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## Crossing The Digital Era By Analyzing Cryptocurrency And Blockchain Law In Modern Jurisprudence Through Local Genius 6.0 Ideas Internet Of Things (Iot)

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### Abstrak

Mengingat revolusi digital, kebangkitan cryptocurrency dan teknologi blockchain telah mengubah lanskap keuangan dan hukum secara signifikan. Namun, tantangan hukum yang kompleks dan dinamis muncul seiring dengan meluasnya adopsi mata uang kripto dan teknologi blockchain. Penelitian ini akan membahas bagaimana hukum dapat menavigasi era digital dengan mempertimbangkan implikasi hukum terkait mata uang kripto dan blockchain, bagaimana penerapan teknologi blockchain mempengaruhi konsep tersebut. Dalam penelitian ini peneliti akan menguraikan konsep dasar cryptocurrency dan teknologi blockchain serta potensi yang dimilikinya dalam transformasi keuangan global, mengidentifikasi hambatan dan tantangan hukum yang perlu diatasi dalam mengatur penggunaan cryptocurrency, seperti keamanan dan perlindungan konsumen. Selain itu, penelitian ini akan menganalisis peran yurisprudensi modern dalam mengatasi masalah hukum yang muncul sehubungan dengan cryptocurrency dan blockchain. Keputusan pengadilan, peraturan hukum, dan praktik saat ini. Penelitian ini juga untuk menganalisis evolusi teknologi blockchain dan cryptocurrency di era digital untuk memahami dampaknya terhadap perkembangan hukum dalam yurisprudensi modern. Melalui pendekatan multidisiplin dan pendekatan empiris, penelitian ini akan mengintegrasikan aspek hukum, ekonomi, dan teknologi informasi untuk memberikan pemahaman komprehensif tentang hukum cryptocurrency dan blockchain dalam konteks yurisprudensi modern. Kajian ini juga akan menganalisis kerangka peraturan yang ada dan memberikan rekomendasi pengembangan undang-undang yang lebih adaptif dan responsif terhadap perkembangan teknologi. Artikel ini diharapkan dapat memberikan pemahaman tentang transformasi digital yang ditimbulkan oleh teknologi blockchain dan mata uang kripto dalam konteks hukum dan membantu mengembangkan peraturan yang memastikan hak-hak konsumen dihormati dan dilindungi.

Kata Kunci : *Cryptocurrency, Blockchain, Yurispenmdence*

## Abstract

Given the digital revolution, the rise of cryptocurrencies and blockchain technology has significantly changed the financial and legal landscape. However, complex and dynamic legal challenges arise along with the widespread adoption of cryptocurrencies and blockchain technology. This study will discuss how the law can navigate through the digital age by considering the legal implications relating to cryptocurrencies and blockchain, how is the implementation of blockchain technology affects the concept. In this study researchers will outline the basic concepts of cryptocurrencies and blockchain technology as well as the potential they have in the global financial transformation, identifying obstacles and legal challenges that need to be overcome in regulating the use of cryptocurrencies, such as security and consumer protection. Furthermore, the study will analyze the role of modern jurisprudence in addressing emerging legal issues with respect to cryptocurrencies and blockchain. Court decisions, legal regulations, and current practices. This study also to analyze the evolution of blockchain technology and cryptocurrencies in the digital era to understand its impact on legal developments in modern jurisprudence. Through a multidisciplinary approach and an empirical approach, the study will integrate aspects from law, economics, and information technology to provide a comprehensive understanding of cryptocurrency and blockchain law in the context of modern jurisprudence. The study will also analyze existing regulatory frameworks and provide recommendations for the development of laws that are more adaptive and responsive to technological developments. It is hoped that this article will provide an understanding of the digital transformation brought about by blockchain technology and cryptocurrencies in a legal context and help develop regulations that ensure consumer rights are respected and protected.

Keywords: *Cryptocurrency, Blockchain, Jurispenmdence*

## INTRODUCTION

In recent decades, the world has witnessed rapid technological developments that have fundamentally changed the economic, social and legal landscape. The digital era has brought fundamental changes to almost every area of human life, including the financial and investment sectors that have evolved. The finance and investment sector no longer recognizes only physical money and investments in physical forms but has developed far into finance and investment in crypto or digital assets. One of the most revolutionary innovations of this era is cryptocurrency and blockchain technology, which is the basis for the sustainability of digital currencies. Cryptocurrencies such as Bitcoin and Ethereum are a type of digital asset that uses encryption to secure transactions and control the creation of new units (Pamela, 2022). Meanwhile, Blockchain is a system of transactions and governance of digital data in which all users are members of a consensus or shared digital ledger (Directorate General, 2021). Cryptocurrency is a digital currency system where users use digital payments for business activities carried out, and functions as a standard currency.

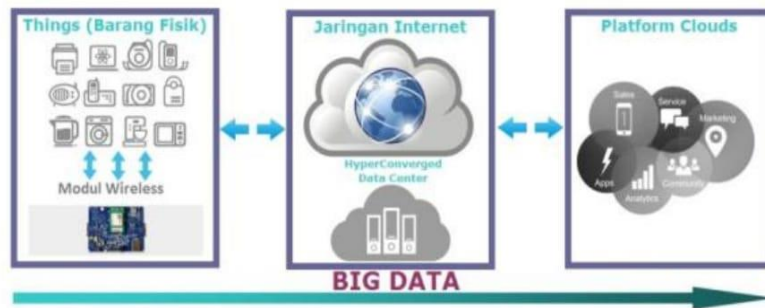
Cryptocurrency is one variety of investment, digital currency is believed to have a high value because it is still in high circulation, but this value also has a very high downside risk because the digital world is very risky. However, this does not make people afraid to invest in digital currencies, on the contrary, because it is considered to provide long-term benefits and an almost stable exchange rate and its development will continue to grow, people flock to invest in digital currencies.

The digital era we are facing today offers great potential in terms of improving efficiency, transparency, and security in various aspects of life. In this case, cryptocurrency promises a financial system that is free from government control. Meanwhile, blockchain provides high security in the concept of an encrypted block chain that cannot be manipulated. However, the use of cryptocurrencies and blockchain also raises various legal issues that need to be addressed. As is known, several countries have issued regulations and policies on the use of cryptocurrencies and blockchain. However, there are still many countries that do not have clear regulations. In Indonesia itself, the government has regulations relating to Indonesia has regulations relating to the use of cryptocurrencies and blockchain. In 2021, the government has issued PP 5/2021 on the Implementation of Risk-Based Business Licensing for Blockchain technology. Meanwhile, the use of cryptocurrencies in Indonesia is still under discussion and review. Bank Indonesia Regulation No. 19/12/PBI/2017 prohibits the use of cryptocurrencies as payment (Sanjana, 2023). And crypto assets until now have only been recognized as investment commodities traded on the Futures Exchange. The basis for this prohibition is in accordance with Law Number 7 of 2011 concerning Currency which essentially regulates that only Rupiah is valid in every payment in the territory of the Republic of Indonesia. It can be said that cryptocurrency and blockchain pose a number of complex legal challenges and questions. Existing laws and regulations cannot always easily adapt to these technological advances, and the existence of digital currencies such as cryptocurrencies raises questions about how the law can be applied and integrated in a changing context. Analyzing the law of cryptocurrencies and blockchain in modern jurisprudence is thus a necessity to answer these questions. In addition, this analysis may also provide a clearer view of the necessary regulation of the use of blockchain technology and cryptocurrencies in the future.

## RESEARCH METHODS

The method for conducting study is through qualitative data. A qualitative approach is a form of research and understanding process based on a methodology that investigates social phenomena and human problems. Qualitative research methods involve data and

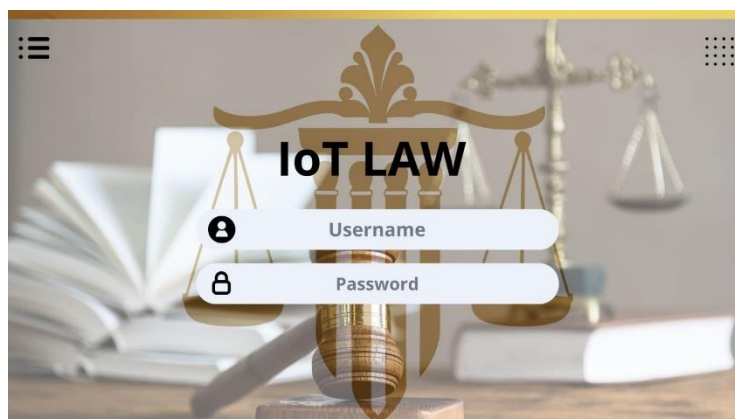




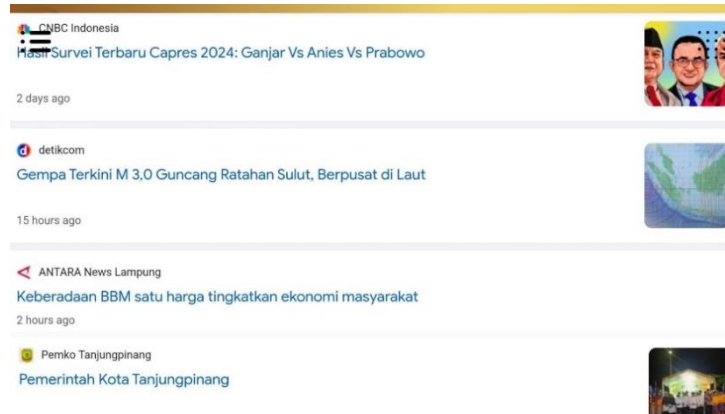
Sumber: <http://www.mobnasesemka.com/internet-of-things/>

- a. The basic working principle of IoT devices is that objects in the real world are given unique identities and can be reproduced in a computer system and can be represented in the form of data in a computer system. In the early days of implementing the IoT idea, the identifier used so that objects could be identified and read by computers was by using bar codes, QR codes and Radio Frequency Identification (RFID) (Makarim, E. (2014). In its development, an object can be given an identifier in the form of an IP address and use the internet network to be able to communicate with other objects that have an IP address identifier. The way the Internet of Things works is with other objects that have an IP address identifier. The way the Internet of Things works is by utilizing a programming argument which each command of his argument produces an interaction between machines that are connected automatically without human intervention and at any distance. It is the internet that is the link between the two machine interactions, while humans only serve as direct regulators and supervisors of the working of these tools. .The remote control system makes it easier for users to control building lights that are located quite far away. For this website, we will collaborate with online newspaper electronic media such as Detik, Kompas TV and others.

- b. Login Menu



### 3. Hot topic news



News from the hottest issues, this collaborates with other electronic newspapers such as Detik, CNN, Kompas TV and so on, the aim is to increase the supervision of viewers who access and follow the hottest issues in Indonesia, if it is a case we can control it. until it's finished Menu dasbord, You can click "Legal Analysis". This analysis is intended to analyze a legal problem and approximately what articles we are involved in regarding the violations we have committed and their consequences.

4. Enter the problem in the "Let's fill in your problem" column. After that, click "Search" Then the data will show all the consequences that we get from existing problems



5. Apart from that, you can access "Legal Aid". This legal aid will be automatically connected to "Online Law"



## 1. Discussion results

This Scientific Article makes a significant contribution to understanding how law can face the challenges of the digital era by analyzing the legal aspects related to cryptocurrency and blockchain. By using multidisciplinary and empirical research methods, the following research findings were found: Legal Navigation in the Digital Age towards Cryptocurrency and Blockchain Law can navigate through the digital era by adopting regulations and policies that are in accordance with technological developments and community needs. In the digital era, the law must be able to maintain public services with the best service level and maintain public trust in the legal system (Bank Indonesia. 2022). To navigate the digital era, it is important to consider the legal implications relating to new technologies such as cryptocurrency and blockchain. The legal implications that arise along with the adoption and development of cryptocurrencies include several important aspects.

## 2. Regulation and Oversight

Cryptocurrencies are a new phenomenon in the world of finance and technology, so the regulations governing them are still unclear and inconsistent in many countries. This creates legal uncertainty for users, businesses, and financial institutions involved in cryptocurrency transactions. Due to their decentralized nature and anonymous transactions, governments and financial institutions in various countries are seeking to regulate and supervise the use of cryptocurrencies. These regulations aim to prevent abuse, money laundering, and terrorism financing. However, varying approaches across jurisdictions create complexities in regulating cryptocurrencies. Knowledge and technological improvements in the last 2018, there are many ways of viewing society related to the field of business in particular transactions. Advanced transactions in the virtual world of the internet are using virtual currency as a new payment model or commonly referred to as the New Payment Method which is commonly used as a means of electronic transactions. Virtual currency is digital money issued by parties other than monetary authorities. Therefore, payment service providers "PJP" such as banks or institutions other than banks that provide services to facilitate payment transactions to service users are prohibited from receiving, processing, and linking virtual currency with payment transactions. PJP is also prohibited from facilitating virtual currency trading as a commodity except those regulated in accordance with the provisions of laws and regulations (Bank Indonesia, 2021).

Various countries in the world in the face of technological advances related to

new digital-based investment instruments, quickly adopt and categorize a digital investment that occurs in cryptocurrency, in terms of regulating new legal rules so that it can be used by people who will make investments. It can be seen in the state of the United States which previously categorized cryptocurrency only as a commodity asset as well as land, but over time they changed the rules by categorizing cryptocurrency as legal tender. One example is the use of Bitcoin as a means of international trade transactions in the online sales industry such as overstock.com in America. Overstock.com sells various items such as furniture, electronics, jewelry, clocks, clothing, etc., and accepts Bitcoin as a means of payment. Another example is Chloe Global Market, which is one of the exchanges in the United States that has offered Bitcoin futures so that investors can speculate on the rise and fall of the digital currency to make a profit (Augustina, 2019). The Ministry of Trade issued MOT 99/2018 on the General Policy for the Implementation of Crypto Asset Futures Trading. In this regulation, there is a change in definition that attracts attention. The term "digital money" for cryptocurrencies is replaced with "commodity". Crypto assets become "Subject of Futures Contracts traded on the Futures Exchange" (article 1). Then, this regulation was followed by the Commodity Futures Trading Supervisory Agency (BAPPEBTI) Regulation Number 5 of 2019 which regulates the technical trading of crypto assets on the Exchange.

### 3. Consumer Protection

The legal implication that comes along with the adoption of cryptocurrency is consumer protection. As cryptocurrency transactions are irreversible and untraceable, consumers may fall victim to fraud or lose their assets. Therefore, legal regulations need to govern consumer protection related to the use of cryptocurrencies, such as suits against dishonest trading platforms or fraudulent acts. The law has reacted to concerns over fraud and market manipulation by drafting regulations that strengthen consumer rights and provide greater transparency in the use of investor funds. The regulations implemented cover various aspects, such as KYC (Know Your Customer) which requires cryptocurrency users to identify themselves, AML (Anti-Money Laundering) which aims to prevent money laundering through cryptocurrency transactions, and tax-related regulations to ensure that cryptocurrency transactions are also taxed accordingly (Afrizal, Marliah, 2021). In addition, some countries have also adopted specific laws governing cryptocurrencies, such as Japan which has recognized Bitcoin as legal tender and regulates cryptocurrency exchanges through a law called the "Virtual Currency Act".

#### 4. Tax and Compliance

The proliferation of cryptocurrencies also raises the question of how to regulate taxes and compliance related to these digital assets. Governments in various countries are looking at ways to tax cryptocurrency transactions and regulate related financial reporting. However, the technical complexities and decentralized nature of cryptocurrencies make regulating these a challenge for governments. In Indonesia, taxes are levied on crypto income and capital gains, with rates ranging from 10-20%. Crypto tax is regulated in PMK No.68/PMK.03/2022 on Value Added Tax and Income Tax on Crypto Asset Trading Transactions. Although BI and OJK prohibit the use of cryptocurrencies as a means of payment, this does not mean that BI and OJK also prohibit the use of technology.

#### 5. Security and Privacy

Another legal implication is security and privacy in the use of cryptocurrencies. The security of digital platforms and wallets is a major concern, as cyberattacks and theft of digital assets can occur. In addition, the protection of user privacy is also an important issue, as cryptocurrency transactions can be visible to the general public. Therefore, legal regulations need to consider the security and privacy aspects of cryptocurrency use. Legal regulations should ensure that platforms and digital wallets used for cryptocurrency transactions have adequate security measures. This involves protection against cyberattacks, such as hacking or theft of users' personal data. Regulation can also strengthen consumer protection by requiring platforms and digital wallets to adopt certain security standards and report security breaches that occur. In addition, user privacy is also a concern in the use of cryptocurrencies. Cryptocurrency transactions are by default recorded on a publicly accessible blockchain. This means that the user's identity and transaction details are visible to anyone. Therefore, legal regulations need to consider the protection of user privacy and provide options for anonymity in cryptocurrency transactions. Some cryptocurrencies have developed technologies such as "privacy coins" that enable more confidential and untraceable transactions.

In the face of these developments, modern jurisprudence needs to continuously adapt and develop a legal framework that fits the unique characteristics of blockchain technology and cryptocurrencies. This involves collaboration between governments, regulators, and industry players to create a balanced legal environment, which protects the interests of all parties involved while encouraging innovation and economic growth. Implementation of Blockchain Technology on Legal Security and Privacy in Financial

Contexts and Other Aspects. The results show that the implementation of blockchain technology contributes to improving legal security in the financial context. By using blockchain technology, financial transactions become more transparent and accountable. Distributed and cryptographically encrypted transaction records minimize the risk of fraud and data manipulation. In addition, blockchain technology also ensures the validity of data, as each transaction must be verified and authorized by a network of users before being included in the block chain. Asset tokenization is the process of describing physical or digital assets in the form of tokens that can be traded on the blockchain. In the context of security, asset tokenization can provide higher security as every transaction and asset ownership is transparently and immutably recorded in the block chain. This reduces the risk of asset forgery or manipulation. In addition, asset tokenization can also increase privacy as asset owners can choose to remain anonymous when making transactions. The Role of Government, Regulatory, and Private Sector Institutions in Developing and Implementing an Effective Legal Framework for Cryptocurrencies and Blockchain. Government, regulatory, and private sector institutions have an important role to play in developing and implementing an effective legal framework for cryptocurrencies and blockchain.

#### 1. Government Agencies

Have the responsibility of creating a functioning legal framework to regulate the use of cryptocurrencies and blockchain technology. They are responsible for protecting the public interest, preventing abuse, and ensuring market safety and stability. Government agencies also play a role in overseeing and controlling cryptocurrency-related activities, such as digital currency exchanges and initial coin offerings (ICOs).

#### 2. Regulators

Regulators have a central role in crafting policies and rules related to cryptocurrencies and blockchain. They are tasked with understanding these technologies well, monitoring market developments, and taking necessary actions to protect consumers and the general public. Regulators also play a role in overseeing and licensing companies operating in the cryptocurrency sector, as well as setting requirements and standards that must be adhered to.

#### 3. Private Sector

The private sector also plays a role in developing and implementing an effective legal framework for cryptocurrencies and blockchain. Companies in this sector can contribute to technology development, create security standards, and collaborate

with governments and regulators. For example, the private sector can play a role through public private partnership (PPP) schemes in national development. Also, get involved in the development of the crypto ecosystem in Indonesia. Indonesia Crypto Consumers Association (ICCA) and Perkumpulan Konsultan Hukum Kripto Aset Indonesia (PKHAKI) are private sector organizations that aim to build the national economy through the development of an advanced, healthy and modern crypto climate and ecosystem. They can also assist in drafting best practices and guidelines for the industry, as well as participate in dialog with governments to achieve mutually beneficial goals. The results of this study show that government, regulatory, and private sector institutions have an important role to play in developing and implementing an effective legal framework for cryptocurrencies and blockchain. The government plays a role in regulating and overseeing the use of cryptocurrencies, while regulators are responsible for overseeing and issuing relevant regulations. The private sector also contributes through collaboration with governments and regulators in developing industry standards and best practices.

4. An effective legal framework for cryptocurrencies and blockchain is needed to ensure security, privacy, and compliance in their use. Cooperation between these institutions is important to achieve these goals and build a strong foundation for sustainable growth in the industry. The Role of Modern Jurisprudence in Addressing Cryptocurrency and Blockchain Legal Issues. Modern jurisprudence can play an important role in addressing legal issues that arise in relation to cryptocurrency and blockchain in Indonesia. As technology evolves, courts, laws or regulations, and legal practices seek to adapt to the new challenges posed by these innovations. An example of a case in Indonesia that relates to this issue is the Rafael Alun Trisambodo case. In this case we can see that modern jurisprudence can be applied. From the case we can see that modern jurisprudence can accept the use of blockchain technology as valid electronic evidence in court. An immutable record of transactions on the blockchain can be used to provide evidence of the flow of funds and related financial activity. This is important in addressing legal issues that arise in connection with cryptocurrencies and blockchain, such as money laundering cases. In addition, modern jurisprudence can help establish criteria for legal liability for cryptocurrency users. In this case, cryptocurrency users may be required to comply with existing regulations, such as registration or reporting to financial supervisory authorities. In Indonesia itself, Bank Indonesia has issued several regulations related to the use of cryptocurrencies. For example, Bank Indonesia issued Bank Indonesia Regulation No.

18/40/PBI/2016 on the Implementation of Financial Technology which regulates the implementation of financial technology services, including cryptocurrency. In addition, the Financial Services Authority (OJK) also has regulations related to the use of cryptocurrencies, such as OJK Regulation No. 77/POJK.01/2016 on Information Technology-Based Money Lending Services.

Consumer protection in cryptocurrency transactions such as the application of the law modern consumers to protect investors or consumers in cryptocurrency transactions. For example, there are breaches of disclosure obligations or business practices that do not comply with ethical standards. Consumer law can ensure that investors or consumers receive clear and accurate information about the risks associated with investing or using cryptocurrencies. If there is a breach of disclosure obligations, consumers or investors may file lawsuits to obtain damages or other legal protections. Current practices in the use of cryptocurrencies and blockchain may also influence modern jurisprudence. Evolving experiences and practices in the industry may be taken into consideration in court decisions and the formation of legal regulations. For example, courts may consider current practices in the cryptocurrency industry in determining legal liability or consumer protection. With the rapid development in this industry, it is expected that there will be more court decisions and legal regulations relating to cryptocurrencies and blockchain in the future.

## CONCLUSION

In the face of the changing financial and legal landscape brought about by the digital revolution, cryptocurrencies and blockchain technology are emerging as innovative breakthroughs. This article outlines the complexity of legal challenges that arise with the widespread adoption of cryptocurrencies and blockchain technology. The research focuses on the regulatory, consumer protection, tax, security, and privacy aspects in the context of cryptocurrency utilization. The issue of cryptocurrency regulation is a major concern, with different approaches in different countries creating legal uncertainty. While regulations such as PP 5/2021 and Bappebti Regulation No. 8/2021 in Indonesia provide a foundation, the sustainability of regulations requires a deeper understanding. Conflicting views between Bank Indonesia and the Ministry of Trade further complicate regulation at the national level. Security and privacy are crucial issues, with the risk of cyberattacks and digital asset theft. Regulations must ensure that platforms and digital wallets comply with security standards and safeguard user privacy. The development of "privacy coins" is a potential solution to increase the level of anonymity in transactions.

The implementation of blockchain technology plays an important role in enhancing legal security and privacy, especially in the financial context. Smart contracts and asset tokenization make a significant contribution by increasing the level of security and privacy. The role of government agencies, regulators, and the private sector in developing an effective legal framework is key to success. Governments must be able to supervise, protect the public interest, and maintain market stability. Regulators are responsible for crafting appropriate policies and rules, while the private sector can collaborate in developing industry standards and best practices.

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