RECONSTRUCTING CRIMINAL POLICY IN RESPONSE TO BITCOIN-DRIVEN MONEY LAUNDERING: BETWEEN ANONYMITY AND LEGAL CERTAINTY IN INDONESIA

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ABSTRACT

The emergence of Bitcoin as a decentralized digital asset has presented new challenges in combating financial crime, particularly money laundering. The pseudo-anonymity and cross-border capabilities of Bitcoin create complexities in law enforcement, especially in Indonesia, where regulations are still lagging behind. This study uses a legal-normative approach to analyze gaps in Indonesia's criminal law policies in responding to Bitcoin abuse. Through doctrinal analysis and comparison with policy models in the United States and Singapore, three main dilemmas were identified: weak legal substance, limitations in digital evidence, and lack of institutional coordination. This study formulates an integrative criminal policy model that includes regulatory reform, updating legal procedures based on digital evidence, and the establishment of an inter-agency task force. This model aims to address the need for adaptive legal reforms in the era of digital crime. These findings contribute theoretically to the development of cyber-criminal law and practically to the formulation of responsive and sustainable law enforcement strategies.

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1. INTRODUCTION

Over the past decade, the development of digital financial technology has brought significant changes to the way people conduct transactions[1];[2];[3];[4];[5]. One of the most notable innovations is the emergence of cryptocurrency, particularly Bitcoin, which offers a decentralized system, fast transactions, and a high level of anonymity[6];[7];[8];[9]. In Indonesia, despite Bitcoin not being recognized as a legal tender, its usage continues to grow[10];[11];[12]. Data from Statista (2023) indicates that Indonesia ranks seventh globally in terms of cryptocurrency users, with over 17.7 million registered users, according to the Commodity Futures Trading Supervisory Agency.

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However, along with the increasing adoption of this technology, there has also been a surge in cases of Bitcoin abuse in transnational crimes, including money laundering, illicit trade, and terrorism financing. The 2022 Financial Transaction Reports And Analysis Center report identified more than 1,200 suspicious transactions using cryptocurrencies, most of which originated from narcotics and online gambling crimes. This phenomenon highlights a serious threat to the integrity of the national financial system and the effectiveness of criminal law enforcement.

The urgency of this research lies in the legal challenges faced by Indonesia in responding to money laundering practices through Bitcoin, particularly due to the inherent anonymity of digital assets[13];[14];. Existing regulations, such as Law No. 8 of 2010 on Money Laundering, do not explicitly mention cryptocurrency as a criminal object, creating legal uncertainty in implementation. Additionally, the limited capacity of law enforcement agencies to track cryptocurrency transactions and the absence of solid institutional collaboration further weaken the effectiveness of criminal policies.

In an academic context, studies on Bitcoin and money laundering in Indonesia generally focus on economic approaches, blockchain technology, or financial law perspectives[15];[16];[17]. Very few studies specifically examine the criminal policy dilemma in dealing with the Bitcoin phenomenon from a criminal law perspective. Therefore, there is a significant research gap in bridging the aspects of crypto technology with national criminal law enforcement mechanisms.

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Based on the above background, this study aims to examine in depth the criminal policy dilemmas that arise from the use of Bitcoin in money laundering practices in Indonesia. This study contributes to the formulation of criminal policy recommendations that are responsive to developments in digital technology, as well as providing new insights for policymakers and law enforcement officials on effective sentencing strategies for crypto-based crimes.

2. RESEARCH OBJECTIVES

This study is motivated by the increasing use of Bitcoin as a means of transaction that is not only technologically valid but also has great potential for abuse in criminal activities, particularly money laundering. The key characteristics of Bitcoin—such as anonymity, decentralization, and the difficulty of tracking fund flows—have posed serious challenges for Indonesia's criminal justice system, which is not yet fully prepared to address the complexities of crypto-based crimes.

In general, the objective of this study is to provide a comprehensive analysis of the criminal policy dilemma in the Indonesian legal system regarding the use of Bitcoin as a money laundering instrument. This study specifically aims to:

First, identify and describe how the technological characteristics of Bitcoin, particularly its anonymity, contribute to its potential misuse in money laundering schemes. By understanding the technical and operational structure of blockchain systems and crypto wallets, it is hoped that a clear picture will emerge of how these legal and technological loopholes are exploited by criminals.

Second, analyzing the effectiveness of existing criminal law instruments in responding to crypto-based money laundering crimes. This study will examine the extent to which Indonesian positive law—particularly the Law on Money Laundering, the ITE Law, and other derivative regulations—is able to accommodate this new phenomenon within the framework of fair and efficient law enforcement.

Third, formulate adaptive and sustainable criminal policy models to address digital technology-based crime. This model is expected to provide a normative solution to the legal vacuum that exists, as well as strengthen

synergy between law enforcement agencies in handling cybercrime that crosses jurisdictions.

With the achievement of these objectives, this study is expected to make a real contribution to the development of Indonesian criminal law, particularly in the context of criminal policy reform based on the principles of justice and developments in information technology.

3. RESEARCH METHODOLOGY

This study uses a legal-normative approach, which is a legal approach based on analysis of legislation, legal doctrines, and relevant legal principles[18] ;[19]. This approach was chosen because the main issue raised in this study concerns the adequacy and effectiveness of criminal law norms in responding to the phenomenon of Bitcoin use as a means of money laundering. This study does not focus on the technical aspects of blockchain or cryptocurrency as a technological system, but rather on examining its legal aspects within the framework of national criminal policy.

The data sources used in this study consist of secondary data, including primary, secondary, and tertiary legal materials. Primary legal materials include relevant laws and regulations, such as Law Number 8 of 2010 concerning the Prevention and Eradication of Money Laundering, Law No. 19 of 2016 on Electronic Information and Transactions, Law No. 4 of 2023 on the Development and Strengthening of the Financial Sector, as well as technical regulations from institutions such as Bappebti, OJK, and Financial Transaction Reports And Analysis Center.

Secondary legal materials include scientific literature in the form of books, legal journals, conference articles, and national and international research reports relevant to the research theme, particularly those discussing cyber criminology, criminal law policy, and digital asset regulation. Meanwhile, tertiary legal materials include legal dictionaries, legal

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encyclopedias, and other supporting documents used to support conceptual understanding of specific terms or concepts.

The data analysis technique used is qualitative analysis with a content analysis approach. The data is analyzed systematically through the identification of legal issues, interpretation of norms, and comparison with practices and regulations in other countries that have already regulated the criminalization of cryptocurrency abuse. The analysis was conducted within an evaluative framework to assess the effectiveness and appropriateness of existing criminal law policies in addressing the need for law enforcement against Bitcoin-based money laundering crimes.

In order to strengthen the results of the analysis and improve the validity of the research, a comparative-normative technique was also used by looking at practices in several countries, such as the United States, Singapore, and Japan, which have implemented digital technology-based criminal law policies on crypto assets. Thus, the results of this study are not only descriptive but also provide normative contributions in formulating a criminal policy model that is more responsive to cross-border digital crime challenges.

4. RESULT

4.1 Characteristics of Bitcoin and Transaction Anonymity

Bitcoin is a form of digital asset based on blockchain technology, which guarantees security, transparency, and decentralization in every transaction[20];[21]. However, behind the transparency of the public ledger structure, Bitcoin actually has pseudo-anonymity characteristics, which means that the true identity of the owner is not directly revealed in the block

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chain[22];[23];[24]. This is different from conventional financial systems based on user identification through banking systems and KYC (Know Your Customer).

The use of anonymous alphanumeric wallet addresses in Bitcoin transactions allows individuals to conceal their identities. Furthermore, the use of coin mixing techniques (mixers/tumblers) and multi-wallet architecture can complicate tracking, even by authorities with advanced technological access. Cybercriminals often exploit these techniques to split illicit funds into smaller portions and distribute them across various digital wallets. This practice is known as smurfing in the crypto world.

In Indonesia, this phenomenon is even more problematic because not all crypto exchanges implement strict KYC standards. In fact, some local platforms do not cooperate directly with Financial Transaction Reports And Analysis Center or law enforcement agencies, making it difficult to track transactions[25] . Under these conditions, Bitcoin's anonymity becomes a major obstacle in criminal investigations, especially in money laundering cases[26].

4.2 Trends in Bitcoin Abuse in Money Laundering Crimes

The development of the cryptocurrency market in Indonesia has provided economic opportunities, but it has also posed risks to legal stability

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and the financial system[27];[28]. The Financial Transaction Reports And Analysis Center report (2022) states that cryptocurrency-based money laundering is carried out through three classic stages of money laundering, namely placement, layering, and integration — but with digital techniques that are much more difficult to detect[29] . Bitcoin is used in the layering stage to obscure the origin of illicit funds before they are converted back into fiat currency[30];[31].

Cases of money laundering involving cryptocurrencies in Indonesia have begun to appear in law enforcement reports, for example in crackdowns on online gambling sites, investment fraud (crypto-based Ponzi schemes), and dark web activities involving drug transactions[32];[33]. Unfortunately, not many cases have resulted in the seizure of digital assets due to formal legal and technical limitations in tracking.

In addition, the suspicious transaction reporting system (STR/LTKM) by financial service institutions has not fully covered non-bank crypto platforms. This opens up loopholes for perpetrators to transfer funds across countries without going through formal financial system controls. In the context of digital economic globalization, this phenomenon cannot be addressed by one country alone, but requires regional and international

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coordination, including through mechanisms such as the Egmont Group and the Interpol Cybercrime Programme.

4.3 Regulatory Disparities and Criminal Policy Dilemmas

Indonesia's criminal policy on digital crimes, including Bitcoin-based money laundering, remains reactive and partial (Banjarani et al., 2021). Substantive criminal law does not yet provide a comprehensive legal definition of digital assets as objects of crime. Meanwhile, criminal procedure law does not yet support crypto-based digital evidence methods, such as chain analysis or wallet address tracking.

The absence of supplementary regulations that specifically govern the criminalization of cryptocurrency asset misuse often results in law enforcement efforts stalling at the investigative stage. This creates a criminalization dilemma, where the state faces pressure to expand the scope of criminal offenses but lacks adequate legal certainty. For example, law enforcement authorities often rely on conventional provisions such as Articles 3, 4, and 5 of the Anti-Money Laundering Law, but face challenges in presenting admissible digital evidence in court.

This imbalance reflects a discordance between the sociotechnological reality and the national legal structure, which has remained unchanged. Written and rigid criminal laws face major challenges in keeping pace with the dynamic, flexible, and cross-border nature of technological crime.

The experiences of other countries demonstrate the importance of an integrated approach to combating crypto-based money laundering. The United States promotes a risk-based regulatory model and technology-based investigations, combined with mandatory registration policies for crypto service providers. The Silk Road and Bitfinex cases show how collaboration between financial institutions, regulators, and law enforcement agencies can dismantle cross-border money laundering networks through Bitcoin.

Meanwhile, Singapore not only regulates through criminal law, but also builds a legal ecosystem that supports the safe use of technology. The sandbox approach and integrative policies between the Monetary Authority of Singapore (MAS), financial institutions, and the private sector strengthen prevention while maintaining technological innovation.

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In comparison, Indonesia is still in the early stages of developing crypto governance. The absence of a national coordinating body specifically tasked with addressing digital assets as instruments of crime has led to delays in legal responses. Therefore, learning from the legal systems of other countries is crucial in designing modern criminal policies based on digital realities.

5. DISCUSSION

In response to the phenomenon of Bitcoin abuse in money laundering crimes, a criminal policy reconstruction is needed that is not merely reactive to individual cases, but systemic and anticipatory. The unique characteristics of crypto assets, which are digital, decentralized, and involve cross-border jurisdictions, require an adaptive, integrative, and institutional capacity-building approach to criminal law policy.

The conceptual model offered in this study consists of three main dimensions, namely the substantive dimension, the procedural dimension, and the institutional dimension. These three dimensions are designed to be integrated to address the complexity of financial technology-based crime in the digital era.

First, in terms of substance, there is a need to update existing laws and regulations, particularly Law No. 8 of 2010 on the Prevention and Eradication of Money Laundering. The provisions regarding "other assets of economic value" need to be explicitly clarified to include digital assets such as Bitcoin and other cryptocurrencies within their scope. This formulation is important to affirm that Bitcoin can be used as an object of criminal acts, subject to seizure, or as evidence in criminal proceedings. Additionally, specific criminal penalties should be developed for perpetrators who intentionally use cryptocurrency systems to conceal or disguise the proceeds of criminal acts, as has been implemented in some foreign jurisdictions.

Second, in procedural terms, Indonesia's criminal procedure system needs to be strengthened so that it can accommodate digital evidence in a legal and reliable manner. Recognizing the results of forensic blockchain analysis as legal evidence in court is a crucial step. This includes regulations on the seizure of digital assets, tracking crypto wallets, and utilizing data from domestic and foreign exchange platforms. This is where technology plays a vital role, and law enforcement agencies must be equipped with technical

training and international cooperation to keep pace with the transnational nature of cryptocurrency-related crimes.

Third, in the institutional dimension, this model proposes the establishment of a coordinating body in the form of a National Digital Asset Crime Task Force, consisting of representatives from Financial Transaction Reports And Analysis Center, the Police, the Attorney General's Office, Bappebti, OJK, and the Ministry of Communication and Information Technology. This task force is responsible for monitoring, investigating, and providing policy recommendations related to the misuse of digital assets. In the long term, this task force can also serve as a reference in designing adaptive regulations based on international best practices and national needs.

The reconstruction of criminal policy does not only focus on enforcement, but also on prevention and early detection of crypto-based money laundering. Therefore, inter-agency integration, technical capacity building, and regulatory updates are integral in facing an increasingly complex digital era.

This model is expected to contribute conceptually to the development of a national criminal justice system that keeps pace with technological innovation, while providing effective and fair legal protection against new forms of crime in the digital space.

6. NOVELTY AND RESEARCH CONTRIBUTION

This study offers a number of scientific innovations (novelty) and strategic contributions that can enrich the body of criminal law, particularly in the field of criminal policy against digital technology-based crimes. Amidst the limited Indonesian legal literature discussing the relationship between Bitcoin, anonymity, and money laundering in an integrated manner, this study serves as an initial effort to develop a theoretical and normative framework relevant to modern legal challenges.

The main novelty of this study lies in mapping the direct relationship between the technical characteristics of Bitcoin (particularly anonymity) and its implications for the effectiveness of the criminal justice system in Indonesia. Until now, existing legal studies have primarily focused on economic regulation or consumer protection, while the criminal policy dimension in the context of digital asset abuse has not been explored in depth. By addressing the criminal policy dilemma surrounding Bitcoin abuse in

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money laundering crimes, this study offers a new approach that combines classical criminal law perspectives with the challenges of the digital age.

In addition, the conceptual contribution of this study is demonstrated through the formulation of an integrative criminal policy model for crypto asset-based crimes, which covers aspects of legal substance, evidentiary procedures, and institutional coordination. This model provides an alternative solution to regulatory stagnation and weak coordination among law enforcement agencies in dealing with the rapid development of blockchain and crypto technology. This approach is not only normative but also practical and contextual to the legal needs of Indonesia.

In terms of practical contributions, this study provides policy directions that can be used as a basis for formulating changes to national legislation, particularly in the revision of the Anti-Money Laundering Law, the Electronic Information and Transactions Law, and the strengthening of digital-based financial reporting systems. In addition, this study encourages the establishment of data and technology-based inter-agency cooperation mechanisms to monitor and combat crypto crime more effectively.

Furthermore, the findings and models presented in this study can also serve as academic references in the development of cyber-criminal law, digital economy law, and digital asset management curricula in higher education institutions in Indonesia. This is important as part of strengthening legal literacy among academics and legal practitioners in facing disruptive digital transformation.

Thus, this study not only contributes to the development of legal science, but also provides concrete solutions to regulatory deadlocks in dealing with dynamically evolving cybercrime.

7. CONCLUSION

This study shows that the presence of Bitcoin as a form of digital asset has brought serious challenges to the Indonesian criminal justice system, particularly in the context of money laundering. Bitcoin's technical characteristics, which are anonymous and decentralized, make it highly susceptible to being misused to conceal the origin of criminal proceeds. This issue is further exacerbated by the absence of criminal law provisions that

explicitly regulate cryptocurrency as an object of criminal offenses or as evidence in legal proceedings.

The main findings of the study reveal a gap between the development of financial technology and the national criminal policy response. Existing laws and regulations, such as the Anti-Money Laundering Law and the Electronic Information and Transactions Law, are still general in nature and do not contain specific provisions regarding the criminalization of digital asset abuse. The absence of an effective digital tracking and evidence system also undermines the effectiveness of law enforcement.

In the context of handling Bitcoin-based money laundering, law enforcement officials face three main dilemmas: legal dilemmas (due to the absence of adequate legal protection), technological dilemmas (due to limited tools and resources for tracing digital assets), and institutional dilemmas (due to the lack of integrated coordination between the relevant authorities).

Through the formulation of a conceptual model that integrates substantive, procedural, and institutional approaches, this study seeks to develop a criminal policy framework that is responsive and adaptive to the dynamics of cybercrime. This model is expected to provide direction for the reform of Indonesian criminal law in the face of an increasingly complex and transnational digital transformation era.

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