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INTEGRATION OF ARTIFICIAL INTELLIGENCE (AI) IN PHILIPPINE PUBLIC ADMINISTRATION: LEGAL AND REGULATORY FRAMEWORKS, CHALLENGES, AND STRATEGIES

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Keywords	Abstract
Artificial Intelligence, Philippine Public Administration, Legal and Regulatory Frameworks	Although the use of AI in public administration has the potential to completely transform public service delivery and governance, it also presents challenges, particularly in the legal and regulatory landscape. The integration of artificial intelligence (AI) in Philippine public administration is systematically reviewed in this study, with an emphasis on the legal and regulatory frameworks, associated challenges, and potential strategies for addressing these challenges. The study synthesized pertinent literature from a variety of sources, including the Journal of Public Affairs and Development and the Journal of Social Sciences, using a systematic review methodology. The results showed that the use of artificial intelligence (AI) in Philippine public administration puts conventional legal frameworks to the test, calling for the creation of AI rules as well as ethical considerations. Hence, this paper emphasized how critical it is to devise strategies to deal with these challenges to fully utilize artificial intelligence (AI) in Philippine public administration.

1. Introduction

The use of Artificial Intelligence (AI) into Philippine public administration is a significant development that has the capacity to transform public service delivery and governance (Alampay, 2020). But there are challenges with this integration, especially in terms of the legal and regulatory



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environment. AI presents a multitude of difficulties that require careful attention as it continues to permeate numerous industries, including public administration (Department of Trade and Industry Philippines, 2021). Hence, this paper generally aimed to provide a systematic review on the integration of artificial intelligence (AI) in Philippine public administration. Specifically, this paper aimed to determine the legal and regulatory frameworks on the use of artificial intelligence (AI) in Philippine Public Administration, the challenges associated with the use of artificial intelligence (AI) in Philippine Public Administration, and the strategies to address the challenges thereof.

2. Literature Review

2.1 Artificial Intelligence (AI)

The goal of the quickly developing field of artificial intelligence (AI) is to build intelligent computers that are able to carry out tasks that normally require human intelligence. This includes a number of subfields, including robotics, computer vision, machine learning, and natural language processing. Fundamentally, artificial intelligence (AI) aims to create algorithms and systems that can analyze data, spot patterns, and make decisions—in other words, to emulate cognitive processes in humans. Artificial intelligence (AI) has the power to transform entire sectors, increase productivity, and advance human potential. It enables companies and groups to acquire insights from data, automate processes, and provide customers with individualized experiences (**TechTarget, 2024**). AI has a huge impact on several industries, including healthcare, banking, transportation, entertainment, and more. AI is used in healthcare for drug development, individualized therapy suggestions, and medical imaging analysis. AI is used in finance to enable algorithmic trading, risk assessment, and fraud detection systems. Artificial intelligence's impact on daily life and transportation is demonstrated by the way it has been incorporated into virtual assistants, autonomous cars, and smart home appliances. But the ethical ramifications of AI, such as privacy issues, prejudice in judgment, and the possibility of job displacement, highlight the necessity of developing and implementing AI technology responsibly. Discussions regarding ethics, regulation, and the influence AI will have on society will always be important as AI develops since they will determine how this revolutionary field develops (**IBM, 2024**).

2.2 Philippine Public Administration

The development of humankind's organizational skills and ability to govern society through laws and regulations is known as public administration. It forces communities to work toward a shared, public-focused objective (**Brillantes and Fernandez, 2008**). International recognition and high interest in public administration studies are shown by academic specialists and national governments. In order for the institutionalized body to effectively examine and comprehend techniques for controlling its constituents, this subject of study is given tremendous relevance and attention (**Gaylord, 2014**). During pre- and post-colonial relations, the Philippines acquired political systems and administrative concepts from the United States (**Hutchcroft, 2000**). **Cruz (2011)** said that "The nation's administrative practices and bureaucratic culture are a blend of indigenous social forces, implanted norms, and colonial legacies," which is consistent with this statement.

This In the 1950s, public administration in the Philippines was formally established as a field of study. It demonstrated the distinctive manner in which Filipinos administer, coordinate, and plan public service (**Sajo, 1993**). In the same way that public administration exists in America, France, and



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Thailand, Raul de Guzman underlined that there is a public administration in the Philippines. However, it should be noted that prior contextualization in the Philippine setting is necessary for the term to be appropriated (**Gaylord, 2014**). The American founding of the Institute of Public Administration at the University of the Philippines in 1952 is credited with bolstering the field of study of public administration in the Philippines (**Brillantes and Fernandez, 2008**). Sajo (1993) claims that it is an area of study as well as a bureaucracy of the government that is influenced by three important institutions: politics, education, and the government. The technological elements, the question of indigenization, the role of the people, and the dilemma of democracy and accountability all have an impact on it.

Administrative structures, institutional processes, and a system that directs these activities are what make the existence of the Philippine public administration possible (Brillantes and Fernandez, 2008).

3. Methodology

Generally, this paper aimed to study the integration of artificial intelligence (AI) in Philippine public administration. Specifically, this paper aimed to determine the legal and regulatory frameworks on the use of artificial intelligence (AI) in Philippine Public Administration, the challenges associated with the use of artificial intelligence (AI) in Philippine Public Administration, and the strategies to address these challenges. To achieve this aim, this paper utilized a systematic review to synthesize pertinent literatures. Existing literature from various journals including the *Journal of Social Sciences*, and *Journal of Public Affairs and Development*, and other articles were collected, interpreted, and analyzed.

4. Results And Discussion

This chapter provides the answers to the problems identified in the study. A thorough discussion covers the presentation, analysis and interpretation of all the data gathered by the researcher in order to elucidate the answer sought in the inquiries of this study.

4.1 Legal and regulatory frameworks on the use of artificial intelligence (AI) in Philippine Public Administration.

Traditional legal frameworks around the world, including those in the Philippines, are being challenged by the integration of artificial intelligence (AI) into a variety of sectors. Regulations, ethical issues, and the influence on legal practice are all necessary due to the legal ramifications of AI in public administration. The Philippines is gradually using AI in a number of areas, which is making the necessity for particular AI legislation more widely acknowledged. Concerns about data privacy, intellectual property rights, and liability in AI operations are a few possible legal obstacles (Respicio, 2024).

The National Artificial Intelligence Roadmap was introduced by the Philippine government in 2021 with the aim of making the country an AI hub for the ASEAN region. This project, which reflects the government's commitment to embrace technology and artificial intelligence (AI), lays out strategic priorities and duties for the government, industry, and academia. In addition, the Philippine government established the Philippine Startup Development Program under the Philippine Innovative Startup Act (R.A. 11337) that same year, offering advantages and incentives to entrepreneurs and those who support them (U.S. Department of Commerce, 2023).



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House Bill No. 7396, "An Act Promoting the Development and Regulation of Artificial Intelligence in the Philippines," aims to provide a thorough framework for the development and regulation of AI in the nation in order to handle potential dangers and problems. In order to guarantee that AI systems are created, implemented, and used in a way that upholds moral standards and protects human rights, the law seeks to both advance and control the application of AI technologies (Comparison: Artificial Intelligence, 2024).

The Philippine context involves taking into account the current and evolving worldwide legal and regulatory landscape of artificial intelligence. In order to address the particular difficulties, the Philippines has enforcing AI regulations, this analysis seeks to provide customized frameworks and regulatory approaches (Dayrit, M., Nalagon, G. B., Pajo, D. G., Pineda, J. G., Rivera, J. A., & Osorio, C. P. T. (2023).

In conclusion, in order to handle the opportunities and challenges brought about by AI integration, the legal and regulatory frameworks pertaining to the use of AI in Philippine public administration are progressively changing. The National Artificial Intelligence Roadmap and the Philippine Innovative Startup Act, among other government measures, demonstrate the government's dedication to embracing AI and creating a supportive regulatory framework for its advancement and implementation. Furthermore, legislative initiatives like House Bill No. 7396 show a proactive strategy for encouraging the Philippines to use AI ethically and responsibly.

4.2 Challenges associated with the use of artificial intelligence (AI) in Philippine Public Administration.

In order for artificial intelligence (AI) to be implemented effectively in Philippine public administration, a number of issues must be resolved. Among these difficulties are:

1. **Legal and Ethical Considerations:** There are ethical and legal issues with the development and application of AI in public administration. To ensure compliance with current laws and ethical standards, the legal implications of artificial intelligence in public administration—particularly in the context of smart cities—need to be carefully considered (The Challenges of Artificial Intelligence in Public Administration in the Framework of Smart Cities: Reflections and Legal Issues, 2024).
2. **Limited Awareness and Understanding:** Educators, students, and administrators in the education sector do not have a sufficient understanding of artificial intelligence. This makes it more difficult for AI technology to be successfully incorporated into the educational system (MMCA Alumni, 2024).
3. **Privacy Concerns:** Because AI and machine learning are used in e-governance systems to collect and analyze citizen data, there are privacy concerns with these technologies. One major difficulty is ensuring personal privacy while using AI for public services (EACOMM Corporation, 2023).
4. **Acceptability and Adoption:** According to a Municipality of Carmona study, perceived acceptability and adoption of AI in local governments pose issues that must be resolved to guarantee successful deployment (Journal of Public Affairs and Development, 2023).
5. **Resource constraints:** The problem of scarce resources makes it difficult to apply AI successfully in a number of industries, including healthcare, agriculture, and education. Resolving resource constraints is essential to the effective application of AI technologies. These challenges highlight the complexities



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associated with the use of AI in Philippine public administration and the need for comprehensive strategies to address legal, ethical, and practical considerations (MMCA Alumni, 2024).

In summary, the difficulties posed by the application of AI in Philippine public administration include issues related to privacy, legal and ethical issues, a lack of knowledge and comprehension, acceptance and adoption obstacles, and resource constraints. The effective integration of AI technologies in public administration requires addressing these issues.

4.3 Strategies adopting the existing legal and regulatory frameworks to address the challenges associated with the use of artificial intelligence (AI) in Philippine Public Administration

The following approaches to adopting and modifying the current legal and regulatory frameworks can be used to solve the issues related to the application of AI in Philippine Public Administration:

1. **Particular AI rules:** To address the particular difficulties presented by AI in public administration, the Philippines may choose to adopt particular AI rules. This could entail establishing legal frameworks that control the advancement, use, and use of AI technology in a way that upholds moral standards, human rights, and the general welfare (Comparison: Artificial Intelligence, 2024).
2. **Data Privacy and Intellectual Property Rights:** The current legal and regulatory frameworks can be modified to include rules that expressly address these issues in the context of AI technology, given the growing concerns about data privacy and intellectual property rights. To guarantee the protection of data and intellectual property in AI activities, this may need making changes to current laws or establishing new regulations (Respicio, 2024).
3. **Implementing the National AI Roadmap:** The National Artificial Intelligence Roadmap of the Philippine government can act as a framework for adopting AI rules in public administration. The roadmap's strategic aims can guide the creation of frameworks and legislative strategies that are specifically designed to address the particular difficulties that public administration has in incorporating AI technologies (U.S. Department of Commerce, 2023).
4. **Working Together with Industry and Academics:** As the National AI Roadmap states, working together with industry and academics can help establish regulatory strategies that take into consideration the knowledge and viewpoints of different stakeholders. The regulatory frameworks can be made thorough and informed with the help of this cooperative approach (Department of Trade and Industry Philippines, 2021).

In conclusion, developing specific AI regulations, addressing data privacy and intellectual property rights, putting the National AI Roadmap into practice, and encouraging cooperation with business and academia are all part of the adoption of current legal and regulatory frameworks to address the issues related to the use of AI in Philippine public administration

5. Implication And Recommendation

5.1 Implication

The Philippines is following the global trend of integrating artificial intelligence (AI) into a variety of fields, including public administration. The legal and regulatory structures of the nation are changing to keep up with this technological progress. With programs like the Philippine Innovative Startup Act and the



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National Artificial Intelligence Roadmap, the Philippine government has demonstrated its dedication to this cause. House Bill No. 7396's continuous evolution is another example of the government's proactive attitude to tackling the possible threats and difficulties related to artificial intelligence. However, given the legal ramifications of AI for public administration, concerns about data privacy, intellectual property rights, and liability in AI operations must be carefully considered. The Philippine context is considering the current and developing worldwide legal and regulatory landscape surrounding artificial intelligence (AI), with the goal of proposing customized regulatory approaches and frameworks to solve the particular issues the Philippines confronts in adopting AI legislation.

5.2 Recommendation

The Philippine government should keep an eye on international trends and advancements in AI regulation, given the dynamic nature of AI and its ramifications. By doing this, the nation's legal and regulatory structures will be better able to manage the benefits and hazards brought about by artificial intelligence. Moreover, cultivating a collaborative culture between the government, industry, and academics is vital. Initiatives such as the National Artificial Intelligence Roadmap, which delineates the strategic aims and responsibilities for these sectors, can help achieve this. This kind of cooperation will make it easier to exchange best practices and expertise, which will ultimately help public administration employ AI responsibly and profitably. Finally, when creating AI rules, it is advised that the government keep up public discussions and consultations. This will make it possible to guarantee that the regulations take into account the interests of all parties involved and are thorough and equitable.

6. Author(s) Contribution

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7. Conflicts of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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