



# The Potential Economic Impacts of Cryptocurrency in Indonesia: A Systematic Literature Review

**Eogenie Laki-laki**

Universitas Gadjah Mada

**Windy Permata Suyono**

Universitas Negeri Jakarta

**Angger Hidayat**

Universitas Islam Negeri Sultan Thaha Saifuddin Jambi

**Nur Jumriatunnisah**

Politeknik Negeri Sriwijaya

**Febri Pramudya Wardani**

IBM Asmi Jakarta

Alamat: Bulaksumur, Kec. Depok, Kabupaten Sleman, Daerah Istimewa Yogyakarta 55281

Korespondensi penulis: [eogenielakilaki@mail.ugm.ac.id](mailto:eogenielakilaki@mail.ugm.ac.id)

**Abstract.** *Cryptocurrency emergence poses significant challenges and opportunities for Indonesia's economy, yet comprehensive understanding of its economic impacts remains limited. This study employs a systematic literature review to analyze cryptocurrency's potential economic implications in Indonesia by examining stakeholder expectations, regulatory frameworks, and economic impacts. The research extracted and synthesized findings from ten studies using qualitative, empirical economic, and regulatory analysis methodologies. Results reveal a regulatory dichotomy between Bank Indonesia's stability-focused approach and the Ministry of Trade's growth-oriented perspective, creating market uncertainty. Cryptocurrency positively impacts banking stock prices, payment system efficiency, and investment opportunities, while raising concerns about volatility, monetary control, and cybersecurity. Stakeholder expectations vary across banking, fintech, regulatory, and investor groups, highlighting the need for balanced regulatory approaches that foster innovation while addressing systemic risks. This research contributes valuable insights for developing comprehensive cryptocurrency policies that maximize economic benefits while maintaining financial stability.*

**Keywords:** *Cryptocurrency, Digital Economy, Financial Regulation, Indonesian Economy, Systematic Review*

**Abstrak.** *Kemunculan cryptocurrency menimbulkan tantangan dan peluang signifikan bagi perekonomian Indonesia, namun pemahaman komprehensif tentang dampak ekonominya masih terbatas. Penelitian ini menggunakan metode systematic literature review untuk menganalisis potensi implikasi ekonomi cryptocurrency di Indonesia*

dengan menelaah ekspektasi pemangku kepentingan, kerangka regulasi, dan dampak ekonomi. Penelitian mengekstraksi dan mensintesis temuan dari sepuluh studi menggunakan metodologi analisis kualitatif, ekonomi empiris, dan regulasi. Hasil menunjukkan adanya dikotomi regulasi antara pendekatan Bank Indonesia yang berfokus pada stabilitas dan perspektif Kementerian Perdagangan yang berorientasi pada pertumbuhan, menciptakan ketidakpastian pasar. *Cryptocurrency* menunjukkan dampak positif pada harga saham perbankan, efisiensi sistem pembayaran, dan peluang investasi, sambil menimbulkan kekhawatiran tentang volatilitas, kontrol moneter, dan keamanan siber. Ekspektasi pemangku kepentingan bervariasi di seluruh kelompok perbankan, fintech, regulasi, dan investor, menyoroti kebutuhan akan pendekatan regulasi yang seimbang yang mendorong inovasi sambil mengatasi risiko sistemik. Penelitian ini memberikan wawasan berharga untuk mengembangkan kebijakan *cryptocurrency* komprehensif yang dapat memaksimalkan manfaat ekonomi sambil menjaga stabilitas keuangan.

**Kata kunci:** Aset Digital, Ekonomi Indonesia, Mata Uang Kripto, Regulasi Keuangan, Tinjauan Sistematis

## INTRODUCTION

Cryptocurrencies, defined as digital currencies that run on blockchain technology, offer a new way of conducting transactions that has the potential to revolutionize the traditional financial system. Indonesia, as one of the countries with various economic potentials, is faced with challenges and opportunities related to using cryptocurrencies. Countries like Japan and South Korea have begun legalizing cryptocurrencies, potentially affecting Indonesia's economy (Amsyar et al., 2020). Studies suggest that Indonesia cannot ignore this development as cryptocurrency adoption in major countries could affect domestic economic stability (Amsyar et al., 2020).

With the rise of cryptocurrency, there are questions regarding its long-term impact on the Indonesian economy. The disruption brought about by using cryptocurrencies can bring new investment opportunities and innovative business models. However, it also comes with risks that must be managed, such as price volatility and fraud (Adhinugraha & Arifin, 2024). Research shows that despite Indonesians' increasing interest in cryptocurrencies, there is an urgent need to understand how cryptocurrencies interact with economic policies, including the regulations that govern such activities. Without a comprehensive understanding, adopting cryptocurrencies may pose challenges to the financial sector and the broader economy (Adhinugraha & Arifin, 2024; Tauda et al., 2023). With this, government policies on cryptocurrencies will largely determine the

future sustainability and development of the sector. With this, government policies on cryptocurrencies will largely determine the future sustainability and development of the sector.

The importance of research on the economic impact of cryptocurrencies is also reflected in the Indonesian market, which is currently trying to adapt to fintech and digital innovation (Muslih Muslih et al., 2024). In the post-COVID-19 context, research suggests that the fintech sector, including cryptocurrencies, could contribute significantly to Indonesia's GDP and create new jobs (Muslih & Supeno, 2022; Muslih Muslih et al., 2024). However, unclear regulations on using cryptocurrencies in Indonesia pose a challenge for economic actors (Adhinugraha & Arifin, 2024; Muslih & Supeno, 2022). Researchers argue that to maximize the potential of cryptocurrencies, there needs to be a supportive regulatory framework that can also protect consumers and create public trust (Tauda et al., 2023). This emphasizes that the situation requires a systematic research approach to assess and recommend appropriate policies.

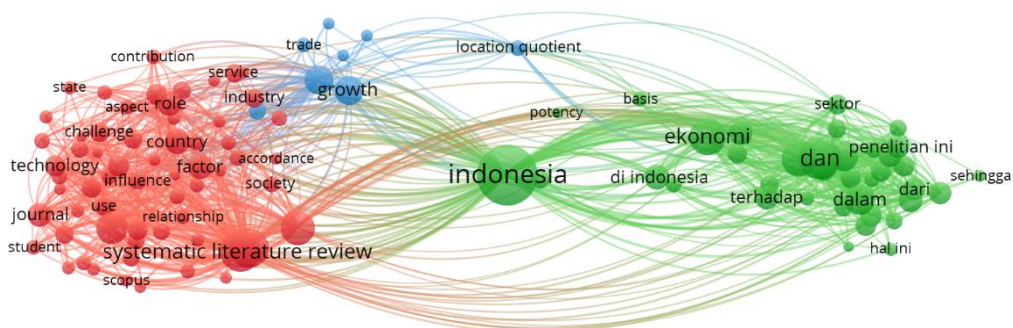
The main challenge lies in the lack of research and in-depth understanding of cryptocurrency adoption and its impact on the Indonesian economy (Adhinugraha & Arifin, 2024; Widarni, 2022). While some research has been conducted in other countries on cryptocurrencies, research specific to the Indonesian context is scarce and difficult to reference (Widarni, 2022). Thus, the urgency to conduct systematic research is apparent, and it is necessary to provide insights that policymakers, entrepreneurs, and the public can use to understand the economic implications of cryptocurrency adoption. This research focuses on analyzing the impact, challenges, and potential growth that can be achieved through using cryptocurrencies in Indonesia, which is expected to contribute to developing the country's digital economy (Hussain, 2020).

## **RESEARCH METHOD**

In this research, the method used is systematic literature review (SLR). Systematic Literature Review (SLR) is a research method used to identify, evaluate, and synthesize findings from relevant research on a particular topic. This method follows a standard procedure that includes the definition of research questions, selection of databases, and application of inclusion and exclusion criteria for the literature reviewed (Khusnun

Mufidah & Rakhmawati, 2023; Permatasari et al., 2022). Literature will be retrieved through the Google Scholar database.

The procedure in this SLR research consists of three stages: Planning, working, and reporting. Researchers conducted an SLR needs analysis in the first planning stage using the VosViewer version 1.6.20 and Publish or Perish (PoP) applications. Researchers used the following keywords: Cryptocurrency; Economy; Potential; SLR; Systematic Literature Review in the PoP application to search for 1000 relevant articles, then the data is loaded into the Ris file and then entered into the VosViewer application to be visualized. The following are the results of the data visualization:



**Figure 1. VosViewer Visualization Results**

Based on the application's needs analysis results, we can conclude that no one has conducted SLR research to explore cryptocurrency's potential impact on Indonesia's economy. Then, the second step in the planning stage is to formulate research questions, in this case the researcher formulated it with the ECLIPS framework (Expectation, Client Group, Location, Impact, Professional Involved, Service) The research question based on the framework is “What are the expectations (E) of the banking sector, fintech, and investors (C) in Indonesia (L) regarding the economic impact (I) of the implementation of cryptocurrency on the financial system (S), and what is the role of monetary authorities and regulators (P) in responding to this potential impact?”.

The second stage, which is working. At this stage, the researcher identifies the studies to be reviewed. The studies were searched based on a search query in Boolean format as follows:

(("cryptocurrency" OR "crypto" OR "cryptocurrencies" OR "digital currency" OR "virtual currency" OR "bitcoin" OR "ethereum" OR "blockchain" OR "digital asset" OR

"crypto-asset" OR "DeFi" OR "decentralized finance" OR "stablecoin" OR "tokenization" OR "ICO" OR "initial coin offering") AND ("Indonesia\*" OR "Jakarta") AND ("bank\*" OR "fintech" OR "financial technology" OR "investor\*" OR "investment" OR "financial sector" OR "financial system" OR "financial market" OR "financial institution\*" OR "monetary system" OR "payment system" OR "economic" OR "economy") AND ("impact\*" OR "effect\*" OR "influence" OR "implication\*" OR "consequence\*" OR "outcome\*" OR "potential" OR "opportunity" OR "challenge\*" OR "risk\*" OR "benefit\*" OR "expectation\*" OR "perception\*" OR "perspective\*" OR "view\*" OR "opinion\*" OR "attitude\*" OR "forecast\*" OR "prediction\*" OR "prospect\*") AND ("regulat\*" OR "policy" OR "policies" OR "governance" OR "compliance" OR "law\*" OR "legal\*" OR "framework" OR "guideline\*" OR "standard\*" OR "supervis\*" OR "oversight" OR "central bank" OR "Bank Indonesia" OR "OJK" OR "Otoritas Jasa Keuangan" OR "BAPPEBTI" OR "monetary authority" OR "financial authority"))".

The articles obtained based on the search query will then be filtered and adjusted to answer the questions in this study. The last stage in SLR research is reporting, where researchers discuss the data extraction and synthesis results obtained from the previous stage.

## RESULTS AND DISCUSSION

### Study Characteristics

Study	Research Focus	Methodology	Key Stakeholders Studied	Primary Findings	Full Text Retrieved
(Amaris & Widyarini, 2023)	Impact of cryptocurrency volatility on banking and foreign exchange performance	Empirical economic analysis using Baba-Engle-Kraft-Kroner Generalized Autoregressive Conditional Heteroskedasticity (BEKK GARCH) model	Banking sector, Foreign exchange market	Cryptocurrencies influence banking stock prices and foreign exchange rates.	Yes

Study	Research Focus	Methodology	Key Stakeholders Studied	Primary Findings	Full Text Retrieved
(Leo Handoko et al., 2021)	Cryptocurrency perception and regulation in Indonesia	Qualitative study with interviews and secondary data analysis	Cryptocurrency investors, Regulators	Cryptocurrency is considered a commodity with high investment interest	Yes
(Hartono & Budiarsih, 2022)	Characteristics of crypto asset investors and tax implementation perceptions	Qualitative study using questionnaires	Cryptocurrency investors	Strong interest in cryptocurrencies despite awareness of risks; low resistance to proposed taxation	No
(Juita et al., 2020)	Fintech adoption behavior in Indonesia	Quantitative survey using Partial Least Squares (PLS) Smart 3.0	Fintech users	Perceived benefits of Fintech outweigh perceived risks	Yes
(Mafruhah et al., 2022)	Impact of cryptocurrency on monetary systems	Qualitative systematic literature review	No mention found	Cryptocurrency offers economic growth potential but poses risks to financial stability.	Yes
(Nur Masitoh & Rohmah, 2024)	Future of monetary economics and financial institutions	Qualitative study with case study approach	Central bank, Financial institutions	Cryptocurrencies can enhance payment system efficiency but present regulatory challenges.	Yes
(Purnama, 2022)	Regulatory perspectives on cryptocurrency in Indonesia	Regulatory/legal analysis	Regulators (Bank Indonesia, Ministry of Trade)	Differing regulatory perspectives between Bank Indonesia and	Yes

Study	Research Focus	Methodology	Key Stakeholders Studied	Primary Findings	Full Text Retrieved
				the Ministry of Trade	
(Rohman, 2021)	Legal framework for cryptocurrency regulation in Indonesia	Regulatory/legal analysis	Regulators (Bank Indonesia, Ministry of Trade)	Regulatory confusion due to conflicting views on cryptocurrency status	Yes
(Sihombing et al., 2020)	Impact of cryptocurrency on banking stock prices	Empirical economic analysis using multiple linear regression	Banking sector	Cryptocurrency has a positive impact on stock prices	Yes
(Widodo et al., 2024)	Determinants of Central Bank Digital Currency (CBDC) implementation in Indonesia	Empirical economic analysis	Central bank, Economic actors	Macroeconomic factors influence CBDC implementation	Yes

Based on the synthesis of research on cryptocurrency in Indonesia, a diverse methodological landscape emerges across the ten studies examined. The research approaches demonstrate a predominance of qualitative methods, which account for 40% of the studies. These qualitative investigations typically employed interviews, case studies, and document analysis to explore stakeholder perspectives and regulatory frameworks in depth.

The second most common methodology is empirical economic analysis, featured in 30% of the studies. These quantitative approaches utilize sophisticated statistical models, including BEKK GARCH, multiple linear regression, and other econometric techniques, to measure cryptocurrency's impact on financial markets and economic indicators.

The remaining studies were split between regulatory/legal analysis (20%), which examined the legal frameworks and policy implications surrounding cryptocurrency in

Indonesia, and quantitative survey methods (10%), which gathered data on user behavior and perceptions through structured questionnaires.

This methodological distribution reflects the multidisciplinary nature of cryptocurrency research, which requires diverse approaches to understanding its complex economic, regulatory, and social dimensions.

Regarding stakeholder focus, the studies demonstrate particular attention to regulatory bodies, with 30% of studies examining perspectives from institutions like Bank Indonesia and the Ministry of Trade. This regulatory emphasis highlights the critical importance of policy frameworks in shaping cryptocurrency's integration into Indonesia's financial system.

The banking sector and cryptocurrency investors received attention in 20% of the studies, examining how traditional financial institutions respond to cryptocurrency emergence and how investors perceive and engage with these new assets. Similarly, central banks were a focus in 20% of studies, particularly regarding their role in monetary policy and potential development of Central Bank Digital Currencies (CBDCs).

The remaining studies distributed their attention across various stakeholders including foreign exchange markets, fintech users, financial institutions, and broader economic actors, each appearing in 10% of the studies. This diverse stakeholder analysis provides a comprehensive view of how cryptocurrency affects and is perceived by different segments of Indonesia's financial ecosystem.

### **Stakeholder Expectations and Concerns**

Stakeholder Group	Primary Expectations	Key Concerns	Opportunities Identified
Banking Sector	Potential for market growth	Volatility impact on stock prices	Integration of cryptocurrency in financial services
Fintech Companies	Increased adoption of digital financial services	Regulatory uncertainty	Enhanced payment system efficiency
Investors	High returns on cryptocurrency investments	Price fluctuations and investment risks	Portfolio diversification



Stakeholder Group	Primary Expectations	Key Concerns	Opportunities Identified
Regulators (Bank Indonesia) Regulators (Ministry of Trade)	Maintaining financial stability, Economic growth through cryptocurrency trading	Potential threats to monetary control: Balancing innovation with consumer protection	Development of CBDC Cryptocurrency as a tradable digital asset
General Public	Easier access to financial services	Security and privacy concerns	Increased financial inclusion

Cryptocurrency adoption in Indonesia presents diverse expectations, concerns, and opportunities across stakeholder groups. The perspectives of banking institutions, fintech companies, investors, regulators, and the general public reflect optimism and caution regarding its economic impact.

### 1. Primary Expectations

The banking sector anticipates market growth driven by the increasing integration of cryptocurrency into financial services. As digital assets gain wider acceptance, banks seek opportunities to expand their financial offerings, particularly in cross-border transactions and digital asset custody.

Fintech companies expect an increased adoption of digital financial services facilitated by blockchain technology. Cryptocurrency's decentralized nature could drive innovation in payment systems, lending services, and peer-to-peer financial platforms.

For investors, cryptocurrency represents an attractive investment vehicle with the potential for high returns. Digital assets' volatility creates opportunities for speculative gains, making them an increasingly popular component of diversified portfolios.

From a regulatory perspective, Bank Indonesia prioritizes maintaining financial stability, ensuring that cryptocurrency integration does not disrupt monetary policies or financial markets. Meanwhile, the Ministry of Trade envisions economic growth through cryptocurrency trading, recognizing its potential to boost market activity and attract foreign investment.

The general public sees cryptocurrency as a means to achieve more straightforward access to financial services, particularly for the unbanked

population. Decentralized finance (DeFi) applications could provide financial inclusion by bypassing traditional banking barriers.

## **2. Key Concerns**

Despite its potential, cryptocurrency adoption also raises several concerns. The banking sector worries about the volatility impact on stock prices, as fluctuations in cryptocurrency values could indirectly affect financial stability.

Regulative uncertainty remains a significant challenge for fintech companies. Inconsistent policies and evolving legal frameworks create risks for businesses developing crypto-based financial solutions.

Investors face price fluctuations and investment risks, as cryptocurrency markets are unpredictable. The absence of strong consumer protection measures adds to digital asset investments' uncertainty.

From a policy perspective, Bank Indonesia identifies potential threats to monetary control, particularly if cryptocurrency adoption undermines the effectiveness of national currency policies. Similarly, the Ministry of Trade must balance innovation with consumer protection, ensuring that the benefits of cryptocurrency trading do not come at the expense of financial security.

The general public expresses concerns about security and privacy, particularly fraud, hacking, and data protection in cryptocurrency transactions. The lack of centralized oversight makes digital assets vulnerable to illicit activities.

## **3. Opportunities Identified**

Despite these concerns, cryptocurrency also presents significant opportunities. The banking sector could benefit from integrating cryptocurrency in financial services, such as digital payments, remittances, and blockchain-based settlements.

For fintech companies, cryptocurrency adoption could enhance payment system efficiency, reduce transaction costs, and improve processing speeds in digital finance.

Investors can leverage cryptocurrency for portfolio diversification, using digital assets as an alternative investment class with potential high returns.

On the regulatory side, Bank Indonesia sees the development of a Central Bank Digital Currency (CBDC) as a way to modernize the financial system while maintaining monetary control. The Ministry of Trade recognizes cryptocurrency as a tradable digital asset, which could enhance Indonesia's position in global financial markets.

Finally, the general public stands to gain from increased financial inclusion, as cryptocurrency and blockchain technologies provide new financial opportunities for individuals without access to traditional banking.

### Economic Impact Assessment

Impact Area	Observed Effects	Potential Risks	Mitigation Measures
Stock Market	Positive impact on banking stock prices	Increased volatility	Diversification strategies
Foreign Exchange	Influence on exchange rates	Potential destabilization of local currency	Regulatory oversight on cryptocurrency exchanges
Financial Inclusion	Broader access to financial services	Exclusion of technologically less-savvy populations	Education and infrastructure development
Monetary Policy	Challenges to traditional monetary control	Reduced effectiveness of central bank policies	Development of CBDC
Investment Landscape	Increased investment opportunities	High risk due to price volatility	Investor protection regulations
Payment Systems	Enhanced efficiency	Cybersecurity threats	Robust security measures and regulatory frameworks
Tax Revenue	Potential for increased tax collection	Challenges in tracking and reporting	Implementation of cryptocurrency taxation systems
Economic Growth	Potential driver of innovation and growth	Risks to financial stability	Balanced regulatory approach

Impact Area	Observed Effects	Potential Risks	Mitigation Measures
Financial Crime	No mention found	Increased potential for money laundering and fraud	Enhanced Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) measures

The studies analyzed in this review identified significant economic impacts of cryptocurrency across various sectors in Indonesia. The stock market has experienced positive effects, particularly in banking stock prices, as financial institutions explore cryptocurrency-related opportunities. However, the sector faces risks associated with increased volatility, which can impact investor confidence. Diversification strategies have been suggested to mitigate these risks to balance exposure to cryptocurrency-related assets.

In the foreign exchange market, cryptocurrency influences exchange rates, potentially affecting the stability of the national currency. The risk of currency destabilization has been highlighted, particularly if large-scale cryptocurrency transactions disrupt foreign exchange reserves. To address this, regulatory oversight on cryptocurrency exchanges is crucial in ensuring controlled capital flows and preventing excessive speculation.

Regarding financial inclusion, cryptocurrency provides broader access to financial services, especially for underbanked populations. However, a key concern is the exclusion of technologically less-savvy individuals, who may struggle to adopt digital financial tools. Education and infrastructure development are essential to bridging this gap and ensuring inclusive participation in the digital economy.

From a monetary policy perspective, cryptocurrencies pose challenges to traditional monetary control, as decentralized digital currencies operate outside the central banking authority. This could reduce the effectiveness of central bank policies, especially in controlling the money supply and inflation. To counter this, the development of a central bank digital currency (CBDC) has been proposed as a potential solution, enabling monetary authorities to maintain oversight while benefiting from digital innovations.

Due to the growing popularity of cryptocurrencies, the investment landscape has seen increased opportunities. However, these investments come with a high risk of price volatility, which could deter institutional investors. As a mitigation strategy, investor protection regulations have been recommended to ensure transparency and safeguard market participants.

Cryptocurrency adoption in the payment systems sector has led to enhanced efficiency, facilitating faster and more cost-effective transactions. However, cybersecurity threats remain a significant concern, given the risk of hacking and fraud. Implementing robust security measures and regulatory frameworks is necessary to ensure the safety of digital transactions.

Another notable economic impact is the potential for increased tax revenue, as cryptocurrency trading and investments generate taxable transactions. However, given the decentralized nature of digital assets, challenges in tracking and reporting remain. Implementing cryptocurrency taxation systems is a crucial step in ensuring proper revenue collection.

Cryptocurrency is also a potential driver of innovation and economic growth, fostering new financial technologies and business models. However, concerns regarding financial stability risks persist, especially if speculative trading leads to market bubbles. A balanced regulatory approach is required to encourage innovation while maintaining financial system stability.

Regarding financial crime, while no direct benefits were reported, the potential for increased money laundering and fraud is a critical concern. To mitigate these risks, enhanced Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) measures are necessary to monitor and regulate suspicious transactions.

Lastly, in the context of cross-border transactions, cryptocurrency offers easier international trade opportunities by reducing transaction costs and delays. However, regulatory challenges across jurisdictions create uncertainty for businesses and investors. International cooperation on cryptocurrency regulation is essential to harmonize policies and establish a secure cross-border digital financial system.

While cryptocurrency presents numerous economic opportunities for Indonesia, these must be carefully managed through comprehensive regulation, financial education, and risk mitigation strategies to ensure sustainable and secure integration into the national economy.

### **Regulatory Challenges and Policy Responses to Cryptocurrency in Indonesia**

The regulatory framework surrounding cryptocurrency in Indonesia exhibits a complex interplay between various regulatory bodies and their divergent perspectives. Bank Indonesia (BI) adopts a cautious stance towards cryptocurrency, viewing it primarily as a potential threat to financial stability and its control over the monetary system. Prohibiting cryptocurrency as a valid means of payment aims to reinforce the stability of the national currency, the Rupiah (Kurniawan, 2024; Setia & Maharani, 2023). This perspective is underscored by concerns about the decentralized nature of cryptocurrencies, which can undermine regulatory oversight and lead to transaction unpredictability. (Kurniawan, 2024; Setia & Maharani, 2023). Furthermore, in pursuit of an adapted monetary framework, BI is investigating the feasibility of developing a Central Bank Digital Currency (CBDC), which would allow for the integration of digital currency while retaining regulatory oversight and monetary control. (Denny, 2023; Tauda et al., 2023).

In contrast, the Ministry of Trade recognizes the economic potential of cryptocurrencies. It classifies them as commodities and allows them to be traded under applicable regulations. (Arindrajaya & Koos, 2022; Lumban Gaol et al., 2023). This classification opens the door for expanded trading opportunities within futures markets, reflecting a willingness to acknowledge the economic advantages cryptocurrencies can bring, such as increased market participation and investment inflows. (Lumban Gaol et al., 2023; Wardoyo & Indri Hapsari, 2023). The differing perspectives arise from varying risk and opportunity assessments, as the Ministry of Trade aims to provide legal clarity and assurance for participants engaged in cryptocurrency trading, thus supporting its acceptance as a legitimate investment asset. (Ahmadi, 2023).

The dichotomy between BI and the Ministry of Trade results in substantial regulatory confusion for market participants, who must navigate the overlapping frameworks established by these regulatory bodies. The ongoing tension between a risk-

averse monetary authority and a trade-focused regulatory body complicates the integration of cryptocurrencies within Indonesia's financial ecosystem. Investors face challenges interpreting the regulatory landscape, inhibiting investment and innovation in this burgeoning market. (Arwono et al., 2023; Tauda et al., 2023). The absence of a unified regulatory approach creates uncertainty that may deter potential investors concerned about possible legal repercussions under conflicting regulations. Moreover, this ambiguity complicates compliance for businesses engaging in cryptocurrency transactions, potentially creating legal pitfalls amidst shifting regulatory expectations. (Adhinugraha & Arifin, 2024; Sihombing et al., 2020).

Regulatory developments are emerging in response to this dilemma, with proposals for comprehensive taxation schemes for cryptocurrency transactions gaining traction. (Limantoro & Rahmiati, 2023). The Indonesian government has shown interest in developing a taxation framework that aligns cryptocurrency treatment with traditional commodity taxation, legitimizing its economic role while addressing potential risks such as tax evasion. (Adhinugraha & Arifin, 2024; Tauda et al., 2023). Establishing a transparent tax structure can further integrate cryptocurrency into the formal economy, enhancing investor confidence and promoting higher levels of compliance among businesses and individual traders. (Tauda et al., 2023).

The push for improved consumer protection measures arises from increasing awareness regarding balancing technological innovation with transaction security. The rise in cryptocurrency participation and investment underscores the urgent need for safeguards to protect consumers from exploitation and financial losses, a sentiment echoed in calls for stronger consumer protection regulations. (Arindrajaya & Koos, 2022; Soputro, 2023). Awareness campaigns and regulatory efforts to educate investors about the risks associated with cryptocurrency investments are critical as awareness of the volatile nature of market operations and financial risks increases. (Ahmadi, 2023; Setia & Maharani, 2023).

Furthermore, enhancing anti-money laundering (AML) and counter-terrorism financing (CFT) protocols is a critical regulatory priority in addressing the complexities of cryptocurrency use for illicit activities. (Limantoro & Rahmiati, 2023) The existing risk framework necessitates a balanced approach in which regulatory oversight preserves

financial system integrity while facilitating cryptocurrency innovation. (Nanik Alfiani, 2024). Such measures are essential for instilling public trust in cryptocurrency markets and fostering an environment conducive to legitimate digital asset use that aligns with regulatory norms. (Tauda et al., 2023).

As Bank Indonesia advances in its exploration of CBDC, it seeks to leverage the benefits associated with digital currencies while maintaining control over the financial system. (Catania & Griffiths, 2021). Engagement with international stakeholders to develop cohesive regulatory frameworks is increasingly emphasized, reflecting recognition of cryptocurrency's transnational nature and intensifying regulatory arbitrage and compliance issues. (Tauda et al., 2023). Collaborative approaches across borders are instrumental in crafting regulations that address the challenges of cross-border transactions, enhancing international cooperation, and ensuring adherence to shared standards. (Arwono et al., 2023; Tauda et al., 2023).

Research indicates a pressing need for a harmonized regulatory approach that accommodates the interests of investors, regulatory bodies, and financial institutions. (Kurniawan, 2024; Tauda et al., 2023). The regulatory fragmentation highlights the need for a coherent and integrated regulatory framework to align diverse interests while promoting financial stability and technological innovations within the Indonesian cryptocurrency ecosystem. (Lumban Gaol et al., 2023). This integrated approach aims to facilitate sector growth and mitigate risks related to financial stability and consumer protection. (Denny, 2023).

The complexity of the regulatory landscape is further complicated by the critical roles various stakeholders—including businesses, investors, and regulatory agencies—play in the cryptocurrency domain. Gaining a comprehensive understanding of the regulatory implications and operational nuances surrounding cryptocurrency investments is essential for stakeholders in the Indonesian market. Ensuring robust investor education and fostering clear communication between regulators and market participants is vital for promoting understanding and compliance. (Ahmadi, 2023; Setia & Maharani, 2023).

In conclusion, Indonesia's multifaceted regulatory approach to cryptocurrency demonstrates both the potential for economic growth and the inherent risks associated with regulatory uncertainty. Moving forward, policymakers are encouraged to pursue a



collaborative pathway that embraces cryptocurrency's transformative nature while ensuring sufficient regulatory oversight to protect the public and the financial system. A cohesive strategy that aligns the objectives of Bank Indonesia and the Ministry of Trade may enhance market confidence and support a stable and prosperous cryptocurrency ecosystem in Indonesia.

## **CONCLUSION**

This systematic literature review reveals that cryptocurrency presents significant economic opportunities and challenges for Indonesia. The findings demonstrate a regulatory dichotomy between Bank Indonesia's cautious stance focused on financial stability and the Ministry of Trade's commodity-based approach aimed at economic growth. This regulatory inconsistency creates market uncertainty and potentially hampers cryptocurrency's full economic integration. The research identifies several key economic impacts, including positive effects on banking stock prices, enhanced payment system efficiency, increased investment opportunities, and potential for greater financial inclusion. However, these benefits are counterbalanced by concerns regarding volatility, monetary policy effectiveness, and cybersecurity risks. The stakeholder analysis shows varying expectations across banking, fintech, regulatory, and investor groups, highlighting the need for balanced policy approaches that address concerns while fostering innovation.

The study's limitations include the relatively small sample of Indonesia-specific research and the rapidly evolving nature of cryptocurrency regulations. Future research should focus on empirical studies measuring cryptocurrency's quantitative economic impact, investigating potential Central Bank Digital Currency implementation models, and examining cross-border implications. Policy recommendations include developing a harmonized regulatory framework that balances innovation with consumer protection, implementing comprehensive cryptocurrency taxation systems, enhancing financial literacy programs, and strengthening international regulatory cooperation. As Indonesia navigates the cryptocurrency landscape, a measured approach that acknowledges both economic potential and systemic risks will be essential for maximizing benefits while maintaining financial stability in this emerging digital asset ecosystem.

## **BIBLIOGRAPHY**

- Adhinugraha, R. H., & Arifin, J. (2024). Analysis of Interest in Using Cryptocurrency as a Means of Payment in Indonesia. *Jurnal Indonesia Sosial Teknologi*. <https://doi.org/10.59141/jist.v5i11.7025>
- Ahmadi, H. (2023). Is Cryptocurrency Risky as an Investment Instrument? Analysis of Return and Risk With a Comparison of Sharia Stocks. *International Journal of Islamic Business Ethics*. <https://doi.org/10.30659/ijibe.8.1.40-53>
- Amaris, R., & Widyarini, M. (2023). Volatilitas Spillover Cryptocurrency Terhadap Kinerja Industri Perbankan Dan Valuta Asing Dengan Metode Bekk Garch. *Journal of Economic, Business and Accounting (COSTING)*, 7(1), 2593–2603. <https://doi.org/10.31539/costing.v7i1.8198>
- Amsyar, I., Christopher, E., Dithi, A., Khan, A. N., & Maulana, S. (2020). The Challenge of Cryptocurrency in the Era of the Digital Revolution: A Review of Systematic Literature. *Aptisi Transactions on Technopreneurship (Att)*. <https://doi.org/10.34306/att.v2i2.96>
- Arindrajaya, S. C., & Koos, S. (2022). Legal Protection Against Cryptocurrency Investors: Overview of Indonesian Consumer Protection Law. *Journal of Human Rights Culture and Legal System*. <https://doi.org/10.53955/jhcls.v2i2.32>
- Arwono, D. G., Iskandar, H., & Wardana, D. J. (2023). Tinjauan Yuridis Regulasi Cryptocurrency Terhadap Tindak Pidana Kejahatan Di Indonesia. *Amnesti Jurnal Hukum*. <https://doi.org/10.37729/amnesti.v5i1.2759>
- Catania, M., & Griffiths, M. D. (2021). Analyzing Consumer Protection for Gamblers Across Different Online Gambling Operators: A Replication Study. *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-021-00695-9>
- Denny, D. (2023). Cryptocurrencies as Digital Payment Media: Opportunities and Challenges. *Law and Justice*. <https://doi.org/10.23917/laj.v7i2.743>
- Hartono, S., & Budiarsih, R. (2022). Potensi Kesuksesan Penerapan Pajak Penghasilan Terhadap Transaksi Aset Kripto Di Indonesia. *Jurnal Pajak Dan Keuangan Negara (PKN)*, 4(1), 132–146. <https://doi.org/10.31092/jpkn.v4i1.1740>
- Hussain, N. (2020). To Assess the Association Between Exchange Rate, Commodity Prices and Cryptocurrency in Indonesia. *Research in Social Sciences*. <https://doi.org/10.53935/2641-5305.v3i1.36>
- Juita, V., Firdaus, F., & Hermanto, T. N. P. (2020). Studi Prilaku Pengguna Layanan Financial Technology (Fintech) di Indonesia: Analisa Persepsi Risiko dan Manfaat. *Jurnal Inovasi Pendidikan Ekonomi (JIPE)*, 10(2), 118. <https://doi.org/10.24036/011100040>
- Khusnun Mufidah & Rakhmawati. (2023). SYSTEMATIC LITERATURE REVIEW CASH WAKAF LINKED SUKUK. *At-Thullab : Jurnal Mahasiswa Studi Islam*, 5(2), 65–78. <https://doi.org/10.20885/tullab.vol5.iss2.art7>
- Kurniawan, I. D. (2024). Juridical Implications of Using Cryptocurrency as a Payment Tool. *Ays*. <https://doi.org/10.61397/ay.s.v1i2.18>

- Leo Handoko, B., Tihar Marpaung, A., & Ayuanda, N. (2021). Development of Cryptocurrency in the Indonesian Economy. *2021 7th International Conference on E-Business and Applications*, 54–59. <https://doi.org/10.1145/3457640.3457648>
- Limantoro, A. C., & Rahmiati, A. (2023). Motives of Cryptocurrency Tax Avoidance. *Jurnal Akuntansi Kontemporer*. <https://doi.org/10.33508/jako.v15i3.4544>
- Lumban Gaol, C. P., Morales, U., & Lopez, V. (2023). Juridical Review Concerning the Legitimacy of Cryptocurrency in Islamic Law. *Attasyrih*. <https://doi.org/10.55849/attasyrih.v8i2.148>
- Mafruhah, A. Y., Rahmawan, B. A., & Robbani, N. A. (2022). DAMPAK CRYPTOCURRENCY TERHADAP SISTEM MONETER: SEBUAH TINJAUAN PUSTAKA SISTEMATIS. *Bina Ekonomi*, 26(2), 97–106. <https://doi.org/10.26593/be.v26i2.5840.97-106>
- Muslih, M., & Supeno, S. (2022). Financial Technology: Digital Legal Challenges and Indonesia's Economic Prospects After Covid-19 Outbreak. *Jurnal Ilmiah Hukum Legality*. <https://doi.org/10.22219/ljih.v30i2.22784>
- Muslih Muslih, Laura Firda Isnandane, Bustanil Ilmi Agustin, Nur Qurrota'yun, & Muna Karimatal Mardiyah. (2024). Tātbiq Nāmudhāj al-Mājmu'ah li Tārqiyyāh Nātijāh at-Tālāamidh fii an-Nāhwi bi Mā'hād Dārussholāh Bāngkālān. *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran*. <https://doi.org/10.62775/edukasia.v5i1.952>
- Nanik Alfiani, F. R. (2024). The Urgency of Comprehensive and Integrated Digital Asset Regulation. *Journal of Social Science*. <https://doi.org/10.46799/jss.v5i1.764>
- Nur Masitoh, F., & Rohmah, M. (2024). The Future Of Monetary Economics And Financial Institutions. *Jurnal Kajian Ilmu Dan Teknologi (JKIT)*, 1(1), 35–42. <https://doi.org/10.71200/jkit.v1i1.5>
- Permatasari, M. B., Rahayu, S., & Dasna, I. W. (2022). Chemistry Learning Using Multiple Representations: A Systematic Literature Review. *Journal of Science Learning*, 5(2), 334–341. <https://doi.org/10.17509/jsl.v5i2.42656>
- Purnama, W. W. (2022). Regulasi Mata Uang Kripto di Indonesia: Pandangan Regulator dan Implikasi Hukum bagi Ekonomi Masyarakat. *JURNAL PENELITIAN SERAMBI HUKUM*, 15(02), 96–101. <https://doi.org/10.59582/sh.v15i02.922>
- Rohman, M. N. (2021). Tinjauan Yuridis Normatif Terhadap Regulasi Mata Uang Kripto (Crypto Currency) di Indonesia. *Jurnal Supremasi*, 1–10. <https://doi.org/10.35457/supremasi.v11i2.1284>
- Setia, R., & Maharani, M. (2023). Problems With Digital Currency: Cryptocurrency in Indonesia. *Journal of Economics and Business UBS*. <https://doi.org/10.52644/joeb.v12i4.491>
- Sihombing, M. S. P., Nawir, J., & Mulyantini, S. (2020). CRYPTOCURRENCY, NILAI TUKAR DAN REAL ASSET TERHADAP HARGA SAHAM PADA PERBANKAN INDONESIA YANG TERDAFTAR DI BURSA EFEK

- INDONESIA. *Ekonomi Dan Bisnis*, 7(2), 171–196.  
<https://doi.org/10.35590/jeb.v7i2.2102>
- Soputro, S. G. (2023). Consumer Protection in Commodity Futures Trading Transactions in the Physical Crypto Asset Market. *International Journal of Social Science Research and Review*. <https://doi.org/10.47814/ijssrr.v6i12.1707>
- Tauda, G. A., Omara, A., & Arnone, G. (2023). Cryptocurrency: Highlighting the Approach, Regulations, and Protection in Indonesia and European Union. *Bestuur*. <https://doi.org/10.20961/bestuur.v11i1.67125>
- Wardoyo, Y. P., & Indri Hapsari, D. R. (2023). Cryptocurrency Assets as a Physical Collateral in Indonesia. *Jurnal Ilmiah Hukum Legality*. <https://doi.org/10.22219/ljih.v31i1.24190>
- Widarni, E. L. (2022). Digital Economy in the Global Collaboration Economic Age. *Tamansiswa Accounting Journal International*. <https://doi.org/10.54204/taji/vol512022008>
- Widodo, K. D., Juanda, B., Departemen Ilmu Ekonomi, Fakultas Ekonomi dan Manajemen, Institut Pertanian Bogor, Jawa Barat, Indonesia, Hakim, D. B., & Departemen Ilmu Ekonomi, Fakultas Ekonomi dan Manajemen, Institut Pertanian Bogor, Jawa Barat, Indonesia. (2024). Determinan Implementasi Central Bank Digital Currency di Indonesia. *Jurnal Ekonomi Dan Pembangunan Indonesia*, 12(1), 120–137. <https://doi.org/10.21002/jepi.2024.8>