

Mapping Digital Asset Regulatory Models and Their Implications for Islamic Financial Governance: A Comparative Study of Indonesia, the United Arab Emirates, and Turkey

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Abstract. *This literature study conducts a comparative analysis of regulatory approaches to crypto assets and Central Bank Digital Currencies (CBDCs) within Islamic financial systems in Indonesia, the United Arab Emirates (UAE), and Turkey. Employing a qualitative normative juridical analysis method, the research examines secondary data from laws, financial authority regulations, and academic literature. The findings identify three distinct regulatory governance models: Indonesia's Dual-Track with Consolidated Market Governance model, which separates monetary authority for CBDCs from market oversight for crypto commodities and establishes a Self-Regulatory Organization (SRO); the UAE's Bank-Centric Integration with Centralized Licensing model, actively incorporating digital assets into the traditional banking supervisory framework; and Turkey's Payment Restriction with Supervised Trading model, prohibiting crypto for payments while permitting regulated exchange trading, with a cautious, phased CBDC development. The study reveals varied mechanisms for integrating Shariah principles, from structured compliance standards in exchanges to facilitating halal product innovation within integrated banking ecosystems and emphasizing macroeconomic prudence as a form of wealth protection (hifz al-mal). The research concludes that while convergence exists on goals of stability, consumer protection, and Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT), the divergence in integration levels and regulatory philosophy significantly shapes the future trajectory of modern, inclusive, and integrity-driven Islamic financial systems in the digital age. These models offer valuable policy pathways for other Muslim-majority jurisdictions navigating the complex intersection of financial technology innovation and Shariah compliance.*

Keywords: *Central Bank Digital Currency (CBDC); Crypto Asset Regulation; Comparative Regulatory Models; Shariah Compliance.*

1. INTRODUCTION

The development of financial technology has significantly changed the landscape of the global financial system, encouraging the emergence of new forms of digital assets and payment instruments. Crypto assets, initiated by Bitcoin in 2009 (Nakamoto, 2008). It

offers a decentralized paradigm that challenges traditional monetary structures. Its volatile, speculative, and often detached characteristics from conventional banking regulations raise complex questions about stability, consumer protection, and market integrity. On the other hand, in an authoritative response to these developments, many central banks have begun to explore and develop Central Bank Digital Currencies (CBDCs). CBDCs are considered a digital form of officially issued state fiat currency, potentially combining technological efficiency with monetary sovereignty (BIS, 2021). The dynamics between crypto assets born from the private sector and CBDCs carried by public authorities create a complex and ever-evolving regulatory arena, where regulators must balance innovation, risk, and sovereignty (Surgentova, 2023).

In the Islamic financial system, this discourse has a special layer of ethical and legal dimensions. Sharia principles that prohibit *riba* (interest), *gharar* (excessive uncertainty), and *maysir* (gambling) become the normative foundations that must be considered to assess any new financial instrument (El-Gamal, 2006; Lekpek, 2021; Tekdoğan & Güney, 2024). The presence of crypto assets, with their high volatility and often speculative primary use, directly confronts the prohibition of *gharar* and *maysir* (Rahmadani & Fajar, 2024). Meanwhile, CBDCs, although issued by authorities, should also be designed in such a way as not to engage in interest-based mechanisms and ensure transparency and fairness in their distribution. Therefore, the regulator's approach to these two digital entities regarding macroprudential stability as well as strict sharia conformity tests, which requires authoritative interpretation from the Sharia Supervisory Board (DPS) and national fatwa authorities such as the Indonesian Ulema Council (MUI).

Indonesia, the United Arab Emirates (UAE), and Turkey represent three economic powers with a Muslim majority population that have developed varying regulatory responses to crypto assets and CBDCs, each reflecting its economic conditions, political vision, and domestic legal framework. Indonesia, through the Financial Services Authority (OJK) and Bank Indonesia (BI), has taken a cautious approach by prohibiting the use of crypto assets as legal tender, but opening up space for crypto asset trading as a commodity traded on licensed exchanges (Anggita et al., 2025). Bank Indonesia is actively researching and developing the concept of the Digital Rupiah as part of the vision of the Indonesian Payment System 2025. This approach demonstrates efforts to accommodate technological developments without sacrificing monetary stability and sharia compliance.

The United Arab Emirates, particularly through its financial centers in Dubai and Abu Dhabi, has positioned itself as a global hub for financial technology innovations, including crypto assets and blockchain (Jihad et al., n.d.). Authorities such as the Securities and Commodities Authority (SCA) and Dubai Financial Services Authority (DFSA) have released progressive regulatory frameworks to regulate virtual asset service providers (VASPs), with the aim of attracting investment and leading innovation. Meanwhile, the UAE Central Bank together with the Central Bank of Saudi Arabia has completed a cross-border CBDC pilot project (Project Aber), which demonstrates a focus on international trade efficiency. The UAE's approach is strongly colored by the economic goal of diversifying the country's revenues from oil and becoming a major player in the digital economy of the future.

Turkey, with an economy that is experiencing inflationary pressure and currency depreciation, has seen an increase in the adoption of crypto assets by its people

(Mohamed, 2020). The Central Bank of the Republic of Turkey (CBRT) initially banned the use of crypto assets for payments in 2021 due to concerns over risks. However, the country is also in the advanced stages of developing Digital Turkish Lira in its CBDC project. Turkey's approach appears to be reactive to domestic macroeconomic conditions, where regulators seek to prevent capital flight to unregulated assets while still innovating with official digital currencies (Glavina & Asmyatullin, 2024). The comparison of these three countries provides a rich canvas for understanding the variation in regulators' responses in the transforming Islamic finance environment.

The main problem faced by regulators in the three countries lies in the effort to define the legal character of crypto assets appropriately within the framework of national and sharia law. The absence of an accepted universal definition of whether a crypto asset is a new currency, commodity, security, or asset class creates legal uncertainty that hinders effective oversight. In Indonesia, although Bappebti has designated it as a commodity, its sharia status is still debated, with the MUI issuing a fatwa banning Bitcoin as a medium of exchange because it contains *gharar*. In the UAE, although technical regulations have advanced, a coherent sharia assessment for every type of crypto asset traded still requires strengthening collaboration between secular regulators and sharia authorities. This lack of clarity in definition has an impact on weak consumer protections and potential abuse for illegal activities.

Another challenge is to design regulations that are able to balance the decentralized and borderless nature of crypto assets with the principles of state law sovereignty and central authority supervision. National regulators, such as the OJK, SCA, or CBRT, have territorial jurisdiction, while blockchain networks operate globally. This poses difficulties in law enforcement, tax collection, and the application of Anti-Money Laundering (AML) and Terrorism Financing (CFT) principles. In the sharia system, the principles of *maslahah* (public interest) and *sadd al-dhara'i* (closing the path to damage) require regulators to proactively prevent potential damage from unregulated activities, but at the same time not shut down innovations that can benefit society.

Furthermore, the development of CBDCs in the sharia system faces unique technical and philosophical design dilemmas. The design of CBDCs that are wholesale (for financial institutions) or retail (for the public) have different sharia implications. For example, retail CBDCs that give the public direct access to central banks can interfere with the intermediation role of commercial banks, which are the backbone of profit-sharing-based Islamic financing (*mudharabah*, *musyarakah*). In addition, the technical design of a CBDC should guarantee that it does not become an instrument of usury if applied in a full reserve banking system. Close coordination between central banks, financial authorities, and the Sharia Council is crucial to ensure CBDCs are safe and efficient, as well as meet the principles of distributive justice and the prohibition of usury, which are at the core of the Islamic economy.

Academic discourse and policy on digital assets have reached a critical momentum where many countries, including those with Muslim-majority populations, are in the process of finalizing regulations or launching pilots. Indonesia with its Digital Rupiah, the UAE with its global ambitions, and Turkey with its economic pressures, are at a strategic decision point that will shape the future of their financial systems. A comparative analysis at this stage can provide valuable policy lessons, identify best practices, and map out regulatory pitfalls that need to be avoided. This study is important because the results can inform

the decision-making process of regulators in countries with similar characteristics that are still formulating their policies.

The development of blockchain technology and digital finance is also driving the redefinition of the relationship between monetary authorities, Islamic financial institutions, and society. This study examines how technological innovation can be managed to strengthen, not weaken, the basic values of Islamic finance such as transparency, contract fairness, and exploitation avoidance. By comparing the three jurisdictions, this study can uncover which governance model is most effective in aligning the speed of innovation with the firmness of sharia principles. This is vital for the long-term legitimacy and competitiveness of the Islamic finance industry in the digital era.

Furthermore, the emergence of global standards for the regulation of crypto assets from bodies such as the Financial Action Task Force (FATF) and the Bank for International Settlements (BIS) is creating pressure for harmonization. Countries such as Indonesia, the UAE, and Turkey should consider how to adopt these international standards without ignoring the specific mandates of sharia law and principles. This research is important to examine the gap or point of tension between secular global standards and the requirements of Islamic law, as well as to explore how the three countries navigate this complex space. This understanding is essential to ensure that the Islamic financial system remains integrated with the global system while maintaining its identity and basic principles.

The novelty of this research lies in its three-dimensional approach that compares the regulatory frameworks for two different classes of digital assets, namely private crypto assets and public CBDCs; in the environment of the Islamic financial system in three countries with different economic strategies: Indonesia (cautious), UAE (progressive-expansive), and Turkey (reactive-macro). Most previous literature studies tend to focus on a single type of asset (crypto or CBDC) or a single country's jurisdiction. This research integrates the two in a systematic comparative analysis, with the sharia lens as the common thread of evaluation. This approach allows for the identification of patterns in how domestic economic-political characteristics shape regulators' responses to similar technologies, and how sharia imperatives are translated in each of those responses.

The research gap filled in is the lack of an in-depth comparative study that specifically analyzes the dialectic between crypto asset regulation and the development of CBDCs within legal and sharia frameworks in non-GCC Muslim countries (Indonesia, Turkey) and GCC (UAE). Much of the literature focuses on the technical or macroeconomic aspects of CBDCs or potential sharia violations by crypto assets separately. However, analysis of how regulators design the two policies simultaneously is often a related response, and how the design of the policies seeks to meet the demands of sharia principles, is limited. This research seeks to close this gap by offering a critical mapping and analysis of these complex policy interactions.

This study aims to analyze and compare the characteristics, basis of considerations, and integration of sharia principles in the regulator's approach to crypto assets and Central Bank Digital Currencies (CBDCs) in Indonesia, the United Arab Emirates, and Turkey. Furthermore, the research seeks to identify and formulate regulatory and governance models that emerge from practices in the three countries, evaluating their coherence and effectiveness within the framework of the Islamic financial system. Theoretically,

this study is expected to contribute to the development of literature at the intersection of Islamic financial law, digital economy, and regulatory policy by offering a specific comparative analysis framework. In practical terms, research findings can be considered for regulators, policy makers, and Sharia Supervisory Boards in various countries to formulate or refine policies that are balanced between encouraging innovation, maintaining stability, and ensuring sharia compliance.

2. RESEARCH METHODS

This research is a qualitative literature study designed to build a comprehensive conceptual and analytical understanding of the regulators' approach to crypto assets and CBDCs in the Islamic financial system in three countries. The qualitative method was chosen because it is in accordance with the objectives of exploration, interpretation, and comparison of complex policies and norms, where numerical data alone is not enough to understand the logic, nuances, and meaning behind regulatory decisions (Creswell, 2007). This study did not involve the collection of primary data through interviews or observations, but rather relied entirely on an in-depth analysis of secondary data sources. Primary secondary data sources include official policy documents such as laws, regulations of financial authorities, guidelines from central banks, and minutes of official announcements related to crypto assets and CBDCs from Indonesia, the United Arab Emirates, and Turkey. In addition, this study examines academic works that have been published in reputable scientific journals, monograph books from experts in the field of Islamic finance and financial technology regulation, as well as analytical reports from international institutions such as the Bank for International Settlements (BIS) and the Islamic Financial Services Board (IFSB). These documents are selected based on their direct relevance to the topic, source authority, and year of publication to ensure the accuracy of the analysis of recent developments.

To ensure a comprehensive and up-to-date analysis, this study limited the period of secondary data collection from January 2018 to December 2024. This time frame was chosen because it captures the critical period when the three countries began to seriously formulate and implement their key regulatory frameworks related to digital assets. The inclusion criteria for document selection include: (1) official documents in Indonesian, Arabic, English, or Turkish issued by the government authority or central bank of the country concerned; (2) academic work published in reputable journals (Scopus indexed or equivalent) or monographs from reputable publishers; and (3) analytical reports from international institutions such as the Bank for International Settlements (BIS), the Islamic Financial Services Board (IFSB), and the Financial Action Task Force (FATF). The exclusion criteria apply to popular news articles, personal blogs, and policy documents that are still in the early draft stage that have not yet been ratified.

The analysis process is carried out in stages. The first stage involves mapping policy documents to reconstruct regulatory timelines and identify key institutions. The second stage conducts thematic content analysis of regulatory texts and academic literature to codify themes such as 'asset definition', 'regulatory authority', 'sharia compliance requirements', and 'policy objectives'. The third stage involves a policy narrative analysis to understand the political-economic context behind each regulation. The findings from the three countries were then arranged in a comparative matrix to allow the identification of patterns, convergences, and divergences which were then crystallized into model typologies.

The analysis techniques applied are thematic content analysis and policy narrative analysis. Thematic content analysis is used to identify, codify, and group key patterns in regulatory documents and academic literature, such as themes on asset definition, risk approach, and mention of sharia principles (Krippendorff, 2004). This process is carried out iteratively, starting from deep reading, initial code generation, to the development of a broader theme that is directly related to the formulation of the problem. Meanwhile, policy narrative analysis is used to reconstruct and compare the logical flow, chronology, and justification behind policy formation in each country. This technique allows researchers to not only register regulations, but also to understand the political-economic narrative and regulatory philosophy behind them, which is very important in comparative studies (Fischer, 2003). These two analytical techniques complement each other; content analysis provides thematic structure, while narrative analysis provides contextual depth to the findings.

To ensure the validity and reliability of the analysis, this study applies triangulation of data sources. This means that statements or claims about a policy will be confirmed and tracked for their truth through various sources of documents, for example by matching information from government regulations with central bank reports and academic interpretations. In addition, the entire analysis process is carried out by maintaining a reflective attitude, where the researcher's assumptions are constantly tested against the existing textual evidence. The comparative analysis was carried out by compiling a comparison matrix that maps key variables such as the legal status of crypto assets, the stage of development of CBDCs, sharia assessment mechanisms, and major regulatory institutions, especially for the three countries. This matrix then becomes the basis for drawing similarities, differences, and identifying emerging regulatory models, always referring to the theoretical framework of Islamic finance and regulation of financial innovation.

3. RESULTS AND DISCUSSION

3.1. Characteristics and Basis of Digital Asset Regulation Considerations: A Comparative Analysis

The regulation of crypto assets in Indonesia is built on a foundation that expressly distinguishes between legal tender and tradable commodities. The recognition of crypto as a commodity, as regulated by the Commodity Futures Trading Supervisory Agency (Bappebti), is a strategic policy that answers two needs at once: accommodating rapidly growing market demand while absolutely maintaining the supremacy of the Rupiah (Sufian et al., 2024). Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector (P2SK Law) strengthens this institutional architecture by emphasizing the separation of powers. Bappebti oversees all aspects of crypto asset trading on the commodity exchange, including licensing, operational standards, governance, client asset segregation, and consumer protection (Tambun & Putuhena, 2022). On the other hand, Bank Indonesia holds exclusive authority over the payment system and monetary stability, which includes the development plan for the Digital Rupiah as a digital form of monetary sovereignty (Fitriana & Nuraini, 2023). This bifurcated approach results in a tightly supervised crypto asset market for speculative and investment activities, while the realm of day-to-day payments remains sterile from crypto volatility and guarded by monetary authorities. The Indonesian model sets an important precedent for jurisdictions with emerging currencies, that legal recognition of

crypto assets does not have to mean a compromise on the sovereignty of national currencies, but rather can be framed as a separate and closely supervised complement.

The legality of the implementation of Central Bank Digital Currency (CBDC) in Indonesia is normatively derived from Bank Indonesia's constitutional mandate as the printer and manager of the Rupiah (Muhammad & Dirkareshza, 2023). The P2SK Law provides an explicit and adequate legal basis for Bank Indonesia to issue the Rupiah in digital form (Sitompoe & Kansil, 2025). However, this formal legality must be followed by a comprehensive derivative technical arrangement. Juridical analysis shows that the success of the implementation of the Digital Rupiah depends on the ability of regulators to answer critical design questions (Rohman, 2021). The privacy and transaction supervision aspects, for example, require careful harmonization with the Personal Data Protection Act so that there is no friction between the need for transparency to prevent financial crime and citizens' right to privacy (Fidhayanti et al., 2024). Technical design must also consider the principle of proportionality, where the level of identity and tracking of transactions is adjusted to the value and risk of transactions, both for retail and wholesale versions. By implication, the legal journey of CBDCs does not end with the granting of mandates, but culminates in the ability of states to design technical systems capable of negotiating often paradoxical public demands: transparency for stability versus privacy for civil liberties.

In the United Arab Emirates, regulatory characteristics are moving radically towards full integration between the traditional financial system and the digital asset ecosystem. This paradigm shift is represented by the new central banking law, which gives the Central Bank of the UAE (CBUAE) the authority to regulate and grant licenses to virtual asset service providers (VASPs). This regulation does not simply recognize crypto as an asset, but actively brings it into the banking framework by implementing prudential standards, capital requirements, and strict governance provisions (Al-Tawil, 2023). The UAE's ambition to become a global digital financial hub is reflected in an approach that blends openness to innovation with very strong regulatory controls. Strict administrative sanctions, including hefty fines and license revocation, are imposed for any violation, creating an environment that disciplines the behavior of market participants. The coordination between the CBUAE and specialized authorities such as Dubai's Virtual Assets Regulatory Authority (VARA) and Dubai Financial Services Authority (DFSA) is designed to create a coherent albeit multi-jurisdictional ecosystem. Therefore, the UAE's regulatory model shows that the ambition to become a global innovation hub should not be sacrificed by market liberalization, but can instead be achieved through the construction of a very strict and centralized legal framework that acts as a credibility certifier as well as an exclusive gateway to entry.

Furthermore, the UAE has shown policy courage by allowing practices that are still widely debated in the Islamic world, such as the payment of salaries in the form of crypto assets in certain jurisdictions (Al-Tawil, 2023). This policy puts the UAE at the most progressive pole in the spectrum of Muslim countries' responses. While many other countries opt for a total ban or strict restrictions on the use of crypto for real transactions, the UAE is selectively opening up the space within a highly supervised regulatory corridor. This policy choice is directly related to the national economic strategy to diversify revenues and attract global capital and talent in the financial technology sector. Thus, regulation in the UAE is not a defensive response to new technologies, but rather an offensive instrument to shape the market and position the country as a leader in the digital

economy of the future (Mashal, 2022). The UAE reverses the common narrative of regulation as an impediment to innovation, and proves that in certain contexts, a progressive and clear regulatory framework can be the main attraction and most powerful market-shaping tool.

In contrast, Turkey is taking a regulatory path driven by domestic macroeconomic pressures, particularly high inflation and the depreciation of the Lira (Orhangazi & Yeldan, 2021). A key characteristic of Turkey's policy is the affirmation of the ban on the use of crypto assets for the payment of goods and services, issued by the Central Bank of the Republic of Turkey (CBRT) in April 2021. This decision was mainly motivated by concerns over the risk of monetary stability, capital flight, and potential money laundering. However, in contrast to the absolute ban, Turkey still allows trading of crypto assets as an investment activity. The country's capital and financial market authority has issued regulations that tighten operating requirements for domestic crypto exchanges, emphasizing Anti-Money Laundering and Terrorism Financing (AML/CFT) compliance, transparency, cybersecurity, and customer asset protection. This approach reflects efforts to meet societal demands without sacrificing monetary control (Rami, 2025). Therefore, the case of Turkey serves as an example that regulators' response to crypto assets is often a function of fragile domestic fiscal and monetary conditions, where regulators are forced to triage policy: opening the valve to unleash social pressure on alternative assets while simultaneously building a strong dam to protect the core of the payment system and the value of the local currency.

The technical regulation of the Turkish CMB (Decision No. 31/1569) focuses on cybersecurity and the protection of customer assets as a defensive response to macroeconomic risks. The provision that requires crypto exchanges to store 80% of customers' digital assets in cold wallets and have cyber insurance is a direct implementation of the *hifz al-mal* principle. However, these regulations do not specifically regulate or limit the types of crypto derivatives contracts that can be traded on international platforms that Turkish citizens can access. The absence of a regulatory fence against highly speculative futures, options, or perpetual swaps products leaves an opening for investors to be exposed to instruments that are substantially contrary to the *gharar* and *maysir* prohibitions. For the Digital Turkish Lira, the CBRT technical report shows the consideration of non-interest bearing, which directly eliminates the risk of usury. However, technical designs that allow the public direct access to central bank liabilities could disrupt the profit-sharing-based Islamic banking intermediation model, a governance challenge that requires further coordination between CBRT and Islamic banking authorities.

In the development of the Digital Turkish Lira, Turkey has stepped into a limited technical testing phase. The focus of the test includes important technical aspects such as interoperability with existing national payment systems, adequate user identification mechanisms, offline transaction handling, and data privacy settings. Full implementation, however, is carried out very gradually and carefully (Duğru, 2024). The main consideration of the CBRT is to evaluate the potential impact of CBDCs on monetary policy transmission, banking sector stability, and saver behavior. Concerns about banking disintermediation where people draw funds massively from commercial banks to hold CBDCs that are considered safer; And this is a decisive factor in the design and timeline of the launch. Turkey's priority is to ensure that monetary innovation does not exacerbate the fragility of the already existing economy (Jennings, 2024). Thus, Turkey's

approach to CBDCs underscores the principle that in a stressful economy, the main value of digital currencies lies not in its new technological nature, but in its ability to be deployed as a more precise and controlled monetary policy tool, where extreme caution is a non-negotiable prerequisite for any move forward.

A comparison of the three countries reveals a clear pattern of convergence and divergence in regulatory characteristics. The most obvious convergence point lies in the approach to CBDCs. Indonesia, the UAE, and Turkey both view CBDCs as strategic instruments for modernizing payment systems, improving transaction efficiency (especially across borders), and strengthening monetary sovereignty in the digital era. The three also share a fundamental commitment to regulatory pillars such as AML/CFT, consumer protection from fraud and volatility, and maintaining the stability of the financial system as a whole. The principle of prudence is a common denominator, although expressed with different intensities and methods (Šestanjić-Perić & Kozjak, 2020). These fundamental similarities suggest that amid differences in approaches, there is a collective awareness among emerging market regulators that monetary authorities should not be passive spectators in the digital revolution, but should rather actively shape their evolution to maintain control over the stability of national financial systems.

The main divergence, on the other hand, arises in terms of the integration of crypto assets into the formal financial architecture and their status in payment transactions. The UAE chose the path of ultimate integration by bringing crypto service providers into the framework of central bank licensing and supervision, creating a direct convergence path between traditional and digital finance (Al-Tawil, 2023). Indonesia and Turkey take a more separate path: both expressly prohibit the use of crypto as a means of payment and place their trade supervision under different authorities than the central bank (Bappebti in Indonesia, capital and financial market authority in Turkey). This separation creates a clear barrier between the world of speculative digital assets and the official payment system that the central bank guards. These fundamental differences reflect a deeper philosophical choice: whether crypto assets are seen as future systemic components that need to be tamed and integrated, or as a parasitic asset class whose risk of contamination of the core of the system must be isolated with clear structural restrictions.

The basis of consideration that underlies these differences in characteristics comes from the economic-political conditions and objectives of each country. Indonesia's policy considerations are based on the trilogy of rupiah supremacy, systemic stability, and financial inclusion. The P2SK Law and its derivative regulations are designed to create a clear legal fence: one door for measurable innovation in the digital commodity market (Bappebti), and one door for the evolution of the official currency (Bank Indonesia) (Jati et al., 2023). UAE considerations are driven by global competitiveness goals, the development of a complete financial technology ecosystem, and prudential integration to attract investment (Alblooshi, 2022). Its regulations are designed to provide legal certainty and a reputation as a safe yet progressive jurisdiction. With domestic political-economic logic, whether to protect, diversify, or stabilize; It is the key determinant that shapes the anatomy of regulation, where the technical characteristics of the rules are derivatives of larger national strategic objectives.

Turkey, which operates in a stressful macroeconomic environment, prioritizes monetary controls and volatility risk mitigation as key considerations (Asfuroğlu, 2024). The ban

on payments with crypto is a defensive policy to protect the vulnerable Lira and prevent volatile capital flows. The development of its CBDC is also driven by the desire to improve efficiency and control within the domestic monetary system, as part of efforts to strengthen the sovereignty of its own monetary policy. Thus, although the technologies at issue are the same, unique national considerations result in regulatory frameworks with very different characteristics. Therefore, this comparative study reinforces the theory that the regulation of financial technology cannot be universally understood, but rather must be read as a text written in a very local language of economic-political concerns and aspirations, where inflationary pressures or geopolitical ambitions can be a more powerful determining factor than the development of the technology itself.

From the perspective of the technical design and implementation of CBDCs, differences in approaches are also apparent. Indonesia, with its phased approach, is focusing on testing the interoperability of the Digital Rupiah with national payment infrastructure such as BI-FAST, as well as ensuring alignment with the personal data regime (Fanani et al., 2025). The pilot phase will pay close attention to the principle of proportionality and its impact on banking intermediation. The UAE, with its already highly open ecosystem, has the potential to drive the integration of CBDCs with traditional banking services and other digital assets more quickly and seamlessly, yet remain within a very tight compliance fence. The existence of specialized regulators such as VARA allows for measurable experiments in restricted zones. This difference in tempo and focus suggests that the choice of CBDC design is essentially a reflection of the regulator's level of confidence in the resilience of the domestic banking system and the maturity of its innovation ecosystem, where Indonesia's prudence and the UAE's experimentation are two valid responses to different initial conditions.

Turkey, while continuing the technical tests of the Digital Turkish Lira, seems very cautious to assess the macroeconomic impact (Duğru, 2024). The priority is to ensure that CBDCs do not become a new source of instability for banks that are already bearing a heavy economic burden. The technical design will likely emphasize features that prevent speculative use and maintain the role of the bank as the main intermediary. The implementation stage will largely depend on the results of the evaluation of monetary policy transmission and price stability. In other words, CBDCs in Turkey are seen more as a monetary policy tool in a difficult environment, rather than a financial expansion opportunity like in the UAE. As such, Turkey's CBDC has the potential to be a case study of how digital currencies can be designed with "limiting" features to address the specific problems of the ailing economy, offering lessons on the use of digital technology not to pursue maximum efficiency, but to achieve restrained stability.

Normatively, these three regulatory models represent a variant of the response of Muslim-majority countries to digital disruption. The Indonesian model balances innovation with prudence through a structural separation of authority and the affirmation of monetary hierarchies. The UAE model pursues global integration and leadership by building a comprehensive legal framework that appeals to international players (Ahmed et al., 2024). The Turkish model emphasizes control and stability in response to the fragility of the domestic economy (Öniş & Kutlay, 2021). Their convergence lies in the central authority's recognition of monetary evolution and commitment to basic supervisory principles. Their divergence lies in the level of acceptance of private crypto assets in the real economy and the speed of adoption of innovations. Therefore, the three models collectively frame an ongoing global dialectic in digital financial

governance: between isolation and integration, between defensive prudence and progressive offensive, as well as between national sovereignty and global interoperability, where each country's choice will ultimately determine its position in the future international financial architecture.

This comparative analysis provides complementary policy lessons. For Indonesia, the UAE example shows the importance of clarity on the role of authorities and strict licensing standards to create a trusted ecosystem. From Turkey, Indonesia can strengthen its commitment to limiting the use of crypto in payments while continuing to deepen the technical testing and analysis of the impact of monetary policy for the Digital Rupiah. The legal basis that has been provided by the P2SK Law is a valuable asset that allows Indonesia to move decisively (Peryanto et al., 2025). The key to its success lies in the ability to design derivative technical regulations that are safe, efficient, and flexible enough to adapt to highly dynamic technological developments, without sacrificing the prudential principle that has become a hallmark of Indonesian financial regulation.

3.2. Integration of Sharia Principles in Crypto Asset Regulation and CBDC Design

The integration of sharia principles in crypto asset regulation in Indonesia is managed through a functional approach that strictly separates the medium of storing value and the medium of exchange (Faiz et al., 2024). The position of crypto assets as commodities traded under the supervision of Bappebti, as regulated in Bappebti Regulation No. 8 of 2021, creates a legal space where sharia conformity assessments can be applied specifically to futures and spot trading activities (Berutu & Prasetyo, 2025). This positioning implicitly acknowledges that the speculative characteristics and high volatility inherent in many crypto assets contain substantial *elements of gharar* and *maysir*. By removing it from the realm of legal tender, regulators effectively limit the contamination of potential uncertainty and gambling against everyday economic transactions that must be stable and predictable. However, the status as a commodity demands more explicit sharia compliance standards. According to Hadi the national discourse led by the Indonesian Ulema Council (MUI) and academics underscores the need to develop operational guidelines that assess the substance of each traded crypto asset, transaction settlement mechanism, and contract structure on the exchange, in order to ensure alignment with *the principles of hifz al-mal* (property protection) (Hadi, 2023). This framework confirms that in a hybrid legal system, the sharia validity of a new financial instrument can be conditioned by strict procedural and substantive arrangements, not solely by its intrinsic nature.

Furthermore, an analysis of the technical provisions in Bappebti Regulation No. 8 of 2021 reveals specific mechanisms that are relevant to sharia principles. Article 9, for example, requires the Clearing and Guarantee Institution to segregate *assets* between the customer's funds and crypto assets and the operator's assets. This provision operationally realizes the principle of *hifz al-mal* (protection of property) by preventing mixing (*ikhtilath*) which can lead to misuse or *ghasb* (confiscation). On the other hand, although regulations restrict complex margin and derivatives trading that is in line with

the principle of *avoiding gharar* and *maysir*; the absence of explicit sharia guidelines in these rules raises questions about the legality of *short-selling* or futures trading (*futures*) for crypto assets that are still possible within a positive legal framework. For CBDCs, the draft regulation of the Digital Rupiah must technically answer the issue of *usury*. For example, if the Digital Rupiah is designed to provide yield, then the technical structure should clearly not be based on *time value of money*, but may be based on a *profit-sharing mechanism* or fees for certain services, which requires a legal basis and a corresponding contract in Bank Indonesia's regulations.

On the CBDC side, the integration of sharia principles into the design of the Digital Rupiah is carried out through a policy orientation that places justice, transparency, and public benefit as the foundation (Anggita et al., 2025). Bank Indonesia's mandate under the P2SK Law extends the definition of the Rupiah to a digital form, and also carries with it the responsibility to ensure that this digital currency operates in accordance with Islamic economic ethics (Rouf et al., 2025). This means that technical design must actively prevent the emergence of practices that resemble *riba*. For example, the remuneration structure or incentive for holding the Digital Rupiah should not resemble interest (*fa'idah*), but should be designed as a clear and transparent reward for services or administrative fees. The concept of benefit (*maslahah*) is key, where CBDCs should aim to improve the efficiency of the payment system, expand financial inclusion for people who are not yet served by banking, and strengthen the transmission of fair monetary policy so as to support the goals of *hifz al-nafs* (life protection/welfare) and *hifz al-mal* (Fanani et al., 2025). Therefore, the design of a sharia-aligned CBDC is essentially a legal and technical project to build a technologically intelligent, and economically ethical public money, where the parameters of *halal* are determined by its social goals and operational mechanisms.

In the United Arab Emirates, the integration of sharia principles is taking place in an ecosystem that is simultaneously very ambitious towards innovation and very strict in supervision (Ajouz & Abuamria, 2023). Regulations such as the framework issued by the Dubai Financial Services Authority (DFSA) and the Virtual Assets Regulatory Authority (VARA) do not textually mention sharia, but create the conditions that allow sharia valuation to develop organically. By setting strict requirements for transparency, underlying assets, and fraud avoidance, this regulatory framework is in line with the basic sharia principles that prohibit *gharar*. In practice, Islamic banks and Islamic financial institutions in the UAE are actively exploring the tokenization of real assets (*digital sukuk*, fractional property ownership) that are inherently easier to align with sharia because they have a clear real economic basis. The UAE's approach is pragmatic and market-based: regulators create a safe and orderly environment, while the Islamic financial market itself identifies and develops digital asset products that meet *halal* criteria. This model suggests that sharia compliance in an advanced regulatory environment can be a natural consequence of the application of good governance principles and real assets-oriented, rather than of explicit restrictive rules.

The technical regulatory framework in the UAE, such as the DFSA's Crypto Tokens Rulebook (CRO), provides a high level of specification. The Rules on *Custody* (CRO 8A) require service providers to hold client assets with regulated custodial institutions or through *cold wallet* solutions with high security standards. From a sharia perspective, this is an operationalization of the concept of *amanah* (trust) and *wadi'ah yad dhamanah* (entrust with collateral) in a digital context. However, the rules that allow trading of derivative tokens and leveraged products (CRO 5A) under the DFSA create a sharia gray zone, as those products are loaded with *gharar* and speculation (*maysir*). This is where the role of internal sharia due diligence becomes crucial. Meanwhile, VARA's Virtual Assets and Related Activities Regulations 2023 impose 'Substance and Purpose' requirements for token issuers. This is in line with sharia principles that emphasize real activities and *underlying assets*, as it requires that crypto projects have real uses and economic value behind their tokens, not mere speculative tools

For CBDCs in the UAE, sharia integration is geared towards its potential interoperability with Islamic financial infrastructure. Digital Dirham developed by the Central Bank of the UAE (CBUAE) can be designed with smart contract features that can be programmed to automate sharia contracts such as *murabahah* (buying and selling with markup), *ijarah* (rent), or profit sharing. This allows for faster, more transparent, and auditable settlement of Islamic financial transactions. The main sharia consideration is to ensure that this technical mechanism does not inadvertently introduce an element of uncertainty or injustice that is contrary to the spirit of the contract. Collaboration between CBUAE and sharia authorities such as the Higher Sharia Authority is important to validate that the use of technology in contract execution maintains the integrity of Islamic legal principles. This initiative represents a leap from digital Islamic finance that mimics conventional forms to Islamic finance that is natively designed on top of digital infrastructure, where program codes become a new medium for executing and affirming compliance with Islamic law.

Turkey is approaching the integration of sharia principles with a strong emphasis on monetary stability and the protection of society from economic harm, which in itself is the goal of sharia (*maqasid sharia*) (Tekdoğan & Güney, 2024). The ban on the use of crypto assets as a means of payment by the Central Bank of the Republic of Turkey in 2021 is a defensive policy that reflects the application of *the principle of sadd al-dhara'i* (closing the path to damage). The extreme volatility of crypto assets is seen as *a dharar* (danger) that can disrupt fairness in exchanges and damage the value of people's assets. By restricting crypto to the asset trading domain on licensed exchanges, regulators seek to quarantine the risk of pure speculation (*maysir*) while still recognizing the right of individuals to invest with risk awareness. The regulations for crypto exchanges issued by the Turkish capital market authorities, which emphasize transparency and protection of customer assets, are in line with the principles of *hifz al-mal* (Tekdoğan & Güney, 2024). This approach confirms that in a vulnerable economic context, the interpretation of *the hifz al-mal principle* can be extended from simply the protection of individual property

to the protection of the value of the national currency and the stability of the payment system as a whole.

In the development of the Digital Turkish Lira, sharia considerations are integrated through a focus on access fairness and cost efficiency. The design of CBDCs is directed to reduce transaction costs for all people, including small economic actors, which is in line with the principles of distributive justice in Islam. Further, the technical design must ensure that the system is non-discriminatory and provides equal access, avoiding exclusionary practices that can lead to tyranny. Full transparency regarding the cost structure and operating mechanism is a must to eliminate the element of fraud or ambiguity (*gharar*) in the use of the country's digital money (Mohd Noh et al., 2025). Evaluation of its impact on the Islamic banking sector is also a consideration, so as not to weaken profit-sharing-based financial intermediation which is an alternative to the *riba* system. As such, CBDCs in Turkey are designed to be instruments of equity and stabilization, where their sharia value lies in their capacity to promote procedural and substantive justice in the monetary system, beyond mere contractual suitability considerations.

The convergence of sharia integration in the three countries lies in their efforts to translate the universal principles of justice, transparency, and property protection into the language of technical regulation. Both Indonesia, the UAE, and Turkey, albeit with different instruments, are trying to build a fence that prevents destructive speculative excesses (*maysir*) and destructive uncertainty (*gharar*) from seeping into the core of the payment system. They also agreed that digital financial innovations, both crypto and CBDC, should serve broader public benefit goals, such as financial inclusion and economic efficiency, which are part of the sharia *maqasid*. The commitment to the principles of Anti-Money Laundering and Terrorism Financing (AML/CFT) is also a common point, as these illegal activities are clearly contrary to Islamic principles that protect assets from unauthorized paths (Azinge-Egbiri, 2021). This fundamental similarity indicates that at a certain level of abstraction, modern digital financial regulation and Islamic law share the same normative basis regarding market integrity, contract fairness, and social protection, which allows for policy convergence despite coming from different legal traditions.

Significant divergences arise in the methodology and level of proactivity to align digital products with Islamic law. The UAE is taking a bottom-up and market-based approach, where regulators provide a secure legal infrastructure and allow sharia innovations to emerge from the interaction of Islamic financial institutions with technology. DFSA and VARA regulations are technical and neutral, but are designed in such a way that sharia-compliant products can thrive in them (Abiola-Adams et al., 2023). In contrast, Indonesia shows a tendency towards a top-down approach, where authorities such as the MUI and the Financial Services Authority (OJK) are expected to play a central role in formulating explicit sharia standards that crypto market participants must follow. This approach is more structured but potentially less agile to respond to very rapid innovations. This methodological difference reflects a philosophical choice between viewing sharia as a

technical standard that emerges from sound market practices, versus viewing it as a set of positive rules that must be established in advance by a central authority before the market can operate.

Turkey occupies the middle position with an emphasis on macroprudential controls as a manifestation of sharia prudence (Pratami et al., 2023). Sharia integration in Turkey is more manifested through policies that systematically limit harm (*dharar*), than through detailed *halal product guidelines*. This difference is also reflected in the development of CBDCs. The UAE envisions CBDCs as a platform for the innovation of financial products, including sharia (Alkasasbeh et al., 2024). Indonesia envisions the Digital Rupiah as a public infrastructure that must be *halal* from its basic design. Turkey views the Digital Turkish Lira primarily as a monetary policy tool that must be stable and fair, which is a prerequisite for the creation of a sharia-compliant economic environment (Kiliç & Türkan, 2023). Thus, this spectrum of approaches confirms that sharia integration is not monolithic; it can be realized as an enabler of innovation, as a mandatory design parameter, or as a byproduct of stabilization policies, depending on the dominant hierarchy of national objectives.

The implications of this difference in methodology for the Islamic financial market are quite important. The UAE's pragmatic approach has the potential to attract more capital and talent to develop innovative Islamic digital asset products, strengthening its position as a global Islamic finance hub (Rauf & Arifin, 2024). Indonesia's structured prudential approach can result in a more stable and protected domestic market for Muslim investors, building long-term trust. Turkey's macro control approach can keep the financial system from external shocks, although it risks losing innovation momentum (Akgünay, 2022). Each model has a trade-off between the speed of adoption of innovation and the depth of sharia supervision. Therefore, the competition between these three models is essentially a competition between different values: efficiency and globalization versus stability and sovereignty, where the winner will determine the dominant face of digital Islamic finance in the coming decade.

Beyond the general regulatory discourse, a more interesting landscape is the emergence of digital asset instruments that are explicitly designed as "sharia-compliant". This development tests the depth and flexibility of integrating sharia principles in the three regulatory models.

In Indonesia, this kind of product innovation is still in the very early stages of discourse and study, reflected in its regulatory approach which still establishes crypto as a commodity without substantive differentiation. There has been no officially recognized issuance of blockchain-based digital sukuk or sharia stablecoins. The existing legal framework—the Bappebti Regulation and later the OJK—has not touched on the specific aspects of sharia certification for a token. Instead, the fatwa of the Indonesian Ulema Council (MUI) banning Bitcoin as a medium of exchange created an atmosphere of extreme caution, where innovators were reluctant to launch sharia digital products without legal certainty and supporting fatwas. This shows that Indonesia's Dual-Track

Model, in its initial phase, focuses more on *regulating the existing (crypto as commodity)* than *enabling the new (sharia-compliant digital assets)*. The challenge is how the OJK and DSN-MUI can proactively design a "sandbox" of regulations and technical guidelines that allow the issuance of *real asset-backed tokens* or *digital sukuk*, before the market is dominated by unsupervised foreign products.

Instead, the United Arab Emirates has become a living laboratory for these kinds of products, driven by its progressive Integration Model. Initiatives such as the "Islamic Coin" (\$ISLM) operating under the auspices of the HAQQ Network, a blockchain dedicated to sharia products, have emerged from this jurisdiction. Although controversial and still under close scrutiny, its presence suggests an ecosystem of possibilities. More concretely, regulators such as the Dubai Financial Services Authority (DFSA) have included the "Islamic Crypto Token" category in their regulatory framework, paving the way for the issuance of structured sharia investment tokens. Islamic banks in the UAE are also actively exploring the tokenization of *sukuk* and real assets (such as property) to increase liquidity and investment access. VARA and DFSA regulations that emphasize "Substance and Purpose" and transparency of underlying assets organically support the logic of sharia economics. However, challenges remain: sharia authorities such as the Higher Sharia Authority need to work closely with technical regulators to evaluate not only the whitepaper, but also the technical architecture, distribution mechanisms, and economic models of any token that claims to be *halal*, to prevent the misuse of sharia labels as a mere marketing tool (*greenwashing* or *halal-washing*).

Turkey, in the midst of its restrictive model, shows interesting but limited developments. The focus on macro stability has kept the authorities inactive in encouraging innovation of Islamic crypto products. However, interest from the private sector and the Islamic technology community remains high. More real developments are happening on the CBDC side. In the development of the Digital Turkish Lira, the Central Bank of the Republic of Turkey (CBRT) expressed its commitment to ensure that its CBDC is in accordance with the principles of justice and does not contain usury. It is a form of "Islamic digital asset" in the most fundamental sense: digital fiat money designed with Islamic ethical awareness in mind. Although not an investment token, a fair, accessible, and non-ribawi CBDC design can create a basic infrastructure (*halal monetary infrastructure*) that will enable the development of digital Islamic financial products on its top layer in the future. However, for more diversified private crypto assets, Turkey's Restrictive Model tends to force developers of sharia products to operate outside of jurisdiction or in uncertainty, which is contrary to the principles of transparency and consumer protection in Islam.

As such, the response to specific "Islamic crypto assets" fully reflects the philosophy of each model. The UAE is actively *shaping the market* for these innovations through enabling regulations. Indonesia is still in the stage of *carefully managing* the existing market, while preparing the framework for future innovation. Turkey, by its choice, indirectly *delegates the establishment of* this market to overseas actors or delays it until

macro stability is achieved, with CBDC as the only forum for sharia digital innovation that is fully controlled by the state.

Ultimately, the effectiveness of integrating sharia principles in these regulations will be tested by each country's ability to respond to emerging technical challenges. For crypto assets, the challenge is to oversee decentralized and global assets with Islamic legal principles that require authority and clarity (Wiwoho et al., 2023). For CBDCs, the challenge is to design digital money that is efficient and operationally free from prohibited elements, such as mechanisms that resemble usury or injustices in access. Cross-agency collaboration between central banks, capital market regulators, and sharia authorities will be key to success in all countries. The real test lies not in the perfection of regulations on paper, but in the ability of these institutions to adapt, collaborate, and enforce sharia principles in a technological landscape that is constantly changing at a pace that often exceeds the conventional regulatory cycle.

Normatively, this comparison shows that there is no single model of sharia integration that is absolutely superior. Each country's choice reflects the complex interplay between its legal traditions, economic conditions, and political vision. Indonesia, with its strong legal tradition of positivism and religious institutions, has chosen the path of structured regulation. The UAE with its globally oriented and pragmatic economy opted for the market facilitation path. Turkey with high macroeconomic pressure opted for a defensive control path. However, the common thread is the recognition that the digital transformation of the financial system cannot ignore the ethical and religious dimensions, particularly in Muslim societies. Sharia principles serve as a normative compass that directs regulatory policies to ensure that technological advances serve the goals of justice, stability, and human welfare, which is the essence of *maqasid sharia* itself.

3.3. Regulation and Governance Model for Digital Assets in the Sharia Financial System

An in-depth comparison of Indonesia, the United Arab Emirates, and Turkey crystallizes three different regulatory models to respond to crypto assets and Central Bank Digital Currency (CBDC). The first model, represented by Indonesia, can be categorized as a Dual-Track Model with Consolidated Market Governance. The core architecture of this model is a firm separation between monetary functions and commodity market functions. The monetary function, including the issuance of legal tender and the stability of the financial system, is the exclusive domain of Bank Indonesia and is embodied in the authority over the Digital Rupiah (Efendi et al., 2025). The commodity market function for crypto assets, based on the P2SK Law, was transferred from Bappebti to the Financial Services Authority (OJK) (Wiwoho et al., 2023). This shift is not just an administrative change, but rather a strategic consolidation that integrates the supervision of crypto assets into the macroprudential framework and market behavior of the broader financial services sector. This allows for the implementation of consumer protection, governance, risk management, and data integration standards that are more harmonious with the traditional and Islamic finance industries. This model represents an evolution of

governance in which financial innovation is no longer seen as an exotic separate domain, but as a logical extension of the formal financial sector that requires integrated supervision and equivalent standards of market behavior.

A key element that strengthens Indonesia's Dual-Track Model is the development of self-regulatory organizations (SROs) that are licensed and supervised by the OJK, such as the Indonesia Crypto Exchange (ICEx). The existence of these SROs represents a sophisticated approach to market governance, where national regulators (OJK) set general standards and principles, while organized industry players (SROs) operationalize rules of market behavior, member supervision, dispute handling, and technical compliance standardization (Aspan & Wahyuni, 2025). This model adopts international practices such as the Financial Industry Regulatory Authority (FINRA) in the US or the Japan Virtual and Crypto Assets Exchange Association (JVCEA). The goal is to create internal market discipline, increase transparency, and consolidate domestic trade liquidity so that it is less dependent on global order books, while building national digital asset market sovereignty and resilience. Thus, SROs serve as an extension of the regulator that deepens the scope of supervision down to the operational technical level, as well as a mechanism to build industry capacity and a culture of sustainable collective compliance.

Legislatively, strengthening the legal framework through the revision and implementation of derivative regulations of the P2SK Law is the basis for this model (Asyiqin et al., 2024). The new set of regulations under the OJK umbrella is expected to clarify the licensing regime for crypto asset trading operators, physical traders, and custodial service providers (Wati & Andito, 2025). The regulation will also affirm mechanisms to monitor market behavior to prevent manipulations such as wash trading and spoofing, as well as establish a framework for addressing systemic risks that may arise from the interconnection between the crypto market and the traditional financial system. The consolidation of local liquidity through licensed exchanges and SROs aims to form a stable foundation for measurable innovation so that the growth of the digital asset market does not come at the expense of macroeconomic stability and public confidence. Therefore, the robustness of this model is ultimately tested by its ability to translate legislative mandates into effective technical rules, which regulate and shape a competitive, liquid, and resilient market domestically.

The second model, represented by the United Arab Emirates, is the Centralized Banking Integration Model with Centralized Licensing. In contrast to the separation in Indonesia, the UAE is actively integrating digital assets into the traditional banking architecture through licensing frameworks issued by central banking authorities (Sujee & Solanki, 2024). Regulations such as those issued by the Central Bank of the UAE (CBUAE) and the Dubai Financial Services Authority (DFSA) place virtual asset service providers (VASPs) under prudential supervision similar to financial institutions. This approach normalizes the relationship between commercial banks and crypto entities, enabling collaborations such as the provision of custodial services by banks, the issuance of traditional asset-backed stablecoins, and the integration of digital asset products into

retail banking platforms. The model is explicitly designed to accelerate technology adoption while maintaining tight controls through strict capital, governance, and reporting requirements. This strategy reflects the awareness that in a highly open economy, the boundaries between financial institutions and fintech companies are increasingly blurred so that the most effective governance is one that assimilates new entities into a system of scrutiny that has been tested for systemic institutions.

The third model, from Turkey, is the Restricted Payment Model with Regulated Trading. The essence of this model is a firm distinction based on the purpose of use, not on the type of supervisory agency. The Central Bank of the Republic of Turkey (CBRT) definitively banned the use of crypto assets for the payment of goods and services through regulations in 2021, a move driven by deep concerns over monetary stability, capital flight, and volatility (Stupak, 2025). However, in parallel tracks, trading crypto assets as an investment activity is allowed and closely supervised by Turkey's capital market authorities. Regulations for crypto exchanges emphasize cybersecurity requirements, segregation of customer assets, strict AML/CFT compliance, and operational transparency. For CBDCs, Turkey is taking a phased and experimental approach with the Digital Turkish Lira, with a primary focus on evaluating its impact on monetary policy and banking sector stability, before committing to a full-scale rollout. This model shows that to deal with disruptive technologies, regulators can use functional differentiation as a tool to segment risk, isolating threats to the core of the system while managing societal demands in different controlled spaces.

From the three, a distinctive governance pattern emerges. The Indonesian model offers Separate Prudential Market Governance, where CBDCs and crypto assets are managed in distinct but coordinated regulatory channels, with the OJK and SRO as the main regulators of the crypto market. The UAE model offers Integrated Licensing Governance, where the central bank becomes the main gateway for the entry of digital assets into the formal financial system. The Turkish model offers Objective Control-Based Governance, where prohibition serves as a key macroprudential policy tool, and market surveillance is focused on mitigating the risks of permitted activities. The three common points are a shared commitment to fundamental principles: money laundering prevention, consumer protection, and systemic prudence. The fundamental difference lies in the philosophy of integration; The UAE sees digital assets as part of the evolution of the financial system that must be internalized, while Indonesia and Turkey see them as external elements that need to be regulated with a clear fence, albeit with different levels of openness. Therefore, this spectrum of governance is essentially a variation to answer the fundamental question: are digital assets seen as new organs in the body of the existing financial system, or as symbiotic entities that must coexist in very carefully regulated relationships?

The implications of these three models for the future of the Islamic financial system are significant and diverse. Indonesia's Dual-Track model, with consolidated supervision under the OJK, creates opportunities to develop structured and integrated sharia compliance standards for the entire crypto asset market (Faiz et al., 2024). OJK can

collaborate with the National Sharia Council (DSN) of the MUI to formulate operational guidelines that regulate the substantive aspects of tradable crypto assets, transaction mechanisms that avoid *gharar*, and contract structures between exchanges, custodians, and customers in accordance with *muamalah principles* (Dasopang, 2025). SROs such as ICEx can be technical implementers that ensure all their members comply with these sharia standards, creating a halal market ecosystem by design. For CBDCs, this model allows Bank Indonesia to design the Digital Rupiah with features that from the outset consider the principles of justice and the prohibition of usury, for example in the design of compensation or incentive schemes. Thus, the Indonesian model has the potential to produce a blueprint for a highly standardized digital Islamic financial system, where sharia compliance is not left to individual interpretation, but is built into a regulatory architecture and market infrastructure in a systematic manner.

The UAE Centric Banking Integration Model has the potential to accelerate the innovation of digital Islamic financial products. With the existing licensing framework, Islamic banks in the UAE can more easily launch products such as *digital sukuk*, blockchain-based financing platforms for Micro, Small and Medium Enterprises (MSMEs), or Islamic stablecoins backed by real assets. The integration of CBDCs with Islamic banking infrastructure can enable automation and increased efficiency in the execution of contracts such as *murabahah* or *ijarah* through smart contracts on the Digital Dirham network. The advantage of this model is the speed and scalability of innovation, as it leverages an established regulatory framework and a highly open financial culture. The challenge is to ensure that rapid innovation remains through a rigorous sharia due diligence process by the bank's internal Sharia Supervisory Board and national sharia authorities. Therefore, the success of the UAE model will depend heavily on its ability to reconcile two logics that are often considered to be contradictory: market speed and the rigor of sharia valuations, proving that the two can synergize in a well-designed ecosystem.

Turkey's Payment Restriction Model tends to form a highly conservative and stable Islamic financial system (Ustaoglu & Yildiz, 2023). By restricting the use of speculative crypto assets in payments, this model automatically reduces the exposure of Islamic societies and businesses to the volatility and uncertainty (*gharar*) of those assets. The focus on supervised trading allows regulators to direct investment activities towards more predictable and sharia principles-compliant instruments. For CBDCs, Turkey's phased approach allows for an in-depth study of how the Digital Turkish Lira can be designed to support distributive justice and access to finance as core values in the Islamic economy, without creating new distortions. This model places prudence and stability as the main prerequisites for the development of sound Islamic finance. Thus, the Turkish model offers the perspective that in a given context, the greatest contribution of regulation to Islamic finance may not be by facilitating the most sophisticated innovations, but by consistently creating a stable and predictable macroeconomic environment, which is a more important foundation for equitable real economic growth.

Each model provides valuable policy lessons. For Indonesia, the success of the model depends heavily on the effectiveness of collaboration between the OJK, Bank Indonesia, and sharia authorities to produce comprehensive technical regulations (Zuchroh, 2025). The establishment of ICEx as an SRO should be followed by strengthening its supervisory capacity to ensure that sharia standards and consumer protection are strictly enforced. Meanwhile, Indonesia can adopt the spirit of prudential integration from the UAE in terms of expanding collaboration between Islamic banks and licensed crypto exchange operators, for example for Islamic custodial services. From Turkey, Indonesia can strengthen its commitment to maintaining monetary stability as a broader form of *hifz al-mal*. These cross-country lessons affirm that no model is perfect, and that long-term success will be determined by the adaptive ability to take the best elements of a variety of approaches, while still adhering to core principles that correspond to domestic conditions.

In the future, the interaction and possible convergence between models will shape the global Islamic finance landscape. Indonesia's structured model may be a reference for a country with a strong civil law and religious institution system. The UAE's fluid and market-oriented model may be an option for global financial centers looking to attract innovation. Turkey's defensive model might be applied in a country with macroeconomic fragility. However, the pressure of international standards and technological developments may be pushing for a common point. For example, the need for cross-border CBDC interoperability can force the harmonization of technical standards, which then affects the design of features that are relevant to sharia. These dynamics show that the future of digital Islamic finance will not be determined by one dominant model, but rather by a network of interoperability and gradual convergence between the three, where each model contributes to the development of principles, standards, and best practices in an increasingly connected global ecosystem.

Table 1. Comparative Table of Digital Asset Regulatory & Governance Models in Islamic Finance: Indonesia, UAE, and Turkey

Aspect of Analysis	Indonesia		United Arab Emirates (UAE)	Turkey
Model Name	Dual-Track Consolidated Governance	with Market	Bank-Centric Integration with Centralized Licensing	Payment Restriction with Supervised Trading
Core Philosophy	Strict separation between monetary functions (legal tender) and commodity market functions (crypto assets). Innovation must occur within clear legal boundaries and be integrated into the broader financial sector framework.		Active integration of digital assets into the traditional financial system. Innovation is encouraged through a strict licensing framework aimed at creating a global digital finance hub.	Purpose-based restriction to preserve monetary stability. Crypto assets are prohibited as payment tools but permitted as regulated investments.

Key Crypto Regulations	1. Law No. 4/2023 on Financial Sector Development and Strengthening (P2SK Law) – transfer of authority to OJK. 2. OJK regulations (in progress). 3. Role of SRO (ICEx) under OJK supervision.	1. Federal Decree-Law No. (14) of 2018 (CBUAE). 2. Crypto Assets Rulebook (DFSA). 3. Virtual Assets Regulatory Framework (VARA).	1. Regulation on the Disuse of Crypto Assets in Payments (CBRT, 2021). 2. Regulations for crypto exchanges (CMB – Capital Markets Board).
Primary Crypto Supervisor	Financial Services Authority (OJK) , with daily operations delegated to a Self-Regulatory Organization (SRO) like ICEx.	Central Bank (CBUAE) and specialized authorities (DFSA, VARA). A centralized licensing model under the banking framework.	Central Bank (CBRT) (prohibits payments). Capital Markets Board (CMB) (supervises exchange trading).
Position of Crypto Assets	Commodity tradable on licensed exchanges. Not a legal payment instrument.	Digital/financial asset that can be integrated into banking and payment services, subject to licensing.	Investment asset permitted for trading. Strictly prohibited as a payment instrument.
CBDC Approach	Digital Rupiah: Developed by Bank Indonesia. Cautious, phased approach focused on interoperability, financial inclusion, and alignment with <i>maqasid al-shariah</i> .	Digital Dirham: Developed by CBUAE. Pro-innovation approach, potentially quick integration with banking services (including Islamic) and smart contracts.	Digital Turkish Lira: Developed by CBRT. Highly gradual and experimental approach, focused on assessing impact on monetary policy and banking stability.
Mechanism for Shariah Principle Integration	1. Structured Shariah compliance standardization via OJK-DSN MUI collaboration. 2. SRO (ICEx) as technical executor of <i>halal</i> standards on exchanges. 3. CBDC design considers fairness and prohibition of <i>riba</i> from the outset.	1. Facilitation of <i>halal</i> product innovation (e.g., digital <i>sukuk</i>, Shariah-compliant stablecoins) by Islamic banks within the licensing framework. 2. CBDC integration with smart contracts for automation of Shariah contracts. 3. Shariah due diligence by internal bank Shariah Supervisory Boards.	1. Macroeconomic prudence as a form of wealth protection (<i>hifz al-mal</i>). 2. Restricting crypto use reduces <i>gharar</i> in retail transactions. 3. CBDC design focuses on equitable access and distribution.

Market Governance	Separate Market Coordination between OJK and BI, with SROs enforcing market discipline, transparency, and domestic liquidity consolidation.	Prudential Governance. Central bank as the primary gatekeeper. Prudential banking standards applied to digital asset entities.	Integrated Licensing Governance. Central bank as the primary gatekeeper. Prudential banking standards applied to digital asset entities.	Purpose-Based Control Governance. Prohibition as a key macroprudential policy tool. Market supervision focuses on risk mitigation for the limited permitted activities.
Potential Impact on Future Islamic Finance	Fosters a structured and protected Shariah-compliant crypto asset market ecosystem , with SROs as guardians of standards. CBDC serves as a fair payment infrastructure.	Accelerates innovation in digital Islamic financial products and their integration with global banking services. Potential to become a hub for blockchain-based <i>halal</i> products.	Shapes a conservative and stable Islamic financial system , prioritizing protection of wealth value and preventing destructive speculation.	
Key Challenges	Complex inter-agency coordination (BI, OJK, DSN MUI). Speed in drafting implementing regulations. Building SRO credibility and effectiveness.	Ensuring rapid innovation still undergoes rigorous Shariah due diligence. Balancing global appeal with prudential control.	Risk of lagging in innovation due to overly defensive approach. Finding the optimal balance between stability and room for fintech development.	
Key Regulatory References	Law No. 4/2023 (P2SK), Draft OJK Regulations, SRO Framework.	Federal Decree-Law No. (14) of 2018 (CBUAE), DFSA Rulebook, VARA Framework.	CBRT Regulation (2021), CMB Regulations on Crypto Asset Trading Platforms.	

This table shows that although the ultimate goals of the three countries are similar, namely to protect consumers, maintain stability, and ensure sharia compliance, the paths taken are very different.

1. Indonesia opts for a structured, cautious path, building strong domestic market and legal infrastructure before opening up more space.
2. The UAE chooses an expansive, integrated path, using regulation as a tool to attract global capital and innovation, with strict control as a counterbalance.
3. Turkey follows a defensive, selective path, using regulation primarily as a protective tool (against currency volatility and system stability), with innovation proceeding slowly and in a controlled manner.

The distinct regulatory pathways adopted by Indonesia, the United Arab Emirates, and Turkey are not merely technical policy decisions but foundational choices that will fundamentally sculpt the character and trajectory of digital Islamic finance in each

jurisdiction. By prioritizing domestic legal consolidation and a clear separation of monetary and commodity functions, Indonesia is cultivating a domestically-protected ecosystem where Shariah compliance is structurally embedded, innovation is carefully measured, and the primary objective is to build a resilient, sovereign market that serves national economic stability and protects local investors. In stark contrast, the UAE's strategy of bank-centric integration and aggressive licensing aims to position itself as a globally-innovative hub, actively shaping the international frontier of fintech by attracting capital and talent to create a seamless fusion of conventional, Islamic, and digital finance, albeit within a strictly controlled regulatory perimeter. Meanwhile, Turkey's model, defined by payment restrictions and a highly cautious, macro-prudential approach to digital currency, is forging a stable-conservative system where the paramount imperative is shielding the financial system from exogenous volatility and speculative risks, thereby favoring incremental, stability-oriented development over rapid technological adoption. Consequently, these divergent models will lead to the emergence of three potentially influential archetypes in the global landscape of Islamic finance: a protected fortress of structured Shariah governance, a dynamic global laboratory for integrated digital-halal products, and a cautious bastion prioritizing monetary sovereignty and systemic resilience above all else.

Essentially, this choice of model will greatly influence the character of the digital Islamic financial system in the future: whether it will be more domestically protected (Indonesia), globally innovative (UAE), or stable and conservative (Turkey). Most importantly, the future of the Islamic financial system in the digital age will be largely determined by the ability of regulators and industry players in each country to translate abstract principles into practical and technology-responsive operational rules. Whether it is the Dual-Track, Integration, or Restriction model, it must ultimately answer the fundamental question: how to ensure that digital money and new digital assets operate based on the principles of fairness, transparency, and prohibition of exploitation and destructive uncertainty. The three models emerging from Indonesia, the UAE, and Turkey are major experiments in answering that question. Their success will not only determine the future of domestic markets, but will also make an important contribution to the development of Islamic finance theory and practice in an increasingly digitalized world.

Beyond the conformity checks with technical prohibitions (*gharar*, *maysir*, *riba*), the effectiveness of sharia integration in all three models can be assessed more fully through the achievement of universal sharia goals (*maqasid al-shariah*). This *maqasid* analysis reveals the deeper nuances and trade-offs of each approach.

1. **Hifz al-Mal (Protection of Property/Wealth):** All three models prioritize this principle, but with different emphasis. The Indonesian model pursues *hifz al-mal* through structural segregation: protecting the payment system (Rupiah) from crypto volatility, and protecting commodity market investors through Bappebti/OJK and SRO regulations. The UAE model achieves this through prudential integration: strict banking standards (capital, custody, AML/CFT) are designed to protect the integrity of the entire financial system that now includes digital assets. The Turkish model interprets it macroly: the protection of the Lira's value and monetary stability as the highest form of *collective hifz al-mal*, so that functional restraint becomes the main policy tool.

2. *Hifz al-Nafs* (Life Protection/Safety & Welfare): In the financial context, this includes systemic stability and economic well-being. Turkey's most explicit model makes this a priority, where any policies (payment bans, gradual CBDCs) are subject to the goal of stabilizing the depressed national economy. The Indonesian model pursues it through *prudence* and financial inclusion aimed at by the Digital Rupiah. The UAE model achieves this by building a stable and world-class ecosystem to attract investment, which ultimately creates jobs and economic growth.
3. *Hifz al-'Aql* (Protection of Reason/Ratio): This principle demands transparency, education, and the avoidance of fraud. The UAE model excels in the detailed and mandatory technical regulatory aspects of asset issuance, increasing transparency (*underlying asset, substance and purpose*). The Indonesian model, with its SRO (ICEx) plan, has great potential to organize education and market behavior standards that protect investors from ignorance (*jahalah*). The Turkish model, with a focus on cybersecurity and asset protection, deals more with aspects of *hifz al-mal*, while public education on crypto risks is still less prominent.
4. *Hifz al-Nasl* (Protection of Descent/Survival): In modern economics, this can be interpreted as the sustainability of the financial system and the environment. The UAE model implicitly pursues this by positioning itself as a hub of the future, anticipating a post-oil economic transition. The Indonesian and Turkish models approach it through resilience: Indonesia builds a solid domestic market infrastructure, while Turkey maintains system stability from external shocks.
5. *Hifz al-Din* (Protection of Religion): This is embodied in the commitment to ensure that all economic activities are in line with Islamic law. The Indonesian model takes a formal-institutional approach through the central role of the MUI/DSN and OJK to produce explicit compliance standards. The UAE model opts for a facilitated market approach: regulation creates a conducive environment, and Islamic financial institutions are encouraged to innovate in a *halal manner*. The Turkish model makes this happen through an emphasis on fairness and harm avoidance (*dharar*) in macroeconomic policies.

Thus, no model is absolutely superior in all aspects of *maqasid*. The Indonesian model is strong in *hifz al-din* (formal) and *hifz al-mal* (structural), but can be slow to adapt (*dynamic hifz al-'aql*). The UAE model is very strong in *hifz al-'aql* (transparency/standards), *hifz al-mal* (integration), and visionary for *hifz al-nasl*, but it requires a very resilient *hifz al-din* (sharia due diligence) mechanism to keep pace with its innovation pace. The Turkish model focuses heavily on *hifz al-nafs* (systemic stability) and *hifz al-mal* (macro), but it can come at the expense of *hifz al-'aql* (education/inclusivity) and *hifz al-nasl* (innovation leaders) in the long run. The choice of model, therefore, is a reflection of which *maqasid* priorities a country prioritizes in dealing with digital disruption.

Each regulatory model, while designed to respond to the challenges of the times, brings with it its own implementation weaknesses and risks. Recognition of these limitations is important for assessing the feasibility and long-term resilience of each approach.

The Dual-Track Model with Indonesian-style Consolidated Market Governance, with all its prudence and clear structure, faces the risk of bureaucratic inertia and policy fragmentation that can actually thwart its objectives. The complexity of coordination between Bank Indonesia (monetary authority/CBDC), the Financial Services Authority

(crypto market authority), and the National Sharia Council MUI (sharia standards authority) in a fast-moving ecosystem has the potential to create a *regulatory gap* or inefficient overlapping authority. The establishment of Self-Regulatory Organizations (SROs) such as ICEX, although sophisticated in concept, has not been tested in practice. There is a risk that SROs may be dominated by the interests of large market players, or that they lack the resources and technical capabilities to conduct effective self-monitoring, so that they become mere symbols without substance. In addition, structured and top-down approaches in sharia valuation risk becoming *obsolete* when implemented, locking the market into legacy products while global innovation continues to take off, which could ultimately isolate the domestic market from the mainstream of global sharia digital finance developments.

On the other hand, the Centralized Banking Integration Model with Centralized Licensing carried out by the United Arab Emirates, although progressive and attracting capital, contains the risk of *regulatory capture* and erosion of sharia *prudential* principles. The strong desire to become a global hub could put pressure on regulators to relax standards—both conventional prudential standards and sharia due diligence—to attract more players and investment. In this highly competitive environment, sharia assessments by the bank's internal Sharia Supervisory Board can be rushed or simply become an administrative *checklist*, rather than an in-depth review process, so there is a risk of passing products that substantively contain *gharar* or speculation (*maysir*). This model also has the potential to widen the digital and economic divide; rapid and sophisticated innovation may only be accessible to large institutions and sophisticated investors, while the general public and Micro, Small and Medium Enterprises (MSMEs) remain lagging behind, contrary to the principles of justice and inclusion in Islamic economics. Deep integration with the banking system also means that turmoil in the highly volatile crypto asset market has the potential to spread faster and directly to the core of the traditional and Islamic financial systems.

Meanwhile, Turkey's Model of Payment Restrictions with Supervised Trade, which was born out of the need for macro stabilization, has fundamental flaws in its sustainability and effectiveness. The prohibition of using crypto as payment is a defensive policy that can be easily hijacked by technology. Tech-savvy citizens can still access global crypto asset exchanges directly using Virtual Private Networks (VPNs) or using foreign stablecoins for transaction settlement, so the policy is only effective for certain segments of the population and instead encourages capital flight outside the jurisdiction. This approach risks pushing activity into a *shadow economy*, where there is no consumer protection at all and intrinsically illegal activities (such as online gambling with crypto) can be rampant. From an industry perspective, this model hinders domestic sharia fintech innovation due to regulatory uncertainty and highly risk-averse policy signals. The overly cautious and gradual development of CBDCs also risks leaving Turkey behind in harnessing the potential financial efficiency and inclusion that digital currencies offer, thereby reinforcing the fragility of the traditional payment system it seeks to protect.

Thus, the choice of a model is not a guarantee of success. Each chosen path contains its own paradoxes and pitfalls. Success will depend heavily on the state's ability to nimbly manage these weaknesses through adaptive governance, transparency, and an unwavering commitment to core principles—be it the principles of financial prudence or the principles of sharia justice and benefit—in the midst of market dynamics and inevitable political pressures.

Digital disruption not only requires a substantive policy response, but also demands fundamental adaptations in the architecture of Islamic financial governance itself. The three emerging regulatory models have different implications for the three main pillars of sharia governance, namely fatwa authority, regulatory supervision, and compliance audits.

In the Indonesian context, the Dual-Track Model with a structured approach places a heavy burden on the National Sharia Council (DSN) of MUI and the Sharia Supervisory Board (DPS) at OJK. They are required to produce fast, technical, and applicable standards for highly dynamic crypto products, while the pace of technological innovation often exceeds the conventional fatwa cycle. This has the potential to create regulatory *lag* and uncertainty in sharia law. The fundamental question that arises is whether the existing structure of fatwa authority needs to evolve, for example by establishing a special committee of fintech and sharia made up of scholars, legal experts, and software engineers to respond to this technical complexity. On the other hand, the transfer of authority to the OJK and the establishment of Self-Regulatory Organizations (SROs) such as the Indonesia Crypto Exchange (ICEx) have created a new layer of hybrid governance. The OJK DPS and the sharia audit team in the future will have to develop entirely new technical competencies to oversee trading algorithms, smart contracts, and digital asset storage systems (*custody*)—a realm that is very different from conventional financing contract audits. Close collaboration with technologists, programmer ethics, and cyber auditors is an absolute prerequisite for the effectiveness of sharia supervision in this digital era.

Meanwhile, the Banking Centric Integration Model in the United Arab Emirates shifts the dynamics of sharia governance in a different direction. This market-based approach tends to delegate some of the standard-setting responsibilities to the internal Sharia Supervisory Board at each bank or financial institution. While allowing for a faster and more diversified response according to each institution's business model, this approach risks leading to standard fragmentation and inconsistency of fatwas between agencies, which can harm consumers and undermine market confidence. Therefore, strategic collaboration between the Higher Sharia Authority at the federal level and secular technical regulatory authorities such as the Dubai Financial Services Authority (DFSA) and the Virtual Assets Regulatory Authority (VARA) is crucial. This collaboration must be able to produce common guidelines that maintain the coherence of sharia principles in the midst of a diversity of innovation. Furthermore, because digital assets are integrated into the banking framework, sharia supervision must also be integrated. Regulators such as the Central Bank of the UAE (CBUAE) and the DFSA need to ensure that their prudential frameworks not only capture traditional financial risks, but also effectively identify and manage specific sharia risks, such as overexposure to gharar-laden crypto derivatives products. Sharia compliance audits have also undergone a transformation; He no longer only checks contract documents on paper, but must also be able to conduct a review of the program code (*code review*) on smart contracts that run digitized Islamic financial products, ensuring that the programming logic is in line with the logic of Islamic law.

On the other hand, Turkey's Payment Restriction Model creates a unique sharia governance landscape. With a primarily defensive policy focus on maintaining monetary stability, the direct pressure on fatwa authorities to assess any new crypto product is relatively reduced. However, this is precisely where broader governance challenges arise. Sharia authorities, such as the advisory board under the Turkish Participation Banks

Association (TKBB), are required to shift from a micro role (assessing products) to a macro role. They should provide a strong view and guidance on Islamic economic principles in the design of digital monetary policies, such as the Digital Turkish Lira, and in the assessment of the macroeconomic and social risks of permitted crypto trading activities. This surveillance that focuses on systemic risk mitigation requires a sharia macroprudential approach. Sharia institutions need to be systematically involved to assess whether the prohibition policy as a macro policy tool actually creates unwanted market distortions or encourages investor activity to foreign platforms or *the black market* that is completely unsupervised and is very contrary to sharia principles.

In the end, the three models give birth to new actors and governance relationships in the Islamic finance ecosystem. Indonesia is witnessing the emergence of SROs as hybrid actors who must establish new interactions with DSN-MUI. The United Arab Emirates makes secular technical regulators the *main gatekeeper* of innovation, which must find effective collaboration languages and protocols with traditional sharia authorities. Meanwhile, Turkey requires intensive triangular coordination between central banks, capital market authorities, and Islamic banking associations. This transformation shows that Islamic financial governance is evolving from a hierarchical, rigid, and document-based model, to a model that is *networked*, collaborative, cross-disciplinary, and based on deep technical competence. The success of each model in achieving its sharia goals will be largely determined by the ability of all actors in this governance to adapt, learn, and build new capacities to oversee assets that live within the boundless global code and network.

4. CONCLUSION

Based on the comparative analysis conducted, it can be concluded that the approach of Indonesian, United Arab Emirates, and Turkish regulators to crypto assets and Central Bank Digital Currency (CBDC) in the Islamic financial system forms three different policy models. Indonesia adopted a Dual-Track Model with Consolidated Market Governance, which strictly separates the monetary authority (Bank Indonesia) for CBDCs and the supremacy of the Rupiah from the market supervisory authority (OJK) for crypto assets as a commodity, with the establishment of Self-Regulatory Organizations (SROs) such as the Indonesia Crypto Exchange (ICEx) as a market governance reinforcer. The United Arab Emirates implements a Centrally Licensed Banking Centric Integration Model, where digital assets are actively integrated into traditional banking supervision frameworks through authorities such as the Central Bank of the UAE (CBUAE) and Dubai Financial Services Authority (DFSA), creating a rapid convergence path between conventional and digital finance. Meanwhile, Turkey is adopting the Restricted Payment with Regulated Trade Model, which affirms the prohibition of the use of crypto assets for payments to maintain monetary stability, but allows its trading on closely supervised licensed exchanges, with a very gradual and cautious development of CBDCs. The integration of sharia principles in the three models is carried out through various mechanisms, ranging from standardization of structured sharia compliance on the stock exchange (Indonesia), facilitation of halal product innovation in the integrated banking ecosystem (UAE), to emphasis on macroeconomic prudence as a form of asset protection (*hifz al-mal*) in Islam (Turkey).

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