

Legal Liability for Artificial Intelligence Decisions in the Indonesian Judicial System

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ARTICLE INFO	ABSTRACT
<p>Keywords: Artificial Intelligence, Legal Liability, Judicial System, Accountability, Indonesia</p> <p>How to cite: Saputra, Rizki Dwi. (2025). Legal Liability for Artificial Intelligence Decisions in the Indonesian Judicial System. <i>Veteran Law Review</i>. 8(2). 182-192.</p> <p>Received:2025-10-16 Revised:2025-12-05 Accepted:2025 -12-11</p>	<p><i>The rapid integration of Artificial Intelligence (AI) into judicial processes has created new challenges for Indonesia's legal system, particularly in defining accountability and legal liability for AI-assisted decisions. This study aims to analyze how AI technologies can be harmonized with Indonesia's legal framework while upholding judicial independence, transparency, and fairness. Using a normative legal research method, the study examines statutory provisions, doctrinal principles, and comparative practices from the European Union and the United States. The analysis reveals that current Indonesian laws such as Law No. 48 of 2009 on Judicial Power and Law No. 11 of 2008 on Electronic Information and Transactions do not yet regulate liability for AI-generated outcomes. Consequently, AI cannot be recognized as a legal subject, and responsibility remains with developers, operators, or judicial institutions. The study concludes that Indonesia must establish a specific legal framework defining human oversight, AI accountability, and ethical governance to ensure that technological innovation aligns with constitutional principles of justice and human rights. These findings contribute to the development of a transparent and responsible AI governance model within Indonesia's judiciary.</i></p>

1. Introduction

Artificial Intelligence (AI) is no longer a futuristic concept it has become an integral part of human civilization, shaping social, economic, and legal structures across the globe. In recent years, the incorporation of AI technologies into judicial systems has gained significant attention due to their potential to enhance transparency, efficiency, and accessibility in legal decision-making (Indra, 2022). In Indonesia, the use of AI in the judiciary is perceived as a progressive step toward realizing a simple, fast, and low-cost justice system, in accordance with the principles of judicial reform as outlined by the Supreme Court ("Judicial Reform Through the Use of Information and Communication Technology to Realize the Principles of Simple, Fast and Low-cost Justice," 2024).

Globally, the governance and accountability of AI present complex challenges. Bryson (2018) identifies the dilemma of balancing technological efficiency with moral responsibility in AI regulation. Likewise, Goodman and Flaxman (2017) discuss the European Union's "right to explanation" framework, ensuring that individuals understand the reasoning behind algorithmic decisions. These debates highlight the urgent need for transparent and accountable AI systems, particularly in domains that directly impact justice and human rights.

Legal scholars have also examined how automation affects normative structures. Alarie, Niblett, and Yoon (2016) introduced the concept of "regulation by machine," suggesting that AI could enforce legal norms autonomously. However, Casey and Niblett (2017) warn that excessive reliance on AI may undermine human discretion and flexibility in adjudication, leading to what they call "the death of rules and standards." Similarly, recent studies, such as "Hybrid Deep Learning for Legal Text Analysis: Predicting Punishment Durations in Indonesian Court Rulings" (2024), demonstrate the capacity of AI to analyze legal texts and predict sentencing, raising questions about accountability and human oversight.

The ethical and legal implications of AI use in the judiciary go beyond technical performance. Hallevy (2010) raises the provocative issue of criminal liability for autonomous AI systems, urging legal scholars to redefine traditional concepts of culpability. Locally, studies such as "Analisis Etika dan Legalitas Penggunaan Artificial Intelligence" (2025) emphasize that AI applications in law must align with human values, justice principles, and legal ethics to prevent bias and misuse.

In the Indonesian context, the discussion of AI in judicial systems remains at an early stage. Research such as "Sistem Peradilan Pidana Berbasis Kecerdasan Buatan (AI)" (2024) and "Potensi Pemanfaatan Teknologi Artificial Intelligence Sebagai Produk Lembaga Peradilan Pidana di Indonesia" (2025) have recognized AI's potential to streamline case management and enhance consistency. However, these studies also note the absence of specific legal frameworks such as explicit provisions in Law No. 11 of 2008 on Electronic Information and Transactions (ITE) or Supreme Court Regulation No. 1 of 2019 on Electronic Court Proceedings to regulate the use of AI in judicial decisions.

This gap reveals a crucial issue: while global research has extensively analyzed AI accountability in judicial contexts, there is limited scholarly exploration of how these principles can be contextualized within Indonesia's unique legal and institutional setting. As Aguilar (2001) reminds us, technological progress must never compromise ethical integrity and human agency.

Therefore, this study aims to examine the legal liability for AI-assisted decisions within the Indonesian judicial system. It seeks to analyze how AI technologies can be harmonized with Indonesia's legal principles, ensuring judicial independence, transparency, and accountability. By integrating global insights with the Indonesian legal context, this research contributes to the ongoing discourse on AI governance and proposes a normative foundation for a fair and sustainable digital justice framework

2. Method

2.1 Research Type and Approach

This study employs a normative legal research approach (doctrinal legal research), which focuses on analyzing, interpreting, and evaluating legal norms, principles, and doctrines related to the accountability of AI in the judiciary. The main objective is to examine the legal foundation and ethical considerations of AI-assisted decision-making in the Indonesian judicial system, emphasizing regulatory frameworks and comparative perspectives.

2.2 Conceptual Analysis

Conceptual analysis is employed to examine the theoretical foundations of AI governance, legal accountability, and ethical decision-making. Bryson (2018) discusses the dilemmas of AI governance, emphasizing the need to align artificial intelligence systems with ethical principles and institutional integrity. Hallevy (2010) explores the criminal liability of AI entities, addressing the complexities of attributing intent and responsibility to autonomous systems. Meanwhile, Alarie, Niblett, and Yoon (2016) introduce the concept of "regulation by machine," which illustrates how AI can serve as a regulatory mechanism within the legal system. Recent Indonesian research provides further depth to these conceptual discussions. Judianto (2025) highlights the urgency of establishing AI regulation in Indonesia to ensure human oversight and prevent misuse in judicial processes. Tertibi (2025) focuses on the ethical implications of AI implementation, stressing the importance of maintaining fairness and justice amid technological efficiency. Anggraeny (2025) examines the adaptation of national legal frameworks to integrate AI-based decision-making in court proceedings. Wisnubroto (2025) proposes preventive strategies to mitigate AI-related legal risks, offering a paradigm shift toward responsible AI governance in law enforcement. Lastly, Nugeraha (2025) analyzes the integration of AI in judicial reform, emphasizing its potential to enhance transparency, accountability, and procedural efficiency. Together, these studies form a coherent conceptual foundation for understanding the governance, ethical dimensions, and legal accountability of artificial intelligence within Indonesia's judicial landscape.

2.3 Normative Legal Analysis

The normative legal analysis examines Indonesia's positive law governing the use of AI in judicial processes. This includes:

1. Law No. 11 of 2008 concerning Electronic Information and Transactions (ITE);
2. Supreme Court Regulation No. 1 of 2019 concerning Electronic Administration and Trials in Courts (*Perma e-Court*);
3. Judicial Reform Blueprint 2020–2035 and other digital transformation initiatives of the Supreme Court.

These primary sources are supported by secondary materials such as scholarly articles, legal commentaries, and international guidelines. Examples include the works of Goodman and Flaxman (2017), who discuss algorithmic decision-making and the “right to explanation,” and Aguilar (2001), who provides insights into the evolution of regulatory frameworks for emerging technologies. These references serve to complement the interpretation of Indonesia's existing legal instruments by providing comparative and theoretical perspectives. This phase of analysis aims to identify the adequacy, gaps, and ambiguities within Indonesia's legal system in addressing issues of AI accountability and judicial ethics. Through this approach, the study evaluates whether current legal frameworks are sufficient to ensure ethical governance and responsibility in the adoption of artificial intelligence in judicial contexts.

2.4 Comparative Evaluation

A comparative approach is employed to analyze international practices regarding AI liability and judicial ethics, focusing on the European Union and the United States. The EU's General Data Protection Regulation (GDPR) introduces the “right to explanation,” promoting transparency in algorithmic decision-making. The U.S. framework emphasizes accountability through sectoral regulations and judicial oversight. By comparing these systems, the research identifies best practices relevant to Indonesia's legal culture, particularly concerning fairness, transparency, and ethical compliance.

2.5 Data Sources and Analytical Techniques

This study relies on library-based research, utilizing both primary and secondary legal materials.

1. Primary materials: legislation, court regulations, and official judicial documents.
2. Secondary materials: academic journals, books, and reports from recognized organizations (e.g., OECD, UNESCO).

Data are analyzed qualitatively through doctrinal synthesis, issue categorization, and legal interpretation. The analysis identifies the legal and ethical implications of AI adoption in judicial systems and proposes normative recommendations to ensure transparency, accountability, and judicial independence.

2.6 Scope and Limitation

The scope of this study is limited to the legal liability and regulatory governance of AI-assisted decisions in the Indonesian judiciary. It does not discuss the technical design or algorithmic architecture of AI systems but focuses on their legal and ethical implications. This limitation ensures that the analysis remains within the doctrinal framework of law and justice.

3. Analysis or Results

The emergence of Artificial Intelligence (AI) within modern legal systems has introduced profound challenges to the principles of legal liability, justice, and human-centered decision-making. In Indonesia, AI integration within the judiciary has gradually developed through decision-support systems, legal text analysis, and administrative automation at the Supreme Court. Although still in its early stages, these advancements have sparked debate regarding accountability, fairness, and the risk of algorithmic bias in judicial processes. According to Law No. 48 of 2009 on Judicial Power, judicial decisions must reflect independent human reasoning based on evidence and conscience. This principle raises a fundamental question: to what extent can algorithm-driven outcomes be considered legally and ethically accountable within a justice system founded on human judgment?

Within Indonesia's legal framework, the concept of legal subject (*subjek hukum*) is defined in Article 1 of the Indonesian Civil Code (KUHPerdata) as entities capable of holding rights and obligations. Artificial intelligence does not meet this definition, as it lacks intentionality, moral reasoning, and legal capacity. Jasserand (2021) argues that AI cannot be treated as an autonomous legal entity but only as an instrumental agent that executes human instructions. Consequently, any act or decision produced by AI remains the responsibility of the human or institutional operator behind it. In the Indonesian context, this implies that software developers, judicial institutions, and law enforcement agencies deploying AI systems can still be held legally accountable for damages resulting from erroneous or biased outputs.

From a normative perspective, legal liability for technological actions is established in Article 1365 of the Indonesian Civil Code, which stipulates that any unlawful act causing harm to another person obligates the perpetrator to provide compensation. When an AI system produces an incorrect or unjust decision due to algorithmic bias or technical malfunction, the responsible party typically the developer or the institution operating the system – may be considered negligent. The European Commission (2020) emphasized that AI cannot bear legal responsibility, as it lacks consciousness or ethical awareness; thus, the principle of human oversight remains essential in maintaining accountability. This aligns with Indonesia's legal doctrine, which upholds that liability follows human control and intention rather than automated reasoning.

Internationally, several jurisdictions have begun establishing legal frameworks to mitigate the risks associated with AI-based decision-making. The European Union's Artificial Intelligence Act (2024) categorizes AI systems by risk levels and mandates transparency, explainability, and accountability from developers. This framework reinforces the notion that legal liability must rest with human or corporate actors who create, train, and deploy AI systems. A similar perspective is reflected in the doctrine of vicarious liability, which allows responsibility to be transferred to the entity exercising control over a system that causes harm. This principle resonates with Indonesia's state responsibility doctrine, wherein government agencies remain liable for the performance of public technologies under their supervision.

The issue of state responsibility becomes particularly significant in the context of Indonesia's constitutional framework. Article 28D paragraph (1) of the 1945 Constitution of the Republic of Indonesia guarantees every citizen's right to fair and legal certainty. If AI use within the judiciary results in systemic errors or discriminatory treatment, such circumstances could constitute a violation of citizens' constitutional rights. Hildebrandt (2018) warns that algorithmic governance without human accountability may erode the principle of due process of law, undermining justice and transparency. Thus, the state holds a constitutional obligation to ensure that technological innovation in the justice system strengthens, rather than diminishes, the rule of law and protection of human rights.

Beyond legality, the ethical dimension of AI governance plays an equally crucial role. The UNESCO (2021) Recommendation on the Ethics of Artificial Intelligence emphasizes that AI systems in the public sector must adhere to principles of transparency, fairness, non-discrimination, and accountability. Judicial AI in Indonesia must therefore ensure that algorithms do not

reproduce social or demographic biases in sentencing, access to justice, or case prioritization. Evidence from Angwin et al. (2016) in the United States revealed that the COMPAS algorithm, designed to predict criminal recidivism, exhibited racial bias against African American defendants. This finding demonstrates the potential for AI to reinforce structural inequalities if used without adequate ethical safeguards an outcome fundamentally incompatible with Indonesia's legal values of equality before the law.

Despite these ethical imperatives, Indonesia currently lacks a comprehensive legal framework governing AI accountability. Existing laws, such as Law No. 27 of 2022 on Personal Data Protection, focus primarily on data security and privacy without directly addressing the legal status or liability of AI decisions. Consequently, a dedicated regulation or amendment is required to define the scope of human responsibility, institutional obligations, and oversight mechanisms in AI-assisted legal systems. This regulatory gap contradicts the national agenda outlined in the Indonesia Artificial Intelligence Strategy 2020–2045, which emphasizes the importance of ethical, transparent, and people-oriented AI implementation to support public trust and good governance.

In light of the above analysis, it is evident that legal liability for AI decisions within Indonesia's judicial system remains anchored in the principle of human accountability. AI, as a technological instrument, lacks legal personality and cannot bear responsibility independently. Hence, responsibility rests collectively upon system developers, judicial institutions, and the state to ensure that AI adoption upholds fairness, transparency, and human dignity. Establishing clear regulations, algorithmic audit mechanisms, and mandatory human involvement in every stage of decision-making is essential to maintaining the balance between technological innovation and the preservation of substantive justice. By adopting this approach, Indonesia can build a responsive legal system that embraces digital transformation while safeguarding constitutional and ethical principles at the heart of its judiciary.

4. Conclusion

The rapid integration of Artificial Intelligence (AI) into judicial decision-making has presented complex challenges for Indonesia's legal system, particularly concerning accountability and legal liability. This study reveals that while AI technologies can enhance efficiency, consistency, and transparency in judicial processes, they simultaneously blur the boundaries of responsibility when errors or biases occur in automated decisions. The absence of explicit legal frameworks governing AI usage in judicial contexts leaves uncertainty regarding who should bear responsibility – the developer, the operator, or the institution employing the AI system.

From the perspective of Indonesian positive law, particularly within the framework of the Undang-Undang Dasar Negara Republik Indonesia Tahun 1945 (the 1945 Constitution), Undang-Undang Nomor 48 Tahun 2009 on Judicial Power, and Undang-Undang Nomor 11 Tahun 2008 on Electronic Information and Transactions (as amended by Law No. 19 of 2016), it is evident that the law has not yet fully adapted to the emergence of autonomous systems capable of making or influencing judicial decisions. These existing regulations primarily address human actors and traditional forms of accountability, thereby creating a regulatory gap in determining legal liability for AI-generated decisions.

Empirical findings and prior studies also support this conclusion. For instance, Kamarinou, Millard, and Singh (2016) highlighted that assigning responsibility to AI systems contradicts fundamental legal doctrines since AI lacks legal personhood. Similarly, Calo (2015) emphasized that modern legal frameworks must evolve to encompass algorithmic decision-making, which often escapes conventional definitions of intent and negligence. In the Indonesian context, as argued by Saragih (2020), the principle of state responsibility under Article 1(3) of the 1945 Constitution implies that the judiciary, as an organ of state power, must remain accountable for any AI-assisted judgments, regardless of the technology's degree of autonomy.

Therefore, this research concludes that establishing a clear regulatory and ethical framework for AI implementation in the judicial sector is crucial. The law should explicitly define the scope of human oversight, the limits of AI autonomy, and the allocation of liability in cases of malfunction or bias. Additionally, Indonesia must consider adopting a hybrid accountability model, where both human and technological actors share proportional responsibility based on causation and control. Future legal reforms should incorporate AI governance principles such as transparency, explainability, and fairness to ensure that technological advancement does not undermine the core values of justice and legal certainty as guaranteed by the Constitution.

In summary, while AI offers transformative potential for Indonesia's judiciary, the absence of comprehensive legal provisions regulating AI accountability poses significant risks to justice and human rights. A proactive approach combining legal reform, judicial training, and ethical standardization is necessary to balance innovation with responsibility, ensuring that the use of AI remains consistent with Indonesia's constitutional mandate to uphold justice for all.

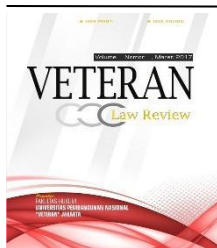
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