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Law Enforcement Strategies Against Money Laundering Through Cryptocurrency: Comparative Studies in Several Countries

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Keywords

Money laundering; cryptocurrency; law enforcement; comparative study

Abstract

Money laundering through cryptocurrencies has become a significant global challenge for law enforcement, given the anonymous and decentralized nature of blockchain technology. Countries have adopted different approaches to combating these crimes, focusing on regulation, investigation, and prosecution. The study discusses and compares law enforcement strategies against money laundering through cryptocurrency in the United States, the European Union, Japan, and Singapore. The aim of this research is to identify and analyse effective law enforcement strategies in dealing with money laundering through cryptocurrency in various jurisdictions. The study also aims to understand the different approaches and challenges faced by the United States, the European Union, Japan, and Singapore in their efforts to eradicate this crime. This study uses a method of normative jurisprudential research with a comparative legal approach. The types of legal materials used include primary legal materials such as laws, regulations, and court decisions; as well as secondary legal material such as academic literature, journal articles, and law enforcement agency reports. The technique of collecting legal material is carried out through in-depth library study and analysis of official documents. Legal material is grouped into major premises and minor premises which are subsequently drawn logically. The research resulted in the finding that in order to counter money laundering through cryptocurrencies, the USA preferred a proactive technology-based approach and law enforcement institutional collaboration. The European Union relies on regulatory harmonization and cross-border cooperation based on law enforcement institutions (Europol dan Eurojust). Japan has imposed strict surveillance (panoptic) on international-based crypto-currency service providers. Singapore relies on a combination of strict surveillance (panoptic), state-of-the-art technology, and international collaboration, which makes it an effective model in law enforcement against money laundering through cryptocurrencies. The research findings suggest that a combination of technology, strict regulation, and international cooperation are key to effective law enforcement strategies in dealing with money laundering through cryptocurrencies. This is a law enforcement strategy that is the best practice for other countries without the exception of Indonesia, in order to

implement law-enforcement and regulatory policies that are adaptive to development of money-laundering through crypto currencies.

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Director General of Culture of the Republic of Indonesia

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Deputy Attorney General for Development

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Law Enforcement Strategies Against Money Laundering Through Cryptocurrency: Comparative Studies in Several Countries

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Abstract—Money laundering through cryptocurrencies has become a significant global challenge for law enforcement, given the anonymous and decentralized nature of blockchain technology. Countries have adopted different approaches to combating these crimes, focusing on regulation, investigation, and prosecution. The study discusses and compares law enforcement strategies against money laundering through cryptocurrency in the United States, the European Union, Japan, and Singapore. The aim of this research is to identify and analyse effective law enforcement strategies in dealing with money laundering through cryptocurrency in various jurisdictions. The study also aims to understand the different approaches and challenges faced by the United States, the European Union, Japan, and Singapore in their efforts to eradicate this crime. This study uses a method of normative jurisprudential research with a comparative legal approach. The types of legal materials used include primary legal materials such as laws, regulations, and court decisions; as well as secondary legal material such as academic literature, journal articles, and law enforcement agency reports. The technique of collecting legal material is carried out through in-depth library study and analysis of official documents. Legal material is grouped into major premises and minor premises which are subsequently drawn logically. The research resulted in the finding that in order to counter money laundering through cryptocurrencies, the USA preferred a proactive technology-based approach and law enforcement institutional collaboration. The European Union relies on regulatory harmonization and cross-border cooperation based on law enforcement institutions (Europol dan Eurojust). Japan has imposed strict surveillance (panoptic) on international-based crypto-currency service providers. Singapore relies on a combination of strict surveillance (panoptic), state-of-the-art technology, and international collaboration, which makes it an effective model in law enforcement against money laundering through cryptocurrencies. The research findings suggest that a combination of technology, strict regulation, and international cooperation are key to effective law enforcement strategies in dealing with money laundering through cryptocurrencies. This is a law enforcement strategy that is the best practice for other countries without the exception of Indonesia, in order to implement law-enforcement and regulatory policies that are adaptive to the development of money-laundering through crypto currencies.

Keywords—Money laundering, cryptocurrency, law enforcement, comparative study.

I. INTRODUCTION

Via cryptocurrency, money laundering has grown to be a serious and complicated worldwide legal issue. This is due to the anonymous, decentralized, and cross-border nature of blockchain technology that is the basis of cryptocurrency [1]. The crime of money laundering through these cryptocurrencies not only undermines the integrity of the international financial system, but also supports various other illegal activities, such as drug trafficking, terrorism, and cross-border fraud [2]. Because of this, the creation of a legal order is becoming more and more urgent, with regulations and law enforcement targeting cryptocurrency money laundering. This is due to the financial technology industry's rapid expansion. Making sure that the national legal and regulatory

frameworks are followed is the primary legal concern that the research on the growth of cryptocurrency-based money laundering regulatory framework is able to balance the dynamics and evolution of cryptocurrency technology. Moreover, the differences in approaches and effectiveness of law enforcement across countries add to the complexity of global efforts to combat this crime. The differences in approaches and effectiveness of law enforcement across countries in combating organized crime are influenced by divergences in legal traditions and historical legacies, as well as the conceptualizations of organized crime within each country. Despite these differences, there are unexpected convergences between national frameworks, especially at the procedural level, that are linked to international influences. Understanding these differences is crucial for policymakers to support cooperation efforts across borders [3].

The United States, the European Union, Japan, and Singapore, each have adopted different strategies in dealing with money-laundering through cryptocurrencies, while offering a variety of models that can be learned and adapted. As for the argument of choosing the United States, the European Union, Japan, and Singapore as comparative subjects in law enforcement studies against money laundering through cryptocurrency, it is based on a number of strong reasons, related to the complexity, effectiveness, and innovation in regulation and law-enforcement in each jurisdiction. Even on the development of blockchain technology that underpins cryptocurrencies, it has had a significant impact on the financial world [4], even having negative consequences in the form of an increase in crime.

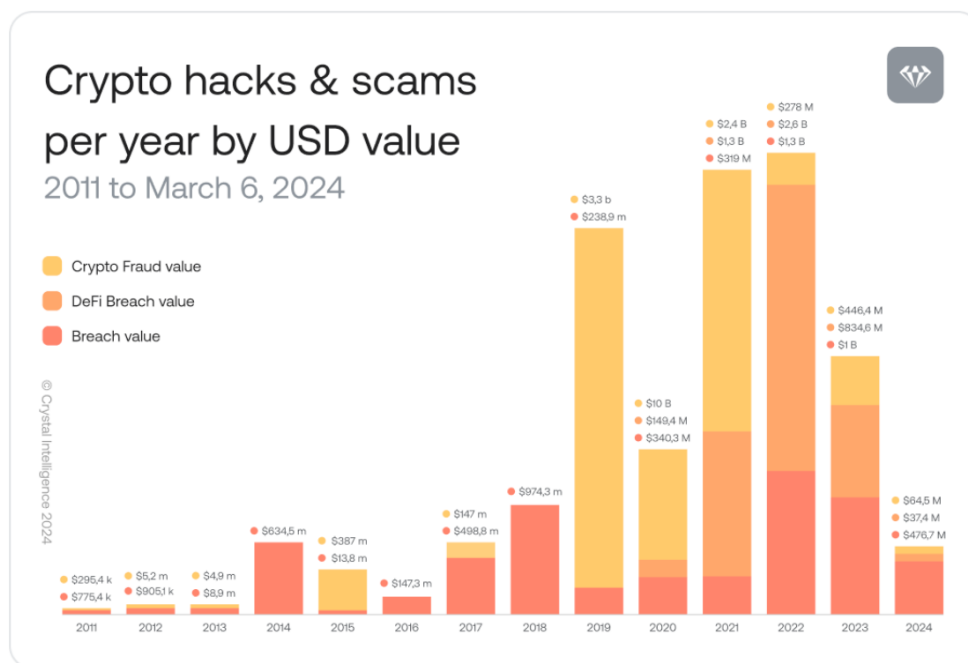


Figure 1. Cryptocurrency hacking and theft per year based on USD

Crystal Intelligence's latest report categorizes the losses as \$6 billion from security breaches, almost \$5 billion from decentralized financial hacking, and almost \$8 billion from cross-border fraud schemes [5]. Crystal is a blockchain intelligence startup based in Amsterdam, the Netherlands, and founded by Bitfury.

A prominent incident in the Crystal study is the 2019 Plus Token scam, which put scammers successfully stealing both Bitcoin and Ethereum worth \$2.9 billion. This event makes it the largest robbery ever recorded [6]. Despite progress in security and tracking, Crystal's research notes that the number of crypto-related crimes by 2023 reached its peak with 286 thefts, worth more than \$2.3 billion [7]. Besides, reports from Elliptic reveal an increase in AI-driven cybercrime. This sophisticated technology is being used for deepfake scams, state-sponsored attacks, and various other illegal activities. The ad on the dark web for the unethical Generative Pre-Trained Transformer claims that AI has two faces, just like humans [8].

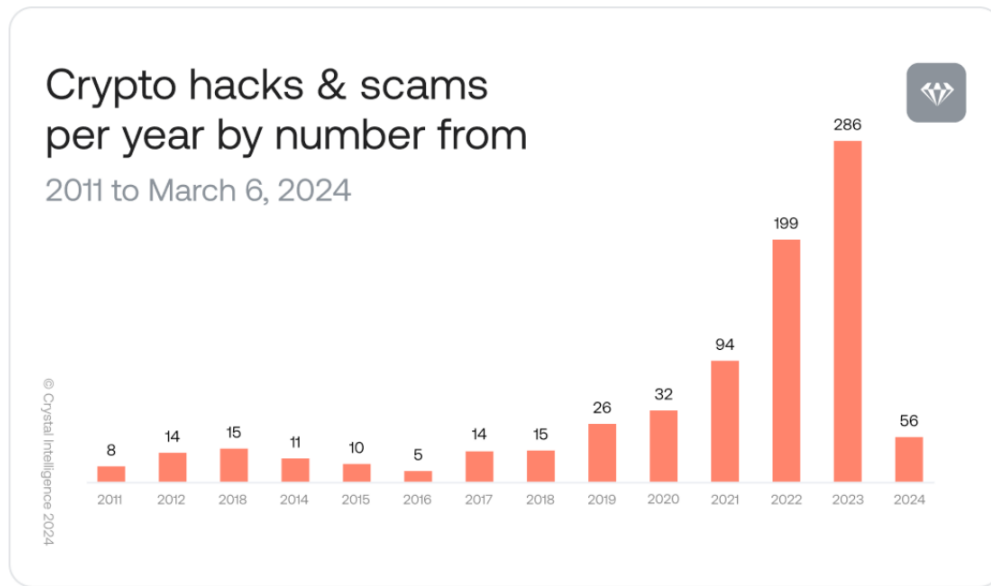


Figure 2. Cryptocurrency hacking and theft per year by figure

This report from Elliptic highlights the use of deepfake videos by famous figures like Elon Musk to promote fake investment schemes. The use of deepfake videos by famous figures like Elon Musk to promote fake investment schemes has been highlighted in reports from both Elliptic and CoinGabbar [9]. These deepfake videos aim to deceive unsuspecting investors by leveraging the popularity and reputation of individuals like Elon Musk [10]. This manipulated video was used to trick the victim into sending funds to a crypto address controlled by the scammer.

Such conditions must present a new challenge in law enforcement against money laundering through blockchain technology. Therefore, it is urgent to undertake a series of efforts to combat crime through technology that is continuously being carried out by the authorities in various countries. Some countries have even begun to develop specific policies and regulations to address this problem. In the context of Indonesia, the urgency of this comparative law study lies in Indonesia's need to develop a comprehensive and effective law enforcement strategy. Through an analysis of established nations' strategies and experiences addressing the financial crime of money laundering via cryptocurrencies, Indonesia may discern optimal procedures and modify them to suit its own national circumstances. Maintaining the stability and integrity of the country's financial system is crucial, as is making sure that Indonesia is not a haven for financial criminals. This comparative study aims to provide evidence-based recommendations for Indonesian policymakers in formulating regulatory and law enforcement strategies that are adaptive and effective to the challenge of money laundering through cryptocurrency.

II. LITERATURE REVIEW

A. Cryptocurrency and Money Laundering

Cryptocurrency provides a level of anonymity and decentralization that makes it an attractive option for individuals looking to launder money. Cryptocurrencies, such as Bitcoin, are indeed used by criminals for money laundering due to their characteristics that make them attractive for bypassing anti-money laundering rules. A common option for illegal operations like money laundering is cryptocurrency due to its decentralized structure and anonymity [11]. It is incredibly difficult for authorities to detect and trace the movement of criminal monies since people may transfer money across borders with ease utilizing cryptocurrencies, negating the necessity for traditional banking institutions. Crimes can also be more easily concealed by criminals due to the absence of control and regulation in the bitcoin industry [12]. Consequently, the task of modifying their investigation methodologies to successfully counter money laundering in the cryptocurrency domain falls on law enforcement authorities.

Governments ought to strengthen control and regulation of the cryptocurrency industry in order to stop money laundering across national borders. This entails keeping an eye on transactions and making sure that people are unable to move money across borders without the required paperwork. Since there is no regulation in the cryptocurrency field, which makes it easier for criminals to disguise their operations, law enforcement organizations must also modify their investigative methods to successfully target unlawful activity in this arena. Countries may more effectively prevent money laundering using cryptocurrency by putting these precautions into place.

The Financial Crimes Enforcement Network (FinCEN) in the United States has put in place legislation mandating cryptocurrency exchanges to confirm the identity of its users and report any questionable transactions. US-based cryptocurrency exchanges must abide by Financial Crimes Enforcement Network (FinCEN) rules, which include reporting suspicious activity reports (SARs) for purchases over \$2,000 as well as permitting access to company documents. Users of cryptocurrencies are not governed by the same laws as exchanges and are not regarded as Money Services Businesses (MSBs). Cryptocurrency miners and software developers are similarly excused from FinCEN MSB registration requirements. Ripple Labs, Inc. faced a civil monetary penalty for failing to comply with the Bank Secrecy Act (BSA) and implement proper Anti-Money Laundering (AML) and Know-Your-Customer (KYC) protocols [13]. Furthermore, people who neglect to disclose cryptocurrency transactions on their tax returns are facing harsh penalties from the Internal Revenue Service (IRS).

B. Challenges in Regulating Cryptocurrency Transactions

The decentralized structure of the cryptocurrency transactions (bitcoin industry) presents a significant regulatory difficulty. Enforcing compliance with current regulations might be challenging for regulators in the absence of a single body supervising transactions. Additionally, people find it simpler to participate in illicit activities without being caught, such as money laundering and tax evasion, as a result of this supervision gap [14]. Regulators must thus figure out how to strike a balance between the requirement for control and the goal of encouraging innovation and business growth. An alternative to enforcing onerous laws that can impede the market is to collaborate with industry players to create best practices and standards for compliance. Collaboration amongst companies, investors, and regulators may make it feasible to establish a transparent and secure environment for cryptocurrency transactions.

By working together, all parties involved may be able to increase confidence and lower the likelihood of fraudulent activity. Incorporating technical solutions, like blockchain technology, may help improve security and transparency in the bitcoin market. Ultimately, finding this balance between regulation and innovation is crucial for the long-term success and sustainability of the cryptocurrency industry [15]. On the other hand, overly stringent regulations may discourage innovation and impede the bitcoin market's future expansion. Maintaining an equilibrium between supervision and autonomy is crucial to guaranteeing the sector's capacity to develop and prosper.

C. Case Studies of Money Laundering Using Cryptocurrency

Draw attention to the necessity of laws to stop illegal activity while preserving the advantages of decentralized digital currency. Through a combination of smart regulation and lessons learned from these cases, the cryptocurrency space may progress toward a more reliable and stable ecosystem. Furthermore, creating a framework that encourages innovation while also protecting against misuse requires cooperation between government agencies, regulatory organizations, and industry parties. It is clear that finding the right balance between regulation and innovation is a complex but necessary task for the future of cryptocurrency [16].

To ensure transparency and lower the risk of fraud, authorities have the authority to mandate that firms conducting initial coin offerings (ICOs) provide investors with additional information about their projects. In order to maintain openness, regulators may mandate that businesses that conduct initial coin offerings (ICOs) provide investors with additional information about their initiatives. To assist investors in making wise choices, this may entail disclosing information about the project's objectives, personnel, technology, and finances. Additionally, implementing measures such as KYC (Know Your Customer) and AML (Anti-Money Laundering) checks can help prevent illicit activities within the cryptocurrency space (the bitcoin market) [17].

Investors might feel more confident in the projects they are funding if regulation and innovation in ICOs are balanced. In the end, this serves to safeguard both the integrity of the bitcoin market and customers. Nevertheless, there have been cases when businesses have misrepresented their ideas or participated in fraudulent activity despite the increasing regulation and openness around initial coin offerings. For example, the case of the BitConnect Ponzi scheme in 2017 involved a cryptocurrency lending platform that promised high returns to investors but ultimately collapsed, resulting in millions of dollars in losses for participants [18]. This highlights the challenges regulators face in effectively policing the cryptocurrency market and underscores the importance of thorough due diligence by investors before participating in ICOs [19].

III. METHOD

This study falls under the category of normative legal research [20] and is concerned with crimes involving digital money laundering, particularly those using cryptocurrency. Comparative analytic techniques from the US, EU, Japan, and Singapore are used in the study methodology [21]. The study uses deductive analysis techniques [22] against regulations related to digital money, especially cryptocurrencies, in the three countries using primary and secondary legal material. Through comparative legal approaches [23], it is expected to find differences and

similarities in the handling of money laundering through cryptocurrency as well as the relevance of adaptive and responsive regulation in the context of criminal and financial law enforcement. Sources of legal material used include academic literature, legal documents, official reports, as well as transcripts of interviews with experts in the field.

IV. RESULT AND DISCUSSION

A. Disadvantages of the Indonesian Legal Framework

The crime of money-laundering with a new mode of being an excess of the age, resulted in the need for a new rule to regulate it. Money-laundering criminal regulation in Indonesia is a form of government effort in dealing with or combating crimes that can harm the state's finances and the general public [24]. In line with what has been recommended by the FATF (Financial Action Task Force) that every state should have a legal regime against money laundering [25].

Efforts can be made to prevent and stop money laundering gradually by involving two legal policies with a preventive approach through banking law and repressively through criminal law. The legal regulation governing the criminal offence of money laundering in Indonesia has been regulated in the Law No. 8 of 2010 on the Prevention and Punishment of Money Laundering. With the existence of such a law could be the legal basis in the fight against the crime of cross-country money-laundering [26]. Moreover, in the crime of money-laundering, its modes have evolved over time, from conventional money laundering to the use of sophisticated technology, not to mention crypto currencies.

The establishment of this regulation aims to prevent money laundering practices in Indonesia. Article 3 of The Prevention and Punishment of Money Laundering Act states that money-laundering is any person who places, transfers, moves, spends, pays, amends, collects, brings abroad, changes shape, exchanges in currency or securities or other acts on property that he knows or should be suspected is the result of a criminal offence. The Prevention and Punishment of Money Laundering Act itself provides for criminal sanctions for perpetrators of money-laundering offences, including fines of up to IDR. 1 billion and/or imprisonment for up to 20 years. The Prevention and Punishment of Money Laundering Act also provides for criminal sanctions for financial institutions or professionals who fail to fulfil their reporting obligations, including fines of up to IDR. 5 billion and/or withdrawal of business permits [27]. So the new mode of money laundering using cryptocurrencies carried out by individuals or financial institutions is part of a form of money-laundering practice [28]. The evolution of the era led to the emergence of innovations in the form of virtual currencies, cryptocurrencies. So the law also has to evolve with every development that exists.

The Act No. 8 of 2010 authorized law enforcement to investigate, investigate and investigate cases of cross-country money-laundering. In order to deal with money-laundering crimes, the Financial Transaction Reporting and Analysis Centre (PPATK) was established as a permanent agency that deals with money laundering. Article 42 states that in the implementation of data and information management functions, PPATK is authorized to organize an information system that facilitates the exchange of information with relevant agencies both domestically and abroad. Then in the explanation of article 44 letter d that requests for information from law enforcement agencies or working partners outside the state in this provision are carried out as long as it does not interfere with the national interest by taking into account the provisions of the regulations of the laws in the field of foreign relations and international agreements [29].

On a wider spectrum, there are forms of cooperation that can be used as regulations for law enforcement in the fight against cross-country money-laundering, such as through bilateral and multilateral agreements with various international organizations such as the Asia-Pacific Group on Money Laundering (APG), the Egmont Group, and the Financial Action Task Force (FATF), AUSTRAC, (UNODC) United Nations Office on Drugs and Crime, (USDOJ-OPDAT) Office Of Overseas Prosecutorial Development, Assistance And Training, and international cooperation among other FIUs [30]. The cooperation has been undertaken by PPATK in order to obtain extensive information on money-laundering offenders as well as to narrow the movement of criminals, while aiming to eradicate transnational money laundering crimes.

B. Comparative Studies in Some Countries

1. United States

The United States in addition to regulating the wider use of cryptocurrencies, has also added cryptocurrency elements into the money laundering preventive legislation [31]. Based on such an adequate crypto-asset regulatory framework, it added reporting obligations involving Crypto-Asset Transactions, as well as a refreshment of Initial Coin Offering (ICO) regulation as a regulatory and supervisory solution that increased the vulnerability to the use

of crypto currencies as money laundering media. Initial Exchange Offering is another solution for policy development that responds to the incompleteness of ICO legal provisions [32].

Cryptocurrency regulation in the United States is also growing with a variety of legal frameworks being implemented. For example, the Securities and Exchange Commission (SEC) regulates the offer of digital tokens that are considered securities, while the Commodity Futures Trading Commission (CFTC) oversees the trading of cryptocurrency derivatives. The Financial Crimes Enforcement Network (FinCEN) also has regulations related to money laundering involving cryptocurrencies. There are still challenges in harmonizing international regulations, the United States continues to strive to strengthen international cooperation in terms of law enforcement against transnational crimes involving cryptocurrencies.

The Securities and Exchange Commission (SEC) regulates the offer of digital tokens that are considered securities. SEC v. Telegram and SEC v. Kik, both decided in 2020, establish some ground-breaking rules about how the federal securities laws apply to cryptotransactions. In both cases, the court concluded that a large, reputable social media company had conducted a crypto offering in violation of federal law. In neither case was fraud or other criminal conduct an issue; the sole problem was failure to register the sales or comply with an exemption from registration. To find a violation, both opinions collapsed a two-phase offering into a single, integrated scheme. This approach appears to be an unnecessarily overbroad application of the law, protecting neither investors nor capital markets. A cost of this approach is that crypto entrepreneurs are being forced away from the United States, and American investors are denied opportunities to participate in a potentially desirable technological revolution [33].

The Commodity Futures Trading Commission (CFTC) oversees the trading of cryptocurrency derivatives. Bitcoin derivatives may take the form of futures, forwards, swaps, and options with the most prominent being bitcoin futures offered by CME and CBOE [34]. Most of these derivatives are subject to regulation by the Commodity Futures Trading Commission (CFTC) pursuant to the Commodity Exchange Act (CEA) [35]. The CFTC regulates futures and swaps markets to protect buyers and sellers of derivatives, and other participants in the derivatives markets, from fraud, market manipulation, abusive practices, and systemic risk [36]. Bitcoin derivatives would likely not be subject to the full scope of regulation under the CEA to the extent such derivatives involve physical delivery (as opposed to cash settlement) or are nonfungible and not independently traded. In addition, Bitcoin swaps are currently too illiquid to be subject to mandatory clearing.

The Financial Crimes Enforcement Network (FinCEN) also has regulations related to money laundering involving cryptocurrencies. FinCEN has issued administrative rulings clarifying the application of its regulations to specific virtual currency business models [37]. FinCEN's regulations play a crucial role in combatting money laundering involving cryptocurrencies, including Bitcoin derivatives. FinCEN requires exchanges that facilitate the sale or conversion of Bitcoin into fiat currency or other stores of value to register with them. Companies like Coinbase and Kraken are registered with FinCEN [38]. While Bitcoin swaps may currently be exempt from mandatory clearing due to liquidity concerns, FinCEN's oversight ensures that virtual currency businesses adhere to anti-money laundering requirements. By issuing administrative rulings on specific virtual currency business models, FinCEN helps clarify the application of its regulations in this rapidly evolving industry [39].

Well-known law enforcement and case strategies in the United States rely on cooperation between law-enforcement agencies such as the FBI, the Secret Service, and the Department of Justice in investigating criminal cases involving cryptocurrencies. Some well-known cases include the case of WannaCry ransomware requiring payments in the form of cryptocurrencies, as well as a case of investment fraud such as Bitconnect [40]. Law enforcement efforts are steadily improving to address the new challenges that emerge as blockchain and cryptocurrency technology develops.

2. European Union

On April 24, 2024, the European Parliament approved a new regulation targeting money laundering in the cryptocurrency sector. This rule imposes compulsory screening and identity verification for customers. They apply to crypto asset managers and centralized exchanges. The law enhances the existing Know Your Customer (KYC) and Anti-Money Laundering (AML) protocols. Under the Markets in Crypto-Assets (MiCA) framework, the crypto asset service provider (CASP) is now required to conduct a thorough customer surveillance (CDD) and report any suspicious activity to the authorities [41]. The project is consistent with the EU's overarching plan to efficiently manage digital assets and markets. MiCA has come into full effect at the end of 2022, and will come into effect in June 2023. This framework will be reinforced by new anti-money-laundering laws to ensure a transparent cryptocurrency environment.

The Anti-Money Laundering and Counter-Terrorism Financing Authority (AMLA), based in Frankfurt, Germany, will oversee this regulation and ensure compliance between the CASP and other related entities [42]. While the European Parliament has approved the law, the Council of the European Union must formally adopt it. Prior to being put into effect, it must also be published in the EU Official Journal. Three years after these actions, the statute will become operative.

The information was verified by Circle's head of EU strategy and policy, Patrick Hansen. He noted that the new CASP requirements were built on top of those already laid down under the Anti-Money Laundering Directive

5 (AMLD5) [43]. More rigorous KYC procedures for self-custody wallets have been recommended in prior recommendations for the Anti-Money Laundering Regulation (AMLR). Concerns are raised by this version regarding possible harm to adoption and innovation in the cryptocurrency sector.

3. Japanese

The government of Japan has also acted proactively to control the usage of cryptocurrencies. They have worked with the technology industry to create regulations that protect consumers and investors, while driving innovation in the use of crypto currencies [44]. For bitcoin users in Japan to live in a secure and orderly environment, cooperation between the public and private sectors is essential. In order to provide a secure and lawful atmosphere for cryptocurrency users in Japan, cooperation between the public and private sectors is essential. Regulators should focus on key entities such as exchanges and wallet providers to ensure they are licensed and authorized, considering unique risks like technology, volatility, and market awareness [45].

One of the first nations to formally acknowledge Bitcoin as a legitimate form of money was Japan in 2017. The action initiates the progressive approach to cryptocurrency regulation by the Japanese government. Subsequently, Japan has implemented many measures to reinforce oversight in the cryptocurrency sector, such as creating specialist oversight organizations and enforcing more stringent rules. One important step taken by the Japanese government was the establishment of the Financial Services Agency (FSA) in 2016 [46].

In Japan, the FSA is in charge of monitoring and controlling financial institutions, which includes exchanges for cryptocurrencies. As an example, to buy cryptocurrency in Japan, here are the general steps that can be followed [47]: 1). Create an account on the Cryptocurrency Exchange Platform. The first step is to sign up and open an account on any Japanese bitcoin exchange site. In Japan, a few well-known platforms include BitFlyer, Coincheck, and Liquid. Observe the prescribed registration procedure, which typically entails identification confirmation for further protection; 2). Account verification. To completely activate the account, each registered user has to complete the verification procedure. This might entail verifying residential locations and uploading identifying papers such ID cards or Japanese passports; 3). Deposit money to the account. Next, fund an account on the cryptocurrency trading site using fiat currency (Japanese yen). Instructions for depositing money, which can entail bank transfers or other electronic payment methods, will be sent by the site; 4). Select the desired Cryptocurrency. As soon as your funds are in the account, you may select the cryptocurrency that you wish to purchase. Exchange platforms generally provide a diverse range of cryptocurrency alternatives for purchase, such as Bitcoin, Ethereum, and several more possibilities; 5). Make a Purchase Order. Using the interface of the exchange platform, indicate how much bitcoin you wish to acquire and submit a purchase order. Prior to placing a purchase, be careful to verify the current pricing and transaction fee; 6). Execution of Purchases. The platform will execute the transaction based on the current price and buy the cryptocurrency of your choice after the purchase order is placed. Your cryptocurrency balance will be displayed in your account after the purchase is completed; 7). Cryptocurrency withdrawal. If the account holder wishes, the person can withdraw the cryptocurrency that has been purchased from the account on the exchange platform to the crypto wallet that you own. This is recommended for additional security, especially if you plan to store cryptocurrencies in the long term. As part of an effort to strengthen supervision of crypto exchanges, the FSA has implemented stricter licensing and security requirements for the exchange platform, as well as strengthening supervision against cryptocurrency-related fraud and money-laundering activities [48].

Although cryptocurrency regulation in Japan has created a safer and more orderly environment for crypto users, there are still challenges and opportunities to face in the future. Finding a balance in the crypto sector between technological progress and consumer safety is one of the biggest problems. However, stricter laws may also present chances for long-term expansion and innovation in Japan's cryptocurrency industry. The proactive steps taken by the Japanese government in regulating the use of cryptocurrencies have had a positive impact on law enforcement in the country. Collaboration with the technology industry enables effective regulation to protect consumers and investors, while also encouraging innovation in the use of crypto currencies [49]. With cooperation between government and the private sector, Japan has managed to create a safe and orderly environment for cryptocurrency users, so that crypto abuse can be prevented and tackled more effectively.

4. Singapore

Under Singapore's Payment Services Act or the law to regulate payment services and the provision of crypto services to the public first came into force in January 2020. Since then, Singapore has increased its surveillance of crypto companies. In July, the government ordered the company to keep its customers' assets under legal custody before the end of the year. MAS also restricts companies to facilitate borrowing or staking the assets of their retail customers [50]. In January 2022, Singapore banned crypto service providers from promoting their services in public areas or through third parties such as social media influencers. Crypto service providers can only market or advertise on corporate websites, mobile applications, or authorized social media accounts that are effective for handling customer complaints and resolving disputes.

These final steps will take effect gradually starting in mid-2024. This is because MAS analyzes that crypto trading is highly risky and not suitable for the general public, as the price of crypto can experience volatility and speculation. The sources provide insights into wash trading in the crypto market, highlighting the challenges of

detecting wash trading on unregulated exchanges and the need for regulatory tools to combat unethical behaviors. Wash trading is likely conducted using automated programs or bots, with most evidence suggesting that bots are heavily involved in such activities. Regulators can identify suspicious wash trading through abnormal trading volume and unusual behavior patterns, but the lack of transparency in methodologies used by some data aggregation websites poses challenges [51]. Overall, while the sources discuss the prevalence and impacts of wash trading, they do not specifically address MASs analysis of crypto trading being highly risky and unsuitable for the general public.

C. Comparative Analysis of Law Enforcement Strategies

Based on comparative studies carried out on various legal jurisdictions: United States, the European Union, Japan and Singapore, show the effectiveness of various law enforcement strategies. Methods of investigation and prosecution in money-laundering cases vary from country to country, influenced by the country's legal systems, regulatory frameworks, and law enforcement approaches. The research compares the approaches taken by the United States, the European Union, Japan, and Singapore in dealing with money laundering, those involving cryptocurrencies.

1. United States

Investigative methods to uncover money laundering through crypto currency media in the United States involved several law enforcement agencies, other branches: FBI, IRS, DEA, and FinCEN [52]. The investigative techniques used include optimizing the use of subpoena, analysis of financial transactions, monitoring of digital activity, and seizure of digital assets [53]. Inter-agency cooperation is carried out through very close coordination between federal and local agencies, as well as with international agencies such as Interpol and Europol [54]. The technology and tools used by law enforcement are using advanced analytical software such as Chainalysis and CipherTrace to track cryptocurrency transactions.

Prosecution methods to uncover money laundering through crypto currency media in the United States use the legal framework of the Bank Secrecy Act (BSA), the Patriot Act, and the Anti-Money Laundering (AML) statutes [55]. The prosecution strategy developed is using multi-count indictments, including conspiracy charges and charges related to crimes of origin. (predicate offenses). In this context, the role of the prosecutor, the federal prosecutors, plays a key role in directing investigations and coordinating with various law enforcement agencies in various states.

2. European Union

Investigative methods to detect money laundering through crypto currency media in the European Union involving various law enforcement agencies, including Europol, Eurojust, and Financial Intelligence Units (FIUs) in each member state [56]. The investigative techniques used include the use of Suspicious Activity Reports (SARs), cross-border collaboration, and joint investigations. The enforcement of the law on the disclosure of money laundering through crypto currency media in the EU is thus strengthened by inter-agency cooperation through a structured cooperation mechanism between Member States through Europol and Eurojust. The technology and equipment used is the FIU.NET Platform for the exchange of information and analytics of financial transactions.

On prosecution methods to detect money laundering through crypto currency media in the European Union, using the legal framework of Anti-Money Laundering Directives (AMLDs) and cryptocurrency-related regulations. Whereas the prosecution strategy applied was to harmonize law between member states and use a European Arrest Warrant [57]. So the role of prosecutors in the European Union is heavily dependent on prosecutors in each member state working together through Eurojust on cases of money laundering through cross-border crypto currency media.

3. Japanese

Investigative methods to uncover money laundering through crypto currency media in Japan involve law enforcement agencies such as the National Police Agency (NPA) and the Japan Financial Intelligence Center. (JAFIC). The investigative techniques developed include monitoring cryptocurrency transactions through registered exchange platforms, the use of financial intelligence data, and digital forensic investigations. The investigative step was reinforced by inter-agency cooperation, in the form of a collaboration between the NPA, JAFIC, and the Japanese Financial Regulatory Authority (Financial Services Agency, FSA) [58]. The technology and equipment used to establish money laundering through crypto currency media is through the use of analytical technology and cooperation with cryptocurrency service providers to monitor transactions.

Prosecution methods to detect money laundering through crypto currency media in Japan use the legal framework of the Act on Prevention of Transfer of Criminal Proceeds and the Payment Services Act. In Japan, the legal framework includes the Act on Prevention of Transfer of Criminal Proceeds and the Payment Services Act, which were revised to enhance user protection after cyberattacks misappropriated funds in 2018. These revisions have put extra burden on exchange service providers but aim to improve regulations governing cryptoasset exchange providers [59]. The Prosecution strategy implemented is aggressive prosecution of

cryptocurrency-related violations and the use of administrative sanctions against non-compliant service providers. So the role of prosecutors in Japan in the prosecution of money-laundering crimes through crypto currency media is through working together with law enforcement and regulators to prosecute cases of money laundering with an integrated approach.

4. Singapore

Investigative methods to uncover money laundering through crypto currency media in Singapore through the binding of law enforcement agencies such as the Commercial Affairs Department (CAD) of the Singapore Police Force and the Monetary Authority of Singapore (MAS). The investigative techniques developed are through the analysis of suspicious transaction reports (STRs), monitoring of cryptocurrency exchange activities, and multi-jurisdictional investigations. The methods of investigation in Singapore are also strengthened by inter-agency cooperation, other collaborations between CAD, MAS, and international agencies [60]. On technology and equipment in the investigation of money laundering crimes through crypto currency i.e. with the optimization of investment in blockchain technology and analytical tools to track the flow of digital funds.

Prosecution methods to detect money laundering through crypto currency media in Singapore are using the legal framework listed in the provisions of the Corruption, Drug Trafficking and Other Serious Crimes (Confiscation of Benefits) Act and the Payment Services Act [61]. While the prosecution strategy is carried out with a focus on prevention through strict regulation and swift and robust law enforcement measures. So in the context of Singapore's legal provisions, the prosecutor's role should work closely with CAD and MAS to prosecute money-laundering offences, including the use of cryptocurrencies.

Based on previous comparisons and analyses, it can be argued that in terms of an investigative approach, the United States is more proactive with advanced technology-based investigations and inter-agency collaboration. The EU emphasizes cross-border cooperation and regulatory harmonization. Japan has a stance that is centered on closely monitoring and controlling (panoptic actions) bitcoin service providers. Singapore integrates cutting edge technology, worldwide cooperation, and stringent surveillance (panoptic actions).

Regarding the prosecution strategy, the US has chosen a strong strategy using multilayer charges. Cooperation among member states and legislative harmonization are priorities for the European Union. Japan enforces administrative punishments in addition to criminal laws. Singapore prioritizes enforcement and early prevention.

V. CONCLUSION

Analysis leads to the conclusion that using cryptocurrencies for money laundering is a worldwide legal problem that calls for creative, resourceful, and cooperative approaches to law enforcement and regulation. Studying the comparative experiences of the US, EU, Japan, and Singapore helps Indonesia grasp the different strategies and best practices that other countries might use to combat this kind of crime.

The comparative study's result indicates that the US has been successful in putting in place a thorough strategy to combat the crime of money-laundering of cryptocurrency media. Through cooperation and coordination between federal and local agencies, as well as international cooperation through agencies like FinCEN, the SEC, and the FBI, strengthening law enforcement against money laundering through cryptocurrency, the United States demonstrates high efficiency with a comprehensive regulatory framework and the use of advanced analytical technology. By promoting regulatory convergence amongst member states through AMLDs, the European Union is enforcing regulatory harmonization that fosters coherence in law enforcement and facilitates more fruitful cross-border collaboration. Cooperation across borders via organizations like Europol and Eurojust makes cooperative investigations and information sharing easier. Japan has been using proactive regulation by regulating cryptocurrencies comprehensively from the outset, through the Financial Services Agency (FSA), showing the importance of proactive Regulation and strict supervision of cryptocurrency service providers. The integration of supervision in Japan is a form of collaboration between law enforcement agencies and financial regulators enabling effective and coordinated law-enforcement. Singapore adopts an approach focused on innovation and technology, with strict supervision from the Monetary Authority of Singapore (MAS) and the use of advanced technology for monitoring transactions. Through its adaptive and responsive regulatory approach, Singapore has been able to respond quickly to developments and new challenges in the cryptocurrency sector.

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