interest groups (Singh 2021; Morlet Corti 2022).

3.2 | Data Collection

We collected information from the cases of Spain and México, mainly from official documents that establish public policies on AI. Plans, strategies, and actions play a central role and are part of the formation of AI public policies, since they offer an explanation of why this issue is prominent and relevant in each country (Kim et al. 2017; Schiff and Schiff 2021). The period of analysis is determined by the documents located, taking into consideration the date of their initial publication in each of the case studies, which start from 2015 to the most recent in 2025.

More specifically, we use the AI Policy Observatory of the Organization for Economic Cooperation and Development (https://oecd.ai/en/) as a source of information for the collection of information. This platform includes the plans, strategies, and actions that constitute the pillars of the AI public policies in Spain and Mexico. This platform allows access to hundreds of sources of information so that groups of decision-makers, politicians, academics, and scientists can share agendas (Kim et al. 2017) as well as make comparisons between countries. Table 1 shows the initiatives promoted in the cases of Spain and Mexico. In Spain, the OECD platform has 28 AI public policy initiatives, while in Mexico, the platform indicates that there are 21 documents with AI initiatives.

3.3 | Data Analysis

After reviewing and analyzing all the documents available on the OECD AI Policy Observatory, we carried out a descriptive analysis of the different plans, strategies, and actions in the AI public policies of each country, identifying and exposing the

TABLE 1 | AI public policy initiatives in Spain and Mexico.

Country	Document name	Document description	Sources of information
Spain	1. Digital Rights Charter	The charter presents a set of digital rights that must be respected by institutions using digital technologies.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_eqtrxexaa78g8cp.pdf
	2. National AI Strategy	The strategy seeks to generate an environment of trust around the development of AI in a sustainable and inclusive way that considers citizens at the center of decisions.	https://portal.mineco.gob.es/es-es/digitalizacionIA/Documents/Estrategia_IA_2024.pdf
	3. National Plan for the Advancement of Language Technologies	National action plan to harness human language technologies to improve and innovate public services.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_vzfu8pxin5vz2qr.pdf
	4. Notice 15/V—113 ("Notice of Authorization for Test of Automatic Driving Systems")	This notice considers the authorization of tests of automated driving systems in road traffic to contribute to mobility and road safety.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_9dgph324mbny7gc.pdf
	5. Notice 16 Tv/89 ("Notice on Automatic Parking Systems")	This notice relates to automatic parking systems in motor vehicles.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_ejqjk3vhq28guyd.pdf
	6. Plan for the Digitalization of Public Administration	This plan focuses on the personalization of public services and the citizen experience through technological innovation in the public sphere.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_tngj5hsb3xbjt4b.pdf
	7. Project on Spanish Language and AI	This project proposes to teach correct Spanish to machines and help humans to acquire a good use of Spanish.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_p6hn2ekfbbxcj97.pdf
	8. Recovery, Transformation and Resilience Plan	This plan puts AI at the center of initiatives seeking post-COVID recovery.	https://www.lamoncloa.gob.es/temas/fondos-recuperacion/Documents/30042021-Plan_Recuperacion_%20Transformacion_%20Resiliencia.pdf
	9. AI Advisory Council of Spain	It is the consultative body for the analysis, advice and support to the public administration in the field of AI.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_ydazwchxkkqcw3g.pdf https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_pvafa2x7kdqu2j7.pdf
	10. Spanish Agency for the Supervision of AI	This agency is responsible for creating measures to protect citizens from the possible risks derived from AI.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_2jmyphm3a3crcgz.pdf
	11. Spanish Data Protection Agency	This agency monitors compliance with the legal provisions on data protection.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_ra8k9nhjyxrwpzd.pdf

(Continues)

TABLE 1 | (Continued)

Country	Document name	Document description	Sources of information
	12. Spanish RDI Strategy in AI	This strategy sets out a number of priorities for the establishment of strategic areas in AI research and development activities.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_h6zczncmy7m7kit.pdf
	13. Strategy for Connected Industry 4.0	This strategy defines the challenges and requirements necessary for competitiveness in Industry 4.0.	https://www.industriaconectada40.gob.es/Paginas/index.aspx#inicio
	14. Strategy for Science, Technology and Innovation	This strategy seeks to promote knowledge transfer and strengthen collaboration between public and private institutions.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_du29cpfbbdddp2s.pdf
	15. Unique Scientific and Technical Infrastructures	They are facilities for the provision of research services, in addition to the transmission and exchange of knowledge in the field of innovation.	https://www.ciencia.gob.es/Organismos-y-Centros/ICTS/MapaICTS.html
	16. Algorithmic Data in a Labor Environment	Guidelines that explain the rights and responsibilities of both employees and employers when it comes to using algorithms to make decisions at work.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_etq85zac7tjh6a8.pdf
	17. Spanish Language Valley	A globally project to promote the Spanish language, science, and the data economy.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_5rdyyvpk2avzvap.pdf
	18. Spanish Territorial Networks of Technological Especialisation	Seven AI projects related to IA Missions and Value chains integration.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_nh74ykkr5hkakae.pdf
	19. Green Algorithms National Programme	Spain is at the forefront of using best practices to create sustainable models and has made its national AI strategy fit with the European Green Pact.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_fkz2iax582wf3ac.pdf
	20. Co-Official Languages Corpus Development	This progra will develop and offer basic and cross-cutting language services and transversal linguistic services for public administrations	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_scq66eh4k88aav7.pdf
	21. Royal Decree-Law 9/2021	The Workers' Statute Law contains a provision outlining the algorithmic transparency requirements for employers.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_xmeekxz2zizs5vz.pdf
	22. D Generation AI Initiatives	Through their own initiatives, the public and private sectors contribute to the D Generation program's efforts to promote the use of IA.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_cur2kgc7qjxcupj.pdf

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TABLE 1 | (Continued)

Country	Document name	Document description	Sources of information
	23. National Plan for Digital Skills	In order to expedite the launch of new university degrees, the plan will either increase the number of spots available in existing university degrees or promote new technical degrees.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_2qenz9awy49jue5.pdf
	24. Spain Talent Hub	The purpose of this program is to develop and retain Spain's AI research talent.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_scuwnwt4zkrbkf4.pdf
	25. University-Business Chairs on AI	The University of Murcia, the University of Cordoba, and the University of Oviedo are the three ENIA chairs that concentrate on AI and agricultural/rural development.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_s32maxa36quks2c.pdf
	26. AI Regulatory Sandbox	The AI Regulatory Sandbox is a digital platform created in partnership with the European Commission that aims to link AI development firms and appropriate authorities in order to jointly establish best practices for future European AI regulations and guarantee their implementation.	https://espanadigital.gob.es/lineas-de-actuacion/sandbox-regulatorio-de-ia
	27. Language Strategic Project for the Economic Recovery and Transformation	Beyond AI alone, the proposal supports AI learning in Spanish and other co-official languages.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_hf2qmdbbajwsryc.pdf
	28. Quantum Spain	To support Spain's scientific and technological foundation in quantum computing and its artificial intelligence applications, Quantum Spain supports and finances a competitive quantum computing infrastructure.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_a82jjzutpvva6x2.pdf
Mexico[a]	1. Use cases of AI in the public sector	The different use cases of AI in the public sector are listed.	https://oecd.ai/en/dashboards/policy-initiatives/ai-use-cases-in-the-public-sector-8989
	2. Mexican National AI Agenda	It is an agenda for the development of AI in the public sector created by different sectors of society and AI leaders.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_v4s7dcuhnnh7dcx.pdf
	3. National Open Innovation Ecosystem	It is a model for the implementation of projects involving academia, government and private initiative.	https://oecd.ai/en/dashboards/policy-initiatives/national-ecosystem-of-open-innovation-7768

(Continues)

TABLE 1 | (Continued)

Country	Document name	Document description	Sources of information
	4. Principles and guidance of impact analysis for the development and use of systems based on artificial intelligence in the federal public administration	The guide aims to strengthen the responsible and ethical use of AI.	https://oecd.ai/en/dashboards/policy-initiatives/principles-and-impact-analysis-guide-for-the-development-and-use-of-systems-based-on-artificial-intelligence-in-the-federal-public-administration-8462
	5. Program for the development of the software industry and innovation	This program encourages the adoption of new technologies, the specialization of human talent and the transfer of knowledge.	https://oecd.ai/en/dashboards/policy-initiatives/program-for-the-development-of-the-software-industry-and-innovation-7850
	6 Towards an AI Strategy in Mexico: Harnessing the AI Revolution	It is considered the white paper that contemplates the bases of a national AI strategy.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_ygutwjrin4xh4be.pdf
	7. The Administrative Provisions of a General Nature for the Preparation, Submission, and Assessment of Impact Assessments on the Protection of Personal Data	Together with the relevant rules in state legislation on the subject, these current administrative provisions will apply to the creation, presentation, and assessment of impact assessments related to the protection of personal data.	https://oecd.ai/en/dashboards/policy-initiatives/the-administrative-provisions-of-a-general-nature-for-the-preparation-submission-and-assessment-of-impact-assessments-on-the-protection-of-personal-data-1334
	8. Memories of the Privacy Route: Artificial Intelligence—Perspectives and Prospects from the Right of Personal Data Protection and Privacy	An editorial output that consists of gathering writings about AI from the viewpoint and perspective of the right to privacy and protection of personal data.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_6eh4ynx7gvwbzgp.pdf
	9. Recommendations for the Processing of Personal Data Regarding the Use of Artificial Intelligence	Suggestions for adhering to data protection obligations and standards when implementing AI, across many industries.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_8buqw3dk82d6fri.pdf
	10. Guideline for the Elaboration of Privacy Impact Assessments	The guideline provides a number of suggestions based on global information security standards and best practices that might be relevant according on the type of data, the processing goals, and the technological and financial prowess of the data processors.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_aafjny6djapzmyn.pdf

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TABLE 1 | (Continued)

Country	Document name	Document description	Sources of information
	11. Guide for the Preparation and Submission of Personal Data Protection Impact Assessments	By presenting this subject in easily understood daily language with reference to the numerous ideas and statistics that are essential for impact assessments, the Guide seeks to foster a culture of personal data protection inside the organizations of data controllers.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_nsipscv92w8pyyb.pdf
	12. General Recommendations for Data Processing in AI of the Ibero-American Data Protection Network	The proposals focus on prevention, assuming that preventing violations is the best method to safeguard the human rights associated with processing personal data.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_xeagmdch33jshx9.pdf
	13. Specific Guidelines for Compliance with the Principles and Rights that Govern the Protection of Personal Data in Artificial Intelligence Projects	The recommendations were implemented as a result of the development of new technologies, which in today's technological environment involve a variety of creative methods for managing personal information.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_kjb2cjqynsjz4h3.pdf
	14. Website for Personal Data Protection Impact Assessments	The website seeks to instill in the data controller's company a culture of protecting personal information.	https://oecd.ai/en/dashboards/policy-initiatives/website-for-personal-data-protection-impact-assessments-6281
	15. National Alliance of Artificial Intelligence	A plan that aims to acknowledge and fortify Mexico's AI ecosystem in order to sustain a free discussion on AI and its effects from a broad, interdisciplinary, and plural viewpoint, with the involvement of many stakeholders and society at large.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_8stdc6kihk6hkkg.pdf
	16. Horizon Europe Gate	The main tool for implementing the EU's $R+I$ policies is the Horizon Europe Program, which aims to improve the scientific and technological foundations of member nations and international partners by achieving a scientific, technological, economic, and social impact of investments in the European region.	https://secihti.mx/cooperacion-internacional/puerta-horizonte-europa/
	17. AI Regulatory Sandbox Mexico	An investigation was started in partnership with AMCID and the UK Embassy to update Mexico's AI environment and encourage technological exchange between the two nations.	https://www.amcid.org/page/sandboxregulatoriomexico

(Continues)

TABLE 1 | (Continued)

Country	Document name	Document description	Sources of information
	18. Bill of Rights of the Person in the Digital Environment	In order to achieve the goals of the aforementioned rules, this document serves to define guidelines, instruments, indicators, goals, strategies, codes of good practice, models, and comprehensive, systemic, continuous, and evaluable policies.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_yhvvsv2xsvxfe55.pdf
	19. Artificial Intelligence Readiness Stage Assessment	The UNESCO-wide perspective expressed in this study is essentially positive: responsible regulation and ethical governance of AI are completely compatible with innovation and economic expansion and are necessary to guarantee a technology ecosystem that serves the general welfare.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_itm57fekguakxzk.pdf
	20. Digital Transformation and Telecommunications Agency	The primary goal of the Agency for Digital Transformation and Telecommunications by the Mexican government is to digitize the country's currently in-person government processes.	https://oecd.ai/en/dashboards/policy-initiatives/digital-transformation-and-telecommunications-agency-3300
	21. Proposal for the National Agenda for Artificial Intelligence for Mexico 2024–2030	The National Alliance for Artificial Intelligence, in partnership with UNESCO, combined the efforts of professionals from the public and business sectors, academia, organized civil society, international organizations, and the general public to produce this publication.	https://oecd-ai.case-api.buddyweb.fr/storage//policy-initiatives/Jul2025/fu_yehi4358a2v3wfq.pdf

[a]Information on the projects listed in documents 1, 3, and 14 could not be accessed.
Source: Own elaboration with information from the Observatory of AI Policy of the OECD (OECD.AI. 2025).

different use cases of AI in the public sector and observing the formulation of public policies in Spain and Mexico.

We used the operationalization of the analysis of the public policies as a category of analysis for the actors that are part of the context, processes, and resources (Skogstad and Wilder 2019; Lemke et al. 2023). The selection of this element for the study of the public policies is based on the different theories, perspectives, and approaches that analyze this phenomenon (Skogstad and Wilder 2019; Lemke et al. 2023; Schiff and Schiff 2023). Actors are a major element in the formulation of public policies. Each of them has interests and motives that they seek to capture in the public policy (Guzmán 2020).

For the comparative analysis of Spain and Mexico, we established certain elements and characteristics that can be commonly found in the plans, strategies, and actions linked to AI public policies. These elements and characteristics are analyzed qualitatively, that is, through the interpretation and analysis of the meanings and content of the texts, which seeks to generate synthesized information (Liebig et al. 2022; Wilson 2022).

To compare public policies in AI in the public sector, a multifaceted approach is suggested, combining important analytical categories with OECD-identified policy tools (OECD.AI 2023; Garcia-Benitez and Ruvalcaba-Gómez 2021). The base of the research is the strategic dimensions put forth by Garcia-Benitez and Ruvalcaba-Gómez (2021), which offer an internal lens through which to view a fundamental structure of AI policies. These dimensions are:

1. Objectives, defined as the specific purposes that policy actions seek to fulfill, are essential for discerning the intentions and priorities of each country in AI development.
2. General principles, which represent the fundamental values and ideas guiding societal and governmental actions related to AI, reveal the ethical and normative bases of the policies.
3. Strategic axes and actions, which comprise the main themes structuring AI public policy, including the concrete activities for its implementation and development.
4. Vision and goals, which reflect the long-term outlook and desired future outcomes, capture each nation's strategic ambition.

These categories are justified by their capacity to deconstruct the intricacy of AI policies into digestible parts, enabling a methodical qualitative examination of official document content. In order to synthesize information and classify it under these dimensions, their application required a rigorous interpretation of texts. This made it easier to identify the strategic intentions of AI policies in Mexico and Spain. The strategic dimensions represent the categorization of the characteristics and elements of AI public policies that constitute an important tool in the analysis of qualitative data (Roberts et al. 2021; Liebig et al. 2022).

Second, the OECD AI Policy Observatory framework (OECD.AI 2023), which provides an external and standardized viewpoint for assessing policy tools and involved actors, complements the analysis. Public policy tools are categorized using this framework into four key categories:

1. Governance, encompassing documents that consider national strategies, agendas, and plans, institutional coordination and/or monitoring bodies for AI, public consultation with stakeholders or experts, and the use of AI in the public sector.
2. Financial support, referring to documents that mention institutional funding for public research, grants for public research projects, grants for business R&D&I, grants for centers of excellence, recruitment programs for R&D&I, scholarships and loans for postgraduate studies, loans and credits for business innovation, venture capital funding, and indirect financial support.
3. AI enablers, covering documents addressing topics such as AI skills and education, labor market policies, public awareness campaigns and civic engagement activities, data access and sharing, AI research and computing infrastructure, networking and collaboration platforms, knowledge transfer and business advisory services, and science and innovation challenges, awards, and distinctions.
4. Guidance and regulation, referring to documents that address aspects such as emerging AI-related regulation, regulatory oversight bodies, and ethical advice, regulation and incentives for labor mobility, and standards and certification for technology development and adoption.

Additionally, the OECD framework includes:

1. Responsible organizations, which are the organizations responsible for implementing the policies and revealing the centralization or fragmentation of AI management.
2. Target sectors, which are the policy's beneficiaries and provide insight into the scope of the initiatives.

In order to apply this framework, the content of the AI policy documents from Mexico and Spain was methodically mapped against these categories. This allowed for a structured comparison of how each nation chooses to implement its policies, outside of their intended goals. Because it enables a thorough and comprehensive comparative analysis, the combination of the two methodological frameworks is pertinent to the goal of the study. The first framework offers a thorough understanding of the policy's purpose and strategic design, while the second framework gives a clear picture of the tools and implementation. Table 2 shows the strategic dimensions and the OECD criteria, which allow a comparative approximation of Spain and Mexico in terms of the general scope of AI public policies.

4 | Analysis of the AI Public Policies of Spain and Mexico

This section presents a systematic descriptive analysis of the different AI public policies of Spain and Mexico. Our study aims to

TABLE 2 | Analytical strategy of comparative study.

Cases analyzed	Strategic dimensions	OECD criteria	OECD policy instruments	Sources of information
Spain	Objectives Principles	Responsible organizations	Governance Financial support	Spain: 1. Digital Rights Charter 2. National AI Strategy 3. National Plan for the Advancement of Language Technologies 4. Notice 15/V—113 (“Notice of Authorization for Test of Automatic Driving Systems”) 5. Notice 16 Tv/89 (“Notice on Automatic Parking Systems”) 6. Plan for the Digitalization of Public Administration 7. Project on Spanish Language and AI 8. Recovery, Transformation and Resilience Plan 9. AI Advisory Council of Spain 10. Spanish Agency for the Supervision of AI 11. Spanish Data Protection Agency 12. Spanish RDI Strategy in AI 13. Strategy for Connected Industry 4.0 14. Strategy for Science, Technology and Innovation 15. Unique Scientific and Technical Infrastructures 16. Algorithmic Data in a Labor Environment 17. Spanish Language Valley 18. Spanish Territorial Networks of Technological Especialisation 19. Green Algorithms National Programme 20. Co-Official Languages Corpus Development 21. Royal Decree-Law 9/2021 22. D Generation AI Initiatives 23. National Plan for Digital Skills 24. Spain Talent Hub 25. University-Business Chairs on AI 26. AI Regulatory Sandbox 27. Language Strategic Project for the Economic Recovery and Transformation 28. Quantum Spain

(Continues)

TABLE 2 | (Continued)

Cases analyzed	Strategic dimensions	OECD criteria	OECD policy instruments	Sources of information
México	Axes/Actions Vision/Goals	Target sectors for policy initiatives	AI enablers Guidance and regulation	Mexico: 1. Use cases of AI in the public sector 2. Mexican National AI Agenda 3. National Open Innovation Ecosystem 4. Principles and guidance of impact analysis for the development and use of systems based on artificial intelligence in the federal public administration 5. Program for the development of the software industry and innovation 6. Towards an AI Strategy in Mexico: Harnessing the AI Revolution 7. The Administrative Provisions of a General Nature for the Preparation, Submission, and Assessment of Impact Assessments on the Protection of Personal Data 8. Memories of the Privacy Route: Artificial Intelligence—Perspectives and Prospects from the Right of Personal Data Protection and Privacy 9. Recommendations for the Processing of Personal Data Regarding the Use of Artificial Intelligence 10. Guideline for the Elaboration of Privacy Impact Assessments 11. Guide for the Preparation and Submission of Personal Data Protection Impact Assessments 12. General Recommendations for Data Processing in AI of the Ibero-American Data Protection Network 13. Specific Guidelines for Compliance with the Principles and Rights that Govern the Protection of Personal Data in Artificial Intelligence Projects 14. Website for Personal Data Protection Impact Assessments 15. National Alliance of Artificial Intelligence 16. Horizon Europe Gate 17. AI Regulatory Sandbox Mexico 18. Bill of Rights of the Person in the Digital Environment 19. Artificial Intelligence Readiness Stage Assessment 20. Digital Transformation and Telecommunications Agency 21. Proposal for the National Agenda for Artificial Intelligence for Mexico 2024–2030

Source: own elaboration with data from the Observatory of AI Policies of the OECD (OECD.AI. 2025) and Garcia-Benitez and Ruvalcaba-Gómez (2021).

develop a comparative analysis of Spain and Mexico based on the differences and similarities that these countries have in the study of the strategic dimensions and OECD criteria of AI plans, strategies, and public policies. But it also aims to observe what have been the main elements that have shaped the public policies in terms of AI through the analysis of the strategies, plans, and actions defined in both countries.

4.1 | Analysis of the AI Public Policy in Spain

Spain stands as a notable member of the EU in AI research and development, closely aligning its vision for the future of AI and algorithms within government with the broader European approach (Criado et al. 2021). This strategic alignment is evident in Spain's key foundational documents and initiatives, starting with the Spanish Strategy for $R+D+I$ in AI, presented in March 2019. Subsequently, AI became a fundamental component of the Digital Spain 2025 Agenda, launched in July 2020, culminating in the National AI Strategy at the end of 2020, which emphasizes scientific excellence and innovation (Government of Spain 2020). The Secretariat of State for Digitalization and Artificial Intelligence emerged as a pivotal political body, spearheading AI promotion and regulation, underscoring Spain's commitment to developing and integrating AI within its digital and economic transformation, guided by references from EU strategic documents such as the Digital Agenda for Europe and the "AI for Europe" strategy (Criado 2021; Guevara-Gómez et al. 2021).

The practical application of AI in Spain's public sector is evident across various use cases, primarily designed to enhance public administration efficiency and citizen services. According to Ernst and Young (2020), three areas have generated significant impact: flexible digital processes, which improve user experience through segmentation and real-time routing; robust fraud detection systems that combine transaction history with multimodal data to identify fiscal fraud, public benefits fraud, and money laundering; and service personalization platforms that adapt to individual needs based on user data. While less widely adopted, other emerging applications include preventive protection, which identifies vulnerable citizens via holistic risk models and data cross-referencing between administrations, automated case management for administrative processing, and systems to improve accessibility for citizens with special needs through technologies like text or voice recognition (Ernst and Young 2020).

An updated national strategy that adapted in 2020 to the latest technological developments while maintaining its continuity was approved by the Council of Ministers in May 2024. The Spanish Agency for the Supervision of Artificial Intelligence, a trailblazing organization in Europe, is in charge of overseeing the development of ALIA, a foundational language model in Castilian Spanish and co-official languages, which intends to enable advanced services in language technologies. In order to guarantee that citizens benefit from technology, the strategy also encourages data center sustainability and the use of AI in public administration (Government of Spain 2024b; Marin 2024).

During its 2023 Presidency of the Council of the EU, Spain was instrumental in the passage of the EU AI Act in March 2024. This European regulation, which places restrictions on the use of biometric systems, creates a legal framework intended to guarantee responsible innovation and the defense of rights (Government of Spain 2024b). Spain's approach to the development of AI public policies is unique in that it emphasizes multisectoral cooperation, actively involving corporations, academic institutions, and social groups, with the public sector playing a major role. Public consultations and the establishment of coordination bodies that guarantee the involvement of various societal groups in defining important issues serve to reinforce this national strategy.

Spanish public policy on AI has developed into a strong and modern strategy that emphasizes technological innovation, ethical regulation, and social inclusion as a result of this alignment with European directives and a proactive approach. This has established Spain as a leader in the development and use of AI in Europe.

4.2 | Analysis of the AI Public Policy in Mexico

With its foundational work starting in 2017–2018, Mexico is a leader in Latin America for starting the process of developing a national AI strategy. Important documents started influencing the nation's AI public policies during this time, under Enrique Peña Nieto's administration (Mejía and Torres 2020; Zapata and Gomez-Mont 2020). Oxford Insights and C Minds collaborated to prepare the report "Towards an AI strategy in Mexico: Taking advantage of the AI Revolution," which was commissioned by the British Embassy in Mexico. For a national AI strategy, this document offered preliminary suggestions (Martinho-Truswell et al. 2018; OECD.AI 2023).

The "Mexican National Agenda for Artificial Intelligence," created by the IA2030Mx coalition, and the "Principles and Guide of Impact Analysis for the Development and Use of Systems Based on Artificial Intelligence in the Federal Public Administration" (CEDN 2018; OECD.AI 2023) also contributed to this framework, indicating Mexico's proactive approach to investigating, studying, and creating AI (Del Pozo et al. 2020; HAI 2021).

Diverse actors from different societal sectors have been involved in the development of Mexico's AI public policies. OECD-identified key governmental entities include the National Council of Science and Technology, which supports scientific research and technological modernization, and the Coordination of the National Digital Strategy, which is in charge of planning and monitoring; both are both part of the AI platform (2023). Beyond governmental entities, organizations like Oxford Insights, C Minds, and the British Embassy worked closely with 75 diverse actors, including federal and local public servants, private sector technology companies, academics, and civil associations, to create foundational documents like the "Towards an AI strategy in Mexico" report (Martinho-Truswell et al. 2018).

The Mexican National AI Agenda, which gathered contributions from more than 400 people and organizations—with C Minds leading the IA2030Mx Coalition—and important organizations

like the National Council of Science and Technology, the Federal Institute of Telecommunications, and the National Autonomous University of Mexico serve as further examples of this multistakeholder approach (Del Pozo et al. 2020). Mexico's AI framework was developed through a process of policy-making rather than a fully centralized or comprehensively consolidated national strategy, despite the country's proactive approach and extensive collaboration across government, industry, academia, and civil society.

The report "AI Panorama in Mexico: Towards a National Strategy and the Relevance of the Sandbox" was introduced in March 2024. This project examines the national and international landscape, with particular focus on the AI Regulatory Sandbox project, which was conducted in partnership with the Senate of the Republic's National Agency for Artificial Intelligence and under the sponsorship of the British Embassy in Mexico (la De Peña et al. 2024).

The National Alliance for Artificial Intelligence released a proposed national agenda for 2024–2030 on May 15, 2024. With an emphasis on innovation, human rights, and social responsibility, this document—which is the outcome of over a year of cooperative work between international organizations, independent bodies, civil society, and experts—proposes a regulatory framework for integrating AI into industry, education, cybersecurity, social inclusion, and other sectors (Pascua Vicente 2024). With a national agenda aimed at establishing Mexico as a leader in Latin America in the moral, responsible, and socially inclusive development of this technology, the nation has progressed from the early stages of strategy and diagnosis to an active process of AI regulation and governance.

4.3 | Comparative Analysis of Public Policies in Spain and Mexico

This section shows the comparative analysis of the public policies of AI in Spain and Mexico, based on the characteristics, differences, and similarities that these two countries have had in the process of shaping the public policy from two perspectives. The first part covers the comparative study of Spain and Mexico from the strategic dimensions that emerge from AI public policies, including: the objectives; the fundamental principles; the axes and/or actions; and the goals and/or vision of the strategies (Garcia-Benitez and Ruvalcaba-Gómez 2021). This analysis allows us to observe the axes and central points that countries consider in the creation of AI public policies, taking into account the economic, political, and social aspects of Spain and Mexico.

The second perspective for comparative analysis is the OECD AI Policy Observatory criteria for the AI public policies of Spain and Mexico. These include: policy instruments by category, which are divided into governance, financial support, AI enablers, and guidance and regulation; responsible organizations; and target sectors (OECD.AI 2023). This analysis allows us to observe the number and diversity of public policies that countries are implementing in terms of AI from different perspectives, as well as the tools and sectors on which countries focus. The results of the analysis of the documents are presented in Tables 3–5, which concentrate on the strategic dimensions and criteria of the OECD. This allows us to analyze the elements and thus identify the differences and similarities between both countries.

National AI strategies in Mexico and Spain, while sharing the ambition to leverage AI for development and well-being, present key differences in their objectives, principles, actions, and goals (see Table 3), reflecting their distinct starting points, regulatory frameworks, and socioeconomic priorities.

Spain benefits from an excellent initial position in supercomputing, with a long tradition of investments in this field, including the creation of the Barcelona Supercomputing Centre in 2004 and the Spanish Supercomputing Network in 2007. Its 2024 Artificial Intelligence Strategy aims to reinforce and accelerate a National Artificial Intelligence Strategy that was published in 2020 (Government of Spain 2024a). This suggests a strategy in a phase of consolidation and expansion. In Mexico's case, the Proposed National Artificial Intelligence Agenda for Mexico (2024–2030) indicates a planning and establishment phase. It is noted that its score in the Government AI Readiness Index has decreased since 2021 due to the lack of continuity in digital public policy, falling from position 55 to 68 in 2023. This highlights the need to establish a shared national vision and concrete strategies to maximize the benefits of AI (Casados et al. 2020; Lagunes et al. 2024).

Regarding principles and objectives, Spain aims to accelerate, facilitate, support, and promote the development and expansion of AI. It focuses on ensuring AI is transparent, ethical, responsible, and humanistic, respecting human rights, promoting technological security, social and economic inclusion, and complying with the European AI Act. It seeks to maximize social and economic well-being, guaranteeing inclusion, equity, and social justice (Government of Spain 2024a). For its part, Mexico's objective is to establish a framework that promotes AI as a driver for social, economic, and educational inclusion and development, scientific research, technological development, innovation, and ethical, responsible, and equitable entrepreneurship. It places a strong emphasis on the protection of human and environmental rights and seeks democratic and inclusive AI (Casados et al. 2020; Lagunes et al. 2024). Furthermore, it commits to addressing and mitigating social and environmental risks. Its approach is collaborative and multistakeholder.

In terms of strategic actions and priorities, Spain makes a determined strategic commitment to a foundational language model in Castilian Spanish and co-official languages: the ALIA model. Significant investment in supercomputing is planned, and it aims for the Barcelona Supercomputing Centre to be one of the first European AI Factories. Additionally, it seeks to open its supercomputing capacity to industry (Government of Spain 2024a). In Mexico's case, investment in the development of public digital infrastructure is promoted, including telecommunications networks and certified open-source software. While it seeks to safeguard the country's linguistic diversity by generating training data (Casados et al. 2020; Lagunes et al. 2024), a proprietary foundational language model is not mentioned with the same prominence or specific investment as ALIA.

TABLE 3 | Comparative analysis of the strategic dimensions of AI public policies in Spain and Mexico.

Comparative analysis		Mexico	Spain
Strategic dimensions	Objectives	• Seek to cement the development and use of AI as a tool to reduce inequality gaps, mitigating social and environmental risks	• Promoting scientific excellence and innovation in AI • Projection of the Spanish language • Creation of skilled employment • Transformation of the productive fabric • Building an AI Trusted Environment • Driving the debate on humanistic values in AI • Empowering inclusive and sustainable AI
	Principles	• Human rights • Equity and social welfare • Transparency • Responsibility and obligations	• Ethical, legal and social
	Axes/Actions	• Ethics • Research & Development • Data, Digital Infrastructure and Cybersecurity • Governance, Government and Public Services • Skills, Abilities and Education • Bringing Mexicans Abroad	• Promote scientific research, technological development and innovation in AI • Promote the development of digital skills, enhance national talent and attract global talent • Develop data platforms and technology infrastructures that support AI • Integrating AI into value chains to transform the economic fabric • Promoting the use of AI in public administration • Establish an ethical and regulatory framework that reinforces the protection of individual and collective rights, in order to guarantee inclusion and social well-being
	Vision/Goals	• Short Term: Review of the legal framework on data protection in order to promote greater access under ethical criteria and protection of privacy. • Mid Term: Review, update and implementation of the National Cybersecurity Strategy. • Long Term: Transition from an economy based on low-paid labor to a service economy based on data, information and knowledge.	• Increase the digital skills of the population • Accelerating the digitization of the fabric of small and medium-sized enterprises • Promote the creation of and access to data repositories • Improving the efficiency and productivity of public services • Stimulate collaboration and increase public and private investment in $R+D+i$

Source: Own elaboration with data from the Observatory of AI Policies of the OECD (OECD.AI. 2025) and Garcia-Benitez and Ruvalcaba-Gómez (2021).

The institutional structure of AI policies in Mexico and Spain differs significantly, as shown in Table 4. Mexico has fragmented governance, with efforts divided among the National Council of Science and Technology, the National Digital Strategy Coordination, and the National Alliance of Artificial Intelligence (Alianza Nacional de Inteligencia Artificial 2023). In contrast, Spain has a centralized structure under the Ministry of Economic Affairs and Digital Transformation and the State Secretariat for Digitalization and Artificial Intelligence (Government of Spain 2024a).

The digital economy, public governance, and innovation are the main focus of Spain's initiatives, which are connected to regulatory frameworks like the Strategy for Science, Technology, and Innovation, the National Plan for Digital Skills, the Spanish RDI Strategy in AI, and the Plan for the Digitalization of Public Administration (OECD.AI. 2025). On the other hand, Mexico lacks specific regulations despite making similar efforts to support innovation, public governance, and the digital economy. Instead, it relies on nonbinding guidelines like the Principles and Impact Analysis Guide for the Development and Use of Systems Based on Artificial Intelligence in the Federal Public Administration and Specific Guidelines for Compliance with the Principles and Rights that Govern the Protection of Personal Data in Artificial Intelligence Projects (OECD.AI. 2025).

This difference is explained by the policy instruments used. In Spain's case, financial support by the Recovery, Transformation, and Resilience Plan and the normative regulation is used. Mexico,

TABLE 4 | Comparative analysis of OECD criteria of AI public policies in Spain and Mexico.

Comparative analysis		Mexico	Spain
OECD criteria	Responsible organizations	• National Digital Strategy Office • National Digital Strategy Coordination • Subcommittee on Artificial Intelligence • National Council of Science and Technology • Government of Mexico • General Direction of Innovation, Services and Domestic Market • IA2030Mx • Senate of the Republic • National Institute of Transparency, Access to Information and Personal Data Protection • Mexican Secretariat of the Civil Service • The Ibero-American Data Protection Network • AI Regulatory Sandbox Mexico • National Alliance of Artificial Intelligence	• Ministry of Economic Affairs and Digital Transformation • Ministry of Science and Innovation • Royal Spanish Academy • Government of Spain • Ministry of Industry, Trade and Tourism • National Department of Traffic • State Secretariat for Digitalization and Artificial Intelligence • Spanish Data Protection Agency • Ministry of Culture and Sports • Ministry of Foreign Affairs, European Union and Cooperation • National Agency on Research • Government of La Rioja • The Spanish Ministry of Labor • General Secretariat for Digital Administration
	Target sectors for policy initiatives	• Competition: 2 initiatives • Corporate governance: 7 initiatives • Defense: 2 initiatives • Digital Economy: 16 initiatives • Economy: 5 initiatives • Education: 4 initiatives • Environment: 1 initiative • Health: 2 initiatives • Inclusive development: 5 initiatives • Innovation: 8 initiatives • Investment: 1 initiative • Public governance: 14 initiatives • Trade: 1 initiative • Transport: 1 initiative	• Agriculture: 3 initiatives • Corporate governance: 2 initiatives • Defense: 2 initiatives • Digital Economy: 10 initiatives • Economy: 1 initiative • Education: 7 initiatives • Environment: 5 initiatives • Health: 6 initiatives • Inclusive development: 8 initiatives • Innovation: 11 initiatives • Investment: 1 initiative • Public governance: 11 initiatives • Transport: 2 initiatives

Source: Own elaboration with data from the Observatory of AI Policies of the OECD (OECD.AI. 2025).

on the other hand, depends on facilitators through global partnerships such as the AI Regulatory Sandbox Mexico (OECD.AI. 2025). These results are consistent with research on AI-related capacities in public administrations (Mergel et al. 2023; Trajkovski 2024), indicating that Mexico could fortify its ecosystem by establishing a governing body with both budgetary and normative power.

A comparative analysis of AI public policies in Mexico and Spain, informed by OECD policy instruments, reveals notable differences in the breadth and depth of their approaches. While both countries have recognized the strategic importance of AI and implemented various initiatives, Spain exhibits a more established and diversified framework in governance, financial support, AI enablers, and regulation (OECD.AI 2025).

In terms of governance, Spain has 24 initiatives, including the National AI Strategy, the AI Advisory Council of Spain, and the Spanish Agency for the Supervision of AI (Artero Muñoz et al. 2023), providing a strong framework for coordination and monitoring, as well as a higher level of institutional maturity and commitment. Mexico, on the other hand, has 18 initiatives, including the National Alliance of Artificial Intelligence and the Mexican National AI Agenda. However, their implementation and consolidation still need to be strengthened (Martínez Pinto and González Zepeda 2024). In terms of AI enablers, Spain has 16 initiatives, including the National Plan for Digital Skills and Quantum Spain, while Mexico has just 9. This difference highlights Spain's greater investment in talent development and infrastructure.

Spain excels in guidance and regulation with 22 initiatives, such as Royal Decree-Law 9/2021 and the Digital Rights Charter, documents that propose provisions and norms regulating the use of AI. Mexico, with 13 initiatives, is limited to nonbinding documents like the Proposal for the National Agenda for Artificial Intelligence for Mexico 2024–2030 and the Artificial Intelligence Readiness Stage Assessment. Artificial intelligence regulation in the public sector is viewed as essential to promoting accountability, equity, and transparency as well as safeguarding public values (de Almeida et al. 2021; Chen et al. 2023). A solid governance framework is essential to managing AI in the public sector, according

TABLE 5 | Comparative analysis of OECD policy instruments of AI public policies in Spain and Mexico.

Comparative analysis	Mexico	Spain
OECD policy instruments	• Governance • 18 initiatives with national strategies, agendas and plans, Al coordination and/or monitoring bodies, public consultation of stakeholders or experts, and Al use in the public. • Financial support • 9 initiatives with institutional funding for public research, project grants for public research, grants for business R&D and innovation, centres of excellence grants, procurement programmes for R&D and innovation, fellowships and postgraduate loans and scholarships, loans and credits for innovation in firms, equity financing, and indirect financial support. • AI enablers • 9 initiatives with Al skills and education, labor market policies, public awareness campaigns and civil participation activities, data access and sharing, Al computing and research infrastructure, networking and collaborative platforms, knowledge transfers and business advisory services, and science and innovation challenges, prizes and awards. • Guidance and regulation • 13 initiatives with emerging Al-related regulation, regulatory oversight and ethical advice bodies, labor mobility regulation and incentives, and standards and certification for technology development and adoption.	• Governance • 24 initiatives with national strategies, agendas and plans, Al coordination and/or monitoring bodies, public consultation of stakeholders or experts, and Al use in the public. • Financial support • 14 initiatives with institutional funding for public research, project grants for public research, grants for business R&D and innovation, centres of excellence grants, procurement programmes for R&D and innovation, fellowships and postgraduate loans and scholarships, loans and credits for innovation in firms, equity financing, and indirect financial support. • AI enablers • 16 initiatives with Al skills and education, labor market policies, public awareness campaigns and civil participation activities, data access and sharing, Al computing and research infrastructure, networking and collaborative platforms, knowledge transfers and business advisory services, and science and innovation challenges, prizes and awards. • Guidance and regulation • 22 initiatives with emerging Al-related regulation, regulatory oversight and ethical advice bodies, labor mobility regulation and incentives, and standards and certification for technology development and adoption.

Source: Own elaboration with information from the Observatory of AI Policy of the OECD (OECD.AI. 2025).

to numerous studies conducted in the US, China, Finland, and other international contexts (Alshehhi et al. 2022; Chen et al. 2023).

5 | Discussion

This section explores how the research findings should be interpreted, placing them in the context of the body of knowledge already available on comparative public policy and AI governance. It makes the case for the importance of the differences and parallels between Mexico and Spain that have been noted, with implications for theory and practice in this developing area.

The study shows that Mexico and Spain have very different institutionalizations of AI policies. According to the study's findings, Mexico has not been able to bring together institutions and public policies that give priority to this issue, whereas Spain has done so with projects and institutions that have produced public policy outcomes. This discrepancy highlights the basic differences in political will and state capacity to prioritize AI strategically. This indicates an advanced stage of the public policy cycle, where implementation and evaluation are ongoing and goes beyond the initial policy formulation (Valle-Cruz et al. 2020).

It is interesting to note that both nations have a Napoleonic administrative tradition (Painter and Peters 2010; Peters 2021), which could theoretically imply similar policy paths based on a hierarchical and centralized approach. The observed discrepancy, however, calls into question the idea that institutional heritage alone dictates the course of policy. Rather, it implies that more powerful determinants of the pace and extent of implementing new policies, such as AI, are social, economic, political, and ethical factors.

A macro-level comparison of AI governance models shows that Mexico has a more fragmented model that relies on multistakeholder cooperation without clear governmental leadership, while Spain has embraced a more centralized and coordinated approach, which is primarily a result of its EU membership. Spain established the Secretariat of State for Digitalization and Artificial Intelligence, the first political organization devoted to advancing AI, and has mainly centralized AI management within important ministries. According to Aubin and Brans (2015), an important catalyst for Spain is the country's accession to the multilevel governance structure of the EU.

On the other hand, Mexico's AI governance is said to be dispersed, involving several agencies, and undergoing a phase of consolidation. Since the current government has shown no clear interest in a tangible AI policy, development has been spearheaded by outside groups like Oxford Insights and C Minds as well as citizen coalitions like IA2030Mx. According to Oxford Insights (2023), in Mexico, internal fragmentation and the lack of a comparable regional anchor hinder its progress and increase its vulnerability to public policy discontinuity.

Meso-level results show how governmental organizations' ability to integrate AI and revolutionize public service delivery is directly impacted by the institutionalization and governance approach of AI. AI use cases in public administration have been implemented in Spain in areas like fraud detection, service personalization, and digital process improvement (Ernst and Young 2020). The meso-level analytical framework explores how AI is being incorporated into public services and government organizations, emphasizing changes in organizational strategies, collaborative policymaking, and service delivery (Criado et al. 2024; Mergel et al. 2023).

Spain is better able to use AI to drive organizational transformation because of its more developed institutions. According to Wirtz and Müller (2019), Spain has many use cases; this enables a deeper and wider adoption of AI-based solutions to enhance service delivery's effectiveness, quality, and innovation. On the other hand, Mexico's fragmentation and lack of strong institutional support restrict each agency's ability to apply AI logically and scalable, which may lead to dispersed efforts and a slower pace of change (Ruvalcaba-Gómez and García-Benítez 2023).

A more thorough examination shows that particular challenges that affect the results of AI public policies are present in both Spain and Mexico. The problems in Mexico are complex. A decline in its regional AI readiness has resulted from the political lack of consolidation of a coherent national AI strategy, which is characterized by dispersed efforts and a high susceptibility to changes in governmental priorities (Fuentes-Nettel 2024). Economically, Mexico faces a lack of skilled workers, a persistent digital divide that restricts the equitable adoption of technologies, especially in rural and indigenous areas, and low overall research and development investment (UNESCO 2025; Otero 2025).

In terms of society, the lack of clear regulation creates ethical and security issues that impede trust and broad adoption, as well as legal uncertainty about, for example, the intellectual property of AI creations (Millan-Vargas et al. 2024; Ruvalcaba-Gomez and Garcia-Benitez 2025). These challenges lead to aspirational policies that don't always translate into large-scale initiatives, which hinder the consolidation of effective AI governance and the attainment of measurable outcomes in the public sector.

Even though AI policy advancements in Spain have been more noticeable, implementation issues still exist. While adapting to the EU regulatory framework (like the AI Act) comes with its own bureaucratic and transpositional challenges, the political complexity of multilevel governance with autonomous communities can impede the uniform adoption of AI policies (European Commission 2021; Doménech 2025). Economically, AI adoption is still uneven, with a large gap between large companies and SMEs, and there is a constant need to attract and retain qualified AI talent, even with public investment and European funds (Criado and de Zarate-Alcarazo 2022; Doménech 2025).

Socially, ethical issues are crucial, including the possibility of algorithmic discrimination because of data quality and system opacity (Criado et al. 2021; Criado and de Zarate-Alcarazo 2022).

Even though Spain is actively working on ethical and oversight frameworks through agencies like the Spanish Agency for the Supervision of Artificial Intelligence, these issues have an impact on actual outcomes by causing bottlenecks in the adoption of AI within public administration, impeding the full integration of these technologies into citizen services, and posing questions about equity and accountability (Sobrino-García 2021; Fernández 2025).

6 | Conclusions

The study offers multilevel AI governance frameworks' empirical validation. The research provides tangible proof of how these levels interact to influence national AI policy trajectories by specifically applying the macro, meso, and micro analytical framework to the comparative analysis of Spain and Mexico (Criado et al. 2024). Strong meso-level policy enactment and a more human-centered approach at the micro level are directly facilitated by Spain's consolidated macro-level governance, which is motivated by political will and EU alignment. On the other hand, Mexico's fragmented meso level and emerging macro level account for the difficulties in attaining full AI integration. Strong macro-level underpinnings are essential for efficient AI governance at all levels, as this illustrates the usefulness of the multilevel governance framework for comprehending AI policy development in various administrative contexts.

The analysis emphasizes how regional integration has varying effects on national AI policy institutionalization. The study shows that Spain's incorporation into the EU's governance framework, which offers resources and an existing ethical and regulatory framework, greatly supports the maturity of the country's AI policy. Despite having started its own initiatives, Mexico does not have a similar regional anchor, which results in a more disjointed and inexperienced policy environment. By showing how geopolitical and regional alignments function as potent exogenous variables that significantly impact the pace, extent, and institutionalization of national AI policies, this finding advances comparative public policy. It emphasizes how external frameworks can either speed up or limit a country's ability to establish comprehensive AI governance, even though internal factors like political will are essential.

The findings of this research acknowledge the inherent complexity of policy formulation and provide policymakers in Spain and Mexico with a number of practical conclusions. For emerging AI ecosystems, macro-level institutional strengthening must be given top priority. A disjointed governance structure and a lack of clear government interest are the main causes of Mexico's difficulties in integrating AI policy. Spain, on the other hand, has specialized agencies and organizations, as well as extensive strategies and projects. Mexico and other nations in the early phases of developing AI policies must set up centralized, well-resourced governmental leadership in addition to transparent coordination procedures. To move past disjointed initiatives and toward a unified national strategy, this macro-level establishment is necessary.

Using regional and global frameworks for ethical and regulatory guidance is advised. Spain's adherence to the EU offers a strong ethical and legal framework for AI, promoting responsible development and public confidence. This stands in contrast to the difficulties encountered by nations lacking a powerful regional anchor, such as Mexico, and Chile's worries about the strictness of its regulations. In order to inform their national strategies, policymakers should actively engage with and modify regional frameworks and international best practices. Instead of depending only on bilateral influences, Mexico may need to work more closely with other Latin American countries to create a common regional strategy for AI governance.

For a contextualized interpretation of the results, it is crucial to recognize the study's inherent limitations despite its contributions. The analysis of policy documents and stated intent is the study's main source of support. Even though these represent declared goals and intentions, they might not adequately convey the difficulties of putting policies into practice or their practical effects. Empirical studies on implementation difficulties, the success of particular programs, and the real results and effects on public services, citizens, and the economy would be required for a more thorough understanding.

The comparative analysis's scope is constrained. Spain and Mexico are the study's primary subjects because of their similar administrative histories and regional influences. Although this offers a strong foundation for comparison, it restricts the findings' applicability in other situations. Even though the comparison of these two nations provides insightful information, the findings might not apply directly to nations with very different political structures, administrative practices, or socioeconomic circumstances.

The study's limitations and conclusions provide a number of targeted and useful directions for further scholarly investigation. Longitudinal research on the development and modification of AI regulations is recommended. A longitudinal approach is essential because AI policy is dynamic. This would make it possible to monitor how laws change in response to new developments in technology (like generative AI), moral dilemmas, and policy priorities. Process tracing might be an appropriate methodology to track particular policy issues over time, looking at how governance structures and policy tools change. This might entail adding new policy documents to the data from the OECD AI Policy Observatory and periodically reevaluating it.

An empirical assessment of the application and effects of AI policies is essential. It is crucial to observe policy practice rather than just its intent. The significance of actual impacts on organizations and citizens is emphasized by the meso and micro levels of analysis. Using a combination of approaches, case studies of particular AI initiatives in the public sectors of both nations could be carried out. This could involve quantitative analysis of performance indicators, surveys of citizens using AI services, and qualitative interviews with project managers and public officials. The impact of AI on public trust, service delivery models, and decision-making should be the main focus.

Author Contributions

All authors contributed jointly to this article and take joint responsibility for its contents.

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Conflicts of Interest

The authors declare no conflicts of interest.

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