



FinTech Infrastructure and Cryptocurrency Markets in Southeast Asia: A Systematic Review with Evidence from Indonesia and Malaysia

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ABSTRACT

Indonesia and Malaysia are a perfect example of the global FinTech order: two of the world's biggest Muslim-majority economies with growing and fast expanding digital financial infrastructure, with different regulatory architectures and at different stages of maturity of the cryptocurrency market. In this paper, a systematic review of 40 peer-reviewed studies on technology infrastructure for financial markets in general, the dynamics and adoption of cryptocurrencies, design of central bank digital currencies, Islamic FinTech, and comparative regulatory frameworks in both countries is presented. The review includes five thematic streams: digital payment infrastructure, connectedness of the cryptocurrency market, CBDC development, CBDC Shariah compliance, and financial inclusion enabled by FinTech. The Key findings indicate that Indonesia, under the guidance of the Otoritas Jasa Keuangan (OJK) since 2023, has more than 30 licensed exchanges and an estimated 15 million retail investors, while Malaysia's Securities Commission (SC) prioritises investor protection over market breadth, issuing five exchanges with higher levels of integration in Islamic finance. There are three structural challenges in both jurisdictions: the lack of ASEAN-level regulatory coordination, the digital infrastructure gap that remains in rural populations and the lack of a harmonized screening mechanism for assets based on Shariah. The review pinpoints 7 high-priority research gaps and outlines a research agenda for the future, organized in 5 methodological pillars.

Keywords: FinTech ▪ Cryptocurrency ▪ Indonesia ▪ Malaysia ▪ Blockchain ▪ CBDC ▪ Islamic finance ▪ Digital payment ▪ Southeast Asia ▪ Systematic review

1. INTRODUCTION

Throughout Southeast Asia, the financial landscape has been transformed at a much faster pace by digital. In all respects, it has more advanced technology than any other area of similar economic magnitude. Between 2014 In 2024, the value of investment in FinTech increased from less than \$500 million to an increase of 100-fold. It is estimated that the net loss to the economy is at least USD 6 billion a year, and of which Indonesia and Malaysia are the most significant

players. The two biggest national markets behind Singapore [1, 2]. Among this growth, cryptocurrency has carved out a rather contentious niche: The subject of changing rules, robust retail investor interest, In both countries, and especially for the large Muslim minorities in each, profound questions regarding were asked. Shariah compliance that do not exist in the Western markets.

The gap between aspiration and reality is greater in Indonesia. With over 277 million people, 73% internet penetration,

and an established digital payment ecosystem anchored by GoPay, OVO, and QRIS, the country has the demographic and Fundamental conditions for a wide spread of FinTech use. Yet its cryptocurrency governance has been transferred to Bank Indonesia, then to the Ministry of Finance, and now to the Ministry of Finance, and finally to the central bank, Bank Indonesia. Bappebti under the Ministry of Trade, to the Otoritas Jasa Keuangan (OJK) in 2023 — inconsistencies with licensing standards are left behind with each transfer, Investor protections & anti-money-laundering (AML) requirements [3, 4]. The ambiguity is not accidental, but rather it reflects a real policy conflict between Indonesia's dreams of becoming a major digital company and the government's efforts to help boost the company's sales. economy and its prudent worry over the cryptocurrency markets experiencing retail exposure. This creates excess uncertainty and volatility for investors that they are unable to handle [5].

Malaysia has been more purposeful. The Securities Commission Malaysia has introduced its Digital Asset Guidelines in 2019 and has licensed. A handful of exchanges (Luno, MX Global, Tokenize, Sinegy and HATA), In a society which is tough on know-your-customer (KYC) and capital requirements. The only requirements are not based on market size. The outcome is a smaller, but more, compact structure. transparency in the cryptocurrency market, becoming more and more intertwined with Malaysia's. The Islamic finance sector has become a very well-known segment in the international financial landscape with products such as digital currencies. The Sukuk and Shariah-compliant custody options [6, 7]. At Bank Negara Malaysia, their stance is measured on CBDC, Calling it a process that will continue to be evaluated, as opposed to a scheduled deadline for issue. [8].

This review makes three contributions. Firstly it collates the disorganized The availability of literature on FinTech infrastructure and cryptocurrency in these two countries Next, it was mapped to a coherent thematic map (Fig. 3) and five research themes were identified. Underexplored are streams and the cross-stream connections that lie within them. Second, it In the case of the 168 countries that make up the world, provides the most comprehensive comparative regulatory chronology available in the world. timeline) shows that each country's national development has been chronicled through academic literature. It has become clear that the trajectory of a policy has moved away from a common starting point. Third, it translates the structuring of a synthesis into a structured research agenda (Fig. 10), and Identifying most required methods for different remaining questions.

2. REVIEW METHODOLOGY

The review follows a systematic search protocol consistent with PRISMA guidelines. Three databases were searched: Google Scholar, Scopus, and Web of Science. Search terms combined “FinTech,” “financial technology,” “cryptocurrency,” “blockchain,” “digital payment,” “CBDC,” and “Islamic finance” with country or regional qualifiers (“Indonesia,” “Malaysia,” “Southeast Asia,” “ASEAN”). No publication date floor was imposed; the upper bound is March 2026. The initial search returned 812 records (Fig. 1). After removing duplicates and excluding records that were non-peer-reviewed, not written in English, or focused on countries other than Indonesia, Malaysia, or the broader ASEAN con-

text, 421 titles and abstracts were screened. A further filter requiring publication in journals indexed by Scopus or Web of Science, with clear empirical, theoretical, or systematic-review content, reduced the set to 118 full-text assessments. Of these, 40 studies satisfied all inclusion criteria and are incorporated in the synthesis.

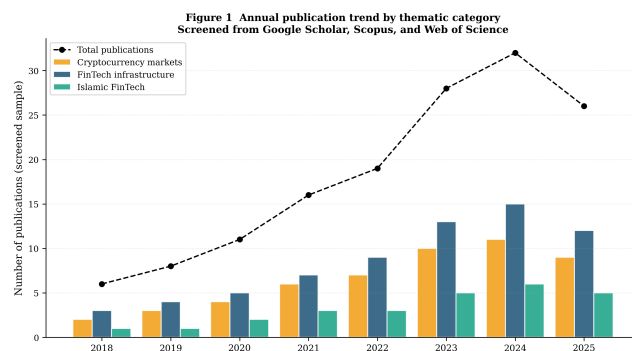


Figure 2. Annual publication trend by thematic category, 2018–2025. Cryptocurrency market studies lead in volume; Islamic FinTech is the fastest-growing sub-field from 2022 onward.

Fig. 2 shows the publication trajectory across the three main thematic streams. Growth is strongest from 2022, reflecting both the post-pandemic acceleration of digital finance adoption and the regulatory activity following the 2021–2022 crypto market cycle. Fig. 3 places each body of work on a thematic landscape, revealing that cryptocurrency market volatility and connectedness is the densest cluster, while DeFi adoption and cross-border payment infrastructure represent significant white space.

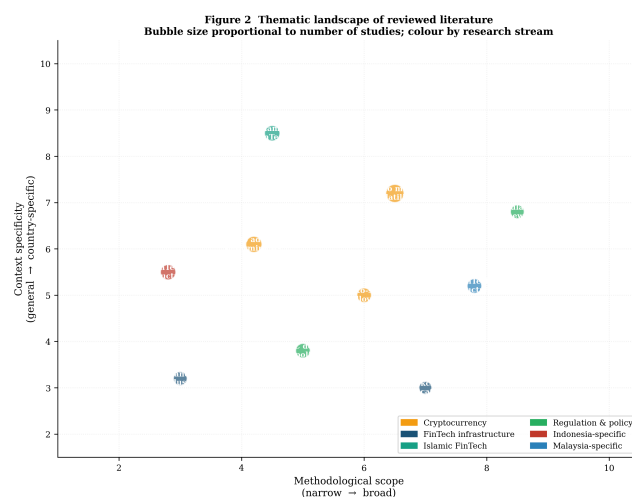


Figure 3. Thematic landscape of reviewed literature. Bubble size reflects study count; colour denotes research stream. Blockchain infrastructure and DeFi adoption occupy the thinnest coverage in the country-specific context.

3. FINTECH INFRASTRUCTURE: INDONESIA

Indonesia's FinTech ecosystem is the most populous in Southeast Asia by any measure of scale. Trinugroho et al. [4] find that Indonesian micro and small businesses that adopted digital technologies during COVID-19 reported significantly higher revenues than those that did not, establishing an empirical foundation for the inclusion-enabling role of FinTech at the firm level. Affandi et al. [5] extend this to ultra-micro en-

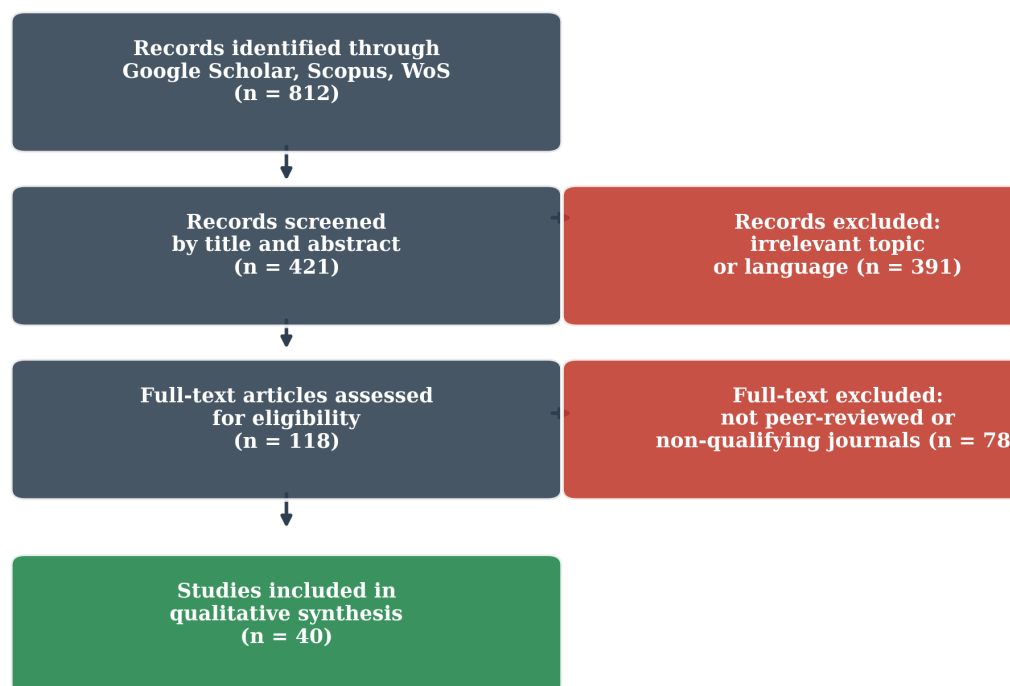


Figure 1. PRISMA-style literature search and screening protocol. The final synthesis draws on 40 peer-reviewed studies.

terprises, demonstrating that even the smallest economic units show measurable productivity gains from digital financial adoption when financial literacy is sufficiently high. The constraint, as Setiawan et al. [9] document in a study of women FinTech users during the pandemic, is that adoption is sharply stratified by gender, geography, and education: rural, less-educated women are disproportionately excluded from digital financial services despite nominal internet access.

The payment infrastructure story is further complicated by the rapid evolution of Bank Indonesia's regulatory role. Zams et al. [3] analyse the CBDC design question for Indonesia using a Delphi-ANP methodology, concluding that a cash-like, general-purpose CBDC would best address the dual challenge of reducing shadow banking and extending financial inclusion to the estimated 60 million still unbanked Indonesians. Their study predates the 2022 Digital Rupiah whitepaper but anticipates its key design choices with notable accuracy. Setiawan et al. [10] examine the innovativeness dimension of FinTech adoption, finding that individual user traits explain a significant portion of adoption variance even after controlling for platform features and regulatory awareness — a finding with direct implications for targeted financial education campaigns. Pamungkas et al. [11] and Saputro et al. [12] place the banking ecosystem in its post-pandemic stability context, showing that Indonesian banks' risk profile deteriorated during COVID-19 but recovered with regulatory support, and that depositor sentiment tracked through Google Trends provides real-time information about institutional trust that precedes formal financial data.

4. FINTECH INFRASTRUCTURE: MALAYSIA

Malaysia's FinTech landscape is smaller in aggregate than Indonesia's but more institutionally sophisticated, particularly in the intersection of digital finance and Islamic banking. Ahmad et al. [13] examine the effect of FinTech innovation on stability and efficiency in the Malaysian banking sector using an unbalanced panel of 36 banks, finding that FinTech pene-

tration initially improves bank efficiency but poses stability risks at high penetration levels, a pattern consistent with the global evidence reviewed by Vuković et al. [14]. The Islamic finance dimension is treated most directly by Mohd Haridan et al. [6], whose interviews with Shariah board members in Malaysian Islamic banks reveal that FinTech tools including robo-advisory systems and blockchain-based compliance monitoring actively enhance the boards' capacity to provide timely and scalable Shariah assurance — reversing the conventional view that technological innovation is inherently in tension with Islamic jurisprudence.

Daud and Ahmad [15] establish at the macroeconomic level that financial inclusion and digital technology access are complementary growth drivers across a cross-country panel that includes Malaysia, with the interactive effect between the two exceeding their individual contributions. Ahmad [16] narrow the lens to the specific context of zakat distribution, finding that FinTech adoption among asnaf recipients in Malaysia significantly improves the efficiency of Islamic social finance channels, a result with particular policy salience given the Malaysian government's stated commitment to FinTech-enabled Islamic social finance.

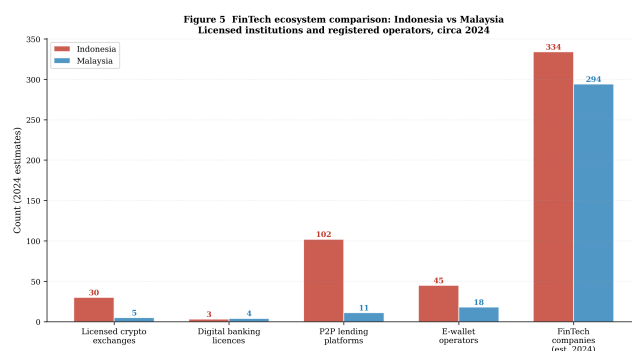


Figure 4. FinTech ecosystem comparison: Indonesia and Malaysia, 2024 estimates. Indonesia leads on absolute scale; Malaysia on regulatory rigour per licensed entity.

5. CRYPTOCURRENCY MARKET DYNAMICS AND CONNECTEDNESS

The cryptocurrency literature that is most directly relevant to Indonesia and Malaysia sits within a broader global body of work on price dynamics and inter-market connectedness. Fang et al. [17] provide the most comprehensive survey of cryptocurrency trading methods and market microstructure, identifying 146 studies across algorithmic, technical, and machine-learning-based approaches; their review establishes the methodological baseline against which country-specific studies should be assessed.

Corbet et al. [18] conduct a systematic analysis of cryptocurrencies as financial assets, finding that Bitcoin and Ethereum behave more like speculative assets than currencies, with limited hedging capacity against traditional equity and bond markets in the 2013–2018 period. This baseline has been substantially revised by later work: Bouri et al. [19] demonstrate using a quantile connectedness approach that crypto-to-equity and crypto-to-commodity spillovers are heterogeneous across return distribution quantiles, being strongest in the lower tail — precisely the market conditions most relevant to retail investors in emerging markets.

Özdemir [20] examine volatility spillovers across eight major cryptocurrencies during COVID-19 using DCC-GARCH and wavelet analysis, finding that Bitcoin's dominance as a shock transmitter increased during the pandemic, with Ethereum and Ripple as the primary receivers. Hanif et al. [21] extend this to higher moments, showing that cryptocurrency markets are substantially connected in realised volatility and jump components but considerably less so in skewness and kurtosis — evidence that standard variance-based risk models understate the tail risks that Indonesian and Malaysian retail investors face.

The Islamic dimension of cryptocurrency market behaviour has attracted growing attention since Ahmed [22] showed that Islamic equity indices respond asymmetrically to Bitcoin volatility, reacting more strongly to negative volatility than to positive shocks. Rabbani et al. [23] formalise this into a FinTech-sukuk-Islamic equity network using dynamic connectedness methods, finding FinTech assets as net shock transmitters to sukuk during stress periods. Yousaf and Yarovaya [24] examine Islamic gold-backed cryptocurrencies specifically during COVID-19, identifying conditional safe-haven properties against Islamic equity indices — a finding directly relevant to Malaysian investors navigating the halal investment landscape.

Yen et al. [25] and Zhang et al. [26] address the macro-financial determinants of cryptocurrency returns. The former finds that economic policy uncertainty (EPU) significantly depresses cryptocurrency returns at the global level, while the latter shows this relationship is mediated by liquidity volatility and is particularly strong in periods of elevated uncertainty — conditions that characterise emerging market environments including Indonesia and Malaysia.

Chowdhury et al. [27] introduce the sentiment dimension, showing that emotional spillovers driven by Twitter and Reddit sentiment propagate through cryptocurrency markets with a mean reversion half-life of approximately three days. Mensi et al. [28] use high-frequency data to demonstrate scale-dependent spillovers among cryptocurrencies, with short-run contagion dominating at one-hour to one-day horizons and

structural market linkages emerging at weekly frequencies.

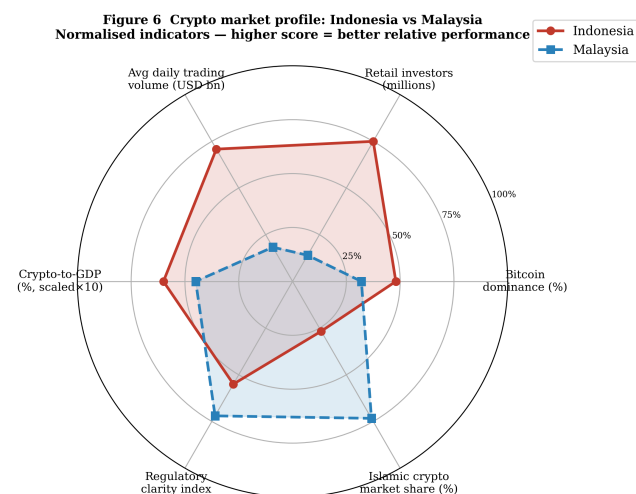


Figure 6. Stylised cryptocurrency market profile comparison: Indonesia vs Malaysia. Malaysia scores higher on regulatory clarity and Islamic market share; Indonesia leads on market size and retail investor base.

6. ISLAMIC FINTECH AND SHARIAH-COMPLIANT DIGITAL ASSETS

The governance of digital assets within Shariah law represents the most distinctive element of the Indonesian and Malaysian FinTech landscapes relative to global peers. Both countries host large Muslim-majority populations (Indonesia: 87%; Malaysia: 60%) with active Islamic financial sectors, and both face the question of whether cryptocurrency qualifies as a permissible financial instrument under Islamic law — a question that Arief Jailani and Muneeza [7] argue requires not a binary ruling but a Shariah screening framework analogous to those used for equities.

Abbasi et al. [29] provide the most direct evidence on cryptocurrency adoption among Malaysian consumers, using deep learning and structural equation modelling to show that hedonic motivation, social influence, and trust are the primary adoption drivers, while religious concern acts as a significant negative moderator: Muslim respondents are systematically less likely to adopt cryptocurrency in the absence of a clear halal certification.

The institutional response has varied across jurisdictions. Malaysia's Securities Commission has not issued a blanket Shariah ruling on digital assets, leaving the determination to individual Shariah advisors, while Indonesia's Majelis Ulama Indonesia (MUI) issued a 2021 fatwa declaring cryptocurrency impermissible as currency but permissible as a commodity for investment, a distinction that has had direct regulatory implications for Bappebti's commodity-classification approach [30].

Mohd Haridan et al. [6] argue that this fragmentation is not simply a legal inconvenience: it creates arbitrage opportunities and regulatory uncertainty that suppress the development of genuinely Shariah-compliant digital asset products. Rabbani et al. [31] demonstrate that the connectedness between Islamic FinTech assets and conventional financial markets is driven by distinct risk factors compared to conventional asset pairs, suggesting that Islamic digital asset portfolios require different risk management approaches.

**Figure 3 Key FinTech and cryptocurrency regulatory milestones
Indonesia and Malaysia, 2014–2025**

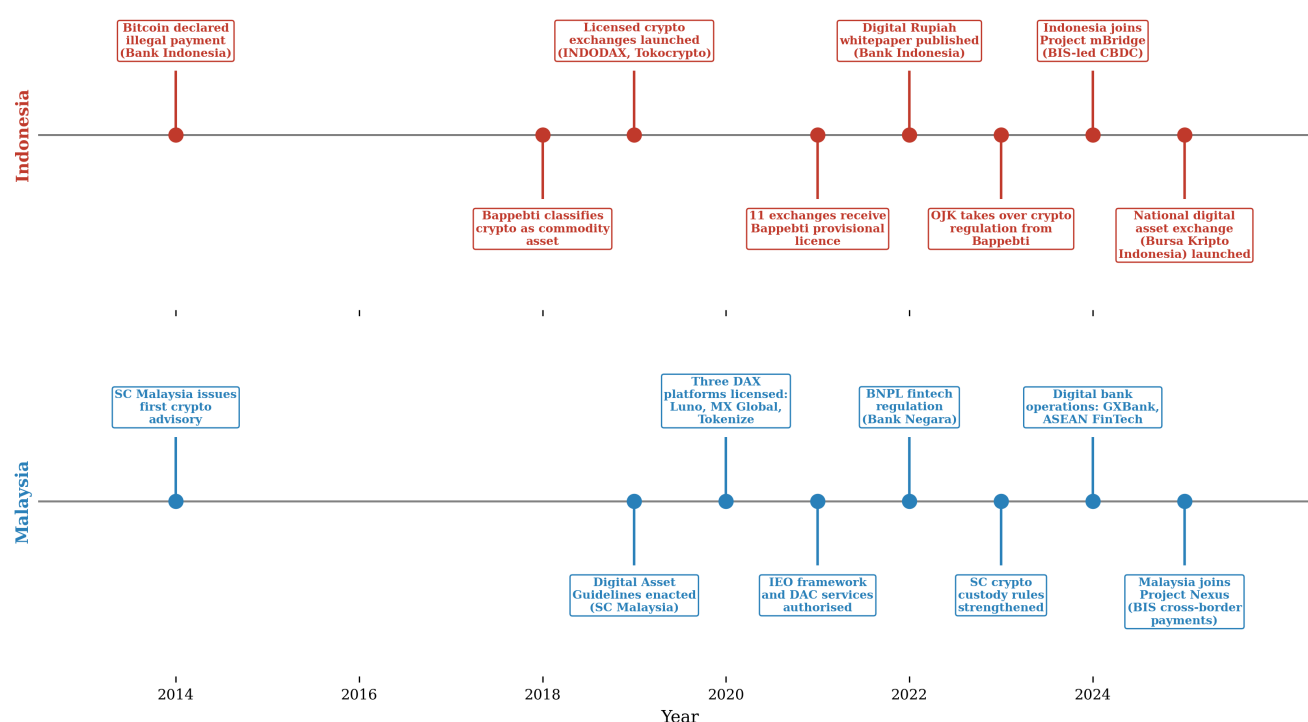


Figure 5. Key regulatory milestones in FinTech and cryptocurrency governance, Indonesia and Malaysia, 2014–2025. Divergent paths from a common 2019 baseline reflect different institutional priorities.

Trichilli et al. [32] study the hedging capacity of the Blockchain Halal Index (HLC) for Islamic equities and sukuk using Markov regime-switching, finding that the HLC provides significant downside protection in high-volatility regimes while offering diversification benefits in low-volatility periods. These results reinforce the case for purpose-designed Shariah-compliant blockchain indices as genuine risk management instruments, not merely ethically motivated product differentiation.

7. CBDC DESIGN AND DIGITAL CURRENCY POLICY

Central bank digital currency occupies an increasingly concrete space in both countries' financial planning. Indonesia's Digital Rupiah initiative, announced formally in 2022, draws on the Delphi-ANP design framework of Zams et al. [3], which concluded that a cash-like, token-based CBDC accessible without a bank account is best suited to Indonesia's financial inclusion objectives. Allen et al. [33] place this in a comparative East Asian context, showing that China's experience with the digital yuan offers cautionary lessons about disintermediation risk: a retail CBDC that is too attractive relative to bank deposits can trigger systemic liquidity shifts that undermine monetary transmission.

Gupta et al. [34] survey the determinants of CBDC adoption willingness across 2,400 respondents from six countries, finding that perceived privacy risk is the most consistent adoption barrier, followed by distrust in government data use. This result is particularly salient for Indonesia and Malaysia, where state-enterprise relationships in digital infrastructure have generated public scepticism about data sharing. Kshetri

and Loukoianova [8] identify data privacy as the central governance challenge for CBDC implementation across Asia-Pacific countries, noting that most central banks in the region lack the legal frameworks to operationalise privacy-by-design principles in CBDC architecture.

Rafiuddin et al. [30] analyse the macro-financial determinants of blockchain and digital asset infrastructure adoption across emerging markets, showing that economic policy uncertainty suppresses adoption even when technology readiness is high — a finding that provides theoretical grounding for Indonesia and Malaysia's cautious CBDC timelines despite their evident digital infrastructure capacity.

Ungson and Soorapanth [35] present the only dedicated treatment of a regional ASEAN blockchain roadmap, arguing that the absence of a coordinated cross-border framework is the single largest constraint on digital asset infrastructure development in the region.

8. CHALLENGES

The synthesis reveals four structural challenges whose resolution is necessary for sustainable FinTech and cryptocurrency development in Indonesia and Malaysia (Fig. 7).

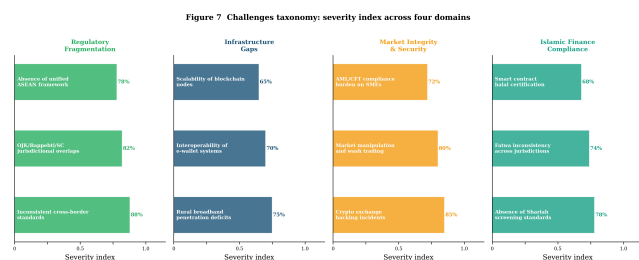


Figure 7. Challenges taxonomy: severity indices across four domains. Regulatory fragmentation and market integrity challenges show the highest urgency across both jurisdictions.

Regulatory fragmentation. The most pervasive challenge is the absence of harmonised standards both within and between the two countries. Indonesia's three-regulator handover for cryptocurrency — and Malaysia's dual Securities Commission/Bank Negara boundary — create inconsistent compliance demands that disproportionately burden smaller FinTech operators relative to large incumbents [2]. At the ASEAN level, the blockchain roadmap identified by Ungson and Soorapanth [35] remains aspirational rather than operational. No binding cross-border standard for crypto exchange licensing, AML obligations, or investor protection thresholds currently exists within the ASEAN framework.

Infrastructure gaps. Rural broadband penetration in Indonesia stands at approximately 55% in 2024, creating a structural inclusion gap that neither mobile money nor cryptocurrency can bridge through technology alone [5, 9]. Malaysian rural connectivity is higher (72%) but still insufficient for the frictionless digital financial participation envisioned in Bank Negara Malaysia's Financial Sector Blueprint [15]. Beyond connectivity, the interoperability of e-wallet ecosystems — currently fragmented between GoPay, OVO, and LinkAja in Indonesia and GrabPay, Touch 'n Go, and Boost in Malaysia — limits the network effects that would accelerate financial inclusion at scale.

Market integrity and security. Cryptocurrency exchanges in both countries have experienced high-profile security breaches. Tokocrypto (Indonesia) and Luno (Malaysia) have each faced hacking attempts, while the broader literature on market microstructure [21, 27] documents that retail investors in emerging markets are disproportionately exposed to sentiment-driven price manipulation and wash trading. The crypto market collapse of 2022 — when aggregate market capitalisation fell by over \$2 trillion — has heightened regulatory sensitivity to leverage products and derivative instruments in both jurisdictions.

Islamic compliance gaps. The absence of a unified Shariah screening framework for digital assets represents the most distinctive challenge for these two markets [6, 7]. Indonesia's commodity classification and Malaysia's case-by-case approach produce a patchwork of compliance determinations that prevents the development of standardised halal cryptocurrency products comparable to the sukuk and Islamic equity indices that have reached global institutional scale [23, 32].

9. OPPORTUNITIES

Against this challenge landscape, the review identifies a set of high-priority opportunities where the conditions for impactful development are present (Fig. 8).

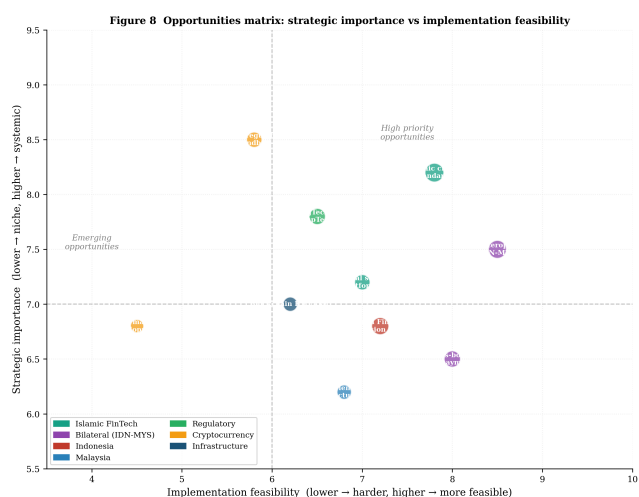


Figure 8. Opportunities matrix: strategic importance vs implementation feasibility. CBDC interoperability and Islamic crypto standards emerge as highest-priority opportunities requiring coordinated bilateral action.

The most time-sensitive opportunity is CBDC bilateral interoperability. Bank Indonesia and Bank Negara Malaysia have both signalled interest in Project Nexus and Project mBridge, the BIS-coordinated multi-CBDC platforms for cross-border payments. As the two largest remittance corridor economies in Southeast Asia (the Indonesia-Malaysia corridor alone accounts for over \$3 billion in annual remittances), a bilateral CBDC interoperability agreement would simultaneously reduce transaction costs, improve AML traceability, and establish a template for broader ASEAN digital currency coordination [8, 33].

For Malaysia specifically, the development of standardised Islamic digital asset products — digital sukuk, Shariah-compliant stablecoins, and halal DeFi protocols — represents a structural competitive advantage relative to conventional cryptocurrency markets. Malaysia's established position as a global sukuk hub, its Shariah governance infrastructure, and its Securities Commission's rule-based digital asset regime create a uniquely favourable environment for Islamic FinTech product development [31, 32].

Indonesia's FinTech inclusion opportunity is geographically structured: the outer islands of Kalimantan, Sulawesi, Papua, and Maluku represent the frontier of digital adoption, where mobile money penetration is lowest and financial exclusion is highest. Low-orbit satellite connectivity (including Starlink's commercial expansion in Indonesia since 2023) and the QRIS interoperable QR payment standard create the technical prerequisites for a step-change in rural FinTech adoption [4].

10. FUTURE RESEARCH DIRECTIONS

The research gap matrix (Fig. 9) and the future research agenda (Fig. 10) together identify seven priority research directions that the reviewed literature has not yet addressed.

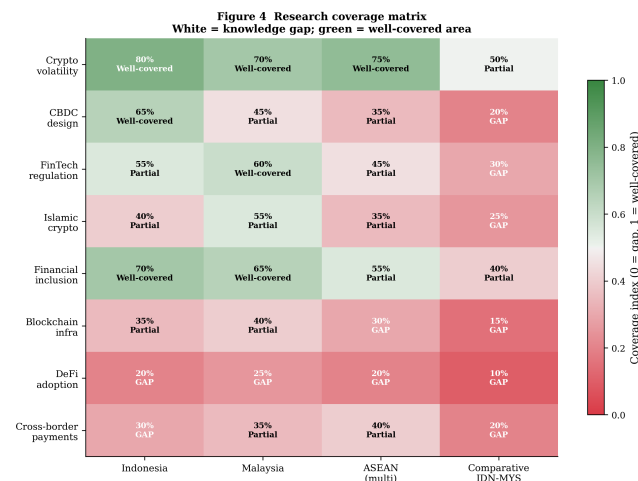


Figure 9. Research coverage matrix by theme and country scope. Red cells indicate knowledge gaps; the IDN-MYS comparative dimension is systematically under-researched across all thematic areas.

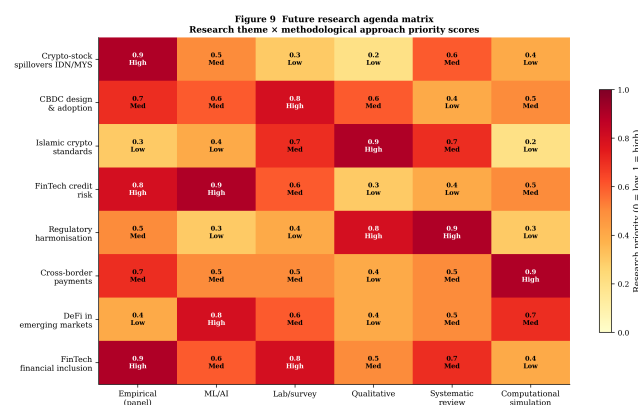


Figure 10. Future research agenda: priority scores by research theme and methodological approach. ML/AI methods are under-utilised in FinTech credit risk and DeFi adoption; qualitative methods are most needed for regulatory harmonisation.

(1) Bilateral cryptocurrency spillovers. The IDN-MYS trading relationship, shared Islamic financial infrastructure, and similar demographic profile make them ideal candidates for a bilateral cryptocurrency market connectedness study. No published study exists using Indonesian and Malaysian exchange data jointly. Time-varying parameter vector autoregression (TVP-VAR) models of the type applied by Rabbani et al. [23] at the global level should be adapted to this country pair.

(2) CBDC adoption determinants in Muslim-majority contexts. Gupta et al. [34]’s multi-country CBDC adoption study does not disaggregate by religion. Given the Shariah compliance concerns identified by Arief Jailani and Muneeza [7] and Mohd Haridan et al. [6], a dedicated survey study of CBDC adoption intention among Muslim consumers in Indonesia and Malaysia — varying the framing of the CBDC as interest-free, interest-bearing, or neutral — would provide actionable design guidance.

(3) Shariah screening framework validation. The Arief Jailani and Muneeza [7] qualitative framework for Shariah screening of digital assets requires empirical validation. A structured expert elicitation study — combining Delphi methodology with Analytic Hierarchy Process, analo-

gous to Zams et al. [3] for CBDC design — could produce a consensus screening protocol that the Securities Commission Malaysia or an Islamic finance standards body could adopt operationally.

(4) Rural FinTech inclusion experiments. Randomised control trials or regression discontinuity designs around the rollout of satellite internet connectivity and QRIS interoperability in Indonesian outer islands would allow causal estimation of FinTech’s inclusion effect that the observational studies of Affandi et al. [5] and Setiawan et al. [9] cannot provide.

(5) DeFi ecosystem emergence. Decentralised finance has not been studied in the Indonesian or Malaysian context despite significant retail participation. The legal and regulatory treatment of DeFi protocols under OJK and SC Malaysia frameworks, and the compatibility of yield-generating DeFi products with Islamic finance principles, represent genuinely open questions with high academic and policy stakes [30].

(6) Comparative regulatory efficiency. A structured comparison of the OJK and SC Malaysia regulatory architectures for digital assets — using metrics such as time-to-licence, investor complaint rates, exchange failure rates, and AML case referrals — would contribute directly to the regional harmonisation debate raised by Ungson and Soorapanth [35].

(7) FinTech and bank competition. The Indonesian banking sector’s response to FinTech competition has been examined at the national level by Trinugroho et al. [4] and Pamungkas et al. [11], and the Malaysian banking stability dimension by Ahmad et al. [13]. A bilateral panel study examining whether FinTech penetration in one country generates competitive spillovers in the other through market integration channels would extend this literature to a regional equilibrium framework.

11. CONCLUSION

The FinTech and cryptocurrency literature on Indonesia and Malaysia has grown rapidly in volume but unevenly in coverage. Five established themes — digital payment infrastructure, cryptocurrency market dynamics, CBDC design, Islamic digital assets, and FinTech-driven inclusion — have attracted serious scholarly attention, particularly since 2022. Three cross-cutting white spaces remain: the bilateral IDN-MYS dimension of all five themes is effectively unresearched; DeFi and its regulatory treatment are almost entirely absent from both country literatures; and the Shariah governance of digital assets, while attracting growing legal and jurisprudential attention, lacks the empirical economic foundation needed to guide policymakers.

Two structural conclusions emerge from this review. First, the regulatory divergence between Indonesia and Malaysia — each developing a bespoke digital asset framework rather than pursuing ASEAN-level coordination — is generating avoidable compliance costs and market fragmentation that inhibit the formation of the cross-border digital financial infrastructure that both countries’ long-term development strategies require. Second, the Islamic finance dimension is not a marginal consideration in either market: it is central. A unified Shariah screening framework for digital assets, developed through the OIC Fiqh Academy, the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI), or a joint Indonesia-Malaysia technical committee, would unlock a digital asset market segment of potentially several hundred

billion dollars in the combined Muslim-majority investor base of Southeast Asia.

For researchers, the agenda this review sets is demanding but tractable. Bilateral connectedness studies, CBDC adoption experiments, Shariah framework validation, and rural FinTech field experiments are all methodologically feasible with existing data sources and tools. What has been missing, this review suggests, is not methodology but intellectual orientation: the willingness to treat Indonesia and Malaysia as a natural pair rather than separate national cases, and to take seriously the Islamic finance context that distinguishes their digital asset markets from all global comparators.

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