Chapter 4
E-Governance Services Using AI: Effective or Wasteful?

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ABSTRACT

Rapid development of technology is marked by the emergence of Artificial Intelligence (AI) .This study is important, because public services using e-governance create social dynamics. The method used is document analysis by comparing public service systems in developing and developed countries that use AI technology from relevant scientific literature. This chapter finds that developing countries emphasize digital foundations and technology accessibility developed countries. Developing countries have not yet reached a more mature regulatory stage, minimal public involvement in the policy-making process, and need to examine more deeply the ethical standards of AI management. Developed countries are able to be a reference in determining public service regulations using AI, because they are able to use e-governance services in a more structured manner and involve the role of civil society. The existence

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of this study is expected that governance regulations in developing countries in implementing e-governance services using AI can run accountably and effectively to the entire community.

INTRODUCTION

Effective digital transformation requires coordinations between the different levels of government and system integration (Bonduki & Cunha, 2022). At the same time, the public widely uses the internet and engages in digital activities (Lim, 2020). The government captures community activities with AI as an opportunity to provide digital service. The government perceives community activities through the lens of AI as a means to enhance tprovision of digital services. The significant challenge is the digital competence of public sector employees. They need to be trained to improve their competence (Rakhma & Roziqin, 2025) Studies show that many public sector employees only have average abilities in using technology, requiring investment in training and attracting technology talent (Adewumi & Abasilim, 2024). To improve government efficiency and transparency, advanced technology, such as: AI, Internet of Things (IoT), and any other data analytics(Tshuma et al., 2024). AI and the other new technologies can significantly improve public services, although these technologies also pose social, ethical, and legal challenges that must be managed (Pislaru et al., 2024).

AI has capacity to process the vast volumes of data, spot trends, and produce insights that greatly enhance governance decision-making. This leads to evidence-based and better-informed policies (Arora et al., 2024). The effectiveness of quality in public services using AI is cutting down on times, facilating quicker operation execution, and granting information (Mukonavanhu, 2025). Virtual assistants like chatbots, improve communication between citizens and also the governments, resulting in higher satisfaction and better service experiences are part of AI (Pislaru et al., 2024). Transparency in the governance by providing real-time feedback and insights into governmental operations, thereby increasing trust among citizens are the function of AI to improved (Upreti et al., 2023). Digital transformation does not necessarily address the underlying issues in governance.

Main challenges of digitalization in public sector include low integration between government systems, lack of digital competence of public sector employees, and minimal evaluation of the impact on service quality (Edelmann et al., 2023). Public sector employees in developing countries are still often affected by problems of corruption, nepotism, and abuse of authority, which can impact on decreasing transparency and accountability (Mutiarin et al., 2024). Infrastructure deficiencies, limited digital literacy, social resistance, and institutional impediments brought on