# ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA

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| ARTICLE INFO | ABSTRACT |
|---|---|
| **Keywords:** Artificial Intelligence; Fraudulent; Financial Report; Financial Statements; Manipulation. | Financial statement manipulation undermines investor trust and market stability, particularly in Indonesia, where recurring scandals highlight enforcement challenges. This study aims to analyze manipulation techniques, evaluate the dual role of artificial intelligence in detection and perpetration, and propose regulatory enhancements. Employing a qualitative descriptive approach with a normative legal perspective, the research examines case studies of Indonesian firms, including PT Kimia Farma and eFishery, using statutory and conceptual analysis. The findings reveal prevalent manipulation methods, such as inventory inflation and related-party transactions, driven by factors outlined in the fraud hexagon theory, including pressure and opportunity. Artificial intelligence enhances detection through anomaly identification but risks enabling sophisticated fraud if unregulated. Weak internal controls and inconsistent legal enforcement exacerbate these issues. The study concludes that mandatory artificial intelligence training for auditors, stricter disclosure requirements, and dedicated oversight bodies are essential to strengthen financial reporting integrity. These measures can foster transparency and accountability in Indonesia's financial ecosystem. Future research should explore artificial intelligence's effectiveness in high-growth startups to address evolving fraud dynamics. |

**Jurnal Pembaharuan Hukum**
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MANIPULATION IN INDONESIA
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino
Jedidiah Tirtakusuma

242

## A. INTRODUCTION

Financial statements serve as critical tools for communicating a company's performance and condition, influencing economic decisions by stakeholders such as investors, creditors, and regulators. However, the deliberate manipulation of these statements to conceal corrupt practices undermines corporate governance, erodes public trust, and destabilizes financial markets.[1] Such manipulation, recognized as accounting fraud, is a serious legal violation under frameworks like Indonesia's Capital Market Law (Law Number 8 of 1995), carrying severe penalties including imprisonment and fines. This practice not only distorts economic realities but also raises complex legal challenges, particularly in enforcing accountability and ensuring compliance with financial reporting standards.[2] The integration of Artificial Intelligence (AI) into financial oversight introduces both opportunities and risks, as it can enhance fraud detection while potentially enabling sophisticated manipulation techniques.[3] Addressing these issues requires a robust legal framework to balance technological advancements with regulatory enforcement.

The focus of this study is the interplay between AI and legal frameworks in combating financial statement manipulation in Indonesia, a country grappling with recurring financial scandals in state-owned enterprises (SOEs) and private firms. Financial statements, including balance sheets, income statements, and cash flow statements, are essential for assessing liquidity, solvency, and profitability.[4] Manipulation tactics, such as income smoothing, improper asset valuation, and concealment of liabilities, distort these metrics, misleading stakeholders.[5] In Indonesia, the legal framework under Law Number 8 of 1995 and anti-corruption laws provides mechanisms to address such fraud, but enforcement gaps persist, particularly in leveraging AI for detection. The dual role of AI, as a tool for detecting anomalies and a potential

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[1] Irham Fahmi. *Analisis kinerja keuangan: panduan bagi akademisi, manajer, dan investor untuk menilai dan menganalisis bisnis dari aspek keuangan* (Bandung: Alfabeta, 2012). 21.

[2] Ahmad Fauzi. "Legal Analysis of The Privacy of State-Owned Enterprises." *Jambura Law Review* 4, no. 1 (2022): 59.

[3] Maylia Pramono Sari, L. V. Kiswanto, Khairunnisa Rahmadani, and I. D. Pamungkas. "Detection fraudulent financial reporting and corporate governance mechanisms using fraud diamond theory of the property and construction sectors in Indonesia." *Humanit. Soc. Sci. Rev* 8, no. 3 (2020): 1066.

[4] V. Wiratna Sujarweni. *Analisis Laporan Keuangan: Teori, Aplikasi, dan Hasil Penelitian* (Yogyakarta: Pustaka Baru Press, 2017). 12.

[5] Jack Bologna, Robert J. Lindquist, and Joseph T. Wells. *The accountant's handbook of fraud and commercial crime* (New York, NY: Wiley, 1993). 21.

***Jurnal Pembaharuan Hukum***
Volume 12, No. 2, August 2025

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Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

243

instrument for perpetrating fraud, creates a unique challenge for regulators and forensic accountants. [6]

The beginning of the year marks the release of annual financial reports, including the 2024 financial statements of issuers, which investors rely on to make informed decisions about securities.[7] In Indonesia, high-profile cases of financial statement manipulation have emerged, involving companies such as PT Kimia Farma Tbk., PT Garuda Indonesia (Persero) Tbk., PT Waskita Karya (Persero) Tbk., and PT Indonesia Farma Tbk. (Indofarma).[8] A notable case involves PT Pupuk Indonesia, where an independent audit uncovered discrepancies amounting to IDR 8.3 trillion, including unreported accounts and transactions totaling nearly IDR 7.98 trillion, comprising restricted cash of IDR 707.87 billion and time deposits of IDR 7.27 trillion.[9] Another case involves eFishery, a prominent Indonesian startup unicorn, where alleged manipulation aimed to inflate financial performance during economic challenges.[10] These cases reflect the real-world reality of weak oversight and enforcement, undermining investor confidence and market integrity.[11]

Previous studies have extensively explored financial statement manipulation in large corporations and SOEs, but few have addressed the unique challenges faced by startups like eFishery. According to Fauzi, SOEs in Indonesia often suffer from transparency issues due to weak internal controls and political interference, leading to significant financial losses.[12] Similarly, Akpanuko and Umoren highlight how creative accounting undermines the credibility of financial reports, though their focus remains on traditional firms.[13] These studies overlook the distinct dynamics of startups, which face intense

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[6] Dou, Winston Wei, & Itay Goldstein. "AI-Powered Collusion in Financial Markets". *Finance Center at The Wharton School*, April 6, 2024. Retrieved in Maret 25 from https://finance-pillar.wharton.upenn.edu/blog/ai-powered-collusion-in-financial-markets/.

[7] Robertus Andrianto, 'Musim Laporan Keuangan Dimulai, Siapa Yang Akan Jadi Jawara Big Banks?. *CCNB Indonesia*, January 12, 2025. https://www.cnbcindonesia.com/research/20250123104115-128-605387/musim-laporan-keuangan-dimulai-siapa-yang-akan-jadi-jawara-big-banks.

[8] Binus University School of Accounting. "ANALISIS KASUS FRAUD GARUDA INDONESIA". *Binus University School of Accounting*, June 14, 2021. https://accounting.binus.ac.id/2021/12/20/analisis-kasus-fraud-garuda-indonesia/.

[9] Sandria, Ferry. "Deretan Skandal Lapkeu Di Pasar Saham RI, Indofarma-Hanson!." *CNBC Indonesia,* November 21, 2021. https://www.cnbcindonesia.com/market/20210726191301-17-263827/deretan-skandal-lapkeu-di-pasar-saham-ri-indofarma-hanson.

[10] Bloomberg Technoz. "Laporan Keuangan EFishery Diduga Palsu: Rugi Dicatat Dapat Untung". *Bloomberg Technoz,* January 11, 2025. https://www.bloombergtechnoz.com/detail-news/61087/laporan-keuangan-efishery-diduga-palsu-rugi-dicatat-dapat-untung.

[11] Surendranath Rakesh Jory and Mark J. Perry. "Ponzi Schemes: A Critical Analysis." *Journal of Financial Crime* 18, no. 1 (2011): 43.

[12] Ahmad Fauzi. "Legal Analysis of The Privacy of State-Owned Enterprises." *Jambura Law Review* 4, no. 1 (2022): 62.

[13] Essien Ekerette Akpanuko and Ntiedo John Umoren. "The influence of creative accounting on the credibility of accounting reports." *Journal of Financial Reporting and Accounting* 16, no. 2 (2018): 296.

**ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA**
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

pressure to demonstrate growth to attract investors, often leading to aggressive accounting practices. Moreover, while Amelia and Rahman discuss the use of AI in detecting financial fraud, they do not explore its potential misuse by fraudsters, creating a gap in understanding AI's dual role in the Indonesian context.[14] This research addresses this gap by examining both the detection and perpetration aspects of AI in financial statement manipulation, with a focus on Indonesian firms, including startups.

From a normative perspective, financial reporting should adhere to principles of transparency, accuracy, and accountability as mandated by Indonesian Financial Accounting Standards (PSAK) and Law Number 8 of 1995.[15] These regulations aim to ensure that financial statements reflect a company's true condition, fostering trust among investors and stakeholders.[16] Ideally, AI should be integrated into forensic accounting to enhance anomaly detection, supported by strict legal oversight to prevent its misuse.[17] The fraud hexagon theory, encompassing pressure, opportunity, rationalization, capability, arrogance, and collusion, provides a theoretical framework to understand manipulation drivers, while legal norms under the Capital Market Law offer a basis for prosecution and deterrence.[18]

This research holds significant academic and practical value. Academically, it contributes to the literature by addressing the underexplored role of AI in financial fraud within the Indonesian context, particularly in startups. Practically, it offers insights for regulators, auditors, and companies to strengthen oversight mechanisms and leverage AI effectively. By analyzing real-world cases and legal frameworks, the study aims to bridge the gap between regulatory ideals and practical enforcement, promoting a transparent business environment in Indonesia.

The research problem addressed in this study is the persistent gap between regulatory frameworks and their enforcement in preventing financial statement manipulation in Indonesia, compounded by the dual role of AI as both a detection tool and a potential enabler of fraud. This gap is evident in the recurring financial scandals that highlight weaknesses in oversight

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[14] Rima Amelia and Huda Aulia Rahman. "Deteksi Manipulasi Laporan Keuangan Menggunakan Beneish M-Score pada Perusahaan BUMN." *Jurnal Ekonomi: Journal of Economic* 15, no. 1 (2024): 155.

[15] Dewan Standar Akuntansi Keuangan. *Standar Akuntansi Keuangan* (Jakarta: Salemba Empat, 2007). 43.

[16] Hastiwi Muktiana, Deby Novilasari Erlinda, and Nugroho Novemy Triyandari. "Pentingnya Laporan Keuangan Dalam Menilai Kinerja Keuangan Pada Perusahaan." In *Prosiding Seminar Nasional Hukum, Bisnis, Sains Dan Teknologi*, 20. 2023.

[17] Mila, Vivi Annur. "Teknologi Mengubah Akuntansi: Dari Tukang Hitung Ke Penasihat Strategis". *Malang Posco Media*, September 9, 2024. https://malangposcomedia.id/teknologi-mengubah-akuntansi-dari-tukang-hitung-ke-penasihat-strategis/.

[18] Tetiana Fitrianingsih and Y. Anni Aryani. "Bibliometric: Perkembangan Fraud Theory sebagai Pendeteksi Fraudulent Financial Reporting." *EQUITY* 26, no. 1 (2023): 100.

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

245

mechanisms. The limited adoption of AI in forensic accounting, coupled with insufficient regulations governing its use, exacerbates the challenge of ensuring financial reporting integrity.[19] Addressing this problem requires a comprehensive analysis of existing legal frameworks and technological capabilities.

The objective of this research is to analyze common techniques of financial statement manipulation in Indonesian firms, evaluate the dual role of AI in detecting and perpetrating such fraud, and propose policy recommendations to strengthen legal and technological oversight. By examining case studies of companies like PT Kimia Farma and eFishery, the study seeks to identify patterns of manipulation and assess AI's effectiveness in fraud detection. It also aims to recommend regulatory enhancements, such as mandatory AI training for auditors and stricter disclosure requirements, to foster a robust financial reporting environment in Indonesia. These objectives support the development of a transparent and accountable business ecosystem.

## B. RESEARCH METHODS

This research employs a descriptive qualitative approach combined with normative legal studies to examine financial statement manipulation and the role of artificial intelligence (AI) in its detection and perpetration, focusing on the Indonesian context. The qualitative method is suitable for exploring complex phenomena like accounting fraud, as it allows for an in-depth understanding of legal and financial dynamics through case studies and statutory analysis.[20] The study integrates legal positivism as a theoretical foundation, emphasizing the application of existing legal norms, such as Indonesia's Capital Market Law, to analyze compliance and enforcement gaps.[21] Data are collected from credible online news, scientific journals, and legal documents, ensuring accuracy, authority, and relevance through triangulation to verify findings.

The selection of case studies, PT Kimia Farma Tbk., PT Tiga Pilar Sejahtera Food Tbk., and PT Waskita Karya (Persero) Tbk., is based on their diverse legal outcomes, providing a robust basis for comparative analysis. These cases illustrate varying techniques of financial manipulation, such as inventory inflation and related-party transactions, and their legal consequences under Indonesia's Capital Market Law and Anti-Corruption Law.

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[19] Bao Kham Chau and George He. "Audio deepfakes and the regulation of the landlords of creativity." In *Cambridge Forum on AI: Law and Governance*. Cambridge University Press, 2025.

[20] Sujoko Efferin, Stevanus Hadi Darmadji, and Yuliawati Tan. *Metode penelitian akuntansi; mengungkap fenomena dengan pendekatan kuantitatif dan kualitatif* (Yogyakarta: Graha Ilmu, 2008). 25.

[21] Soerjono Soekanto, *Pengantar Penelitian Hukum.* (Yogyakarta: UI Press 1986). 16.

**246** ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

Data analysis involves a deductive legal reasoning approach, where general legal principles from statutes and court decisions are applied to specific case facts, supported by content analysis of financial reports and legal documents to identify manipulation patterns.[22] Online articles are evaluated for objectivity and novelty, while scientific journals provide theoretical insights into fraud detection and AI applications.[23]

The normative legal approach examines statutory provisions, including Law Number 8 of 1995 and Indonesian Financial Accounting Standards (PSAK), to assess their effectiveness in preventing fraud.[24] A conceptual approach complements this by exploring legal principles like transparency and accountability, which underpin financial reporting standards.[25] To enhance rigor, the study employs vertical and horizontal financial analysis to detect anomalies in financial statements, such as discrepancies in cash flow or asset valuation, aligning with fraud hexagon theory. The case approach analyzes court decisions to identify the ratio decidendi, focusing on judicial reasoning in verdicts related to financial manipulation.[26]

Limitations of this method include potential bias in online sources, as news articles may reflect subjective perspectives, and restricted access to complete court documents, which may limit the depth of legal analysis. Triangulation mitigates bias by cross-verifying data from multiple sources, ensuring reliability.[27] The reliance on secondary data, rather than primary interviews with auditors or regulators, may constrain insights into real-time enforcement challenges. Despite these limitations, the interdisciplinary framework, combining accounting and legal perspectives, provides a comprehensive understanding of financial statement manipulation and AI's dual role, offering a foundation for policy recommendations.

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[22] Muhammad Syahran. "Membangun kepercayaan data dalam penelitian kualitatif." *Primary Education Journal (Pej)* 4, no. 2 (2020): 21.

[23] Yoni Ardianto, 'Memahami Metode Penelitian Kualitatif'. *Artikel Direktorat Jenderal Kekayaan Negara*, February 21, 2019. Retieved in maret 21 2025 from https://www.djkn.kemenkeu.go.id/artikel/baca/12773/memahami-metode-penelitian-kualitatif. See also: Prima, Natanael Yogie. "Apakah Bisa Menggunakan Internet Sebagai Bahan Rujukan Artikel Ilmiah?." *Universitas Ciputra,* October 19, 2019. Retrieved in Maret 12, 2025 from https://www.ciputra.ac.id/library/apakah-bisa-menggunakan-internet-sebagai-bahan-rujukan-artikel-ilmiah/

[24] Peter Mahmud Marzuki. *Penelitian Hukum* (Jakarta: Kencana, 2006). 47.

[25] Johnny Ibrahim. *Teori Dan Metodoogi Penelitian Hukum Normatif*. (Banyumas: Banyumas Publishing 2008). 34.

[26] Maylia Pramono Sari, L. V. Kiswanto, Khairunnisa Rahmadani, and I. D. Pamungkas. "Detection fraudulent financial reporting and corporate governance mechanisms using fraud diamond theory of the property and construction sectors in Indonesia." *Humanit. Soc. Sci. Rev* 8, no. 3 (2020): 1068.

[27] Muhammad Syahran. "Membangun kepercayaan data dalam penelitian kualitatif." *Primary Education Journal (Pej)* 4, no. 2 (2020): 25.

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

247

## C. DISCUSSION

### 1. Financial Report: Definition, Function and Presentation

Financial statements are the outcome of the accounting process, summarising a company's financial data for a specific period to reflect its condition and performance.[28] These statements include information on revenue, expenses, assets, liabilities, and changes in equity, used by internal and external parties for economic decision-making.[29] Financial statements can be prepared manually or using computerised systems, with computerised methods being faster and more accurate.[30] Transparency and accuracy in financial statements are critical for assessing performance, supporting strategic planning, and attracting investors.[31]

Under Indonesian Financial Accounting Standards, financial statements consist of several key components. The Statement of Financial Position (Balance Sheet) presents an entity's assets, liabilities, and equity at the end of the period. The Income Statement shows revenues, expenses, and the resulting profit or loss during the reporting period. The Cash Flow Statement illustrates cash movements in operating, investing, and financing activities. The Statement of Changes in Equity explains variations in capital, while the Notes to the Financial Statements provide additional details on accounting policies and other important information.[32]

The presentation of the cash flow statement can be done using the direct method (recording gross cash flow) or the indirect method (adjusting profit with non-cash items).[33] Every business transaction must be carefully recorded in the ledger, including all income and expenses.[34] The first step in preparing financial statements is to gather all this data and classify it into specific accounts, such as income, expenses, assets, and liabilities.[35] After that,

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[28] Sugiarto. *Pengantar Akuntansi* (Tangerang: Univesitas Terbuka, 2015). 15.

[29] Yuli Orniati. "Laporan keuangan sebagai alat untuk menilai kinerja keuangan." *Jurnal ekonomi bisnis* 14, no. 3 (2009): 209.

[30] Arie Pradina Putri. "Transformasi akuntansi di era big data dan teknologi artificial intelligence (AI)." *Jurnal Cahaya Mandalika ISSN 2721-4796 (Online)* 5, no. 2 (2024): 940.

[31] Hastiwi Muktiana, Deby Novilasari Erlinda, and Nugroho Novemy Triyandari. "Pentingnya Laporan Keuangan Dalam Menilai Kinerja Keuangan Pada Perusahaan." In *Prosiding Seminar Nasional Hukum, Bisnis, Sains Dan Teknologi*, 23. 2023.

[32] Sujoko Efferin, Stevanus Hadi Darmadji, and Yuliawati Tan. *Metode penelitian akuntansi; mengungkap fenomena dengan pendekatan kuantitatif dan kualitatif* (Yogyakarta: Graha Ilmu, 2008). 24.

[33] Nina Dwi Yulianti. "Legal Consequences of Accountability Principles and Company Transparency Violation Toward Company Shareholders." *Awang Long Law Review* 6, no. 1 (2023): 227.

[34] Wastam Wahyu Hidayat. *Dasar-dasar analisa laporan keuangan* (Ponorogo: Uwais Inspirasi Indonesia, 2018). 30.

[35] Maylia Pramono Sari, L. V. Kiswanto, Khairunnisa Rahmadani, and I. D. Pamungkas. "Detection fraudulent financial reporting and corporate governance mechanisms using fraud diamond theory of the property and construction sectors in Indonesia." *Humanit. Soc. Sci. Rev* 8, no. 3 (2020): 1068.

248

**ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA**
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

an adjustment process is performed to ensure all transactions are recorded in the correct period. For example, unearned revenue or unpaid expenses must be recorded accurately. Once all adjustments are complete, the accountant can prepare the financial statements.

## 2. Financial Statement Manipulation Case Study

PT Kimia Farma Tbk., established in 1817 and nationalized before becoming a public company in 2001, faced scrutiny for manipulating its 2001 financial statements, initially reporting a net profit of Rp132 billion as audited by Hans Tuanakotta & Mustofa. A re-audit by the Capital Market Supervisory Agency and the Ministry of State-Owned Enterprises revealed the actual profit was only Rp99.56 billion, a 24.7% discrepancy due to inflated inventory, logistics, and sales data. This manipulation, orchestrated by the Board of Directors from 1998 to June 2002, involved issuing two inventory price lists dated February 1 and February 3, 2002, with the latter deliberately inflated to overstate inventory values as of December 31, 2001. The correction adjusted net sales to Rp1.409 trillion, raised the cost of goods sold to Rp950.875 billion, and lowered operating profit to Rp127.34 billion, exposing deliberate misstatements.[36]

The manipulation included overstating net profit by Rp32.7 billion, representing 2.3% of total sales, with specific errors in the Raw Material Industry Unit (overstated sales by Rp2.7 billion), Central Logistics Unit (overstated inventory by Rp23.9 billion), and Pharmaceutical Wholesaler Unit (overstated inventory by Rp8.1 billion and sales by Rp10.7 billion). Double counting of sales in the Pharmaceutical Wholesaler and Raw Material units, particularly in non-sampled units, violated the Capital Market Supervisory Agency Regulation Number VIII.G.7 on financial statement presentation. The audit, conducted per professional standards, found no intent by Hans Tuanakotta & Mustofa to aid management, but the firm's failure to detect the manipulation led to a Rp100 million fine for auditor Ludovicus Sensi W. Kimia Farma was fined Rp500 million, and former directors were ordered to pay Rp1 billion under Law Number 8/1995 in conjunction with Government Regulation No. 45/1995 for inflating financial statements.[37]

PT Tiga Pilar Sejahtera Food Tbk., initially a food industry company listed on the Indonesia Stock Exchange in 2003, gained prominence by joining the Kompas 100 Index in 2009 and receiving awards from Forbes Indonesia and Finance Asia. In 2017, allegations of financial statement manipulation

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[36] Tempo.co. "Denda Untuk Kimia Farma." *Tempo.co*, June 21, 2002. Retrieved in Maret 16, 2025 from https://www.tempo.co/ekonomi/denda-untuk-kimia-farma--1001669.

[37] Devi. "Begini Saksi Pelanggaran Manipulasi Laporan Keuangan". *Gatra.Com,* May 12, 2019. Retrieved in Maret 21, 2025 from <https://www.gatra.com/news-449670-ekonomi-begini-sanksi-pelanggaran-manipulasi-laporan-keuangan.html.

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

249

prompted shareholders to demand a re-audit in 2018 by Ernst & Young Indonesia, which uncovered asset inflation of Rp4 trillion, Rp1.78 trillion in fund transfers to affiliates, and undisclosed related-party transactions. President Director Stephen and Director Budhi, who controlled six distributor companies, faced trial for inflating receivables to enhance the company's financial appearance, misleading investors like Deni, who suffered losses from purchasing 781,400 shares worth Rp141 million. The financial statements, approved by Stephen and Budhi and audited by Amir Abadi Jusuf, Aryanto, Mawar & Partners, falsely presented these distributors as third parties, despite their related-party status, violating Indonesian Financial Accounting Standards.[38]

The six distributor companies, PT Kereta Kencana Mandiri, PT Kereta Kencana Mulia, PT Kereta Kencana Murni, PT Semar Pelita Sejati, PT Semar Kencana Sejati, and PT Tata Makmur Sejahtera, had inappropriately recorded receivables totaling Rp281,374,225,085. At the board's direction, receivable values were overstated beyond the Reconciliation Minutes as of December 31, 2017, with amounts ranging from Rp21.65 billion to Rp472.75 billion per company, totaling Rp1,613,189,000,000. This deliberate misrepresentation, consolidated in reports submitted to the Financial Services Authority and published on the Indonesia Stock Exchange, attracted investors under false pretenses, highlighting weaknesses in oversight and internal controls. The South Jakarta District Court, in Decision No. 1028/Pid.Sus/2020/PN JKT SEL, convicted Stephen and Budhi of violating Articles 93–104 of Law Number 8 of 1995 in conjunction with Article 55(1) of the Indonesian Criminal Code, sentencing them to four years in prison and a Rp2 billion fine, though the Supreme Court later acquitted them in Decision No. 2736 K/Pid.Sus/2022.

The case underscores the complexity of related-party transactions and the need for robust regulatory mechanisms to prevent such manipulations in publicly listed companies. The acquittal by the Supreme Court raises questions about the consistency of legal enforcement in addressing financial fraud, emphasizing the importance of stricter auditing standards and transparency.

Waskita Karya, a large state-owned enterprise in the construction sector, was caught in two major cases of financial statement manipulation and fictitious projects carried out by high-ranking company officials and caused state losses of around Rp202 billion, but only 34% was recovered.[39] BPK found

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[38] Faiz Rahman Siddiq and Bambang Sutopo. "The Fraud Hexagon as an Analytical Framework for Predicting Financial Statement Fraud: A Systematic Literature Review." *APLIKATIF: Journal of Research Trends in Social Sciences and Humanities* 3, no. 2 (2024): 160.

[39] Nuari, Ferlian. "PT. Waskita Karya: Terjerat Rekayasa Laporan Keuangan Dan Proyek Fiktif, Kerugian Negara Belum Terlunasi Sepenuhnya." *Kompasiana,* December 11, 2024. Retrieved in Maret 13, 2025 from https://www.kompasiana.com/ferliannuari6308/666d65a4c925c42c6f668de3/pt-waskita-

250

**ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA**
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

indications of manipulation of Waskita Karya's financial statements during 2018-2021 through recording fictitious income, delaying expense recognition, and accelerating asset recognition to hide the actual financial condition.[40] As a result, five former Waskita officials were charged with corruption and in Central Jakarta District Court Decision No. 59/Pid.Sus-TPK/2020/PN Jkt Pst were found guilty of violating Article 3 of the Anti-Corruption Law and sentenced to 4-7 years in prison and a fine of Rp200 million.

The defendants were accused of abusing their authority at PT Waskita Karya (Persero) between 2009 and 2013. Desi served as Head of the Civil Division, while others held key roles such as project managers. They orchestrated fictitious contracts with subcontractors to obtain off-budget funds for personal and corporate gain. Their actions involved abuse of position, manipulation of procurement processes, and breaches of state procurement regulations, resulting in state losses amounting to Rp202.2 billion and benefiting themselves and other parties.[41] This verdict was upheld by the DKI Jakarta High Court and the Supreme Court rejected the defendants' cassation.

Financial statement fraud is a criminal act involving deliberate deception to obtain unlawful financial gain.[42] This type of fraud is carried out intentionally, with the aim of deceiving others for personal or group benefit, often at the expense of other parties. The causes of fraud include greed, opportunity, need, and lack of disclosure.[43] The factors of opportunity and disclosure are related to the victim organization, where many opportunities may exist for perpetrators to commit fraud, while disclosure without sanctions does not deter repeat offenses.

The Association of Certified Fraud Examiners (ACFE), established in 1988, outlines several reasons behind financial statement fraud, including

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karya-terjerat-rekayasa-laporan-keuangan-dan-proyek-fiktif-kerugian-negara-belum-terlunasi-sepenuhnya

[40] Madjid, Zahwa, & Syahrizal Sidik. "Diduga Manipulasi Laporan Keuangan, Akuntan Publik Waskita Bermasalah". *Katadata.Co.Id,* June 11, 2023. Retrieved in Maret 13, 2025 from https://katadata.co.id/finansial/korporasi/647f1e4d8c9bf/diduga-manipulasi-laporan-keuangan-akuntan-publik-waskita-bermasalah.

[41] Nuari, Ferlian. "PT. Waskita Karya: Terjerat Rekayasa Laporan Keuangan Dan Proyek Fiktif, Kerugian Negara Belum Terlunasi Sepenuhnya." *Kompasiana,* December 11, 2024. Retrieved in Maret 13, 2025 from https://www.kompasiana.com/ferliannuari6308/666d65a4c925c42c6f668de3/pt-waskita-karya-terjerat-rekayasa-laporan-keuangan-dan-proyek-fiktif-kerugian-negara-belum-terlunasi-sepenuhnya

[42] Adedeji Daniel Gbadebo, Joseph Olorunfemi Akande, and Ahmed Oluwatobi Adekunle. "Financial statements fraud of banks and other financial institutions in Nigeria." *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.* 8, no. 9 (2023): 9.

[43] Maylia Pramono Sari, L. V. Kiswanto, Khairunnisa Rahmadani, and I. D. Pamungkas. "Detection fraudulent financial reporting and corporate governance mechanisms using fraud diamond theory of the property and construction sectors in Indonesia." *Humanit. Soc. Sci. Rev* 8, no. 3 (2020): 1070.

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

**ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA**
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

251

making a company's stock more attractive to investors, increasing earnings per share to raise dividends, obtaining additional or more favorable financing, meeting corporate goals, and receiving performance-based bonuses.[44] Such fraud may occur through forgery, alteration, or manipulation of records, misstatements or omissions in reports, misapplication of accounting principles, inadequate disclosures, aggressive earnings management, or exploiting loopholes in accounting standards.[45]

The American Institute of Certified Public Accountants (2002) defines fraudulent financial reporting as the act of intentionally manipulating financial information, concealing material facts, or altering accounting data to mislead readers of financial statements. Examples include: Timing Difference (recording transactions at inappropriate times), Fictitious or understated revenues, Concealed or overstated liabilities or expenses, Unfair valuation of assets, and Inadequate disclosure. This fraud harms investors, creditors, and other parties, incurs substantial losses, damages the company's reputation, erodes trust, and degrades the integrity of financial information impacting owners, employees, auditors, and competitors.[46]

## 3. Detecting Financial Statement Manipulation

Detecting financial statement manipulation requires a systematic approach using financial analysis tools and fraud theories, which have evolved significantly in Indonesia.[47] The fraud triangle, identifies pressure, opportunity, and rationalization as key drivers of fraud, forming the foundation for understanding manipulative behavior. This theory has been expanded into the fraud diamond, which adds capability, encompassing traits like position, intelligence, and deceit, and the fraud pentagon, which incorporates competence and arrogance. The fraud hexagon, the most comprehensive framework, includes six elements: stimulus (pressure), capability, collusion, opportunity, rationalization, and ego, with collusion highlighting coordinated efforts among individuals to perpetrate fraud.[48] These theories provide a

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[44] Nina Dwi Yulianti. "Legal Consequences of Accountability Principles and Company Transparency Violation Toward Company Shareholders." *Awang Long Law Review* 6, no. 1 (2023): 229.

[45] Rini Sartini, Pujangga Abdillah, Rismawati Sudirman, Khairul Azwar, Ira Hasti Priyadi, Rulyanti Susi Wardhani, Yura Karlinda, Debora Tri Oktarina Phety, Ni Luh Nyoman Sherina Devi, and Luh Pande Eka Setiawati. *Akuntansi forensik* (Jakarta: Tohar Media, 2023). 49.

[46] Natalis Christian, Helen Febriana, Saltycia Chairika, and Stella Maria Theresia Barahama. "Analisis Indikasi Manipulasi Laporan Keuangan Menggunakan Cash Flow Shenanigans Pada PT Perusahaan Gas Negara Tbk." *Jurnal Ilmiah Akuntansi Dan Humanika* 13, no. 2 (2023): 223.

[47] Tetiana Fitrianingsih and Y. Anni Aryani. "Bibliometric: Perkembangan Fraud Theory sebagai Pendeteksi Fraudulent Financial Reporting." *EQUITY* 26, no. 1 (2023): 102.

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**252**

ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

robust lens for identifying manipulation drivers, enabling auditors to pinpoint vulnerabilities in financial reporting systems.

Techniques such as the fraud hexagon and cash flow shenanigans are critical for uncovering manipulation in financial statements. Cash flow shenanigans involve tactics like improper revenue recognition, delayed expense recording, or engineered related-party transactions to misrepresent financial health.[49] In practice, these techniques are applied by analyzing red flags, such as environmental conditions or individual behaviors, that signal potential fraud, with each fraud type exhibiting distinct characteristics. Vertical analysis expresses financial statement components as percentages, revealing anomalies like accounts payable rising from 28% to 50% of total debt while the cost of sales to sales ratio drops from 25% to 22%, suggesting possible manipulation. Horizontal analysis, by contrast, tracks changes over time, where an 85% sales increase paired with a 150% rise in cost of goods sold, without corresponding changes in sales or purchase patterns, may indicate fictitious purchases or illegal transactions.

Ratio analysis further aids detection by assessing correlations, such as a declining current ratio that could reflect cash theft or embezzlement. Anomalous changes, like discrepancies between operating cash flow and earnings, often signal manipulation, particularly when companies make false tax payments to create an illusion of profitability. The Beneish Parameter Index, developed by Messod D. Beneish,[50] uses financial ratios related to asset changes and sales growth to classify companies as manipulators, non-manipulators, or gray, offering a quantitative tool to complement qualitative fraud theories. These combined approaches enhance the ability to detect manipulation, though their effectiveness depends on rigorous application and auditor expertise in interpreting complex financial data.

Detecting financial statement manipulation is essential for mitigating its impacts and enforcing legal accountability, as demonstrated by cases involving PT Kimia Farma Tbk., PT Tiga Pilar Sejahtera Food Tbk., and PT Waskita Karya (Persero) Tbk., which highlight the application of both criminal and administrative laws. The triad of criminal law, encompassing crime and punishment, criminal responsibility, and the criminal act, provides a framework for prosecuting financial fraud, with criminal responsibility tied to the perpetrator's awareness of their actions.[51] Financial statement manipulation is

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[49] Natalis Christian, Helen Febriana, Saltycia Chairika, and Stella Maria Theresia Barahama. "Analisis Indikasi Manipulasi Laporan Keuangan Menggunakan Cash Flow Shenanigans Pada PT Perusahaan Gas Negara Tbk." *Jurnal Ilmiah Akuntansi Dan Humanika* 13, no. 2 (2023): 225.

[50] Messod D. Beneish. "The detection of earnings manipulation." *Financial Analysts Journal* 55, no. 5 (1999): 25.

[51] Tutik Asmorowati, Mokh Thoif, Suyanto Suyanto, and Dwi Wachidiyah Ningsih. "Tindak Pidana Penyalahgunaan Pembukuan Perusahaan." *UNES Law Review* 6, no. 2 (2023): 5125.

**Jurnal Pembaharuan Hukum**
Volume 12, No. 2, August 2025

ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

253

primarily regulated under Law Number 8 of 1995 on Capital Markets, which addresses false or misleading statements with penalties of up to 10 years imprisonment and Rp15 billion in fines, and deceptive practices harming others with up to 3 years imprisonment and Rp5 billion fines.[52] These provisions aim to deter manipulation by imposing severe consequences, but their effectiveness varies across cases, as seen in differing legal outcomes.

In cases like Kimia Farma, administrative sanctions under Law Number 8/1995 and Regulation of the Minister of Finance No. 154/PMK.01/2017 were applied, including fines of Rp500 million on the company and Rp100 million on the auditor, yet subsequent allegations of Rp1.82 trillion in losses suggest persistent enforcement gaps.[53] The Capital Market Supervisory Agency found that Kimia Farma's manipulation, involving inflated inventory and sales, violated regulations on financial statement presentation, but administrative measures alone failed to prevent recurrence. This highlights the limitations of administrative sanctions, which, despite impacting the reputation of Public Accounting Firms, lack the deterrent power of criminal penalties. Criminal provisions under the Indonesian Criminal Code, such as Article 378 for fraud and Article 263 for document forgery, offer additional avenues for prosecution, though the lex specialis nature of the Capital Market Law often takes precedence.

In the Tiga Pilar Sejahtera Food case, directors faced criminal charges for inflating receivables, violating Articles 93–104 of Law Number 8 of 1995, resulting in four-year prison sentences and Rp2 billion fines, but their acquittal by the Supreme Court underscores inconsistencies in judicial outcomes. The acquittal, despite evidence of manipulated financial statements, points to challenges in proving intent and securing convictions, raising questions about the judiciary's capacity to handle complex financial fraud cases. Conversely, the Waskita Karya case saw convictions under Article 3 of the Anti-Corruption Law, with sentences ranging from 4 to 7 years for orchestrating fictitious contracts, demonstrating the use of alternative legal frameworks when capital market laws are not applied. This case illustrates that anti-corruption laws can effectively address financial manipulation when linked to state losses, offering a model for stricter enforcement.

Public accountants play a critical role in maintaining financial statement integrity, with accountability enforced under Article 80 of Law Number 8 of 1995, requiring audit opinions to align with Professional Standards and the

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[52] Law Number 8 Year 1995 on Capital Market (The Republic of Indonesia State Gazette Year 1995 Number 64, Annotation 3608).

[53] H, Arief Rahman. "Bikin Rugi Rp 1.82 Triliun, Audit Investigasi Kimia Farma Apotek Rampung Agustus". *Liputan6.Com*, May 12, 2024. Retrieved in Maret 19, 2025 from https://www.liputan6.com/bisnis/read/5628341/bikin-rugi-rp-182-triliun-audit-investigasi-kimia-farma-apotek-rampung-agustus?page=3\.

**254**

**ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA**
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

Code of Ethics.[54] Violations, such as falsifying or omitting material facts, can lead to up to 5 years imprisonment and Rp300 million fines under Law Number 5 of 2011 for public accountants. However, cases like Kimia Farma reveal that even compliant audits may fail to detect manipulation, underscoring the need for enhanced auditor training and oversight. Reliable financial statements adhering to Indonesian Financial Accounting Standards are vital for investor trust, and strict policies can reduce fraud risks by fostering transparency.

To strengthen enforcement, alternative solutions include establishing a specialized supervisory body to coordinate between the Financial Services Authority, Supreme Audit Agency, and Ministry of Finance, ensuring consistent application of laws. Mandatory continuous professional education, stricter disclosure requirements, and real-time audit monitoring could further minimize fraud risks, while a guarantee fund for public accountants could protect investors from losses due to negligent audits. These measures aim to create a competitive and reliable business ecosystem, addressing the enforcement gaps evident in the varying outcomes of the Kimia Farma, Tiga Pilar, and Waskita Karya cases.

## 4. Utilization Artificial Intelligence

AI is transforming financial management for individuals and businesses. In personal finance, AI simplifies money management through apps for tracking expenses, offering recommendations, and supporting financial planning,[55] while enhancing financial literacy, especially for vulnerable groups like the elderly or people with disabilities. For businesses, AI aids strategic planning with cash flow forecasts, risk analysis, and transaction data processing,[56] while preventing fraud and ensuring data privacy via conversational AI interfaces, making it a vital component of global financial management.

AI mimics human cognitive functions using machine learning, pattern recognition, and natural language processing,[57] pioneered by Alan Turing in 1947 with the belief that machines could process information like humans. Since his 1950 study, AI has advanced rapidly, exemplified by Deep Blue

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[54] Faiz Rahman Siddiq and Bambang Sutopo. "The Fraud Hexagon as an Analytical Framework for Predicting Financial Statement Fraud: A Systematic Literature Review." *APLIKATIF: Journal of Research Trends in Social Sciences and Humanities* 3, no. 2 (2024): 165.

[55] Wicaksono, Pribadi, & Andry Triyanto Titra. "Mengenal Scientific Crime Investigation, Metode Yang Digunakan Polda DIY Dalam Kasus Mutilasi Mahasiswa UMY." Tempo.Co, January 2, 2023. Retrieved in Maret 12, 2025 from https://www.tempo.co/hukum/mengenal-scientific-crime-investigation-metode-yang-digunakan-polda-diy-dalam-kasus-mutilasi-mahasiswa-umy-165087

[56] Nina Dwi Yulianti. "Legal Consequences of Accountability Principles and Company Transparency Violation Toward Company Shareholders." *Awang Long Law Review* 6, no. 1 (2023): 227.

[57] Hariyanto S. Auna and Nuriyati Hamzah. "AI-Powered Learning: Revolutionizing Cognitive Abilities in Education." *Journal of Education and Culture (JEaC)* 4, no. 1 (2024): 49.

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

**ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA**
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

255

defeating chess champion Gary Kasparov in 1997,[58] and continues to shape the future through sophisticated logic and data processing capabilities.[59]

AI, evolving toward human-like intelligence, remains a tool dependent on human commands and interests. Under Article 20 of Indonesia's National Criminal Code (Law Number 1 of 2023), using a tool, like AI, to commit a crime incurs punishment, but those merely ordered to act are not guilty. AI can serve as scientific evidence in Indonesia's justice system, potentially classified as expert testimony or letters under Article 184(1) of KUHAP, with electronic evidence highlighting the legal system's adaptation to technology.[60]

Scientific evidence, backed by regulations like Law Number 2 of 2002 and National Police Chief Regulation No. 6 of 2019,[61] encompasses forensic identification, digital investigations, and technology-based criminal data analysis. This evidence, including digital recordings and forensic analysis results, enables judges to make fairer, fact-based decisions in Indonesia's justice system.[62] As verifiable data, scientific evidence offers reliability, objectivity, and consistent replication, transforming criminal law by enhancing precision and prioritizing justice. Its integration highlights the need for legal professionals to develop expertise in managing such evidence to ensure an efficient and credible judicial process.

Scientific crime investigation emphasizes multidisciplinary analysis using scientific methods, data collection, and systematic examination, with suspect confessions placed last among evidentiary tools in court. [63]This approach highlights the need for legal professionals to master technology-based methods, ensuring integrity and effectiveness in law enforcement. Judicial capacity is essential, as judges and law enforcement must understand technical aspects of scientific evidence to evaluate its validity and relevance.[64] However, challenges remain, including limited technological literacy and risks of misinterpretation. Thus, judicial debriefing and continuous capacity building

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[58] Putri Safira Pitaloka, 'Profil Deep Blue, Teknologi Komputer Yang Mengalahkan Pecatur Garry Kasparov' (Tempo.Co, 2023). Available at <https://www.tempo.co/digital/profil-deep-blue-teknologi-komputer-yang-mengalahkan-pecatur-garry-kasparov-191850> , accessed 28 Maret 2025.

[59] John W. Wesley. "Scientific evidence and the question of judicial capacity." *Wm. & Mary L. Rev.* 25 (1983): 675.

[60] Rita Komalasari and Cecep Mustafa. "Electronic Evidence in The Healthy Justice System: Reimagined." *Jurnal Hukum dan Peradilan* 12, no. 3 (2023): 548.

[61] Handar Subhandi Bakhtiar. "The Evolution of Scientific Evidence Theory in Criminal Law: A Transformative Insight." *Media Iuris* 7, no. 2 (2024): 223.

[62] Teddy Lahati. "The Existence And Role Of Electronic Evidence In The Judicial System In IndonesiA." *Judex Laguens* 2, no. 1 (2024): 98.

[63] Wicaksono, Pribadi, & Andry Triyanto Titra. "Mengenal Scientific Crime Investigation, Metode Yang Digunakan Polda DIY Dalam Kasus Mutilasi Mahasiswa UMY." Tempo.Co, January 2, 2023. Retrieved in Maret 12, 2025 from https://www.tempo.co/hukum/mengenal-scientific-crime-investigation-metode-yang-digunakan-polda-diy-dalam-kasus-mutilasi-mahasiswa-umy-165087

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256 | **ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA** Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

*Jurnal Pembaharuan Hukum* Volume 12, No. 2, August 2025

are vital to ensure the correct application of scientific evidence in line with legal principles and truth-based justice.[65]

This discussion emphasizes practical implications, such as the need to improve the capacity of law enforcement officials, strengthen regulations regarding scientific evidence, and utilize artificial intelligence technology in financial crime detection. However, no concrete legal reconstruction is evident, as no proposed regulatory changes are proposed. In terms of legal doctrine, the discussion only mentions relevant articles without delving into theory. Furthermore, this study does not present specific case studies, so the analysis remains general and normative.

Scientific evidence, particularly important in complex cases like financial crime where criminals leverage advanced technology, often requires expert explanation and scientific methods for proof. Artificial intelligence (AI) has emerged as a form of scientific evidence, capable of analyzing vast datasets and detecting anomalies like financial statement fraud.[66] However, its reliability and relevance are still debated, hinging on the transparency and validation of its algorithms.[67] Addressing concerns about algorithmic bias and ensuring independent validation, periodic testing, and clear regulations are vital steps to build trust in AI as evidence within the judicial process, both domestically and internationally.

## D. CONCLUSION

This study reveals that financial statement manipulation, such as inventory inflation in PT Kimia Farma Tbk. and related-party transactions in PT Tiga Pilar Sejahtera Food Tbk., remains a persistent challenge in Indonesia, undermining investor trust and market stability. Techniques like income smoothing and fictitious revenues, identified through case studies, exploit weaknesses in internal controls, particularly in state-owned enterprises and startups like eFishery. Artificial intelligence (AI) offers significant potential to enhance fraud detection by identifying anomalies in financial data, but its misuse by fraudsters to create sophisticated manipulations poses a new risk. The analysis of legal frameworks, including Law Number 8 of 1995, shows that enforcement gaps hinder effective prosecution, necessitating stronger regulatory oversight. These findings highlight the urgent need for robust mechanisms to ensure transparency and accountability in financial reporting.

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[65] Nina Dwi Yulianti. "Legal Consequences of Accountability Principles and Company Transparency Violation Toward Company Shareholders." *Awang Long Law Review* 6, no. 1 (2023): 228.

[66] I. Ketut Sukewati Lanang Putra Perbawa. "Application of Artificial Intelligence as Evidence in Indonesian Courts." *International Journal of Social Science and Business* 5, no. 2 (2021): 182.

[67] Paul W. Grimm, Maura R. Grossman, and Gordon V. Cormack. "Artificial intelligence as evidence." *Nw. J. Tech. & Intell. Prop.* 19 (2021): 9.

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Volume 12, No. 2, August 2025

ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

257

This research contributes to the academic discourse by addressing the underexplored dynamics of financial fraud in Indonesian startups and the dual role of AI, filling a gap in prior studies focused on larger firms. To address these challenges, regulators should mandate AI-driven forensic audits and implement stricter disclosure requirements to enhance transparency. Training programs for auditors on AI tools, such as anomaly detection algorithms, are essential to strengthen detection capabilities, while dedicated oversight bodies could improve enforcement consistency. A transparent financial ecosystem is critical for fostering investor confidence and economic growth in Indonesia. Future research should explore AI's effectiveness in detecting fraud in high-growth startups and assess the feasibility of integrating AI into Indonesia's judicial system to support legal proceedings.

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**ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA**
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

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*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

259

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260

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Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

*Jurnal Pembaharuan Hukum*
Volume 12, No. 2, August 2025

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Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

261

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262 **ARTIFICIAL INTELLIGENCE AND THE LEGAL FRAMEWORK IN PREVENTING FINANCIAL REPORT MANIPULATION IN INDONESIA**
Andreas Eno Tirtakusuma, Eleazar Josiah Tirtakusuma, Adino Jedidiah Tirtakusuma

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