

Transformation of Indonesian Public Policy Law in the Digital Era: Utilization of Artificial Intelligence in the State Financial System

M. Febriyan Saputra¹, Siti Nurhasanah², Selvia Oktaviana³

¹ Masters of Law Student, Faculty of Law, Universitas Lampung,

² Lecturer at the Faculty of Law, Universitas Lampung

³ Lecturer at the Faculty of Law, Universitas Lampung

Email : muhammadfebriyansaputra@gmail.com*

Abstract

Indonesia, as a developing country with dynamic economic growth, faces not only global challenges caused by digital transformation but also stands at the forefront of exploring the utilization of Artificial Intelligence (AI), including in governance and financial systems. The AI technology development opens new opportunities in managing, optimizing, and overseeing the finances flow among government entities. This research aims to analyze the Indonesian public policy law transformation in the digital era related to the use of AI in the national financial system. It also seeks to analyze the development of models, integration strategies, and regulatory efforts needed to achieve a balance between technological efficiency and regional financial justice. The method used is normative research. The research results indicate that there is currently no specific regulation governing AI in Indonesia. Conversely, the use of AI technology has the potential to create several issues, such as analysis errors leading to misinformation, copyright protection, and concerns related to human values. The developed models should be oriented towards justice, integration strategies should ensure equal technology accessibility, and regulatory efforts should focus on protecting people's rights and justice in fund allocation. Thus, the AI technology implementations in the national financial system can provide optimal benefits and simultaneously support inclusive and sustainable development throughout the regions. This research specifically addresses regulations related to AI in Indonesia and contributes to legal developments in Indonesia, particularly in the field of AI. This research novelty lies in the absence of similar studies before, making it a new body of knowledge in the legal studies development.

Keywords: Artificial Intelligence, Digital Era, Public Policy Law, State Financial System.

A. INTRODUCTION

The digital era has entered every aspect of global society, marking a fundamental shift in the legal and public policy landscape. Indonesia, as a developing country with dynamic economic growth, is not only faced with global challenges caused by digital transformation, but is also at the forefront of exploring the use of Artificial Intelligence (AI), including in government and financial systems. In the midst of the complexity of regional autonomy policies, the principle of financial balance between central and regional governments becomes very relevant. In line with this, the development of artificial intelligence (AI) technology opens up new and challenging opportunities in managing, optimizing and supervising financial flows between government entities. (Siti Marwiyah, 2023).

The interaction between the use of artificial intelligence and the country's financial system creates dynamics that need to be understood in depth. AI can be a catalyst for increasing efficiency, transparency and accountability in the management of financial balance funds. This is in line with the emergence of various legal and ethical issues that need to be addressed. (Ayuni Putri Anggraeni, 2022). There is a need for understanding regarding the implementation of artificial intelligence technology in improving state financial management. AI can provide more accurate predictions, real-time data analysis, and financial process automation which can make decision making and supervision of regional funds easier. However, on the other hand, there is potential for unequal access and understanding of this technology among local governments. Some regions still face challenges in adopting this advanced technology due to limited infrastructure or skilled human resources. (Muhammad Subhan Iswahyudi, 2023).

In addition, there are legal issues related to data protection, cyber security, and the ethics of using AI in decision making that has an impact on regional finances. The involvement of AI in the planning and allocation process of funds also raises questions regarding financial balancing policies in adapting to changes and ensuring fair and effective distribution. In the context of the digital era, there is a dynamic interaction between artificial intelligence and the country's financial system. Artificial intelligence (AI) can be leveraged in various sectors, including banking and audit, to improve efficiency and personalize services, as well as facilitate decision-making processes. However, the use of AI can also have negative impacts, such as physical damage, errors or bias, data breaches, and intellectual property rights violations. Therefore, the use of AI must be supported by good regulations to ensure data. (Rahmi Ayunda, 2023).

Protection and privacy. Apart from that, literacy and understanding of AI technology is also important in legal education and the legal profession so that they can keep up with technological developments and use them wisely. Therefore, the author is interested in further research regarding "Transformation of Indonesian Public Policy Law in the Digital Era: Utilization of Artificial Intelligence in the State Financial System". Based on this background, the problem that arises is how is the legal transformation of Indonesian public policy in the digital era regarding the use of artificial intelligence in the state financial system? And what are the development models, integration strategies and regulatory efforts needed to achieve a balance between technological efficiency and regional financial justice? This research uses a normative research method based on literature study techniques, namely by collecting various statutory provisions, documentation, literature and internet access related to problems in national law.

B. DISCUSSION

1. Transformation of Indonesian Public Policy Law in the Digital Era Regarding the Use of Artificial Intelligence in the State Financial System

The transformation of public policy regarding the use of artificial intelligence (AI) in the digital era occurs through the application of AI technology in digital marketing. AI has brought a revolution in the world of digital marketing with its ability to collect and analyze data, provide better personalization and increase the efficiency of marketing campaigns.¹⁰ AI technology is used in various aspects of digital marketing, such as ad targeting, content personalization, data analysis, and process automation.¹¹ In digital marketing, AI is used to collect and analyze data, recognize consumer behavior patterns, and provide better recommendations and personalization in marketing campaigns.¹² Social media used for digital marketing using artificial intelligence will really help product sellers in grouping target markets, predicting developing trends, understanding buyers' responses to a product, and making user decisions.¹³ Although AI technology has many benefits in digital marketing, there are several challenges to overcome, such as dependence on data, privacy concerns, and difficulties in implementation. Therefore, businesses must consider carefully before implementing AI technology in their marketing strategy. Apart from that, there are several dynamic factors of interaction between the use of artificial intelligence in the state financial system, namely:

- a. Increasing the Efficiency of Regional Fund Management.. In the digital era, artificial intelligence has opened up new opportunities to increase the efficiency of regional fund management. AI systems can process and analyze data quickly, provide accurate predictions and automate financial processes. This leads to faster and more precise decision making in the allocation of financial funds.
- b. Challenges of Technology Acceptance and Access Despite the potential for increased efficiency, there are challenges in the acceptance and access of artificial intelligence technology among local governments. Some regions may face limited infrastructure or skilled human resources, so technology gaps may occur between regions.
- c. Data Protection and Cybersecurity. The use of artificial intelligence in state finances also raises issues of data protection and cybersecurity. In managing regional financial data, strict security measures must be implemented to prevent potential data leaks or cyber-attacks that could harm financial funds.
- d. Ethics in Decision Making. The dynamics in the use of artificial intelligence in state financial systems also raise ethical questions. The use of AI in making decisions regarding fund allocation requires clear policies to ensure fairness and equality, so that decisions produced by the system do not result in inequality or discrimination.
- e. Inter-Regional and Central Collaboration In dealing with the use of artificial intelligence in the country's financial system, collaboration between regions and with the central government is urgently needed. The exchange of experiences and mutual learning can help regions that may be lagging behind in technology adoption to achieve sustainability and balanced development.
- f. Required Regulations and Policies. To maintain a balance between technological efficiency and regional financial fairness, adequate regulations and policies are needed. This involves developing artificial intelligence integration models and strategies that comply with financial balancing principles. Regulations must

also take into account aspects of data protection, people's rights and transparency in the use of this technology. (Hari Purwanto, 2019).

Currently there are no specific regulations governing artificial intelligence (AI) in Indonesia. On the other hand, the use of Artificial Intelligence (AI) technology has the potential to cause several problems such as analytical errors which result in misinformation in news, copyright protection, and matters related to human values. However, the Deputy Minister of Communication and Information, Nezar Patria, stated that he is currently reviewing the need to regulate the use of AI so that it can be optimal. The Information and Electronic Transactions Law and PP 71/2019 as its derivative actually regulate the limits of obligations and responsibilities of Electronic Agent organizers, including: providing features that allow users to make changes to information that is still in the transaction process. However, implementing AI (Electronic Agents) in Indonesia can only be carried out by people, state officials, business entities and the community. This means that legal responsibility will be borne by the electronic system operator providing AI services. So, further regulation is needed in the use of artificial intelligence, especially in the state financial system.

2. Model Development, Integration Strategy, and Regulatory Efforts Required to Achieve a Balance Between Technological Efficiency and Regional Financial Justice

The model development, integration strategies, and regulatory efforts necessary to achieve a balance between technological efficiency and regional financial fairness are topics that involve various economic, financial, and regulatory aspects. One relevant aspect is the influence of the financial sector on regional economic growth. The financial sector can influence regional economic growth and plays an important role in triggering economic growth in a region. In addition, the government's strategy and role in the regional economy includes efforts to increase economic growth and regulate the provision of public goods, reduce inflation and unemployment, and implement equality or distribution.²³ From a regulatory perspective, efforts to improve regulations in the financial sector to improve competitiveness, level of security and investor confidence are also being undertaken by the government. (Yesi Hendriani Supartoyo, 2018).

a. Model Development

Judging from the development of the model, there are two things, namely 1) Fund Allocation Model which considers the needs and potential of each region and must take into account economic, social and environmental parameters to ensure fair and sustainable distribution of funds; 2) Predictive Model that uses artificial intelligence to help predict future regional funding needs. This can help central and regional governments to plan fund allocation more effectively.

b. Integration Strategy

The integration strategy must include training and increasing human resource capacity at the regional level. The central government can work with education and training institutions to ensure that local officials understand and can manage artificial intelligence technology well.²⁶ It is important to integrate digital infrastructure development strategies in the regions so that artificial intelligence technology can be adopted effectively. Accessibility

and adequate connectivity are the keys to optimizing the benefits of technology at all levels of society.

c. Regulatory Efforts

Regulations must address data protection issues by regulating the collection, storage and use of data. Establishing clear policies and data security standards can help prevent misuse of information. Regulatory efforts also need to include ethical policies in the use of artificial intelligence. Fairness, transparency and non-discrimination arrangements must be implemented to ensure that this technology is used responsibly. Regulations must create effective audit and supervision mechanisms to ensure that the use of artificial intelligence in the allocation of state financial funds remains in accordance with the principles of fairness and transparency.

C. CLOSING

1. CONCLUSION

The legal transformation of Indonesian public policy in the use of artificial intelligence related to the state's financial system brings complex challenges and opportunities. Currently there are no specific regulations governing artificial intelligence (AI) in Indonesia. On the other hand, the use of Artificial Intelligence (AI) technology has the potential to cause several problems such as analytical errors which result in misinformation in news, copyright protection, and matters related to human values. There needs to be special attention to regulatory aspects, data protection and ethical aspects in decision making, in line with increasing efficiency and fund management. Collaboration between regions and the central government is also needed to ensure that the benefits of technology can be felt evenly, supporting the vision of sustainable and inclusive financial balance.

It is important to remember that model development, integration strategies, and regulatory efforts must be aimed at achieving a balance between technological efficiency and regional financial fairness. The model developed must be justice-oriented, the integration strategy must ensure equal accessibility of technology, and regulatory efforts must aim at protecting people's rights and fairness in the allocation of funds. Thus, the implementation of artificial intelligence technology in the state financial system can provide optimal benefits and at the same time support inclusive and sustainable development in all regions.

Bibliography

A. Book

Deni, Asep. *Manajemen Strategi di Era Industri 4.0*. Batam: Cendikia Mulia Mandiri, 2023

Muhammad Amsal Sahban, S. E. , M. M. *Kolaborasi Pembangunan Ekonomi di Negara Berkembang*. Makassar: Sah Media, 2018.

Muhammad, Abdulkadir. *Hukum dan Penelitian Hukum*. Bandung: Citra Aditya Bakti, 2004.

B. Journal

Sudaryanto, Adhitia Presetiyo, dan Stevy Hanny. “Manajemen Sumber Daya Manusia Sektor Publik Menghadapi Kemajuan Kecerdasan Buatan (Artificial Intelligence).” *Musamus Journal of Public Administration* 6, no. 1 (13 Juli 2023): 513–21.

Supartoyo, Yesi Hendriani, Bambang Juanda, Muhammad Firdaus, dan Jaenal Effendi. “Pengaruh Sektor Keuangan Bank Perkreditan Rakyat terhadap Perekonomian Regional Wilayah Sulawesi.” *Kajian Ekonomi & Keuangan* 2, no. 1 (2018): 15–38.

Zuhrotun, Sucahyo Heriningsih, Kunti Sunaryo, dan Sriyono. *Pengelolaan BUMDES di Era RI 4.0*. First. Yogyakarta: Lembaga Penelitian dan Pengabdian Kepada Masyarakat UPN “Veteran” Yogyakarta, 2021