

## ISLAMIC CRYPTOCURRENCY ADOPTION AMONG MUSLIM INVESTORS: A CONCEPTUAL FRAMEWORK

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Article type: Original Research

Received: 15 October 2025 | Accepted: 03 January 2026 | Published online: 18 March 2026

### Abstract

This paper proposes a conceptual framework of Islamic cryptocurrency adoption among Muslim investors in Malaysia by integrating technological and religious perspectives. Drawing from the Technology Acceptance Model (TAM) and Shariah governance principles, the study highlights how Perceived Shariah Compliance (PSC), Perceived Usefulness (PU), and Perceived Ease of Use (PEOU) collectively shape adoption intention. The literature reveals limited empirical research on Islamic cryptocurrency and inconsistent findings in crypto-related TAM studies, underscoring a major research gap. The paper concludes with key implications for Islamic FinTech developers, policymakers, and future researchers, emphasizing the need for contextualised adoption frameworks within Muslim-majority digital finance ecosystems.

*Keywords:* Islamic Cryptocurrency, Muslim Investors, TAM, Shariah Governance Principles

### 1. Introduction

The world of finance underwent tremendous advancement with the introduction of financial technology (FinTech). This change brought with it improved global financial systems and new digital financial tools such as cryptocurrencies. By definition, cryptocurrency is the name given to various digital currencies that make use of cryptographic technology to operate on decentralized blockchain networks (Nakamoto, 2008; Aggarwal and Kumar, 2021). Cryptocurrency has gained significant global popularity over the past decade (Hajj and Farran, 2024). This is also true for Malaysia, where there has been a steady increase in the interest in cryptocurrency by young investors (Sukumaran, Bee and Wasiuzzaman, 2022). Locals are looking for alternative investment assets beyond traditional stocks and bonds (Hashim, 2024). However, an important aspect to consider is the Muslim-majority population of Malaysia.

Islamic finance includes various elements that separate it from traditional financing. These elements include risk-sharing, prohibition of riba (interest), gharar (excessive uncertainty), and maysir (speculation) (Uddin, 2015). In Islamic economic thought, money is primarily viewed as a medium of exchange and a measure of value rather than a commodity that can independently generate profit. Classical scholars such as Al-Ghazali and Ibn Taymiyyah emphasized that currency should facilitate trade and economic activity rather than be used for speculative accumulation. In contrast, conventional financial systems often treat currency not only as a medium of exchange and store of value but also as a tradable asset that

can generate returns through interest-bearing instruments and speculative financial markets (Chapra, 2000; Meera & Larbani, 2009). This fundamental difference shapes how new financial instruments, including cryptocurrencies, are evaluated within Islamic jurisprudence. Because cryptocurrency markets are often associated with price volatility, speculative trading, and uncertain intrinsic valuation, this adds to the ongoing debate regarding the Shariah compliance of cryptocurrency. Islamic scholars hold diverse views on cryptocurrency adoption. Some scholars and Shariah advisory bodies argue that certain cryptocurrencies may be permissible if they function effectively as a medium of exchange, possess market acceptance, and are not primarily used for speculative or unlawful activities (Alzahrani & Daim, 2019; Birjaman, Marits, & Herman, 2024). For example, proponents contend that decentralized digital currencies can facilitate financial inclusion, reduce transaction costs, and support cross-border payments, which aligns with Islamic finance principles that encourage efficient and transparent economic exchange (Hassan, Shafiq, & Ashraf, 2022). Conversely, other scholars express reservations, arguing that cryptocurrencies involve excessive uncertainty (gharar), speculative behavior, and lack intrinsic or asset-backed value, which may contradict Shariah requirements for stability and fairness in financial transactions (Meera, 2018; Kamdzhlov, 2020).

Despite these differing interpretations, the potential benefits of cryptocurrency adoption include faster cross-border transactions, reduced remittance costs, enhanced financial inclusion for unbanked populations, and greater transparency through blockchain technology. However, these benefits are accompanied by several risks such as high price volatility, regulatory uncertainty, cybersecurity vulnerabilities, and the possibility of speculative trading and illicit financial activities. From a Shariah perspective, these risks intensify concerns related to gharar and maysir, thereby contributing to ongoing scholarly debate. With such contrasting views, there remains considerable uncertainty regarding the permissibility and adoption of cryptocurrency, which has contributed to hesitation among Muslim investors.

Islamic cryptocurrency projects have been designed to tackle the concerns of Shariah governance. Projects like OneGram, X8X Token, and HelloGold have been structured to incorporate asset-backing and Shariah advisory oversight. Still, there is an evident lack in the adoption of Islamic cryptocurrency in Malaysia, where awareness exceeds usage (Sukumaran, Bee and Wasiuzzaman, 2022). This shows that increased availability does not equal adaptation, and investor attitudes, beliefs, and perceptions are likely to play a decisive role. The Technology Acceptance Model (TAM) provides a relevant theoretical foundation to study these dynamics. TAM theorizes that Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) influence user acceptance of new technologies (Davis, 1989). Perceived Usefulness (PU) in the context of Islamic cryptocurrency refers to investors' belief in the financial or functional benefits, such as secure transactions or diversified portfolios. Perceived Ease of Use (PEOU) is the simplicity of understanding, acquiring, storing, and transacting with the currency. However, it is important to note here that the adoption of Islamic cryptocurrency adds a religious dimension in the form of Perceived Shariah Compliance (PSC). This variable reflects the investors' belief that cryptocurrency adheres to Islamic ethical and legal standards.

Despite the rapid development of Islamic finance in Malaysia and the emergence of several Islamic cryptocurrency initiatives, there is still a lack of empirical research on the determinants of adoption among Muslim investors. There is limited research that looks into the integration of TAM with Islamic financial principles, and even fewer that focus on the region of Malaysia. As cryptocurrency continues to grow, there is an urgent call for empirical research combining technology acceptance perceptions and Shariah compliance considerations in order to explain adoption behavior in Muslim-majority financial environments. The present study addresses this research gap by proposing a framework on the Adoption Intention (AI) of Islamic cryptocurrency among Muslim investors in Malaysia.

## 2. Literature Review

The term, adoption intention as defined in the context of behavioural intention theories, refers to the willingness to adopt a new product, technology or system (Bajunaied et al., 2023). Adoption intention is often used in a technological context to determine future adoption behaviour, since it encompasses cognitive preparedness and evaluative perceptions that precede usage. This concept is even more relevant within financial technology (FinTech), since there is a high level of perceived risk and information asymmetry with digital financial tools (Mahmud, Joarder and Muheymin-Us-Sakib, 2022). Regarding the issue of the permissibility of cryptocurrency, there are different views of Islamic scholars. On one side, there are scholars who are in favour of the use of cryptocurrency, stating that it is *halal* and permissible if appropriately asset-backed, or used as a medium of exchange (Selcuk & Kaya, 2021). On the other side, many argue against its use, raising concerns regarding speculative trading and lack of intrinsic value (Selcuk and Kaya, 2021). These conflicting opinions increase the level of uncertainty, and perceived Shariah compliance becomes a vital predictor of the adoption intention, especially in Malaysia, where the Islamic financial literacy and regulatory expectations are relatively advanced.

Recent studies have continued to examine cryptocurrency from an Islamic jurisprudence perspective. For instance, Muhammad (2024) highlights that Shariah scholars remain divided regarding the permissibility of cryptocurrencies due to concerns about volatility and speculative trading. Similarly, Tahir et al. (2025) argue that cryptocurrencies may be recognised as *māl* (wealth or property) in Islamic law, indicating growing scholarly interest in treating digital assets within established Islamic economic frameworks.

Perceived Shariah Compliance or PSC is the belief of an individual about the level of compliance of any financial product with Islamic values, avoiding every element prohibited under Shariah law. There is empirical evidence to support the role of PSC in influencing trust, satisfaction and willingness of Muslim consumers (Ahmed et al., 2021). There is more evidence that shows that PSC has been a central determinant for the adoption of Islamic banking, *Sukuk* investments, and *Takaful*, alongside economic and technological considerations (Jamshed and Uluyol, 2024). This clearly presents the powerful psychological and religious impact of Shariah perceptions.

PSC takes on an even more central point in the discussion of cryptocurrency. PSC can help to answer the ongoing debates between Islamic scholars concerning the permissibility of

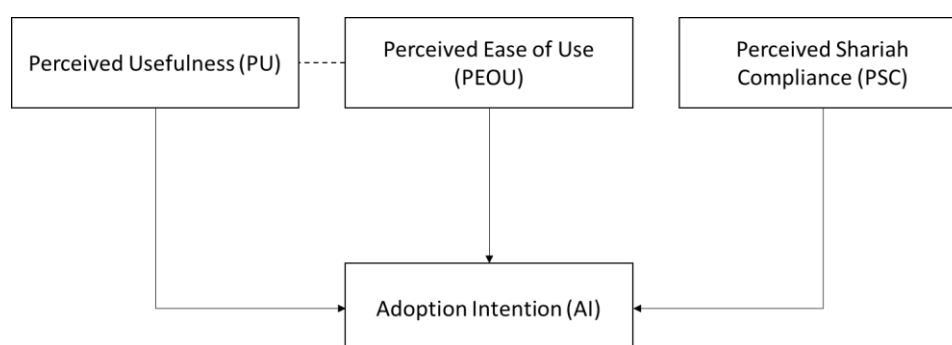
crypto assets. Research notes that primary issues behind investor uncertainty and reluctance are volatility, speculative behaviour, and lack of asset backing (Almeida & Gonçalves, 2023). There has been advancement with Islamic cryptocurrency initiatives, but still, PSC remains a key point for investors. This is because existing research tends to focus on general perceptions of cryptocurrency rather than formal Islamic cryptocurrency projects.

Several key insights and gaps emerged from the reviewed literature. Firstly, although the adoption intention has been extensively researched in overall FinTech and cryptocurrency literature, empirical studies focusing on the Islamic cryptocurrency adoption remain extremely limited. The available literature focuses on awareness and perceptions towards generic cryptocurrency adoption. This leaves behind a gap in the knowledge around the understanding of Muslim investors towards *Islamic cryptocurrency*.

Secondly, while there is a use of TAM in previous cryptocurrency studies. These studies fail to incorporate Shariah-related constructs, which once again alienates the Muslim population. This is especially necessary to address, as there is evidence that Muslim investors are keen on Shariah compliance when assessing financial products. While current research takes into account the role played by risk and utility, it still does not consider religious legitimacy. PSC remains a severely underexplored variable in digital finance research, and this limits generalizability to Muslim settings.

Thirdly, there is a particular inconsistency reported in empirical data on PU and PEOU concerning cryptocurrency. There is evidence for strong positive relationships from a few studies, while on the other hand, there are also studies which exhibit weak and insignificant effects because of volatility, regulatory issues, and complex technological aspects. Therefore, this inconsistency highlights the dire need for context-specific examinations, especially regarding Islamic finance.

Lastly, there exists a geographical gap. Even though Malaysia is one of the global leaders in terms of Islamic finance, this region is still under-researched for FinTech adoption, particularly cryptocurrency. The majority of the research either focuses on the Middle East or the Association of Southeast Asian Nations (ASEAN) altogether, rather than fully focusing on one region. addresses critical empirical, contextual, and theoretical gaps by integrating PSC, PU, and PEOU to examine adoption intention among Muslim investors in Malaysia. Fig 1 shows the conceptual framework.



**Fig 1. Conceptual Framework**

### 3. Conclusion & Implications

This study focuses on the adoption of Islamic cryptocurrency in Malaysia by integrating technological and religious determinants into a unified analytical model. The findings from the reviewed literature show that adoption intention within Muslim-majority contexts depends not only on perceived functional and technological utility but also on perceived Shariah compliance. TAM-based factors such as Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) have been widely established as key predictors in financial technology adoption, yet the literature highlights inconsistencies when these constructs are applied to cryptocurrency due to volatility, regulatory ambiguity and technological complexity. At the same time, the review shows that Perceived Shariah Compliance (PSC) plays a critical role in shaping the behaviour of Muslim investors, confirming the need to integrate ethical and religious factors into mainstream adoption frameworks.

This research holds substantial theoretical, practical, and policy implications. Theoretically, the research expands by incorporating TAM with Shariah compliance to enhance the relevance both culturally and religiously. This provides a new contextualized model for decision-making for Muslim investors. The findings from the study also contribute to scholarly discourse, offering empirical evidence on the interaction between religious legitimacy and technological factors, and the influence of this interaction on the adoption of Islamic digital assets.

Practically, the study framework can provide actionable insights for stakeholders involved in Islamic cryptocurrency development and promotion. Islamic FinTech firms can use the findings to refine their product strategies, ensuring that their platforms address usability concerns while clearly communicating Shariah compliance features. Even developers can improve interface design, security features, and user experience based on the identified significance of PU and PEOU.

For policymakers and regulators, the research offers guidance for designing regulatory frameworks that support the growth of Islamic digital finance. Understanding investor behaviour enables more informed policy decisions regarding licensing, compliance requirements, consumer protection, and digital asset regulation.

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