

Regulating Cryptocurrency: Legal Challenges and Compliance Frameworks in a Decentralized Economy

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Abstract: *Cryptocurrencies have revolutionized the financial market, offering prospects such as reduced transaction costs, increased transparency, and financial inclusion for underserved populations. However, their decentralized nature poses significant legal and regulatory challenges, including oversight, user protection, market stability, and risks associated with criminal misuse like money laundering and terrorism financing. The lack of global regulatory consensus exacerbates issues like jurisdictional conflicts and enforcement, particularly in cross-border transactions. This article examines these challenges, including consumer protection against market volatility, scams, and exchange failures. It highlights the necessity of a coordinated global regulatory framework to balance fostering innovation in cryptocurrencies and blockchain technology with mitigating risks. By analyzing current regulatory approaches, the discussion aims to propose an integrated legal framework that ensures growth and financial security in a decentralized economy.*

Keywords: Cryptocurrency, Regulation Decentralized Economy, Legal Challenges Compliance Frameworks, Blockchain Technology.

Introduction

Bitcoin and Ethereum are some examples of cryptocurrencies that use block chain a revolutionary technology that allows for the transfer of funds between individuals without the involvement of any third party. Despite the advantages like transparency and low transaction costs inherent in such decentralized systems, there are some drawbacks for the regulator in managing such systems. Extending the existing knowledge of cryptocurrency regulation, this article offers a deep look into the legal complexity of compliance regimes that try to foster innovation while maintaining control. Cryptocurrencies have brought about a major advancement in conducting financial transactions through the use of distributed ledger technology that eliminates middlemen like banks. This thereby enhances the transparency aspect of it and reduces transaction costs so much that it is appealing to both individuals and business entities.(Cumming, Johan, & Pant, 2019) However, the same features are rather problematic for the regulators trying to manage these systems as the current legal instruments were not designed with the decentralized networks in mind.

A Double-Edged Sword. Sequenced by digital blocks, block chain transactions are transparent and can be accessed through public ledgers, which is both advantageous and disadvantageous. Although transparency discourages fraud and ensures accountability, it breaches the privacy of individuals and makes it difficult to enforce laws. For example, in *United States v. Harmon* (2021), the defendant ran a cryptocurrency mixer which helped to hide the sources of bitcoin transactions thereby committing an AML offense. This case demonstrates that block chain is transparent by nature, yet it is vulnerable to manipulation, which requires strict regulation. Currently, there is no consensus on how to classify cryptocurrencies hence the variation in the regulatory policies practiced globally. (Lee & L'heureux, 2020) In the U.S., the case of *SEC v. The following example is provided by Ripple Labs Inc. (2020)*. The SEC stated that XRP was a security and thus must meet the securities laws of the United States. Ripple, on the other hand, argued that XRP offered itself as a digital currency and not in the manner of a security. The unceasing legal dispute over the definition of cryptocurrencies stresses the challenges of categorizing such new forms of financial assets that possess features of more than one asset class.(Uzougbo, 2024)

1.1.1 a. Anti-Money Laundering (AML) and Know-Your-Customer (KYC) Laws

A major disadvantage of cryptocurrencies stems from the fact that they are pseudonymous; they can therefore be used for illicit purposes. To minimize this threat, the regulators apply AML and KYC rules and regulations to the exchanges and service providers dealing in cryptocurrencies. In *United States v. Coin. mx* (2015) – The owner of a Bitcoin exchange was found guilty of acting as a money laundering agent deliberately omitting the necessary measures, including KYC. This case demonstrates that compliance frameworks are useful in preventing criminal exploitation and, at the same time, do not hinder the functionality of cryptocurrency marketplaces.(Nabilou, 2019)

1.1.2 b. Consumer Protection

Consumer protection remains a significant problem, as the markets in cryptocurrencies are inherently volatile and are prone to fraud. In *Bitconnect Investor Class Action* (2018), the investors claimed that Bitconnect was a scam that provided a cover of a cryptocurrency investment platform for a Ponzi scheme. The case highlighted the future for better control and regulation in the market, and the necessity for updating disclosure requirements to rescue investors from fraud schemes. This is because block chain is a decentralized system, and most of the transactions involve multiple jurisdictions, which results in legal issues. In *Kleiman vs Wright*, 2021, a case of a Bitcoin ownership and transfer dispute saw several jurisdictions showing the issues of applying territorial laws in decentralized systems. To counter them, current and future problems are as follows: To meet these challenges, global bodies such as FATF have come up with recommendations directing countries to standardize the regulation of cryptocurrencies. On one hand, the rules are designed to maintain compliance and prevent illicit usage and on the other, must facilitate the development of new applications. Narendra Modi Stadium Case demonstrated how block chain could improve operations: a large event ticketing system that eliminated scalping and fraud. However, such systems cannot be allowed to be deployed to facilitate some unlawful activity thereby posing the challenge of allowing technological advancement while at the same time maintaining the law.(Muralidhar & Lakkanna, 2024)

Cryptocurrency's decentralized nature creates a unique legal challenge: balancing between regulation and supervision to ensure that the latter does not stifle innovation. Cases like *SEC v. Ripple Labs*, *United States v. Harmon*, and others have provided a very good example of how traditional legal concepts can be applied to a growing technology. To address these issues, the regulators should develop compliance frameworks that these principles should form part of the key value proposition: transparency, accountability, consumer protection, and innovation. From several case laws that were discussed in this paper, governments should follow the examples of other countries and develop legal

frameworks that would not only promote the use of cryptocurrencies but also eliminate its negative effects as well.

2.1 Defining Cryptocurrency: A Regulatory Challenge

How cryptocurrencies have been categorized has remained open to debate for a long time now. Different authorities place them in different baskets depending on their nature as securities commodities or even money. For example, the United States Securities and Exchange Commission (SEC) has declared some cryptocurrencies as securities that are strictly regulated while the Commodity Futures Trading Commission (CFTC) on the other hand has a different view and has classified some cryptocurrencies as commodities. They lead to legal nuisances and regulatory rivalry; some of the parties can exploit the differences in the jurisdictions. Defining Cryptocurrency: A Regulatory Challenge. The legal status of cryptocurrencies is one of the most pressing issues for the regulators of the entire world as due to their promiscuous use and purposes it does not belong to any kind of legal and financial classification. Cryptocurrencies have ingredients that qualify them to be currencies, commodities, and securities hence, creating confusion when it comes to regulation by policymakers. (Chiu, 2021) This section is devoted to describing the problem of defining cryptocurrency, and its impact on the regulation of digital assets, with an emphasis on the main legal cases illustrating these problems. Cryptocurrency is an intersection of technology and finance. It is used as a medium of exchange like Bitcoin, as a store of value like Ethereum for staking, and investment assets as Tokens in the form of ICOs. These diverse functionalities blur the lines between traditional legal categories, such as:

1. Cryptocurrencies such as Bitcoin are employed for transactions similar to fiat money but are not legal tender.
2. While the U.S. Commodity Futures Trading Commission (CFTC) treats some cryptocurrencies as commodities, these cryptocurrencies are regulated under the Commodity Exchange Act.
3. Many of the tokens released during ICOs have similarities to securities and are regulated by the laws of securities. One big issue that arises from this is that there is no standard understanding of what constitutes cryptocurrency hence the different treatment in various jurisdictions.
4. In the United States, the regulation of a cryptocurrency is based on the Howey Test stipulated by the SEC which seeks to prove that the decentralized virtual currency in question is an investment contract and therefore a security
5. In the European Union, the Markets in Crypto-Assets Regulation (MiCA) aims to develop a standard, categorizing various types of crypto-assets including payment tokens, utility tokens, and stablecoins.
6. In Japan, cryptocurrencies are accepted legally as the Payment Service Act categorizes them as digital assets for payment.(Uzougbo, 2024)

3.1 Case Law Analysis

In *SEC vs Ripple Labs Inc.*, as the case was filed in 2020, the U.S. Securities and Exchange Commission (SEC) claimed that Ripple Labs sold XRP tokens in a way that qualified it as an unregistered security offering. XRP responded that it was not a security but a digital currency and thus outside the jurisdiction of the SEC in handling. The case focused on the legal analysis of the Howey Test which is a standard used in defining an asset as security. This test seeks to determine whether or not: It generated (1) money investment (2) a business-like activity (3) earning a profit (4) with the help of others' efforts. This case perfectly exemplifies how traditional law becomes a problem for regulators in as much as digital assets are adopted into the market due to challenges that arise as to whether they are securities, commodities, or even currencies. The result was significant for the cryptocurrency industry because it might indicate how cryptocurrencies should be categorized and regulated in the United States. The problem of the

definitional issue of Cryptocurrency has significant implications on the legal framework of such instruments in the global market as illustrated by the case of CFTC vs McDonnell (2018) and emerging approaches or contemporary regulation like Distributed Ledger Technology (DLT) Regulation in Switzerland (2021). In McDonnell, the U.S. Commodity Futures Trading Commission (CFTC) was able to convince the court that the fact that the cryptocurrencies fall under the category of goods by the Commodity Exchange Act makes it possible for the CFTC to prosecute fraud and other acts of manipulation while it causes a conflict of jurisdiction with the SEC.(Morton, 2020)

On the other hand, the Swiss DLT framework classifies cryptocurrencies into payment tokens, utility tokens, and asset tokens and thus offers a functional and progressive approach to regulation. These examples show how inconsistent definitions create regulatory uncertainty, stifle innovation with broad restrictions, and put consumers at risk of being exploited by unfair classifications. Therefore, the FATF the IOSCO, and like-minded global organizations have been working towards the provision of a standard definition of AML and other related crimes, given the urgent call for standardization, since most legal and enforcement processes are carried out internationally.

Indeed, specifying cryptocurrency is not just an academic exercise but a meaningful process of identifying the components that must be included in the legal tools designed to govern this complex form of money. Examples such as SEC vs Ripple Labs and CFTC vs McDonnell show how cryptos still present legal challenges when applying the existing legal structures to this new form of asset. To address these problems, regulators need to employ definitions that are both uniform and elastic enough to encompass the various applications of cryptocurrency while ensuring the development of new technologies and protecting consumers from threats. A clear and international strategy is still required for the proper regulation of this innovative instrument.(Hughes, 2017)

3.1.2 Jurisdictional Conflicts and the Need for Harmonization

Cryptocurrencies are fundamentally distributed and borderless, which creates numerous jurisdictional issues. The conflict arises when the transactions involve more than one country with different systems of operation. For example, if a transaction happens in a country with weak rules, it can impact another country that has strict rules. Because of this, groups like the FATF are asking for better ways to manage risks to help prevent problems like money laundering and funding for terrorism. Cryptocurrencies are decentralized and borderless, which means that they may face legal challenges depending on the country they go through as the laws regulating the currencies vary from one country to another. That leads to enforcement problems, compliance issues, and legal insecurity issues that impair the attempts to control risks such as fraud, money laundering, and consumer protection. (Olabanji, 2023)

a. United States vs Harmon (2021)

In this case, Larry Dean Harmon, an individual who runs a cryptocurrency mixing service, Helix was prosecuted under the U.S AML laws. The case demonstrated how the decentralized platforms that function internationally can challenge domestic legislation. Nonetheless, Helix's activity took place online, and the US Department of Justice pointed to the use of Bitcoin as a basis for its jurisdiction about transactions involving US persons. This case illustrates how domestic laws are enforceable overseas in decentralized systems to combat crimes and cause legal inconsistencies with the laws of other jurisdictions.

b. Bitfinex and Tether Investigation (2021)

The New York Attorney General's Office accused Bitfinex and Tether of financial mismanagement of \$850 million in client and corporate funds. For instance, Bitfinex, which operates globally, was keen to claim it had no connection with New York laws since it had no base there. But the court stated that the companies' conduct affected New York residents indirectly which was enough to establish jurisdiction. This case illustrates the challenges of deciding on matters of jurisdiction in a decentralized financial

environment where the transactions impact more than one country. All these conflicts depicted in those cases arise from disparate policies on cryptocurrencies across the jurisdictions. While some countries approach cryptocurrencies with proper rules, others apply restrictions or do not apply rules at all, which results in arbitrage. For example, exchanges tend to shift to jurisdictions with weak regulatory frameworks, which ultimately makes it difficult for stricter jurisdictions to implement the rules.(Johnson, 2020) Bilateral and multilateral organizations such as the FATF and the IOSCO are also calling for concerted rules around the world. Thus, the FATF recommendation for a risk-based approach to the regulation of cryptocurrencies includes common AML and Know Your Customer (KYC) measures. Likewise, the European Union's proposed Markets in Crypto-Assets Regulation (MiCA) aims to create a holistic set of rules that could be replicated around the world. Harmonization does not equal the surrender of national identity but works on consensus for the regulation of critical areas like consumer protection, financial stability, and tackling financial crimes. Examples include United States vs Harmon and Bitfinex and Tether Investigation where there is the need to forge international cooperation in addressing issues of cross-jurisdictional concerns so that decentralized systems remain vibrant with proper legal and regulatory frameworks. The disagreement over the regulatory authority of cryptocurrencies demonstrates that localized laws cannot effectively govern global decentralized systems. An analysis of the existing case laws depicts the complexities of enforcement of the legal frameworks domestically while at the same time carrying out international operations and the significance of having consistent policies. Thus, regulators can solve these conflicts through the introduction of unified standards within the multilateral framework, providing a stable and secure cryptocurrency environment.(Nembe et al., 2024)

4.1. Anti-Money Laundering (AML) and Know Your Customer (KYC) Requirements

Because cryptocurrencies are generally pseudonymous, they are well suited to illicit purposes and practices like money laundering and terrorist financing. To counter this, the regulators make it compulsory for cryptocurrency exchanges and wallet providers to abide by the AML and KYC measures. For example, in United States v Harmon (2021), the proprietor of the monetary 'mixing' service provider platform was charged with managing and promoting criminal conduct that concealed the sources of the funds. However, these compliance measures go against the basic principles of cryptocurrencies which are decentralization and anonymity. This creates a dilemma of offering regulation to try to curb financial crimes while still preserving the decentralized, anonymous approach that many people are drawn to with cryptocurrencies.(Makarov & Schoar, 2022)

4.1.2. Consumer Protection

Cryptocurrencies are incredibly sensitive to market swings, meaning investors can lose a lot of money. This has resulted in fraudulent schemes, manipulation, and misleading initial coin offering IPOs. For instance, in the case of Bitconnect Investor Class Action wherein the investors sued the platform, arguing that it was an organized pyramid scheme in the disguise of a genuine cryptocurrency investment venture. This case also makes it necessary for the current regulators to put into practice enhanced consumer protection measures such as the requirement of ICO disclosures and exercising oversight on exchanges. It is designed to protect investors from fraud and fraudsters as well as provide adequate information to investors about the inherent risks.

4.1.2. Taxation

Tax reporting of cryptocurrency sales is a major challenge since cryptocurrencies operate in a peer-to-peer network, and their users often use aliases and do not have a documented way of being traced. Although some countries such as the United States expect individuals to declare capital gains taxes from sales of cryptocurrencies, the enforcement is likely to be challenging. Users do not declare their cryptos or their utilization in most cases, implying high rates of tax avoidance. In United States vs Coinbase (2017), the Internal Revenue Service wanted details from the cryptocurrency exchange

platform Coinbase to locate users who have not disclosed their income derived from cryptocurrencies, illustrating the challenges that exist in enforcing tax laws in the area of cryptocurrencies. However, a common factor that remains an issue in decentralized exchanges and peer-to-peer transactions is the lack of clear and comprehensible channels through which tax authorities can track transactions.

These challenges highlight the importance of having well-coordinated policies to protect users, maintain and enhance market integrity, and, at the same time, enable the authorities to collect taxes while respecting the basic tenets of decentralization and anonymity that underpin the use of crypto-assets. (Rana, Zulfiqar, & Masud, 2023)

5.1 Comparative Analysis of Regulatory Approaches

5.1.1 The United States

The regulation of cryptocurrency in the United States is not integrated since various agencies govern aspects of digital currency depending on their classification of the assets. Cryptocurrencies that fall under the category of securities are regulated by the SEC as evidenced by the SEC vs Ripple Labs case where the SEC sought to make a case that XRP was a security and hence should be governed by the laws of securities. On the other hand, the Commodity Futures Trading Commission (CFTC) regulates cryptocurrencies that are considered commodities including Bitcoin, the commission is mandated with the role of overseeing futures and options and prohibiting manipulation of the market. The American taxation body known as the Internal Revenue Service commonly abbreviated as the IRS has classified cryptocurrencies as tradable securities. They monitor what people make from trading in cryptocurrencies. However, things may get tricky because such a company may be subjected to several regulations by different agencies based on how these assets are employed or which category they fall under. This leads to confusion for the business people as well as the agencies that are tasked with the duty of implementing the requirement.

5.1.2 The European Union

The European Union is at work to develop improved rules for cryptocurrency through what they call Markets in Crypto-assets Regulation (MiCA). This regulation seeks to provide some form of guidance on these digital assets, which are relatively young and can be complex. The two objectives of MiCA are to improve the transparency and competitiveness of the market and to ensure consumers' rights while regulating individuals who create cryptocurrencies, exchanges, and wallets. Another significant advantage of MiCA is that it forms the methodology of segmenting various forms of crypto assets and adopts the same approach in the case of all EU member states. This structure is designed to stimulate innovation, while, at the same time, discouraging the filing of false information and market manipulation. Other countries might look at MiCA as the reference point for how to foster innovation while at the same time not allowing the Wild West-like scenarios that currently define the world of cryptocurrency. (Bagby, Reitter, & Chwistek, 2019)

5.1.3. Asia

Presently, some countries in Asia have allowed cryptocurrency while others have not. Japan has already developed clear legislation regarding digital currencies. Under the Payment Services Act, Singapore deems cryptocurrencies as legal tender and has rules that platforms dealing in cryptocurrencies must not engage in money laundering and must understand their customers. That is why Japan is considered a favorable country for the use of cryptocurrencies, stimulating the development of new technologies and protecting investors. On the other side, China has barred the use of cryptocurrencies in purchasing products and services. The Chinese government has been very strict and has banned all forms of cryptocurrency mining and trading. They argue that these bans are a response to financial problems, energy use, and possible unlawful actions. This difference in how countries handle cryptocurrency demonstrates that the challenges regulators face are not unique. They are looking for what should or

should not be permitted and what must be regulated concerning cryptocurrency usage for it to have its benefits while at the same time eliminating risks such as fraudulence and maintaining the stability of the financial markets. These different approaches make it clear that the regulation of cryptocurrencies is not as straightforward across different regions of the world. However, unlike the agencies of the United States that regulate cryptocurrency, the EU's MiCA is more structured and all-encompassing. On the one hand, Asia saw the liberal approach in the case of Japan and the restrictive one in the case of China; therefore, the need for international cooperation in the global regulation of the cryptocurrency market is conveyed.(Zhelekhovska, 2023)

6.1 Towards a Harmonized Framework

The problem of having no coherent regulatory framework cannot be overemphasized because cryptocurrency is a worldwide and unstandardized commodity; to some extent, even though the cryptocurrency users could all reside in the same country, their trading might transpire in a different country. When developing a framework, one has to consider several things into consideration. First of all, how to classify and tax these products. Finally, we have to collaborate to fight financial crimes across the countries or internationally. Last but not least, it is important to make efforts to promote growth by synchronizing regulations with new technologies.

6.1.1 Establishing International Standards for Classification and Taxation

This has led to confusion on what constitutes cryptocurrencies, and as such, there has been a lot of ignorance in the regulation of these products throughout the globe. For example, in the United States, certain cryptocurrencies are regarded as securities and fall under the jurisdiction of the SEC while others are considered commodities regulated by the CFTC. The European Union on the other hand has a clear one with its new MiCA regulation where tokens are classified by their kind: payment tokens and utility tokens among others, each with their respective laws. A clearer classification in the EU may be useful for the definitions of regulations and enforcement in the rest of the world.(Ferreira, 2020) Regarding taxes, cryptocurrencies have been included in the OECD Common Reporting Standard (CRS). This makes countries reveal various aspects of cryptocurrency staking, which is intended to address tax evasion. Thus, enhancing the level of compliance with tax legislation will help reduce the threat of using cryptocurrencies for unlawful tax evasion and make the field more equal. The definitions of cryptocurrencies also differ from country to country which hinders global cooperation and the implementation of anti-money laundering laws. For instance, although the US regards Bitcoin as a commodity, Germany treats it as a form of private money or property when it comes to taxation. This is particularly so because multinational businesses and investors face different levels of taxes due to the nature of their operations. The taxation of cryptocurrencies has been an issue of concern to the OECD and in its Base Erosion and Profit Shifting (BEPS) Project, the body provided guidelines on how to tax virtual currencies and this has led to several countries having similar laws on taxing crypto assets. Some of these countries that have been moving in this direction include Japan and South Korea where broad Tax laws on the possession and trading of cryptocurrencies have been established giving both the investors and authorities a clue. This would also help to prevent tax evasion and would enable the application of a single system for taxing cryptocurrencies and doing this appropriately depending on whether it is being used as a medium of exchange or as an investment or trading product.(Gilani, 2023)

The European Union goes a step further than this through its MiCA regulation that not only requires market participants including exchanges to produce tax reports but also guarantees that the reports so produced include clear statements that would enable national tax authorizing monitoring. If these standardization efforts are to be done globally, there would likely be a clearer understanding of how exactly cryptocurrencies are to be taxed and classified; thus improving the trade and investments within the relevant crypto markets.

6.1.2. Enhancing Cross-Border Collaboration to Combat Financial Crimes

Cryptocurrencies are anonymous, and this makes it easier for people to use them in cases such as money laundering, terrorist financing, and fraud. To this, the improvement of cross-border collaboration is crucial. One such collaboration can be described as Recommendation 16 of the Financial Action Task Force (FATF), whereby the regulation of cryptocurrency exchanges includes the AML/KYC standards. Regarding digital assets regulation, the FATF has offered guidance for standardization of the global practices in this sphere and promotes countries' collaboration on the issues of financial crimes, connected with cryptocurrencies. In *United States v. Another problem*, discussed by Harmon (2021), was that cryptocurrency mixing services are global, and the U.S. prosecuted the operator of a service that helped obscure transactions. The mentioned cases prove that jurisdictions need to cooperate to monitor and combat unlawful actions in the crypto sector, including through FATF. Cryptocurrency can be used as an instrument for money laundering, terrorist financing, and fraud since it does not require any centralized control or regulations and can easily work across borders. To counter these risks, there is a need for international cooperation. Organizations such as FATF are still trying to guarantee that cryptocurrencies are covered by standard anti-money laundering (AML) standards associated with traditional financial institutions. A case in point is the FATF Travel Rule, which mandates virtual asset service providers, including those involved in crypto exchange, to provide the sender and recipient details for some transactions, strengthens the responsibility of these platforms, and provides a solid foundation for cross-border monitoring. The New York Attorney General's office went after the platform in the *United States vs Bitfinex* (2021) for embezzlement of the funds, highlighting the global nature of crimes that are committed in the context of cryptocurrencies. The case portrays the issues of cross-border enforcement, where Bitfinex – an international company – might encounter some actions from the regulators. However, by using FATF's Recommendation 16 which enhances international cooperation, authorities from several countries were able to collaborate which proves that collective effort is very effective in combating the use of cryptocurrencies in financial crimes. (Malik & Gilani, 2020)

In addition, Interpol and Europol have also established task forces and working groups concerning cybercrime in the cryptocurrency domain which enhances international collaboration. These actions show that international cooperation is vital to tackling the issues associated with cross-border cryptocurrency transactions, as well as monitoring criminal activities and compliance with legal requirements.

6.1.3. Balancing Regulatory Oversight with Technological Innovation

Regulating cryptocurrency must also be done at a moderate level to achieve a good outcome from the use of cryptocurrency. The problem of having too many rules concerns that it can limit innovation and expansion of the sector. For instance, Japan has opted to accept cryptocurrencies as legal tender. To achieve this, they have set particular rules that assist in the defense of the investors yet promote inventions as well. The recent actions of the Chinese authorities to ban cryptocurrency mining and trading are indicative of the fact that it can take drastic steps that can hinder development and push it to another less restrictive area. Another aspect of a coordinated structure is that while regulation may limit the freedom with which innovations can be created it should be able to create an environment within which technology can develop in a protected and transparent manner as seen in the Japanese model of regulation. (Shah Gilani, 2021)

Hence for cryptocurrencies to be regulated under one common standard it is important to address the concerns of classification and taxation issues, cooperation of states to combat financial crimes, and to search for the correct proportion between freedom and control. Currently, this is being initiated by global institutions like the OECD and FATF, and legal regulations like the EU's MiCA, to lay down a strong and sound foundation for cryptocurrency to develop securely in the global market. There is a need for regulation to lock horns with such vices as fraud and manipulation prevalent in the

cryptocurrency market. Nonetheless, where there are strict rules, there are limitations to creativity, especially in the use of cryptocurrencies and block chain solutions. High barriers may force companies to transfer their business to countries that have less protection for their inventions. (Mukhopadhyay et al., 2016) For instance, Zug in Switzerland, Crypto Valley, is a perfect place for block chain startups due to its permissiveness to legislation. In response to the demand for change, the Swiss government has set up a legal sandbox for block chain through which any company can implement new technologies without necessarily violating the law. On the other hand, the complete ban in China in 2021 on cryptocurrency mining and trading forced many businesses to shift to nations with favorable digital currency legislation such as the United States, Germany, and Singapore. However, as with many previous efforts, too much regulation stifled the progress of block chain in China as it tried to reign in potential financial risks and decrease energy usage. (Lyeonov et al., 2024)

The idea must be to look for the optimal level of intervention that will serve the customer's interest while at the same time dealing with issues such as financial crime and tax compliance while not being overbearing to the degree that it hinders innovation. Singapore is one country that has this balance of power well-defined. The Monetary Authority of Singapore (MAS) has provided a very clear regulation framework and policy for the cryptocurrency trading platforms while at the same time encouraging technological advancement through capital support among others. Thus, startups can try the untested and develop new ideas on the one hand and still retain the primary standards on the other hand. (Gilani et al., 2024)

Given the trend toward the international harmonization of regulation, it is important to stress that regulation has to seek the balance that will allow the creation of a secure and transparent environment for both, the consumers and the businesses along with creating the environment for the further advancement of technology. This will give longevity to the cryptocurrency market and allow it to expand at a reasonable rate, and without over-regulating new technologies.

7.1 Conclusion

To sum up, cryptocurrency is the new money in the world economy with high potentiality and volatility. Inherent features of digital currencies include opportunities for innovative and more efficient financial system arrangements; at the same time, the new forms of money present large-scale risks for regulation, consumer protection, and financial stability. Inadequate coordination on an international level means that the legal requirements remain nonaligned and the lack of a clear set of rules adds to the legal confusion and jurisdiction confusion that makes enforcement an issue and opens doors for manipulations, fraud, and tax evasion. Although the use and value of cryptocurrencies are rapidly rising, the world has realized that the asset class needs a comprehensive legal framework to guide its development in a manner that fosters innovation without compromising the stability of the world's financial systems. These are some of the challenges that require the formulation of international standards on classification, taxation, and compliance. Similarly, as evidenced by the EU's MiCA regulation and Japan's approach, standardizing the approaches to regulation in different jurisdictions will go a long way in reducing cross-jurisdictional regulatory competition and in turn limit the chances of criminal activities such as money laundering, fraud, and tax evasion. Global organizations like the FATF and OECD serve as the forum to lay the foundation for international cooperation in these matters, but much more work is needed to encourage enhanced cross-border interaction between regulators, banks, and law enforcement. This is especially so since cryptocurrency markets are quite internationalized and are likely to cross over several jurisdictions at once. However, there is still a need to have an appropriate balance between the extent of the regulatory approach and the level of technology improvement. The integrity of the cryptocurrency system must be maintained to minimize risks for customers and deter unlawful actions, but at the same time, the development of new solutions cannot be restricted. For instance, Switzerland has developed regulations that allow the block chain and cryptocurrency to develop while adhering to critical principles. This fosters new ideas to grow.

Likewise, Japan has accepted cryptocurrencies as legal tender and has imposed rigorous measures to curb money laundering and fraud, and identity verification measures ensure that the market is not rigged without hindering innovation. However, the problem remains to create a single policy for the entire world regarding cryptocurrencies because everyone has their own opinion. China has completely prohibited trading and mining cryptocurrencies, while others like Singapore and Estonia encourage it. This is a clear indication that it is very hard to set a regulation across the globe, which would acknowledge the various legal systems, cultures, and economies of the nations around the world. Cryptocurrencies are constantly evolving, and global authorized bodies need to adapt in response to such changes. It became clear that rules should be revised periodically due to the active development of new technologies and new forms of digital assets such as decentralized finance (DeFi), non-fungible tokens (NFTs), or progress in connecting block chains. As we have seen, regulators have to capture these changes in their rules but at the same time must continue to have an eye on the stability of the financial system and the prevention of fraud or manipulation. Last but not least, legal certainty is crucial not only to protect innovations but also to avoid adverse effects of cryptocurrencies. This will ensure that there is order in the use of the crypto market, and increase efficiency and consumer protection hence enhancing the way cryptocurrencies are going to transform the economy of the world as they were supposed to. Thus, global regulators can follow some of the regulatory successes that have been achieved in other countries such as the EU, Japan, Switzerland, and others to achieve a structure that would give the right balance between innovation, security, and consumer protection. This will to a certain extent promote the acceptance of cryptocurrencies into society, popularize their usage, and at the same time guarantee that they will introduce positive alterations to the enhancement of the financial systems in different parts of the world.

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