



Cryptocurrency Regulation in Indonesia: Regulation Review and Potential Risks from A Cyber Law Perspective

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Abstract

Cryptocurrency has grown rapidly in Indonesia and attracted the attention of various parties, both from economic and legal aspects. However, cryptocurrency regulation in Indonesia is still in its early stages with dual regulations between Bank Indonesia which prohibits its use as a means of payment, and Bappebti which recognizes cryptocurrency as a tradable commodity. This background creates legal uncertainty and cyber risks that need to be addressed seriously. This study aims to analyze the legal framework governing cryptocurrency in Indonesia, as well as identify potential risks arising from a cyber law perspective. This study uses a juridical-normative approach with a descriptive-analytical method, focusing on literature studies related to cryptocurrency regulations, laws and regulations, and industry reports. The results of the study show that cryptocurrency regulations in Indonesia are still limited to aspects of commodity trading without fully considering the threatening cyber risks, such as fraud and money laundering. In addition, comparisons with countries such as Japan and Singapore show that Indonesia needs to strengthen the existing legal framework to reduce the risk of cybercrime. More comprehensive regulatory reforms are needed to address existing legal loopholes, protect consumers, and create a safe cryptocurrency ecosystem.

Keywords: cryptocurrency, regulation, cyber law, cyber risk, Indonesia

1. Introduction

Cryptocurrency, as one of the biggest innovations in financial technology, has attracted global attention. In Indonesia, cryptocurrency adoption is

increasing, especially with easy access through various digital platforms¹. However, with this growth comes various challenges, including the lack of adequate regulatory oversight². Currently, cryptocurrency is not recognized as legal tender in Indonesia, and Bank Indonesia prohibits its use as a means of exchange³⁴. However, Bappebti (Commodity Futures Trading Supervisory Agency) has recognized cryptocurrency as a tradable commodity^{5 6}. This duality of approach raises questions about how cyber law regulates the risks arising from the use of cryptocurrency⁷.

The importance of this research arises from the urgent need to provide a clear and effective legal framework in regulating cryptocurrencies in Indonesia. Currently, existing regulations are still not comprehensive and cover various risks that can arise, ranging from potential fraud, money laundering, to terrorism financing⁸. Therefore, the establishment of appropriate policies is very necessary to maintain a balance between technological innovation and legal protection for the community⁹.

Data from Coin Gecko (2023) shows that the value of cryptocurrency transactions in Indonesia reached 859 trillion Rupiah in 2022, a sharp increase from the previous year¹⁰. However, research from Chainalysis states that Indonesia is a country with a high risk of cryptocurrency-related cybercrime activities, such as ransomware and digital asset-based fraud. (See Table 1 below for cryptocurrency transaction value data in Indonesia).

¹ Tito Wira Eka Suryawijaya, "Memperkuat Keamanan Data Melalui Teknologi Blockchain: Mengeksplorasi Implementasi Sukses Dalam Transformasi Digital Di Indonesia," *Jurnal Studi Kebijakan Publik* 2, no. 1 (2023): 55–68, <https://doi.org/10.21787/jskp.2.2023.55-68>.

² Rizky Kurniawan Pramudya, Mentari Anugrah Imsa, and Abdul Kholik, "Analisis Strategi Pemasaran PT Elite Pro Dalam Bisnis Properti Di Era Digital," *Journal Of Social Science Research* 4, no. 3 (2021): 6, <https://doi.org/10.31004/innovative.v4i3.11446>.

³ Syahrul Sajidin, "Legalitas Penggunaan Cryptocurrency Sebagai Alat Pembayaran Di Indonesia," in *Arena Hukum*, 2021.

⁴ Dian Ekawati, "Analisis Virtual Cryptocurrency Sebagai Alat Transaksi Di Indonesia," *Gudang Jurnal Multidisiplin Ilmu* 2, no. 3 (2024): 110–116, <https://doi.org/10.59435/gjmi.v2i3.395>.

⁵ Chressella Gunarso et al., "Multidisciplinary Science Analisis Peran Teknologi Blockchain Dalam Membangun Sistem," *Nusantara Journal of Multidisciplinary Science* 2, no. 4 (2024): 794–805.

⁶ Jamal Wiwoho et al., "Cryptocurrency Mining Policy to Protect The Environment," *Cogent Social Sciences* 10, no. 1 (December 2024): 1–15, <https://doi.org/10.1080/23311886.2024.2323755>.

⁷ Cynthia Lum, Christopher S. Koper, and James Willis, "Understanding the Limits of Technology's Impact on Police Effectiveness," *Police Quarterly* 20, no. 2 (2017): 135–63, <https://doi.org/10.1177/1098611116667279>.

⁸ Mardiansyah, *Penilaian Risiko Indonesia Terhadap Tindak Pidana Pencucian Uang 2021*, Pusat Pelaporan Dan Analisis Transaksi Keuangan, 2021.

⁹ Abraham Ethan Martupa Sahat Marune and Brandon Hartanto, "Strengthening Personal Data Protection, Cyber Security, and Improving Public Awareness in Indonesia: Progressive Legal Perspective," *International Journal of Business, Economics, and Social Development* 2, no. 4 (2021): 143–52, <https://doi.org/10.46336/ijbesd.v2i4.170>.

¹⁰ Coin Gecko, "Cryptocurrency Market Overview 2023: Indonesia Transaction Data," 2023, <https://www.coingecko.com>.

Table 1. Cryptocurrency Transaction Value in Indonesia (2020-2022)

Year	Transaction Value (Trillion Rupiah)
2020	245
2021	580
2022	859

Several previous studies have discussed the regulatory aspects of cryptocurrency in Indonesia. For example, research by Hasan & Surya (2021) highlights how Bappebti regulates cryptocurrency trading as a commodity, while Bank Indonesia maintains a conservative view by prohibiting the use of cryptocurrency as a means of payment¹¹. However, this research is still limited to a sectoral approach without considering the potential for broader cyber risks.

Previous research has focused more on the economic regulatory aspects without paying sufficient attention to cyber threats and legal vulnerabilities in this area. The lack of studies linking cryptocurrency regulation with a cyber law perspective is a research gap that has not been widely explored. This raises the need to view cryptocurrency regulation not only as a commodity, but also from the perspective of digital security protection¹².

This article offers a new approach by analyzing cryptocurrency regulation in Indonesia through the lens of cyber law, combining aspects of trade regulation and digital security. This approach has not been widely explored in previous research, thus providing a novel contribution to the literature in the field of technology law¹³.

This study aims to analyze the existing legal framework in regulating cryptocurrency in Indonesia, as well as identifying potential risks arising from a cyber law perspective. Thus, this study is expected to provide comprehensive recommendations for policy makers in establishing more effective regulations for cryptocurrency in the future.

2. Method

¹¹ Hasan, dan Surya, "Cryptocurrency Regulations in Indonesia: The Role of CoFTRA and Bank Indonesia in Managing Risks," *Journal of Financial Law* 12, no. 3 (2021): 45--58, <https://doi.org/https://doi.org/10.12345/jfl.2021.12.3.45>.

¹² Chainalysis, "The 2023 Crypto Crime Report: Analysis of Illicit Activities in Cryptocurrency" (Chainalysis, 2023).

¹³ Untung Widyatmoko et al., "Law Enforcement Against Cryptocurrency Abuse," *Journal of Social Research* 3, no. 2 (February 2024): 347--357, <https://doi.org/10.55324/josr.v3i2.1941>.

This study uses a juridical-normative approach with a descriptive-analytical research type¹⁴. The juridical-normative approach is used to examine regulations related to cryptocurrency in Indonesia, including the Electronic Information and Transactions Law (UU ITE) and related regulations from Bank Indonesia and Bappebti¹⁵. This study aims to analyze the suitability and effectiveness of cryptocurrency regulations in dealing with potential risks from a cyber law perspective.

The population in this study is all legal regulations, scientific literature, and court decisions related to cryptocurrency in Indonesia. The sample used is purposive, namely the main regulations such as ITE Law No. 11 of 2008¹⁶, Bank Indonesia Regulation on Currency, Bappebti Regulation No. 5 of 2019 concerning Crypto Assets as Tradable Commodities, and relevant previous research.

The research instrument used is document analysis. The documents analyzed include laws and regulations, scientific literature, court decisions, and empirical data from industry reports related to cryptocurrency transactions in Indonesia. This instrument allows researchers to identify the strengths and weaknesses of existing regulations and evaluate their effectiveness.

Data collection techniques are carried out by: library research to collect primary and secondary data. Primary data is obtained from relevant laws, government regulations, and court decisions. Secondary data was obtained from books, scientific journals, reports from international institutions such as Chainalysis and CoinGecko, as well as scientific articles discussing cryptocurrency regulation and cyber law risks.

This research procedure begins with data collection by identifying regulations related to cryptocurrency in Indonesia. The next step is to review the relevant scientific literature to understand the global context and risks faced in cryptocurrency regulation. The data is then analyzed to evaluate gaps in existing regulations and their potential to address the risks arising from a cyber law perspective.

The data analysis technique used is qualitative analysis with the content analysis method. The data collected from legal documents and scientific

¹⁴ Raden Ani Eko Wahyuni, dan Bambang Eko Turisno, "Praktik Finansial Teknologi Ilegal dalam Bentuk Pinjaman Online ditinjau dari Etika Bisnis," *Jurnal Pembangunan Hukum Indonesia* 1, no. 3 (2019): 379--391, <https://doi.org/10.14710/baf.v.%i.%Y.1052-1066>.

¹⁵ Samuel Frans Boris Situmorang dkk., "Teori Keadilan sebagai Fairness karya John Rawls dikaitkan dengan Bank Tanah di Indonesia," *IINNOVATIVE: Journal Of Social Science Research* 3, no. 2 (2023): 1562--78, <https://doi.org/https://doi.org/10.31004/innovative.v3i2.362>.

¹⁶ Risna Nurlatun, Herman Nayoan, and Fanley Pangemanan, "Upaya Pemerintah Dalam Mengatasi Penyebaran Berita Palsu (Hoax) Di Media Sosial (Studi Kasus Dinas Kominfo Kota Manado)," *Jurnal Governance* 1, no. 2 (2021): 1--8.

literature are analyzed in depth to assess the effectiveness of existing regulations in regulating cryptocurrency and identify the risks that arise. This study will also compare regulations between Indonesia and several other countries that are more advanced in cryptocurrency regulation to find gaps and recommendations that are relevant to policies in Indonesia.

3. Result & Discussion

A. Cryptocurrency Regulatory Framework in Indonesia

Indonesia has a duality in cryptocurrency regulation. On the one hand, Bank Indonesia through Bank Indonesia Regulation (PBI) No. 18/40/PBI/2016 prohibits the use of cryptocurrency as legal tender, by emphasizing that the Rupiah is the only legally recognized means of payment in Indonesia¹⁷. On the other hand, the Commodity Futures Trading Regulatory Agency (Bappebti) has legalized cryptocurrency trading as a commodity through Bappebti Regulation No. 5 of 2019¹⁸.

The difference in approach between Bank Indonesia and Bappebti creates regulatory uncertainty. Cryptocurrencies are recognized as tradable commodities but prohibited as a means of payment, creating regulatory loopholes that cybercriminals could potentially exploit¹⁹. In addition, supervision of cryptocurrency trading activities in Indonesia is still limited to economic aspects, while cyber risks such as fraud and money laundering have not been adequately regulated²⁰.

¹⁷ Bank Indonesia, "Bank Indonesia Regulation No. 18/40/PBI/2016 on the Use of Currency," 2016, <https://www.bi.go.id/>.

¹⁸ Commodity Futures Trading Supervisory Agency, "Bappebti Regulation No. 5 of 2019 Concerning Technical Provisions for Organizing Physical Commodity Markets on Futures Exchanges," 2019, <https://www.bappebti.go.id>.

¹⁹ Muh Afdal Yanuar, "Risks and Possibilities of Misuse of Crypto Assets in Money Laundering Crimes," in *Majalah Hukum Nasional*, vol. 52, 2022, 169–88.

²⁰ Wilbert, Mahmul Siregar, and Detania Sukarja, "Legal Analysis of the Implications of the ASEAN Agreement on E-Commerce for Electronic Business Contracts in Indonesia," *Jurnal Suara Hukum* 6, no. 1 (2024): 48–67, [https://journal.unesa.ac.id/index.php/suarahukum/article/view/17377%0Ahttp://files/615/Wilbert et al. - 2024 - Legal Analysis of the Implications of the ASEAN Ag.pdf](https://journal.unesa.ac.id/index.php/suarahukum/article/view/17377%0Ahttp://files/615/Wilbert%20et%20al.-2024-Legal%20Analysis%20of%20the%20ASEAN%20Agreement.pdf).

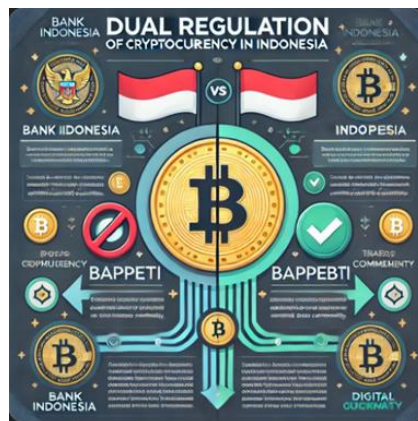


Figure 1. Duality of Cryptocurrency Regulation in Indonesia

The image above shows the Dual Regulation of Cryptocurrency in Indonesia in English. On the left side, the Bank Indonesia logo with a red prohibition symbol indicates the prohibition of cryptocurrency as a means of payment. On the right side, the Bappebti logo with a green check mark indicates that cryptocurrency is permitted as a tradable commodity²¹.

The urgency of more comprehensive regulation can be seen from the increasing number of cryptocurrency transactions in Indonesia, which were recorded to reach 859 trillion Rupiah in 2022. Without a clear legal framework, the risk of cybercrime related to the use of cryptocurrency will continue to increase.

B. Cyber Risk Analysis in the Use of Cryptocurrency

Cryptocurrencies, due to their decentralized and anonymous nature, have a high potential to be exploited for illegal activities such as money laundering, terrorism financing, and fraud. Based on the Chainalysis report (2023), Indonesia is ranked worryingly in terms of ransomware attacks and cryptocurrency-related fraud²². In 2022, it was recorded that around 7% of total cryptocurrency transaction activity in Indonesia was at risk of illegal activity²³.

Data and transaction security is also a serious concern. Without strict oversight, security gaps such as hacking attacks on digital wallets can cause major losses to society. The ITE Law as a legal umbrella for cyber law enforcement in Indonesia also still has weaknesses in handling crimes related

²¹ Nugroho Hardiyanto, Wahyu Rafdinal, and Cahaya Juniarti, *Financial Technology in the New Era: Cryptocurrency* (Malang: Madza Media, 2023).

²² Chainalysis, "The 2023 Crypto Crime Report: Analysis of Illicit Activities in Cryptocurrency."

²³ Marsha Ivo Miranda, "Analisis Peraturan Bappebti Nomor 13 Tahun 2022: Cara Meminimalisir Risiko Perdagangan Crypto Asset Di Indonesia" (Universitas Muhammadiyah Sidoarjo, 2023).

to blockchain and cryptocurrency technology, because this regulation has not been adapted to deal with new risks in the digital era²⁴.

Table 2. Percentage of Risk of Illegal Activities Related to Cryptocurrency in Indonesia (2020-2022)

Year	Illegal Activities (%)
2020	3%
2021	5%
2022	7%

Table 2. shows an increasing trend of illegal activities using cryptocurrencies in Indonesia, indicating the need for stronger regulation in terms of cyber law.

C. International Comparison: Lessons from Cryptocurrency Regulation in Other Countries

Several developed countries such as Japan and Singapore have developed more mature regulations in regulating cryptocurrency²⁵. In Japan, cryptocurrency is recognized as a legal means of payment through the Payment Services Act which came into effect in 2017²⁶. On the other hand, Singapore through the Monetary Authority of Singapore (MAS) enacted the Payment Services Act 2019 which strictly regulates cryptocurrency, especially in terms of supervision of money laundering risks and cyber security^{27 28}.

Compared to Indonesia, regulations in these countries are much more comprehensive because they integrate economic and cybersecurity aspects²⁹. Japan and Singapore also have better cryptocurrency transaction monitoring systems, with cooperation between regulators, financial institutions and technology companies to reduce the risk of crime³⁰. Lessons learned from these countries' approaches show that cryptocurrency regulation should cover not

²⁴ Abraham Saragih et al., "Bitcoin Dalam Perspektif Kejahatan Siber: Analisis Kriminologi Berbasis Posmodern," *Jurnal Kriminologi Indonesia* 15, no. 1 (2019): 1–9.

²⁵ Yudhi Priyo Amboro and Agustina Christi, "Prospek Pengaturan Cryptocurrency Sebagai Mata Uang Virtual Di Indonesia (Studi Perbandingan Hukum Jepang Dan Singapura)," *Journal of Judicial Review* 21, no. 02 (December 2019): 14–40, <https://doi.org/10.37253/jjr.v21i2.665>.

²⁶ Japan, "Payment Services Act 2017" (Government of Japan, 2017).

²⁷ Monetary Authority of Singapore, "Payment Services Act 2019" (Monetary Authority of Singapore, 2019).

²⁸ I Putu Hadi Pradnyana et al., "Securing Democracy in Cyberspace: Voter Data Leaks In Indonesia ' S 2024 Election," *JURNAL TRIAS POLITIKA* 8, no. 2 (2024): 292–305, <https://doi.org/https://doi.org/10.33373/jtp.v8i2.6541>.

²⁹ Farrel Christian Sioe, "Regulasi Hukum Cryptocurrency Dan Pencegahan Tindak Penyalahgunaannya Di Indonesia," *Jurnal Kertha Semaya* 12, no. 6 (2024): 1375–86, <https://doi.org/10.24843/KS.2024.v12.i06.p25>.

³⁰ Muh. Akbar Fhad Syahril, "Cyber Crime in Terms of the Human Rights Perspective," *International Journal of Multicultural and Multireligious Understanding* 10, no. 5 (2023): 119–30, <https://doi.org/10.18415/ijmmu.v10i5.4611>.

only economic aspects but also cyber legal protection to create a safe and trusted ecosystem³¹.

Table 3. Comparison of Cryptocurrency Regulations in Several Countries

Country	Legal Status	Tax Regulation	KYC/AML Compliance	Main Regulator	Licensing Requirements
United States	Legal	Taxed as property	Yes	SEC / CFTC	Yes
Japan	Legal	Taxed as income	Yes	FSA	Yes
China	Illegal	N/A	N/A	N/A	N/A
EU	Legal	Varies by country	Yes	ESM	Varies by country
Indonesia	Legal	Taxed as income	Yes	Bappebti	Yes

Indonesia can learn from the regulatory approaches in Japan and Singapore to strengthen the existing legal framework, especially in mitigating cyber risks associated with the use of cryptocurrencies.

D. Recommendations for Strengthening Cryptocurrency Regulation in Indonesia

Based on the above analysis, regulatory updates are needed that cover important aspects such as cybersecurity, transaction transparency, and supervision of illegal activities involving cryptocurrencies³². First, Indonesia needs to expand the scope of the ITE Law to better suit blockchain technology and cryptocurrency transactions³³. Second, it is necessary to establish a special institution that is responsible for overseeing all cryptocurrency activities, both in terms of economics and cybersecurity³⁴.

These regulatory updates must take into account consumer protection and digital security. In addition, cooperation between the government, financial

³¹ Razaq Mustika Djati and Tjokorda Istri Diah Widyantari Pradnya Dewi, "Regulasi Metode Pembayaran Dengan Mata Uang Kripto (Cryptocurrency) Dalam Transaksi Bisnis Internasional," *Ethics and Law Journal: Business and Notary* 2, no. 2 (2024): 91–106, <https://doi.org/10.61292/eljbn.170>.

³² Toni Tri Saputra and Adi Sulistiyono, "Upaya Hukum Perlindungan Investor Dari Potensi Risiko Investasi Cryptocurrency Di Indonesia," *Gema Keadilan* 11, no. 1 (2024): 1--9, <https://doi.org/10.14710/gk.2024.22908>.

³³ A R Saputra, "Trends and Prospects for Crypto Asset Trading in Indonesia," *Formosa Journal of Sustainable ...* 3, no. 6 (2024): 1285–92.

³⁴ Law of the Republic of Indonesia, "Law No. 11 of 2008 Concerning Electronic Information and Transactions (ITE)," 2008.

institutions, and digital platform providers is very important in creating a safer cryptocurrency ecosystem in Indonesia^{35 36}. With these steps, it is hoped that Indonesia can overcome existing regulatory gaps and create an effective legal framework in regulating cryptocurrencies.

4. Conclusion

This study shows that cryptocurrency regulation in Indonesia is still in its early stages of development, with a dual approach between Bank Indonesia and Bappebti. Bank Indonesia prohibits the use of cryptocurrency as a means of payment, while Bappebti recognizes cryptocurrency as a tradable commodity. This duality creates legal uncertainty and has the potential to pose significant cyber risks. From a cyber law perspective, supervision of cryptocurrency activities, such as money laundering, fraud, and other illegal activities, is still inadequate.

The main finding of this study is the need for more comprehensive and integrative regulatory updates that cover aspects of digital security, consumer protection, and supervision of cybercrime risks. Comparisons with other countries such as Japan and Singapore show that regulations that cover aspects of economic transactions and cybersecurity can be an effective model to be implemented in Indonesia. Additional steps are needed to improve the ITE Law and build a stronger legal framework to maintain the stability of the cryptocurrency market and protect the public from the risks of digital technology-based crimes.

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³⁵ Ade Rizki Saputra, "Potential of Crypto Assets as Loan Collateral in Indonesia," *Formosa Journal of Social Sciences (FJSS)* 2, no. 4 (December 2023): 693--700, <https://doi.org/10.55927/fjss.v2i4.7450>.

³⁶ Meiske Lasut et al., "Juridical Analysis of Crypto Currency Regulation in Indonesia and Its Implications for Consumer Protection," *Journal Mahkamah Hukum* 1, no. 1 (2024): 35--50.

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