

Anti-Money Laundering Regulations in the Crypto-Based Fintech Sector of Indonesia and Malaysia: Lessons from the European Union

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KEYWORDS	ABSTRACT
Keywords: Anti-Money Laundering; Crypto-Fintech; Regulatory Framework; Financial Integrity; Comparative Legal Analysis. Conflict of Interest Statement: . Copyright © 2026 Vifada Assumption Journal of Law. All rights reserved.	Purpose: This study aims to analyze and compare anti-money laundering (AML) regulations in the crypto-based fintech sectors of Indonesia and Malaysia, using the European Union (EU) as a benchmark for best practices. The EU is chosen as a benchmark primarily due to potential concrete lessons from the MiCA framework and AML Directives. This benchmark also serves as the main element of novelty, as it combines comparative analysis of Indonesia and Malaysia with the assessment of the EU's regulatory advantages under its harmonized crypto-asset regulatory model. Research Design and Methodology: The research employs a normative doctrinal legal method with statutory, comparative, and conceptual approaches, relying on qualitative analysis of secondary legal materials. Findings and Discussion: The findings reveal that although Indonesia and Malaysia have established AML frameworks, both face significant challenges in regulatory effectiveness, particularly due to fragmented supervision, limited coordination, and gaps between regulation and implementation. In contrast, the European Union demonstrates a more comprehensive and harmonized regulatory model through instruments such as MiCA and AML Directives, which enhance transparency, cross-border cooperation, and regulatory adaptability. Implications: These findings imply that Indonesia and Malaysia need to adopt and contextualize EU best practices by strengthening institutional integration, improving regulatory coherence, and enhancing compliance mechanisms to ensure a more effective and resilient AML regime in the evolving digital financial landscape.

Introduction

Among the most notable innovations of today's technological transformation is the emergence of cryptofinance that is supported by financial technology (cryptofintech), integrating blockchain and cryptographic technologies to offer fast, efficient, and transparent digital financial services without reliance on traditional financial institutions.¹ Cryptocurrency is a digital currency secured by cryptography that governs the creation and issuance of new units.² Operating in a decentralized manner, cryptocurrency is managed across peer-to-peer (P2P) networks, with transaction data stored on blockchain systems that ensure transparency and safeguard against manipulation.³ Globally, cryptocurrency adoption continues to rise across both developed nations and Southeast Asia. Countries such as the United States, the United Kingdom, Japan, South Korea, and Singapore have

¹ Nelly Nur Rohmah et al., "Peran Fintech Dalam Pembentukan Pasar Global Untuk Mata Uang Digital : Dampak Terhadap Stabilitas Ekonomi," *Jurnal Ekonomi Dan Manajemen* 2, no. 1 (2025): 2471-79, <https://doi.org/10.62710/ydzn1q91>.

² Tiara Dhana Danella, MH Dr. Sihabbudin, SH, and MH Siti Hamidah, SH, "Bitcoin Sebagai Alat Pembayaran Yang Legal Dalam Transaksi Online," *Jurnal Mahasiswa Fakultas Hukum Universitas Brawijaya* (Universitas Brawijaya, 2015), <https://repository.ub.ac.id/id/eprint/112355/>.

³ Abdurohim and Mohamad Irfan, "Cryptocurrency Dan Stabilitas Sistem Keuangan : Tinjauan Literatur Dampak, Peluang, Dan Tantangan Regulasi," *Portofolio: Jurnal Ekonomi, Bisnis, Manajemen Dan Akuntansi* 21, no. 2 (2024): 64-94, <https://doi.org/10.26874/portofolio.v21i2.696>.

embraced this technology extensively.⁴ A similar trend is visible across ASEAN, with Singapore leading adoption rates at 10% of its population, surpassing even the U.S. at 8.3%. Vietnam and Thailand followed closely, ranking second and third globally for cryptocurrency adoption in 2021.⁵ In Indonesia, adoption has also grown significantly, with cryptocurrency investors increasing by 43.75% between January and August 2022.⁶ Indonesia's digital economy was valued at approximately USD 90 billion, while Malaysia's was valued at USD 31 billion, together making up for about 46% of the region's total digital economy gross merchandise value (GMV) in 2024.⁷ These data primely position both countries to become hotbeds of fintech development, particularly for cryptofinance.

However, its rapid expansion of cryptofinance has also brought forth significant challenges, particularly concerning money laundering risks.⁸ For instance, in 2023, the Russian platform Bitzlato Ltd. was implicated in laundering over USD 700 million. Due to weak identity verification protocols and high transaction anonymity, the platform became a conduit for illicit activities.⁹ Consequently, its founder was apprehended and the primary server was seized by U.S. and EU authorities. Limited regulatory oversight hindered early detection of suspicious transactions and the identification of risks, creating opportunities for illegal practices such as money laundering and terrorist financing.¹⁰ This problem is exacerbated by blockchain's capacity to obscure user identities.¹¹

In response to the growing challenges, the Indonesian government has enacted several regulations concerning cryptocurrency usage. These include Law No. 21 of 2011 on the Financial Services Authority (*Otoritas Jasa Keuangan*/OJK), Bank Indonesia Regulation No. 19/10/PBI/2017 on the Prohibition of Virtual Currency Use, and Commodity Futures Trading Regulatory Agency Regulation No. 8 of 2021 on the Guidelines for Physical Trading of Crypto Assets on the Futures Exchange. However, none of the regulatory frameworks mentioned above represents a dedicated, comprehensive, and harmonized regulation for cryptofinance.¹² Similar regulatory landscape is also found in Malaysia, where despite the existence of Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001, the AML/CFT and Targeted Financial Sanctions Guidelines, the Capital Markets and Services Act 2007, the Personal Data Protection Act 2010, the Financial Services Act 2013, the Islamic Financial Services Act 2013, the Guidelines on Digital Assets 2020, and the Capital Markets and Services (Prescription of Securities) Order, there is not yet a legal product specifically designed to address cryptofinance in the country's fintech environment.

From the legal standpoint, truly understanding the aspects that affect cryptofinance and how they interact with core anti money-laundering (AML) elements is important in ensuring that cryptofinance can become an accessible choice of finance today.¹³ Considering the growth of the fintech sector and how it has facilitated many aspects of economic development and social mobility, this is also crucial to create a safe and secure environment of finance, be it for businesses or for

⁴ Michael G Lindsay, "International Rise of Cryptocurrency: A Comparative Review of The United States, Mexico, Singapore, and Switzerland's Anti-Money Laundering (AML) Regulation," *South Carolina Journal of International Law and Business* 19, no. 2 (2023): 160-85, <https://scholarcommons.sc.edu/scjilb/vol19/iss2/8/>.

⁵ Abdurrahman and Irfan, "Cryptocurrency Dan Stabilitas Sistem Keuangan : Tinjauan Literatur Dampak, Peluang, Dan Tantangan Regulasi."

⁶ Febrian Duta Pratama and Dewi Rahmawati Gustini, "Perkembangan Aset Kripto Sebagai Subjek Kontrak Berjangka Baru Di Bursa Berjangka Dalam Rangka Menyongsong Indonesia Emas," *Nusantara : Jurnal Pendidikan, Seni, Sains Dan Sosial Humaniora* 1, no. 1 (2022): 1-15, <https://journal.forikami.com/index.php/nusantara/article/view/77>.

⁷ Google, Temasek, and Bain & Company, "E-Conomy SEA 2024 Profits on the Rise, Harnessing SEA's Advantage" (Singapore, November 2024), <https://www.bain.com/insights/e-economy-sea-2024/>.

⁸ Rusno Haji, "Urgensi Penerapan Kerangka Regulasi Aset Kripto Yang Komprehensif, Adaptif, Dan Akomodatif," *Trade Policy Journal* 1, no. 1 (2022): 33-42, <https://jurnal.kemendag.go.id/TPJ/article/view/760>.

⁹ Marta Spyra et al., "Cryptocurrencies as a Tool for Money Laundering: Risk Assessment and Perception of Threats Based on Empirical Research," *Risks* 13, no. 10 (October 2, 2025): 1-17, <https://doi.org/10.3390/risks13100189>.

¹⁰ Denny and Hari Sutra Disemadi, "Cryptocurrencies as Digital Payment Media: Opportunities and Challenges," *Law and Justice* 7, no. 2 (2022): 128-42, <https://doi.org/10.23917/laj.v7i2.743>.

¹¹ Gatot Gunarso and Stephanie, "Cryptocurrency and Its State of Research," *International Dialogues on Education* 9, no. 1 (2022): 151-75, <https://doi.org/10.53308/ide.v9i1.280>.

¹² Guntoro Guntoro and Listyowati Sumanto, "Urgensi Regulasi Cryptocurrency Di Indonesia Dalam Menghadapi Perkembangan Teknologi," *Indonesian Journal of Law* 1, no. 6 (2024): 162-69, <https://jurnal.intekom.id/index.php/inlaw/article/view/495>.

¹³ Abdurrahman Alhakim and Tantimin Tantimin, "The Legal Status of Cryptocurrency and Its Implications for Money Laundering in Indonesia," *PADJADJARAN Jurnal Ilmu Hukum (Journal of Law)* 11, no. 2 (August 2024): 231-53, <https://doi.org/10.22304/pjih.v11n2.a4>.

individuals.¹⁴ More importantly, the risks associated with money laundering, such as terrorism, inflation, and potential support of other forms of serious crimes, further accentuate the urgency behind a comprehensive legal analysis for this topic.¹⁵ Not to mention, the cryptofinance itself can create new regulatory challenges due to its decentralized, borderless, and pseudonymous nature, which may complicate the identification of parties involved in financial transactions and facilitate other illicit activities. Therefore, there is a clear urgency in diving deep into this particular legal topic, as both Indonesia and Malaysia are facing an increasing demand for legal certainty around cryptocurrencies, linear with their rapid economic development.

Literature Review

Studies by Afrizal & Marliyah (2021) and Afriansyah et al. (2023) highlight the vulnerability of virtual currencies to potential misuse for money laundering.¹⁶ These studies underscore the urgent need to strengthen cryptocurrency regulation in Indonesia. Similarly, Irlanda (2024) emphasize that the emergence of cryptocurrency introduces new challenges for anti-money laundering (AML) efforts, requiring strong inter-agency coordination and more robust regulatory instruments.¹⁷ Denny & Disemadi (2022) argue that while cryptocurrency offers considerable potential as a payment and investment tool in the digital era, the absence of adequate legal recognition in Indonesia due to regulatory gaps remains a barrier.¹⁸ Accordingly, specific and targeted regulatory development is necessary to maximize the benefits of cryptocurrency while mitigating its associated risks, which is precisely what is highlighted in a study carried out by Benson et al. (2024), with the added emphasis on regulatory harmony.¹⁹ In an Indonesia-Malaysia comparative analysis, Norman (2025) examines the legal transformation of crypto assets in Indonesia by comparing Indonesia's post-UU P2SK transition from Bappebti to OJK supervision with Malaysia's more settled securities-based framework under the Securities Commission Malaysia.²⁰ While important for the growing body of literature, it does not substantially analyze how AML/CFT obligations apply to crypto-finance actors in Indonesia and Malaysia. Highlighting a more developed legal system, Rouan (2025) notes in a study that the EU's MiCA represents a harmonized regulatory framework for digital assets in the European Union, supported by the Travel Rule to strengthen KYC and AML compliance for crypto-asset service providers, particularly in tackling a prevalent problem often attributed to the growth of cryptofinance in general, AML.²¹ However, the study remains centered on the EU, US, and UK regulatory contexts, leaving limited discussion on how such AML mechanisms can be adopted by developing nations.

In contrast to the reviewed studies, this research offers a novel contribution by evaluating and comparing AML regulations governing the crypto-based fintech sectors in Indonesia and Malaysia against the more advanced and comprehensive regulatory framework of the European Union. Malaysia is selected due to its geographical proximity and similar mixed legal system, as well as shared challenges in regulating AML efforts in the crypto sector. The European Union, on the other hand,

¹⁴ Dwi Yoga Wicaksana, Hapsari Shinta Citra Puspita Dewi, and Erta Erta, "Fintech for SDGs: Driving Economic Development Through Financial Innovation," *Journal of Digital Business and Innovation Management* 2, no. 2 (December 31, 2023): 126-38, <https://doi.org/10.26740/jdbim.v2i2.57960>.

¹⁵ Rumi Suwardiyati et al., "Setting the Readiness of Law to Implement Central Bank Digital Currency in Indonesia," *Arena Hukum* 17, no. 3 (December 13, 2024): 514-44, <https://doi.org/10.21776/ub.arenahukum2024.01703.3>.

¹⁶ Afrizal Afrizal, Marliyah Marliyah, and Fuadi Fuadi, "Analisis Terhadap Cryptocurrency (Perspektif Mata Uang, Hukum, Ekonomi Dan Syariah)," *E-Mabis: Jurnal Ekonomi Manajemen Dan Bisnis* 22, no. 2 (November 22, 2021): 13-41, <https://doi.org/10.29103/e-mabis.v22i2.689>; Arie Afriansyah, Ahmad Khozi, and M Akila Wargadalem, "Indonesia's Laws and Policies in Combatting Terrorism Financing," *AML/CFT Journal The Journal of Anti Money Laundering and Countering the Financing of Terrorism* 2, no. 1 (December 2, 2023): 1-18, <https://doi.org/10.59593/amlcft.2023.v2i1.49>.

¹⁷ Febrina Irlanda, "Penegakan Hukum Pencucian Uang Cryptocurrency Sebagai Revolusi Kejahatan Masa Digital," *Jurnal Magister Hukum Udayana* 13, no. 4 (2024): 929-45, <https://doi.org/10.24843/JMHU.2024.v13.i04.p13>.

¹⁸ Denny and Disemadi, "Cryptocurrencies as Digital Payment Media: Opportunities and Challenges."

¹⁹ Vladlena Benson et al., "Harmonising Cryptocurrency Regulation in Europe: Opportunities for Preventing Illicit Transactions," *European Journal of Law and Economics* 57, no. 1 (2024): 37-61, <https://doi.org/10.1007/s10657-024-09797-w>.

²⁰ Cindy Aulia Norman, "Transformasi Hukum Aset Kripto Di Indonesia: Analisis Komparatif Dengan Malaysia Mengenai Pergeseran Dari Komoditas Ke Instrumen Keuangan," *Padjajaran Law Review* 13, no. 1 (July 2025): 100-113, https://jurnal.fh.unpad.ac.id/index.php/plr/article/view/2214?utm_source=chatgpt.com.

²¹ Mollie Rouan, "Show Me the Money: Approaches to Anti-Money Laundering Compliance for Digital Assets," *Brooklyn Journal of Corporate, Financial & Commercial Law* 19, no. 2 (2025): 485-508, <https://brooklynworks.brooklaw.edu/bjcfcl/vol19/iss2/7/>.

has implemented more adaptive and forward-looking regulatory responses to money laundering in fintech, positioning itself as a potential reference or benchmarking object due to its more robust regulatory structure. This research's primary value stems from its insights around the world of cryptofinance and its promotion of regulatory reforms to further support the fintech sector that is constantly adapting to facilitate crypto transactions, particularly in mitigating the risks of money laundering in the face of rapid digital financial innovation. It is imperative to note, however, that this research also acknowledges certain limitations, particularly lack of primary empirical evidence. Relying solely on document analysis and literature review, the findings may not fully reflect the actual implementation of regulations. Despite these limitations, this study offers meaningful contributions toward enhancing regulatory systems in the crypto-based fintech domain and the growing body of literature for fintech, specifically AML and cryptofinance.

This study employs the progressive law theory, as articulated by Satjipto Rahardjo. This theoretical framework advocates that law must be dynamic, responsive, and capable of adapting to social, economic, and technological changes. In the context of crypto-based fintech, this theory is particularly relevant as the evolution of digital financial technology has introduced new forms of transactions and financial crimes, including money laundering many of which remain beyond the reach of traditional legal frameworks. Progressive law emphasizes not merely formal legal compliance, but the pursuit of substantive justice through innovative regulatory strategies and cross-institutional collaboration. The application of progressive legal theory in this research serves to examine the extent to which Indonesian and Malaysian AML regulations are responsive to the risks posed by crypto-assets. Hence, more effective law enforcement mechanisms are essential to prevent illicit activities such as money laundering and cybercrime. In line with this theoretical foundation, Indonesia and Malaysia can draw lessons from the European Union's implementation of Directive (EU) 2018/843 (5AMLD), which is substantially based on the recommendations of the Financial Action Task Force (FATF). This directive offers a robust regulatory framework that can serve as a valuable reference for enhancing the adaptability and resilience of Indonesia's and Malaysia's regulatory regimes to the emerging technological threats in the crypto-fintech sector.

Research Design and Methodology

This study employs normative legal research, specifically of a doctrinal nature. Doctrinal legal research focuses on examining the law as it is, independent of influences from other disciplines.²² This method was selected as it aligns with the objective of the research, namely to conduct a comparative analysis of anti-money laundering (AML) regulations in Indonesia and Malaysia, with the European Union serving as a reference jurisdiction. The research adopts a combination of three legal approaches: the statutory approach, which involves the analysis of relevant legislative instruments; the comparative approach, which facilitates cross-jurisdictional evaluation; and the conceptual approach, which enables a deeper understanding of underlying legal principles and doctrines. Indonesia and Malaysia are primarily chosen as the jurisdictions to be benchmarked against the European Union (EU) as the two countries represent similar characteristics of rapid economic development facilitated by the fintech market, followed by the lack of clear regulatory framework that governs cryptofinance. On the other hand, the EU is chosen as the benchmark jurisdiction due to its mature regulatory landscape for cryptofinance, particularly through its harmonized framework of Markets in Crypto-Assets Regulation (MiCA). The study also utilizes a set of comparative parameters for the analysis and benchmarking, namely legal basis, regulatory scope, supervisory authority, AML/CTF compliance obligations, and enforcement mechanisms.

The study relies on secondary data, obtained indirectly through literature review. These data sources consist of legal materials relevant to the AML regulatory frameworks of Indonesia, Malaysia, and the European Union. In the case of Indonesia, the study examines Law No. 8 of 2010 on the Prevention and Eradication of Money Laundering, Bank Indonesia Regulation No. 19/10/PBI/2017 on the Prohibition of Virtual Currency Use, and BAPPEBTI Regulation No. 5 of 2019 on Physical Trading of Crypto Assets. For Malaysia, the key legal instrument is the Anti-Money Laundering and Anti-

²² Hari Sutra Disemadi, "Lensa Penelitian Hukum : Esai Deskriptif Tentang Metodologi Penelitian Hukum," *Journal of Judicial Review* 24, no. 2 (2022): 289-304, <https://doi.org/10.37253/jjr.v24i2.7280>.

Terrorism Financing Act 2001 (AMLATFA). As for the European Union, the primary reference is Directive (EU) 2018/843, also known as the Fifth Anti-Money Laundering Directive (5AMLD). All data were analyzed using qualitative analysis, which seeks to understand the legal, contextual, and regulatory dynamics in-depth.²³ This directs the study to analyze the legal materials descriptively, focusing on doctrinal examination of the content, scope, and function of the relevant legal norms, as well as their similarities and differences across the selected jurisdictions.

Findings and Discussion

Comparative Analysis of Anti-Money Laundering Regulations in Indonesia and Malaysia in Addressing Financial Crime Risks Arising from Crypto-Based Fintech

In the digital age, technology has profoundly transformed the way people interact, work, and conduct financial transactions. One of the most significant innovations is crypto-based financial technology (crypto-based fintech), which has seen rapid development in recent years.²⁴ This form of fintech integrates blockchain and cryptocurrency to provide more efficient, secure, and modern financial services.²⁵ According to the Deputy Commissioner of the OJK Institute and Digital Finance, fintech plays a vital role in accelerating financial inclusion, which significantly enhances access to funding, improving quality of life, and contributing to overall economic welfare.²⁶ The fast growth of fintech services reflects a transition toward digital financial ecosystems that support small and medium enterprises (SMEs) and foster national economic growth.

However, despite its numerous advantages, many users remain unaware of the potential risks posed by these services. The use of blockchain technology in crypto-based fintech introduces threats to information security, including risks related to consumer protection, data security, money laundering, terrorist financing, financial system stability, monetary policy effectiveness, and cybercrime.²⁷ According to the Financial Services Authority (OJK), as of 31 December 2024, there were 97 licensed fintech lending companies. Meanwhile, the Illegal Financial Activities Task Force reported blocking 796 illegal entities between October and December 2024, 8 of which were crypto-related fintech platforms. Unregistered platforms pose serious risks due to the lack of oversight and regulatory monitoring.²⁸ Money laundering not only harms the public but also undermines the macroeconomic stability of a country,²⁹ thus necessitating robust and comprehensive regulatory measures to address and prevent such threats.

As a preventive measure against money laundering and terrorist financing, both Indonesia and Malaysia require financial service providers to implement the Know Your Customer (KYC) principle now broadly referred to as Customer Due Diligence (CDD) and to submit Suspicious Transaction Reports (STRs).^{30,31} CDD involves identifying, verifying, and monitoring customers from the outset to

²³ David Tan, "Metode Penelitian Hukum: Mengupas Dan Mengulas Metodologi Dalam Menyelenggarakan Penelitian Hukum," *NUSANTARA: Jurnal Ilmu Pengetahuan Sosial* 8, no. 5 (2021): 2463-78, <https://jurnal.um-tapsel.ac.id/index.php/nusantara/article/view/5601>.

²⁴ Ida Ayu Samhita Chanda Thistanti, I Nyoman Gede Sugiarta, and I Wayan Arthanaya, "Kajian Yuridis Mengenai Legalitas Cryptocurrency Di Indonesia," *Jurnal Preferensi Hukum* 3, no. 1 (2022): 7-11, <https://doi.org/10.22225/jph.3.1.4592.7-11>.

²⁵ Ida Martinelli, "Menilik Financial Technology Dalam Bidang Perbankan," *Jurnal Somasi Sosial Humaniora Komunikasi* 2, no. 1 (2021): 32-43, <https://doi.org/10.53695/js.v2i1.353>.

²⁶ Yovie Bramantyo Adji et al., "Perkembangan Inovasi Fintech Di Indonesia," *Business Economic, Communication, and Social Sciences Journal* 5, no. 1 (2023): 47-58, <https://doi.org/10.21512/becossjournal.v5i1.8675>.

²⁷ Djuni Thamrin and Amalia Syauket, "Analisis Terhadap Krisis Regulasi Pengaturan Crypto Currency Yang Mengancam Human Security Di Indonesia," *Jurnal Keamanan Nasional* 9, no. 2 (2023): 399-422, <https://ejurnal.ubharajaya.ac.id/index.php/kamnas/article/view/1424>.

²⁸ Febrina Annisa and Prima Resi Putri, "Penerapan Program APU PPT Untuk Mencegah Pencucian Uang Dan Pendanaan Terorisme Pada Industri Fintech," *ADIL: Jurnal Hukum* 11, no. 2 (2020): 59-75, <https://doi.org/10.33476/ajl.v11i2.1652>.

²⁹ Raihana Raihana et al., "Eksistensi Pengaturan Hak Cipta Di Indonesia," *INNOVATIVE: Journal of Social Science Research* 3, no. 5 (2023): 6039-49, <https://j-innovative.org/index.php/Innovative/article/view/5547>.

³⁰ Eliya Hamizah binti Halim and Subhajit Basu, "Customer Due Diligence and Financial Inclusion in Malaysia: Balancing Regulatory Measures and Accessibility," *Asian Journal of Comparative Law* 19 (2024): 233-54, <https://doi.org/10.1017/asjcl.2024.11>.

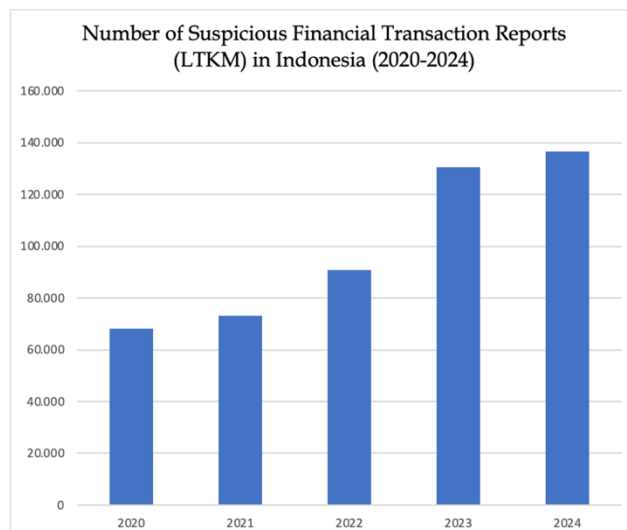
³¹ Otniel Yustisia Kristian, "Perlindungan Hukum Pengguna Layanan Fintech P2P Lending Dari Tindak Pidana Ekonomi Dan Terhadap Penyedia Layanan Fintech P2P Lending Ilegal," *Majalah Hukum Nasional* 52, no. 2 (2022): 297-320, <https://jdih.ppatk.go.id/produk-hukum/detail/236/perlindungan-hukum-pengguna-layanan-fintech-p2p-lending-dari-tindak-pidana-ekonomi-dan-terhadap-penyedia-layanan-fintech-p2p-lending-ilegal>.

ensure that all transactions align with the customer's profile.³² Financial institutions are also obligated to classify customers according to their money laundering risk levels, based on factors such as identity, business location, nature of business, and other relevant information.³³ In Indonesia, these requirements are regulated by the Financial Transaction Reports and Analysis Center (PPATK) and the OJK, whereas in Malaysia, oversight is conducted by Bank Negara Malaysia (BNM) and the Securities Commission (SC). A key difference lies in inter-agency coordination mechanisms: Indonesia separates financial intelligence and supervisory functions, while Malaysia consolidates oversight of both banking and capital markets under a more centralized authority.

The growth of crypto-based fintech, which often eliminates the need for physical interaction between service providers and clients, also raises legal concerns related to personal data protection. Consumer data, while highly valuable, is also vulnerable to digital fraud and other forms of cybercrime.³⁴ To mitigate this, fintech providers must comply with regulations governing data protection, such as Law No. 11 of 2008 on Electronic Information and Transactions (ITE Law) and Government Regulation No. 71 of 2019 on Electronic System and Transaction Providers (PP PSTE). Additionally, the OJK has introduced electronic customer verification systems through Electronic Know Your Customer (E-KYC) mechanisms as stipulated in OJK Regulation No. 12 of 2017.³⁵ These mechanisms allow digital onboarding without compromising regulatory compliance, thus strengthening the integrity of the national financial system amid increasing digitalization.

Despite these regulations, the number of money laundering cases in Indonesia continues to rise. The PPATK's Anti-Money Laundering and Counter-Terrorism Financing Statistical Bulletin (December 2024) reports a steady increase in Suspicious Financial Transaction Reports (LTKM) from 68,057 reports in 2020, approximately 73,000 in 2021, 90,742 in 2022, 130,472 in 2023, to 136,546 reports in 2024. This upward trend is illustrated in Figure 1 below:

Figure 1.
Number of Suspicious Financial Transaction Reports (LTKM) in Indonesia, 2020-2024



Source: Author's diagram based on PPATK AML/CFT Statistical Bulletin 2020-2024.

A similar pattern is observed in Malaysia. Despite a stringent regulatory framework under the Anti-Money Laundering and Anti-Terrorism Financing Act 2001 (AMLATFA) and BNM-issued guidelines, the volume of Suspicious Transaction Reports (STRs) remains high and continues to rise significantly.

³² Saptono Saptono, Alwan Hadiyanto, and Ciptono Ciptono, "Upaya PencegahanTindak Pidana Pencucian Uang Di Indonesia," *Jurnal USM Law Review* 7, no. 2 (2024): 622-33, <https://doi.org/10.26623/julr.v7i2.8899>.

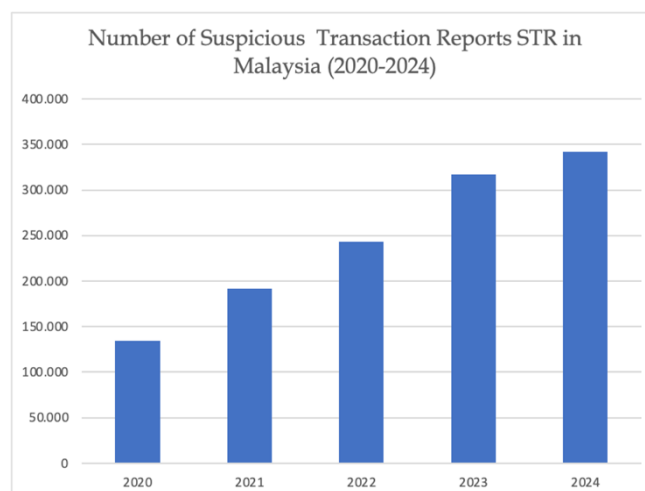
³³ Ilmi Vediani, "Analisis Hukum Penerapan Anti Pencucian Uang Terhadap Kebijakan Rahasia Bank," *Veritas et Justitia* 2, no. 1 (2016): 177-203, <https://doi.org/10.25123/vej.2071>.

³⁴ Bayu Suryadi Manggala et al., "Analisis Regulasi Fintech Dan Implikasinya Terhadap Operasional Bank Digital Dalam Studi Kasus Indonesia," *Media Hukum Indonesia (MHI)* 2, no. 3 (2024): 60-68, <https://doi.org/10.5281/zenodo.1152987>.

³⁵ Kristian, "Perlindungan Hukum Pengguna Layanan Fintech P2P Lending Dari Tindak Pidana Ekonomi Dan Terhadap Penyedia Layanan Fintech P2P Lending Ilegal."

Based on Bank Negara Malaysia's Annual Reports, the number of STRs increased from 133,978 in 2020, to 191,387 in 2021, 242,914 in 2022, 317,435 in 2023, and reached 342,166 in 2024. These developments are shown in Figure 2:

Figure 2.
Number of Suspicious Transaction Reports (STR) in Malaysia, 2020-2024



Source: Author's diagram based on BNM Annual Reports 2020-2024.

The growing number of Suspicious Financial Transaction Reports or *Laporan Transaksi Keuangan Mencurigakan* (LTKM) in Indonesia and Suspicious Transaction Reports (STR) in Malaysia indicates that the existence of stringent regulations does not necessarily correlate with a reduction in money laundering activities. This trend highlights a regulatory enforcement gap, particularly the disconnect between legal provisions and their practical implementation. However, it is also imperative to note that this data does not necessarily imply a causal relationship between stringent regulations and failure in preventing or tackling money laundering practices. This is primarily because the data should be read as an indicator of reporting activity and regulatory exposure, rather than as a standalone measure of enforcement success or failure. While the rise in reports highlights the need to examine existing AML rules, on the deeper level, it also implies an urgent need to assess the effectiveness of institutional supervision, inter-agency coordination, follow-up investigation, and crypto-specific compliance mechanisms. Not to mention, there are also other concerns related to the fintech environment in general, such as the utilization of other technologies, like AI for example, that could amplify the number of money laundering instances from sheer capability of automation.³⁶

Both Indonesia and Malaysia have established AML regulations and are actively seeking to reinforce sector-specific regulatory frameworks to govern AML practices within the crypto-based fintech industry. Although both countries have demonstrated a clear commitment to combating money laundering, their regulatory approaches diverge in terms of legal frameworks, regulatory authority structures, and monitoring mechanisms for digital asset service providers. A comparative overview of these frameworks is presented in the following table:

Table 1.
Comparative Overview of Anti-Money Laundering Regulations in Indonesia and Malaysia

No.	Aspect	Indonesia	Malaysia
1	Primary Legal Basis	Enacted. Law No. 8 of 2010 on the Prevention and Eradication of Money Laundering.	Enacted. Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful

³⁶ Emiliya Febriyani, Elza Syarief, and Triana Dewi Seroja, "Pemanfaatan Artificial Intelligence Dalam Deteksi Dan Pencegahan Tindak Pidana Pencucian Uang: Potensi Dan Tantangan Hukum?," *Jurnal Magister Hukum Udayana (Udayana Master Law Journal)* 13, no. 4 (January 2, 2025): 877-98, <https://doi.org/10.24843/JMHU.2024.v13.i04.p10>.

			Activities (AMLATFPUAA 2001).	Act (AMLATFPUAA 2001).	2001
2	General AML Regulation	Enacted. • OJK Regulation No. 12/POJK.01/2017 on AML/CFT Programs in the Financial Services Sector.	Enacted. • AML/CFT and Targeted Financial Sanctions (TFS) Guidelines.		
3	Fintech-Specific Regulation	Enacted. • OJK Regulation No. 10/POJK.05/2022 (Peer-to-Peer Lending). • OJK Regulation No. 13/POJK.02/2018 (Digital Financial Innovation). • BI Regulation No. 19/12/PBI/2017 (Financial Technology Operations).	Exists, but not fintech-specific. • Capital Markets and Services Act 2007 • Personal Data Protection Act 2010 • Financial Services Act 2013 • Islamic Financial Services Act 2013		
4	Crypto-Specific Regulation	Enacted. • BAPPEBTI Regulation No. 9 of 2024 on Physical Crypto Asset Market Operations on the Futures Exchange.	Enacted. • Guidelines on Digital Assets 2020 • Capital Markets and Services (Prescription of Securities) Order		
5	Supervisory Institutions	Established. • Financial Transaction Reports and Analysis Center (PPATK) • Financial Services Authority (OJK) - Bank Indonesia (BI)	Established. • Bank Negara Malaysia (BNM) • Securities Commission (SC)		
6	Sanctions	• Imprisonment: 4-20 years • Fines: IDR 100 million-IDR 10 billion • License suspension/revocation for corporations (Law No. 8/2010)	• Imprisonment: up to 15 years • Fines: up to RM 5 million • License suspension, freezing, or revocation (AMLATFPUAA 2001)		

Source: Primary Law, 2026.

Effective regulation of cryptocurrency requires precise legal frameworks to address emerging risks and ensure long-term system integrity and security. As illustrated above, both Indonesia and Malaysia have established core legal instruments for tackling money laundering in the crypto-based fintech sector. In Indonesia, Law No. 8 of 2010 serves as the primary legal foundation, covering the identification, reporting, investigation, and sanctioning of suspicious financial activities, with the overarching aim of safeguarding the integrity of the national financial system. Malaysia, by contrast, relies on AMLATFPUAA 2001, effective since January 2002.³⁷ Unlike Indonesia, which separates counter-terrorism financing into a separate legal instrument, Malaysia integrates such provisions directly within its AML legislation.³⁸ This demonstrates a variation in legal approach: Indonesia opts for segmented regulation, while Malaysia implements a unified legal framework. Nonetheless, both systems serve as essential foundations for maintaining public trust and preventing the misuse of digital financial innovations for illicit purposes.

At the general regulatory level, both countries have formalized AML/CFT frameworks applicable across the financial services sector. In Indonesia, OJK Regulation No. 12/POJK.01/2017 mandates the implementation of risk-based AML programs, emphasizing customer due diligence and transaction

³⁷ Henny Saida Flora et al., "Comparative Analysis of Criminal Laws on Money Laundering in ASEAN Countries: Between Justice and Protection," *Unes Law Review* 6, no. 3 (2024): 8930-40, <https://review-unes.com/index.php/law/article/view/1798>.

³⁸ Yuni Priskila Ginting et al., "Observasi Perbandingan Kejahatan Pencucian Uang Antara Negara Indonesia Dan Malaysia," *Journal of Comprehensive Science (JCS)* 3, no. 5 (2024), <https://doi.org/10.59188/jcs.v3i5.684>.

monitoring (Kuncahyo, 2021). Meanwhile, Malaysia's AML/CFT and TFS guidelines, issued by BNM, stipulate risk management procedures, transaction reporting obligations, and know-your-customer (KYC) measures.³⁹ These overarching frameworks provide the foundation for overseeing fintech and crypto asset activities, minimizing money laundering and terrorism financing risks, and preserving the overall integrity of financial systems.

In the fintech domain, Indonesia has adopted a detailed regulatory model. The sector is governed by OJK Regulation No. 10/POJK.05/2022 (replacing POJK No. 77/POJK.01/2016), POJK No. 13/POJK.02/2018, and BI Regulation No. 19/12/PBI/2017, providing comprehensive legal foundations for licensing, governance, and risk management.⁴⁰ Conversely, Malaysia employs an activity-based regulatory model through various laws such as the Capital Markets and Services Act 2007, Personal Data Protection Act 2010, Financial Services Act 2013, and Islamic Financial Services Act 2013, covering services based on functionality rather than fintech as a singular sector. Oversight in Malaysia is bifurcated: BNM regulates digital payments and banking, while SC supervises capital markets, crowdfunding, and digital assets.⁴¹ Thus, while Indonesia centralizes regulation under specific provisions, Malaysia adopts a flexible, service-specific approach under a centralized supervisory structure.

Regarding the crypto asset sector, Indonesia has developed a sequential regulatory framework under BAPPEBTI, starting with Regulation No. 5 of 2019 and updated through Regulations No. 8 of 2021 and No. 9 of 2024. These instruments establish legal certainty, user protection, and governance mechanisms aligned with international best practices.⁴² In Malaysia, crypto asset regulations fall under the purview of SC, based on the Guidelines on Digital Assets (2020) and the Capital Markets and Services (Prescription of Securities) Order, which outline offering procedures, trading protocols, and compliance requirements with AML/CFT principles.⁴³ Indonesia follows a centralized regulatory model through BAPPEBTI, whereas Malaysia adopts a capital market-based model, emphasizing market integrity, investor protection, and the prevention of crypto misuse for unlawful purposes.

The success of AML regulation in the crypto-fintech sector relies heavily on regulatory enforcement. In Indonesia, AML oversight is carried out by PPATK, OJK, and BI.⁴⁴ PPATK functions as an independent financial intelligence unit (FIU), analyzing and reporting suspicious transactions to law enforcement.⁴⁵ OJK supervises all financial service providers, ensuring adherence to prudential and AML/CFT principles,⁴⁶ while BI oversees payment systems and ensures transaction security involving digital assets.⁴⁷ Collectively, these institutions form an integrated oversight mechanism.

In Malaysia, oversight is streamlined through BNM and SC, which coordinate under a centralized regulatory model. BNM, through the Financial Intelligence and Enforcement Department (FIED), monitors AML/CFT compliance, processes STRs, and provides intelligence to enforcement agencies.⁴⁸

³⁹ Satria Darma, "Peran Pemerintah Indonesia Dan Malaysia Dalam Mendukung Implementasi Teknologi Keuangan Islam Pada Aspek Regulasi," *Jesya (Jurnal Ekonomi Dan Ekonomi ...* 5, no. 2 (2022): 2185-98, <https://stealwashliyahsibolga.ac.id/jurnal/index.php/jesya/article/view/814>.

⁴⁰ Clarisa Permata Hariono Putri and Go Lisanawati, "Peran Teknologi Finansial Dalam Pencegahan Pendanaan Terorisme," *Jurnal Hukum Ius Quia Iustum* 30, no. 1 (2023): 70-90, <https://doi.org/10.20885/iustum.vol30.iss1.art4>.

⁴¹ Aulia Arifatu Diniyya, Mahdiah Aulia, and Rofiul Wahyudi, "Financial Technology Regulation in Malaysia and Indonesia: A Comparative Study," *Ihtifaz: Journal of Islamic Economics, Finance, and Banking* 3, no. 2 (2020): 67-87, <https://doi.org/10.12928/ijiefb.v3i2.2703>.

⁴² Dewa Ayu Fera Nitha and I Ketut Westra, "Investasi Cryptocurrency Berdasarkan Peraturan Bappebti No. 5 Tahun 2019," *Jurnal Magister Hukum Udayana* 9, no. 4 (2020): 712-22, <https://doi.org/10.24843/jmhu.2020.v09.i04.p04>.

⁴³ Mohamad Amerzan Mohamad Sobri and Muneer Ali Abdul Rab, "Regulatory Frameworks for Crypto Assets: Comparative Fiqh Study Between Malaysia and Indonesia," *SALAM Digest* 2, no. 1 (2024): 66-77, <https://fsuproceedings.usim.edu.my/index.php/salamdigest/article/view/75>.

⁴⁴ Asmara Nova Susanto and Wiwik Afifah, "Peran Lembaga Yang Mendukung Penelusuran Alat Bukti Tindak Pidana Pencucian Uang Yang Menggunakan Cryptocurrency" 2, no. 4 (2024): 210-16, <https://doi.org/10.5281/zenodo.14184847>.

⁴⁵ Ansori Ansori and Gatot Subroto, "Peran PPATK Dalam Mencegah Dan Memberantas Tindak Pidana Pencucian Uang," *Unira Law Journal* 1, no. 1 (2022): 34-48, <https://ejournal.unira.ac.id/index.php/lawjournal/article/view/1604>.

⁴⁶ Flugencius Janssen Willyams and Hudi Yusuf, "Peran Otoritas Jasa Keuangan Dalam Mencegah Tindak Pidana Perbankan Dan Pencucian Uang Di Indonesia," *JIIIC: Jurnal Intelek Insan Cendekia* 1, no. 9 (2024): 5292-5308, <https://jicnusantara.com/index.php/jiic/article/view/1447>.

⁴⁷ Robertus Nugroho Perwiro Atmojo and Fokky Fuad, "Upaya Perlindungan Hukum Bagi Para Konsumen Pemegang Aset Kripto Di Indonesia," *Jurnal Hukum To-Ra: Hukum Untuk Mengatur Dan Melindungi Masyarakat* 9, no. 1 (2023): 254-76, <https://doi.org/10.55809/tora.v9i2.260>.

⁴⁸ Aksa Akxa, Alwan Hadiyanto, and Ciptono Ciptono, "Upaya Pemberantasan Tindak Pidana Pencucian Uang Oleh Pusat Pelaporan Dan Analisis Transaksi Keuangan Melalui Kerjasama Internasional," *Jurnal USM Law Review* 7, no. 2 (2024): 586-602, <https://doi.org/10.26623/julr.v7i2.8896>.

SC, meanwhile, plays a central role in regulating digital assets by issuing binding guidelines and licensing digital asset operators.⁴⁹ This centralized coordination enables a balance between fintech innovation and financial stability, while prioritizing consumer protection and risk mitigation. In contrast to Indonesia's multi-agency model, Malaysia's consolidated approach enhances regulatory agility and consistency.

From an institutional effectiveness perspective, Indonesia's AML model provides broad supervisory coverage through the involvement of PPATK, OJK, BI, and sectoral regulators. This structure allows financial intelligence, financial services supervision, payment systems, and crypto-asset governance to be handled by specialized authorities. However, the same multi-agency structure may also create coordination challenges, particularly where crypto-based fintech activities overlap with payment systems, commodity trading, and financial services supervision. On the other hand, Malaysia's institutional model represents a more streamlined legal structure through the involvement of key authorities, namely BNM and SC, which may support clearer supervisory coordination in relation to AML/CFT compliance and digital asset supervision. Despite these complex networks of institutions, the continued increase in STRs indicates that institutional centralization alone does not eliminate money laundering risks. This is perhaps attributed to the fact that effectiveness still depends on reporting quality, enforcement follow-up, inter-agency information sharing, and regulatory adaptation to crypto-related risks. Therefore, robustness of institutional models cannot be judged by the degree of complexity, but rather on the actual quality of reporting that would provide extensive amounts of data for future enforcement and identification of potential circumventions.

More importantly, it is crucial to ensure that robust regulations are accompanied by firm sanctions and effective enforcement. In Indonesia, administrative penalties under POJK No. 77/POJK.01/2016 include warnings, fines, suspension of operations, or revocation of licenses. Criminal penalties under Law No. 8 of 2010 include imprisonment and fines for laundering activities or facilitating systemic abuse. In Malaysia, AMLATFA 2001 imposes criminal penalties of up to RM 5 million in fines and up to 15 years' imprisonment, along with administrative actions by BNM and SC, including asset seizure and investigation.

Between 2020 and 2024, Indonesia faced several high-profile money laundering cases involving crypto platforms, reflecting new laundering patterns through financial technology.⁵⁰ Cases such as ASABRI (2021), which allegedly utilized crypto assets to obscure illicit funds,⁵¹ and the Indra Kenz and Doni Salmanan fraud cases (2022), demonstrate the use of crypto-based platforms for digital fraud and concealment.⁵² PPATK reports estimate that suspicious transactions linked to crypto reached IDR 800 billion during 2022-2024.⁵³ Malaysia has witnessed a similar rise in crypto-related AML cases. Between 2019 and 2023, 5,507 crypto investment fraud cases were reported, with estimated losses of RM 417 million (USD 90 million).⁵⁴ Most of these involved fraudulent crypto investment schemes, revealing the growing misuse of digital assets for illicit financial flows.

In conclusion, Indonesia and Malaysia have each developed comprehensive regulatory frameworks to combat money laundering in the crypto-based fintech sector, albeit with different approaches. Indonesia favors detailed, multi-agency oversight, while Malaysia adopts a centralized, integrated model led by BNM and SC. Despite strict enforcement, the rapid growth of digital assets continues to expose regulatory vulnerabilities, particularly in relation to privacy protection, cyber fraud, and laundering risks.⁵⁵ Therefore, it is imperative for both jurisdictions to continuously enhance and adapt their regulatory and policy frameworks to remain relevant to the fast-paced evolution of digital

⁴⁹ Sobri and Rab, "Regulatory Frameworks for Crypto Assets: Comparative Fiqh Study Between Malaysia and Indonesia."

⁵⁰ Kharisma Fatmalina Fajri and Dekar Urumsah, "Crypto Laundering Prevention in Indonesia: The Role of Regulatory Technology and Financial Intelligence Unit," *Journal of Accounting and Investment* 25, no. 3 (September 30, 2024): 1133-55, <https://doi.org/10.18196/jai.v25i3.22170>.

⁵¹ Irlanda, "Penegakan Hukum Pencucian Uang Cryptocurrency Sebagai Revolusi Kejahatan Masa Digital."

⁵² Ginting et al., "Observasi Perbandingan Kejahatan Pencucian Uang Antara Negara Indonesia Dan Malaysia."

⁵³ Ryan Keynes Bidjuni, Ramdhan Kasim, and Dince Aisa Kodai, "Penegakan Hukum Terhadap Tindak Pidana Pencucian Uang Melalui Cryptocurrency Di Indonesia," *GJR: Gorontalo Justice Research* 1, no. 1 (2025): 208-18, <https://jurnal.unigo.ac.id/gjr/article/view/4133>.

⁵⁴ Ahmad Azfar Abdul Hamid et al., "Analysis of Persuasive Strategies in Cryptocurrency Scams: A Case Study in Malaysia," *International Journal of Academic Research in Business and Social Sciences* 13, no. 6 (2023): 2136-44, <https://doi.org/10.6007/ijarbss.v13-i6/17321>.

⁵⁵ Muhammad Iqbal Baiquni et al., "Eksistensi Cryptocurrency Dalam Pembentukan Central Bank Digital Currency Di Indonesia: Perspektif Ius Constituendum," *Media Iuris* 6, no. 3 (2023): 435-56, <https://doi.org/10.20473/mi.v6i3.38352>.

financial technologies.⁵⁶ Ultimately, this comparative analysis demonstrates that the effectiveness of AML regulation is largely shaped by institutional structures and oversight mechanisms, and that mutual learning from best practices can serve as a solid foundation for formulating more responsive and future-proof policies in the face of global technological disruption.

Anti-Money Laundering Regulations in the Crypto-Based Fintech Sector in the European Union: Best Practices for Adoption in Indonesia and Malaysia

The growth of crypto-based fintech has introduced significant innovations to the global financial system by streamlining transactions and enhancing financial inclusion. Nevertheless, behind these advantages lie considerable challenges for anti-money laundering (AML) regimes, primarily due to the inherent characteristics of crypto-asset transactions namely their speed, decentralization, and relative anonymity.⁵⁷ These traits create exploitable vulnerabilities that allow illicit actors to launder money or finance terrorism through channels that are difficult to trace and regulate.⁵⁸

The risks are further amplified by disparities in regulatory frameworks across jurisdictions, resulting in inconsistent enforcement standards that may be leveraged by bad actors. In response, jurisdictions including the European Union (EU), Indonesia, and Malaysia have taken steps to develop comprehensive regulatory frameworks to enhance oversight and governance in the crypto-fintech space. The following table presents a structured overview of the EU's regulatory framework addressing money laundering in the crypto-based fintech sector:

Table 2.
Anti-Money Laundering Regulations in the European Union

No.	Aspect	European Union
1	Legal Basis	- Treaty on the Functioning of the European Union (TFEU): Article 114 (harmonization of the internal market), Article 325 (protection of financial interests) - Fourth Anti-Money Laundering Directive (4AMLD) - Directive (EU) 2015/849
2	General AML Regulation	- Fifth Anti-Money Laundering Directive (5AMLD) - Directive (EU) 2018/843 - Sixth Anti-Money Laundering Directive (6AMLD) - Directive (EU) 2018/1673
3	Fintech & Crypto-Specific Regulation	- Markets in Crypto-Assets Regulation (MiCA)
4	Supervisory Authorities	- European Banking Authority (EBA) - European Securities and Markets Authority (ESMA) - Anti-Money Laundering Authority (AMLA) (operational in 2025)
5	Sanctions	- Minimum 4 years' imprisonment for individuals (Member States may impose stricter penalties) - Ancillary penalties: disqualification from public office, judicial supervision, temporary or permanent closure of business entities

⁵⁶ Rinitami Njatrijani, "Perkembangan Regulasi Dan Pengawasan Financial Technology Di Indonesia," *Diponegoro Private Law Review* 3, no. 1 (2019): 462-74, <https://ejournal2.undip.ac.id/index.php/dplr/article/view/5109>.

⁵⁷ Rizaldy Anggriawan and Muh. Endriyo Susila, "Cryptocurrency and Its Nexus with Money Laundering and Terrorism Financing within the Framework of FATF Recommendations," *Novum Jus* 18, no. 2 (September 1, 2024): 249-77, <https://doi.org/10.14718/NovumJus.2024.18.2.10>.

⁵⁸ M. Riza Mahendra and Roby Rakhmadi, "Analisis Tantangan Dan Peluang Regulasi Mata Uang Kripto Terhadap Stabilitas Pasar Keuangan Global Dan Diplomasi Ekonomi," *Journal of Economic and Management (JEM) Terakam Jejak* 2, no. 1 (2025): 1-10, <https://journal.terakamjejak.com/index.php/jem/article/view/230>.

- Corporate liability: fines, dissolution, license revocation, or business ban
- Expanded definitions of money laundering offenses

Source: Primary Law, 2026.

Despite efforts by multiple jurisdictions to design robust AML frameworks, disparities in regulatory strength remain. The European Union has responded by establishing a comprehensive regulatory architecture, most notably through the enactment of the Markets in Crypto-Assets Regulation (MiCA). MiCA introduces a unified legal framework for crypto assets, addressing consumer protection, asset classification, licensing requirements, and market abuse prevention mechanisms.⁵⁹ Additionally, the EU enforces Directive (EU) 2018/843 (5AMLD), which mandates Customer Due Diligence (CDD) formerly known as Know Your Customer (KYC) to identify and assess risks associated with each customer.⁶⁰ Together, these measures seek to improve transparency, limit transactional anonymity, and prevent the misuse of cryptocurrencies for unlawful purposes.

The implementation of these frameworks is further supported by supranational supervisory bodies, such as the EBA and ESMA, which ensure that AML directives are applied consistently across all Member States.⁶¹ The EU has also established cross-border information-sharing mechanisms to detect suspicious transaction patterns across jurisdictions, enabling earlier intervention and risk mitigation.⁶² That said, emerging challenges persist particularly in monitoring decentralized finance (DeFi) and non-fungible tokens (NFTs) which demand that the EU continue to evolve its regulatory instruments to remain risk-based, adaptive, and responsive to technological innovation.⁶³

Table 3.
Strengths and Weaknesses of the EU's AML Regulation for Crypto-Based Fintech

Strengths	Weaknesses
- Harmonized AML standards across all Member States facilitate cross-border cooperation and close regulatory loopholes.	- Variations in national implementation lead to inconsistent oversight.
- MiCA and the Transfer of Funds Regulation (Travel Rule) provide legal certainty and compliance standards for crypto service providers.	- CDD, KYC, and reporting procedures impose high compliance costs on small and medium-sized enterprises.
- Regulatory adaptability allows alignment with rapidly evolving fintech innovations.	- Identity verification procedures are often seen as complex and time-consuming, potentially reducing user onboarding rates.

Source: Compiled from journal analyses by Kautsar & Hanura (2022), Guntoro & Sumanto (2024), Keliat (2024), and Susanto & Afifah (2024).

⁵⁹ Esa Thanico Maulana, "Regulasi Travel Rule Terhadap Transaksi Aset Virtual Lintas Batas Dalam Konteks Decentralized Finance Di Indonesia: Studi Banding Terhadap Markets in Crypto-Assets (MiCA) Di Uni Eropa," *Jurnal Rectum* 6, no. 3 (2024): 565-84, <https://jurnal.universitasdarmaagung.ac.id/jurnalrectum/article/view/5013>.

⁶⁰ Muhammad Taqaruby Narzain, Dairatul Mar'arif, and Rizky Hikmawan, "Kebijakan Anti Pencucian Uang Dan Pencegahan Pendanaan Terorisme (APU/PPT) Uni Eropa Terhadap High-Risk Third Countries Periode 2015-2020," *Aliansi : Jurnal Politik, Keamanan Dan Hubungan Internasional* 3, no. 2 (2024): 81-97, <https://doi.org/10.24198/aliansi.v3i2.45851>.

⁶¹ Shinta Damayanti, Budi Cahya Ananda, and Andre Ardi, "Kebijakan European Union Dalam Menangani Penghindaran Pajak Melalui Cryptocurrency," *Moestopo Journal International Relations* 3, no. 2 (2023): 91-105, <https://www.ejournal.moestopo.ac.id/index.php/mjir/article/view/5514>.

⁶² I Ketut Suwitra, Alwan Hadiyanto, and Ciptono Ciptono, "Pencegahan Tindak Pidana Pencucian Uang Melalui Lintas Internasional Dalam Perspektif Undang-Undang Tindak Pidana Pencucian Uang," *Jurnal Usm Law Review* 7, no. 2 (2024): 960-73, <https://doi.org/10.26623/julr.v7i2.9434>.

⁶³ Maulana, "Regulasi Travel Rule Terhadap Transaksi Aset Virtual Lintas Batas Dalam Konteks Decentralized Finance Di Indonesia: Studi Banding Terhadap Markets in Crypto-Assets (MiCA) Di Uni Eropa."

Among the EU's most important strengths is the harmonization of regulatory standards across Member States.⁶⁴ Uniform regulations prevent legal loopholes and facilitate efficient cross-border AML enforcement.⁶⁵ This harmonization is reinforced through successive AML Directives 4AMLD to 6AMLD that require all Member States to align national laws with EU standards. Additionally, the introduction of MiCA and the Transfer of Funds Regulation offers clear operational guidelines for crypto asset service providers. MiCA sets forth licensing requirements, transparency obligations, and risk management standards.⁶⁶ The Travel Rule mandates the identification and reporting of originator and beneficiary data in crypto transactions, improving traceability of illicit financial flows.⁶⁷ These measures not only reduce legal ambiguity but also enhance investor confidence and market integrity.⁶⁸

Crucially, MiCA was developed with regulatory agility in mind it is designed to evolve alongside technological innovation. Given the highly dynamic nature of the crypto asset market, regulatory frameworks must remain responsive to new financial products, business models, and risks.⁶⁹ The EU's progressive regulatory approach seeks not only compliance, but also a sustainable balance between market innovation and financial system stability.⁷⁰

However, the inconsistent implementation of regulations across Member States poses a major challenge.⁷¹ While MiCA aims to create a unified framework, differences in interpretation and enforcement at the national level have resulted in regulatory fragmentation.⁷² This inconsistency creates uncertainty for cross-border operators and enables regulatory arbitrage, where entities exploit jurisdictions with weaker oversight.⁷³ Furthermore, the financial and administrative burden of maintaining AML compliance especially for small-scale fintech startups is substantial.⁷⁴ Limited operational resources often force firms to divert capital from innovation to regulatory obligations, potentially stifling growth and competitiveness in the European digital finance sector. Lastly, lengthy identity verification procedures required under AML standards can hinder user experience and onboarding.⁷⁵ While these protocols are critical for financial integrity, excessive complexity may drive users toward platforms in less regulated jurisdictions, undermining the primary objective of AML enforcement. The juxtaposition of financial integrity and industry-friendly compliance is a balance that policymakers need to tread carefully, particularly because of how important the former is to ensure economic growth and overall prosperity,⁷⁶ while the latter is crucial for maintaining the speed of that said growth.

These regulatory trends can be effectively analyzed through the lens of progressive legal theory, which views law as a flexible social tool responsive to innovation and practical societal needs. Rather

⁶⁴ Naufal Azis Kautsar and Marten Hanura, "Penerapan European Legal Framework Mengenai Rezim Anti Money Laundering (AML) Pada Cryptocurrency Sebagai Upaya Pencegahan Kejahatan Keuangan," *Journal of International Relations* 8, no. 1 (2022): 21-31, <https://ejournal3.undip.ac.id/index.php/jihi/article/view/32789/0>.

⁶⁵ Aksa, Hadiyanto, and Ciptono, "Upaya Pemberantasan Tindak Pidana Pencucian Uang Oleh Pusat Pelaporan Dan Analisis Transaksi Keuangan Melalui Kerjasama Internasional."

⁶⁶ Maulana, "Regulasi Travel Rule Terhadap Transaksi Aset Virtual Lintas Batas Dalam Konteks Decentralized Finance Di Indonesia: Studi Banding Terhadap Markets in Crypto-Assets (MiCA) Di Uni Eropa."

⁶⁷ Damayanti, Ananda, and Ardi, "Kebijakan European Union Dalam Menangani Penghindaran Pajak Melalui Cryptocurrency."

⁶⁸ Mahendra and Rakhmadi, "Analisis Tantangan Dan Peluang Regulasi Mata Uang Kripto Terhadap Stabilitas Pasar Keuangan Global Dan Diplomasi Ekonomi."

⁶⁹ Gitra Moraza, Ani Purwati, and Saiful Anam, "Kejahatan Ekonomi Berbasis Digital: Strategi Harmonisasi Regulasi Internasional Dalam Menanggulangi Tindak Pidana Keuangan Global," *Jurnal Ilmu Hukum, Humaniora Dan Politik* 6, no. 1 (October 24, 2025): 403-13, <https://doi.org/10.38035/jihhp.v6i1.6272>.

⁷⁰ Joni Laksito, Dian Karisma, and Budi Hartono, "Tantangan Hukum Dalam Regulasi Transaksi Kripto Di Indonesia Antara Peluang Dan Risiko," *Jurnal Kajian Ilmu Hukum Dan Politik* 2, no. 4 (2024): 57-69, <https://journal.stekom.ac.id/index.php/Jaksa/article/view/2269>.

⁷¹ Venia Utami Keliat, "Peran Regulasi Terkini Dalam Mengatasi Tantangan Hukum Perbankan Di Era Digital," *Jurnal Darma Agung* 32, no. 1 (2024): 323-31, <https://jurnal.universitasedharmaagung.ac.id/jurnaluda/article/view/3981>.

⁷² Sendy Pratama Firdaus, "Urgensi Reformasi Kebijakan Tindak Pidana Pencucian Uang Guna Implementasi Rupiah Digital," *AML/CFT Journal The Journal of Anti Money Laundering and Countering the Financing of Terrorism* 2, no. 1 (2023): 58-82, <https://doi.org/10.59593/amlcft.2023.v2i1.118>.

⁷³ Haji, "Urgensi Penerapan Kerangka Regulasi Aset Kripto Yang Komprehensif, Adaptif, Dan Akomodatif."

⁷⁴ Susanto and Afifah, "Peran Lembaga Yang Mendukung Penelusuran Alat Bukti Tindak Pidana Pencucian Uang Yang Menggunakan Cryptocurrency."

⁷⁵ Kautsar and Hanura, "Penerapan European Legal Framework Mengenai Rezim Anti Money Laundering (AML) Pada Cryptocurrency Sebagai Upaya Pencegahan Kejahatan Keuangan."

⁷⁶ Triana Dewi Seroja et al., "Mens Rea and Causal Nexus in Public Procurement Corruption: Reconstructing Anti-Corruption Frameworks in ASEAN," *Kosmik Hukum* 26, no. 1 (January 30, 2026): 217-32, <http://jurnalnasional.ump.ac.id/index.php/KOSMIK/article/view/28398>.

than treating regulation as static rules, this perspective positions the law as a mechanism to balance justice, innovation, and public protection. The EU's adoption of MiCA and successive AMLDs represents a progressive legislative response to the evolving complexities of crypto-based financial crime.⁷⁷ This approach enables regulators to close legal loopholes while fostering responsible innovation.

Based on the analysis above, it is evident that the EU's AML regulatory framework for the crypto-based fintech sector demonstrates a high degree of legal maturity, particularly through MiCA, the AML Directives, the Travel Rule, and the strengthening of cross-border supervisory coordination. However, it is imperative to note that transplanting the EU model directly into Indonesia and Malaysia could risk potential disharmony, as the two countries have fundamentally different legal structures, institutional capacities, and market readiness. Instead, the study recommends a more pragmatic approach by utilizing the gathered insights, where Indonesia and Malaysia can selectively and progressively follow the footsteps of the EU.

Specifically for Indonesia, the most realistic lessons are the development of a more concrete and coherent crypto-asset regulatory framework, which can involve clearer licensing models and a comprehensive set of compliance standards for the relevant service providers. Additionally, it must also involve concrete pathways of coordination among PPATK, OJK, and BI, with all three institutions being committed to extensive data sharing while complying to robust security and privacy standards. With these developments, Indonesia can then move toward the gradual implementation of Travel Rule-based transaction transparency, where the identities of transaction originators and beneficiaries are recorded, verified, and made available to competent authorities when suspicious or high-risk crypto-asset transfers are detected. When it comes to Malaysia, the study recommends a more straightforward pathway of legal development, as the EU model is inherently more suitable as a reference for strengthening the existing centralized framework under BNM and SC. Following this, Malaysia can also move toward adopting a more detailed set of crypto-specific AML obligations, which despite the previously mentioned step of legal development, remains of paramount importance due to the unique nature of blockchain-facilitated transactions. These obligations may include a robust cross-border information sharing policy, improvement and standardization of STR follow-up, and a concrete risk-based customer due diligence that do not translate to mere compliance burdens for smaller fintech sectors.

These distinct recommendations tailored for each of the countries is important to be practiced with constant oversight around regulatory delivery and regulatory inspection, particularly within the context of detection and data analysis for the identification of circumvention methods, which are both crucial for future enforcement context. The primary lesson from this nuanced approach is that EU best practices should not be recklessly adopted without alignment with existing regulatory and overall legal landscape, but should instead be adapted proportionally according to each country's legal structure, institutional capacity, and crypto-fintech market readiness. Indonesia, specifically, must prioritize harmonization and inter-agency coordination, particularly due to its already complex network of institutions that play active roles in AML efforts. Malaysia, on the other hand, can benefit from its already more centralized supervisory structure to deepen crypto-specific AML supervision and improve the consistency of regulatory follow-up. Regardless of these differences, the recommendations are anchored by the key insights from EU's best practices, with the added emphasis on balancing legal certainty, market innovation, consumer protection, and financial integrity.

Conclusion

In summary, the implementation of anti-money laundering (AML) regulations within the crypto-based fintech sector in Indonesia and Malaysia continues to face a number of critical challenges. These challenges include inconsistencies in inter-agency supervision, suboptimal institutional coordination, and limited regulatory adaptability in responding to the rapid innovation of digital financial technologies particularly concerning crypto-assets and cross-border transactions. The existing regulatory frameworks in both countries have yet to fully address the increasingly complex

⁷⁷ Guntoro and Sumanto, "Urgensi Regulasi Cryptocurrency Di Indonesia Dalam Menghadapi Perkembangan Teknologi."

risks of money laundering and terrorist financing. In contrast, the experience of the European Union demonstrates a higher degree of regulatory effectiveness through the harmonization of AML policies across Member States, the enactment of sector-specific regulations such as the Markets in Crypto-Assets Regulation (MiCA) and the Anti-Money Laundering Directives (AMLDs), and the establishment of institutions like the Anti-Money Laundering Authority (AMLA) to strengthen cross-border supervisory functions. This EU model displays a more mature regulatory landscape, showcasing the urgent need to harmonize crypto-fintech AML regulation, enforced through a risk-based approach, and be coordinated institutionally. The novelty of this article lies in using the European Union as the benchmark of which Indonesian and Malaysian regulatory landscapes are judged upon. The primary recommendation from this study is rather nuanced, where Indonesia should strengthen regulatory harmonization, PPATK-OJK-BI coordination, and gradual Travel Rule transparency, while Malaysia should deepen crypto-specific AML obligations within the BNM-SC framework through better STR follow-up and proportional risk-based CDD. These recommendations contribute to AML regulatory development, while also adding to the growing body of literature around cryptofinance, fintech, and AML.

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