
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

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1. Introduction

Cryptocurrency, as one of the biggest innovations in financial technology, has attracted global attention (Hashemi Joo et al., 2020). In Indonesia, cryptocurrency adoption is increasing, especially with easy access through various digital platforms. However, with this growth comes various challenges, including the lack of adequate regulatory oversight. Currently, cryptocurrency is not recognized as legal tender in

Indonesia, and Bank Indonesia prohibits its use as a means of exchange. However, Bappebti (Commodity Futures Trading Supervisory Agency) has recognized cryptocurrency as a tradable commodity. This duality of approach raises questions about how cyber law regulates the risks arising from the use of cryptocurrency (Lee & L'heureux, 2020).

The importance of this research arises from the urgent need to provide a clear and effective legal framework in regulating cryptocurrencies in Indonesia (Lasut & Mesra, 2024). Currently, existing regulations are still not comprehensive and cover various risks that can arise, ranging from potential fraud, money laundering, to terrorism financing. Therefore, the establishment of appropriate policies is very necessary to maintain a balance between technological innovation and legal protection for the community.

Data from Fahira (2024) shows that the value of cryptocurrency transactions in Indonesia reached 859 trillion Rupiah in 2022, a sharp increase from the previous year. 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).

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 Wiwoho (2024) 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 payment. 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 (Kumar et al., 2024; Uddin et al., 2020). 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 protection.

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 (Lasut & Mesra, 2024; Tiari Rahma Fani & Yudi Ferdiana Permana, 2024). This approach has not been widely explored in previous research, thus providing a novel contribution to the literature in the field of technology law.

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

This study uses a juridical-normative approach with a descriptive-analytical research type. 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 Bappebti. 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 2008, 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 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 Indonesia. On the other hand, the Commodity Futures Trading Regulatory Agency (Bappebti) has legalized cryptocurrency trading as a commodity through Bappebti Regulation No. 5 of 2019.

The difference in approach between Bank Indonesia and Bappebti creates regulatory uncertainty (Wardhono et al., 2025). Cryptocurrencies are recognized as tradable commodities but prohibited as a means of payment, creating regulatory loopholes that cybercriminals could potentially exploit. 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 regulated.



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 commodity.

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.

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 fraud. In 2022,

it was recorded that around 7% of total cryptocurrency transaction activity in Indonesia was at risk of illegal activity.

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 (Moon et al., 2022). The ITE Law as a legal umbrella for cyber law enforcement in Indonesia also still has weaknesses in handling crimes related to blockchain and cryptocurrency technology, because this regulation has not been adapted to deal with new risks in the digital era.

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

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

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

International Comparison: Lessons from Cryptocurrency Regulation in Other Countries

Several developed countries such as Japan and Singapore have developed more mature regulations in regulating cryptocurrency (Lindsay, 2022). In Japan, cryptocurrency is recognized as a legal means of payment through the Payment Services Act which came into effect in 2017. 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.

Compared to Indonesia, regulations in these countries are much more comprehensive because they integrate economic and cybersecurity aspects (Rhogust, 2024). Japan and Singapore also have better cryptocurrency transaction monitoring systems, with cooperation between regulators, financial institutions and technology companies to reduce the risk of crime. Lessons learned from these countries' approaches show that cryptocurrency regulation should cover not only economic aspects but also cyber legal protection to create a safe and trusted ecosystem.

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.

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 (Dhali et al., 2023; Wronka, 2024). First, Indonesia needs to expand the scope of the ITE Law to better suit blockchain technology and cryptocurrency transactions. Second, it is necessary to establish a special institution that is responsible for overseeing all cryptocurrency activities, both in terms of economics and cybersecurity.

These regulatory updates must take into account consumer protection and digital security (Cauffman & Goanta, 2021). In addition, cooperation between the government, financial institutions, and digital platform providers is very important in creating a safer cryptocurrency ecosystem in Indonesia. 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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