NEW PUBLIC MANAGEMENT: THE USE OF AI IN DEPARTMENT OF CORRECTIONS, THAILAND

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ABSTRACT
The aim of this study was to investigate the strategic application of laws and artificial intelligence by the Thai government in tackling the issues related to kakistocracy and the marketing of governmental power. The research utilized documentary analysis techniques. Findings indicated that Thai legislation played a crucial role in alleviating the negative effects of kakistocracy and governmental power marketing by establishing a robust legal framework that promoted data protection, transparency, and accountability. Moreover, it regulated media, protected intellectual property, and addressed cybercrime and financial integrity. Following this, the Thai government could have used AI and legal rules to reduce the dangers of corrupt government and abuse of power by protecting personal data, increasing transparency, fighting misinformation, and improving governance with data-driven choices. Nevertheless, AI and Thai laws significantly hinder the effectiveness of governance.
Keywords: New Public Management, AI, Department of Corrections, Thailand

INTRODUCTION

The significance of integrating artificial intelligence into Thailand's Department of Corrections (DoC) is underscored by the substantial difficulties it faces, such as severe overcrowding, health crises, and high rates of reoffending. Currently, Thailand's prison population ranks as the sixth largest globally, with each inmate provided merely 1.6 square meters of space, falling short of the recommended minimum of 2.25 square meters. The overcrowding increases the spread of diseases, with 40% of prisoners needing constant medical care. AI technologies like predictive analytics can improve the handling of prisoner information, allowing for the early detection of possible health and security risks. For example, predictive models powered by AI could enhance facility allocation and optimize staff deployment using real-time data. Furthermore, AI-enabled telemedicine could provide inmates with timely medical consultations, eliminating the need for hazardous and expensive transportation.

Furthermore, AI has the potential to significantly address the issue of high recidivism rates and the low educational achievements of inmates. Over 66% of prisoners in Thailand do not possess basic education, which limits their chances for rehabilitation. AI has the ability to offer customized educational courses that match the distinct learning styles and requirements of each person. For example, AI could create tailored learning paths for prisoners to enhance their literacy or job skills, helping them reintegrate into society. Furthermore, the application of artificial intelligence in rehabilitation efforts can assess the behavioral and psychological needs of individuals, resulting in more targeted interventions that may reduce recidivism rates. By implementing these AI solutions, the DoC can align with the principles of New Public Management (NPM), thereby enhancing public safety, transparency, and overall effectiveness, which ultimately benefits both the community and incarcerated individuals (particularly thanks to Forrest, 2021; Ladner, Soguel, Emery, Weerts, & Nahrath, 2019; Peters, 2001; Pollitt, 1993; Strategic and Planning Division, Department of Corrections [Thailand], 2023). Consequently, this study seeks to: 1) explore the use of AI by the DoC in its public services; and 2) analyze the challenges faced by the DoC in integrating AI.

LITERATURE REVIEWS

New Public Management

New Public Management (NPM) referred to a management approach that incorporated business strategies from the private sector into public administration. Its primary objective was to enhance the efficiency, cost-effectiveness, and accountability of governmental processes by implementing competitive, market-oriented principles. In response to the fiscal pressures of the 1970s, NPM emerged in the 1980s as a strategic solution for governments seeking to deliver services at a lower cost. The strategy used deregulation, liberalization, privatization, and legalization to bring competitive and businesslike practices into government operations. For example, privatizing services was meant to lower costs and improve service quality by allowing private businesses to compete with public providers in industries like waste management and telecommunications. In NPM, management strategies such as results-based management, quality management, reengineering, and restructuring were also implemented to set measurable goals and enhance service quality. For example, public hospitals could have enhanced healthcare by gathering and responding to patient feedback using quality management techniques. Moreover, NPM clearly demonstrated how to strike a balance between innovation and public oversight to enhance service delivery by using cutting-edge technologies like artificial intelligence (AI) to analyze court case histories, which streamlined and expedited legal procedures. In addition, NPM operated in a unique environment described by the term "kakistoscryptocracy," where control and decision-making could be obscured, posing challenges for transparency and accountability. This environment created a nuanced dynamic between governmental oversight and market-driven forces, necessitating a delicate balance that

merged private sector operational efficiency with robust public sector accountability mechanisms. In order to explain more comprehensively, Swiss criminal justice was used as a good example. In Switzerland, NPM strategies aimed at improving efficiency and reducing delays in the justice system. One method included employing case management systems to track and optimize workflows. These systems helped prioritize cases, resulting in a reduction of backlogs and quicker resolutions. Increasing the number of monthly case resolutions and cutting down on case processing times were among the performance objectives. Moreover, NPM strongly encouraged collaborations between private companies and public justice organizations. By assigning certain responsibilities, like court management, IT allowed public administrators to focus on crucial casework. The goal was to create an open and effective public administration system in Swiss cantons that would ensure prompt and equitable justice (Drucker, 1969; Gohwong, 2023; Hildreth et al., 2021; Ladner et al., 2019; Peters, 2001; Pollitt, 1993).

The Correctional Administration Policy for the Fiscal Year 2024

The DoC's Correctional Administration Policy for the Fiscal Year 2024 outlined major reforms to advance Thailand's correctional system through an eight-point agenda. The policy's main objective was to rehabilitate offenders and support their reintegration as contributing members of society. Key initiatives included expanding royal-sponsored projects, bolstering prison security, and aligning with global standards for prisoner treatment, such as the Bangkok and Mandela Rules. The policy sought to enhance prisoner welfare by improving healthcare, mental health support, educational programs, and vocational training to prepare individuals for employment.

Root causes like overcrowding, poor facilities, and low staff-to-prisoner ratios were also addressed by the policy. For example, the current guard-to-inmate ratio was 1:23, while the international norm was 1:5. In the same way, cramped sleeping quarters provided only 1.6 square meters per prisoner, below the 2.25-square-meter global standard. The proposal suggested using technology, such as AI, to enhance the categorization, evaluation, and control of prisoners, aiming to enhance security and rehabilitation endeavors. The DoC comprehensively integrated AI technology into its public services to improve different aspects in its 2024 policy. The main purpose of AI was to enhance the efficiency and precision of inmate control by automating the sorting of prisoners based on their conduct, risk elements, and need for rehabilitation. For example, AI could accurately analyze data on an inmate's background, conduct, and psychological profile to identify appropriate rehabilitation programs or monitor risk levels. This reduced the workload on prison staff and improved decision-making by reducing human error or bias. In addition, AI was employed to oversee prison operations, including the prevention of the illicit importation of prohibited items and the assessment of overall prison safety.

Moreover, AI was instrumental in assisting rehabilitation programs and tracking individuals post-release. The DoC made extensive use of artificial intelligence to monitor inmates' advancement in rehabilitation programs, helping staff to pinpoint individuals ready for reentry into society. After being released, AI could help track ex-inmates by providing details on how they were adjusting to life outside prison, such as securing jobs or utilizing local services. This technology assisted the DoC in lowering recidivism rates by providing continued support to ex-inmates, as well as aiding staff in resource management. AI systems could rapidly analyze vast quantities of data, allowing employees to dedicate their time to important responsibilities such as security and counseling. The purpose of utilizing AI was to enhance safety in prisons and facilitate the successful reentry of ex-convicts into the community (Strategic and Planning Division, Department of Corrections, Ministry of Justice, Thailand, 2023).

Artificial Intelligence in Execution

Artificial Intelligence (AI) referred to the creation of computer systems that could perform tasks requiring human-like intelligence, such as understanding language, analyzing images, learning from data, and making decisions. In high-stakes roles such as an "executioner," where decisions could result in life-or-death outcomes, AI offered various machine learning (ML) techniques to improve the precision of these judgments. Supervised Learning (SL), a type of ML, trained AI using labeled examples, enabling it to recognize specific patterns; for instance, it could have analyzed criminal behavior patterns to predict likely offenders in law enforcement. Unsupervised Learning (UL) could have identified hidden patterns without labels, such as uncovering connections between unsolved cases or spotting unreported criminal activities. Semi-Supervised Learning (SSL) proved advantageous in scenarios characterized by scarce data, and it could have been utilized in early-warning systems for crime detection by integrating minimal labeled data with extensive collections of unlabeled data. Reinforcement Learning (RL) enabled artificial intelligence to gather knowledge through interactions, enhancing its proficiency progressively with each decision taken. Within the legal domain, RL could have assisted AI in refining sentencing or punishment determinations by examining historical cases, thereby fostering more effective and equitable critical decision-making processes.

In addition, Deep Learning (DL), a more advanced form of AI, used artificial neural networks to interpret large datasets, making it valuable for complex tasks. For example, the Computer Vision (CV) component of deep learning enabled AI to interpret images and videos. By analyzing surveillance footage, this development could aid in confirming identities and tracking unlawful activities. At the same time, Natural Language Processing (NLP) allowed AI to comprehend and interpret human language, making it useful for tasks such as detecting inconsistencies in witness statements or reviewing legal documents. These tools collectively allowed AI in execution-related roles to assess vast amounts of data quickly, reducing the chance of human error and providing data-driven insights. However, AI's limitations in such high-impact roles included potential biases from the data it learned from, a lack of empathy in judgment, and challenges in interpreting nuanced social cues. Ensuring transparency and ethical guidelines for AI's role in execution-related jobs was crucial for responsible use. Balancing the potential strengths of AI with its limitations in such sensitive roles required strict oversight to maintain ethical standards and ensure fair, accurate, and responsible decision-making (Banafa, 2024; Forrest, 2021; Hemachandran & Rodriguez, 2024; Lucci et al., 2022; Shirkin, 2020).

Authority of Max Weber

In his seminal work, Economy and Society (originally titled Wirtschaft und Gesellschaft), Max Weber emphasized the importance of power analysis in his sociological research. According to his theory, people accepted authority as a legitimate form of power. This perspective contested the idea that compliance could be achieved solely through coercion, devoid of genuine consent or legitimacy from those affected. By acting as a dynamic bridge between those in positions of power and those who agreed with or supported them, authority brought stability to communities and organizations. Weber identified three primary types of authority: traditional, charismatic, and rational-legal. Traditional authority was based on long-standing traditions and conventions in monarchies where power was inherited. Charismatic authority arose from the personal attributes and magnetism of an individual, engendering loyalty and obedience; notable examples included revolutionary leaders and religious figures. Rational-legal authority was based on codified laws and procedures, characteristic of contemporary bureaucracies and legal frameworks, where roles were delineated by regulations rather than individual characteristics. This latter form was particularly significant in public administration, as it promoted predictability and efficiency, which were vital for public service agents

operating within defined rules to achieve organizational objectives. Weber's analysis underscored the advantages of rational-legal authority in the provision of public services, especially its capacity to ensure impartiality and consistency. Nonetheless, it also presented certain drawbacks, such as bureaucratic inflexibility, which could hinder adaptability and responsiveness. This framework enabled public service agents to function as representatives of their organizations, making decisions based on established policies rather than personal inclinations, thereby facilitating equitable service delivery, albeit potentially complicating swift responses to unique circumstances (Weber, 2019).

Moral dimensions of the information age

According to Laudon et al. (2024), contemporary information systems and the internet presented distinct ethical challenges across five fundamental moral dimensions of the information age: Information Rights and Obligations, Property Rights and Obligations, System Quality, Accountability and Control, and Quality of Life. Every element highlighted the benefits of IT as well as the potential risks. One example was Information Rights and Obligations, focusing greatly on the importance of personal privacy and the duty of organizations to protect it. Businesses were able to personalize advertisements on social media platforms by utilizing data mining and monitoring techniques. While these enhancements driven by data improved user experiences, they also introduced privacy risks if data was utilized or shared without explicit consent. In the same way, Property Rights and Obligations focused on safeguarding intellectual property, a task made difficult by the ease of copying and sharing in a digital setting. Although copyright laws were designed to protect creators, their enforcement in the online realm remained both costly and complex. System Quality highlighted the necessity for dependable and secure systems. High-quality systems fostered user trust, as evidenced by secure banking applications and reliable cloud services; however, maintaining such systems could be both expensive and intricate, with the potential for occasional errors. Accountability and Control emphasized the need for responsibility when technology inflicted harm. For example, the posting of harmful or offensive content on social media raised questions regarding the platform's accountability, prompting companies to adopt ethical practices. Lastly, Quality of Life examined how technology affected work-life balance and mental health. The rise of remote work technologies boosted workplace flexibility and accessibility, but also brought potential challenges that may have impacted personal boundaries and mental well-being. Therefore, it was important to create a sophisticated method that weighed technological advancement against ethical concerns to guarantee ethical and fair integration of information systems in society (Laudon et al., 2024).

RESEARCH METHODOLOGY

This study extensively utilized in-depth documentary analysis. The data were elaborately collected from diverse and up-to-date sources, encompassing books, peer-reviewed publications, and credible online resources.

RESEARCH RESULTS

AI enhanced the principles of NPM by enabling governments to be more agile, responsive, and efficient. It supported the NPM goals of improving public service delivery through technology and data-driven management, which ultimately led to better governance and public trust. AI played a vital role in improving inmate management and facility operations within the DoC, especially with the implementation of the 2024 policy. Supervised Learning algorithms identified high-risk prisoners by analyzing past offenses, education levels, and social factors, which aided in creating personalized rehabilitation plans. For example, when data showed that inmates with lower education levels were more likely to reoffend, targeted educational programs were developed. Conversely, effectively hidden patterns in inmate data were revealed

through Unsupervised Learning without labels, enabling the categorization of inmates according to their behavior, health, or rehabilitation needs. These insights could have facilitated the development of tailored therapeutic interventions and individualized treatment strategies. Through the integration of limited annotated data samples, particularly documented cases of successful rehabilitation, with comprehensive datasets, Semi-Supervised Learning methodologies could have improved predictive accuracy in matching inmates with the most appropriate rehabilitation programs. By merging limited quantities of categorized information, such as documented successful rehabilitation instances, with more extensive data collections, Semi-Supervised Learning could have enhanced predictive capabilities to determine which prisoners would have responded most favorably to specific rehabilitation initiatives. Meanwhile, reinforcement learning techniques could have streamlined daily correctional facility management by orchestrating guard duty assignments based on immediate operational requirements, thereby optimizing both security measures and resource allocation.

In the area of deep learning, techniques such as Computer Vision (CV) and Natural Language Processing (NLP) offered advanced security and monitoring tools for the DoC. Surveillance cameras employing CV continuously monitored inmate behavior, minimizing the requirement for human oversight. For example, cameras equipped with artificial intelligence could have identified aggressive or abnormal actions and then notified staff members automatically. This higher level of security might have ensured that any potential risks were quickly addressed. NLP carefully analyzed different types of communication, like phone calls, letters, or online interactions, to detect signs of illegal activities, such as planning an escape or trafficking. Being proactive aided in the prevention of crime in correctional institutions. Furthermore, Generative Learning enabled the DoC to conduct detailed simulations of various scenarios, such as emergency responses or policy adjustments. For example, AI simulations predicted the effects of staffing shortages or policy changes, aiding in enhanced planning and risk management.

Overall, the DoC significantly benefitted from these AI techniques by improving decision accuracy, strengthening security measures, and increasing the effectiveness of rehabilitation programs. Machine Learning ensured that resources were allocated to where they were most essential, whereas Deep Learning automated tasks such as threat detection and monitoring. As a result, the workload of the staff was greatly reduced, allowing them to focus on more difficult tasks and ultimately creating safer and more efficient correctional facilities.

DISCUSSION & CONCLUSION

Currently, Thailand has no specific law governing artificial intelligence (AI), relying instead on various guidelines from bodies like the Ministry of Digital Economy and Society (MDES), the National Science and Technology Development Agency (NSTDA), and Chulalongkorn University's Thailand Artificial Intelligence Guidelines (TAIG) 1.0. These guidelines outline ethical principles for AI use, such as data protection, security, fair treatment, and responsible oversight. However, without any binding legal force, these frameworks remain mere recommendations, lacking the authority to require compliance. Max Weber's concept of rational-legal authority can help us understand why this lack of enforceable laws is a challenge. Weber contended that legal authority within organized systems, like public bureaucracies, provides stability and predictability by setting out clear, enforceable rules backed by legal power. Unlike mere guidelines, these rules are supported by formal institutions and include enforceable consequences. Without such laws, AI guidelines in Thailand lack binding authority, allowing organizations the option to follow or ignore them at their discretion. For example, Weber's theory shows how legal authority could ensure consistency across organizations by requiring adherence to standards like user privacy protections and system security. In contrast, when only guidelines are in place, some organizations within the DoC may rigorously apply ethical standards, while others might not, leading to uneven practices

across the sector. If Thailand enacted specific AI laws, it would give these principles the formal backing of rational-legal authority, ensuring organizations within the DoC implement these protections equally, thereby fostering trust and accountability across their public services (Baker McKenzie, 2023; Ministry of Digital Economy and Society, 2019; National Science and Technology Development Agency, 2022, 2023; Pheeraphat, C. et al., 2022). Fortunately, Thailand's AI ethics principles align closely with the moral dimensions of the information age, as described by Laudon et al. (2024). For example, the principle of privacy protection in Thailand's guidelines corresponds to Information Rights and Obligations by ensuring that personal data is securely managed and only used with consent. This mirrors efforts to balance the advantages of data-driven services—like personalized recommendations—with privacy concerns. Next, accountability in Thailand's AI ethics resonates with Accountability and Control by requiring developers to take responsibility for AI failures. This principle ensures that organizations act ethically, especially in cases where AI tools affect sensitive decisions, such as in healthcare. Another connection is seen between Thailand's emphasis on safety and reliability and the System Quality dimension. Both stress the importance of creating dependable systems to reduce risks. For example, just as reliable cloud services build user trust, safe AI systems ensure the public can rely on their performance. Furthermore, fairness and non-discrimination in Thailand's principles relate to Property Rights and Obligations and Quality of Life by aiming to distribute the benefits of AI equitably across all social groups. Thailand also emphasizes human oversight, which protects individuals from over-reliance on AI and mitigates risks to mental well-being—a concern highlighted in the moral dimension of Quality of Life. These parallels reflect Thailand's focus on ensuring that AI development supports human values, safety, and fairness.

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