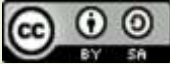


## Customer Loyalty in Islamic Digital Banking: Trust as Mediator of Risk, Security, and Reputation

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Article History:	Abstract
<p>Corresponding Author: Harun Alrasyid <a href="mailto:harunalrasyid@unisma.ac.id">harunalrasyid@unisma.ac.id</a></p> <p><b>Submitted:</b> February 9<sup>th</sup>, 2026</p> <p><b>Revised:</b> April 20<sup>th</sup>, 2026</p> <p><b>Accepted:</b> May 6<sup>th</sup>, 2026</p> <p><b>Published:</b> May 12<sup>nd</sup>, 2026</p> <p><b>Copyright:</b> ©2026. Harun Alrasyid, Khalikussabir, Nuur Halimatus Sa'diyah Masrukhin</p>  <p>This article is licensed under the Creative Commons Attribution- Share Alike 4.0 International License. <a href="http://creativecommons.org/licenses/by-sa/4.0/">http://creativecommons.org/licenses/by-sa/4.0/</a></p>	<p><b>Objective:</b> This research aims to examine the effects of risk management, security, and reputation on customer loyalty in Islamic digital banking, with trust acting as a mediating variable.</p> <p><b>Method:</b> This research uses a quantitative explanatory approach based on cross-sectional survey data collected from 252 Indonesian users of Islamic digital banking services, selected through purposive sampling of active users and analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM), with acknowledged limitations regarding generalisability.</p> <p><b>Result:</b> The findings show that risk management and security have significant positive effects on customer loyalty, both directly and indirectly through trust. Reputation does not have a direct effect on customer loyalty; however, its influence becomes significant when fully mediated by trust, indicating total mediation. Trust is identified as the most influential factor in strengthening customer loyalty.</p> <p><b>Implication:</b> This suggests that Islamic digital banks should prioritize strengthening risk management and security systems to enhance customer trust, as institutional protection mechanisms contribute to sustainable customer loyalty only when internalized as trust</p> <p><b>Originality or Novelty:</b> This study provides a comprehensive mediation framework by integrating risk management, security, and reputation simultaneously in explaining customer loyalty through trust within the context of Islamic digital banking in an emerging market.</p> <p><b>Keywords:</b> Customer loyalty; Customer trust; Cybersecurity; Digital banking; Risk management.</p>

### Introduction

Digital banking has become the most common channel for delivering financial services, transforming how banks interact with their client groups and creating competitive advantages in rapidly growing, technology-driven markets. Digital banking platforms are identified as strategic tools to enhance customer experience as well as competitiveness in the long run since they allow continuous access and facilitate the reduction of transaction costs and enhancement of operational efficiency (Shahid et al., 2022; Zhou et al., 2021). Nonetheless, digitalization of

banking services has also led to the sudden rise in institutional challenges related to operational risk, cybersecurity threats, and reputational vulnerability, which, respectively, directly impact customer perceptions and behavioral outcomes (Jafri et al., 2024; Wang et al., 2024).

The situation in the modern digital banking environment is such that customer loyalty can no longer be attributed to the functional benefits, or even to price. Instead, some loyalty is determined by the degree of their trust in a bank to resist any risks, safeguard sensitive information, and have a reasonable level of credibility despite the ongoing technological change. (Bui et al., 2022; Cardoso & Cardoso, 2024). Customer loyalty will increase the likelihood of continued use of digital banking services, persuade others to follow the same path, and discourage the use of other platforms, making loyalty the key to the sustainability of performance in the banking industry. (Ho et al., 2025; Tiwari, 2022).

Trust is credited as one of the fundamental drivers in the use of technology services in financial services, among other customer loyalty determinants. Opportunities to trust capture the conviction of customers that a bank is good and has the ability and goodwill in their best interest, particularly in service delivery settings characterized by extreme uncertainty and risk (Naruetharadhol et al., 2021). The problem of trust is even more relevant in the frame of digital banking because customers cannot physically monitor internal risk management and security practices, and are forced to base their perception on the perceived indicators and their previous experience. (Aldboush & Ferdous, 2023).

The antecedents of trust and loyalty in digital banking analyzed in existing studies are highly diverse, with the most common being usefulness, ease of use, service quality, privacy issues, and customer experience. (Geebren & Jabbar, 2025; Shahid et al., 2022). Other lines of studies have also emphasized the significance of the perceived security and privacy assurance in the development of trust and continued usage intention. (Dias et al., 2025; Jafri et al., 2024). Although such studies are informative, they tend to focus on customer-level insights or technological features, giving relatively limited attention to broader institutional forces, including risk-management processes and corporate reputation, that shape the development of trust in digital banking ecosystems.

Risk management is a fundamental institutional banking capacity that involves policies and procedures designed to recognize, evaluate, and reduce financial, operational, and technological risks. Risk management is strongly correlated with service reliability, system stability, and continuity in digital banking, which, in turn, determine customers' trust in digital platforms. (Wang et al., 2024). Even though customers do not directly observe the risk-management process at banks, consistent service performance and the absence of major failures can be interpreted as unspoken messages that build trust over time. (Krishna et al., 2025). However, there is a lack of empirical studies to support the association between risk management and customer loyalty through trust.

Another key aspect of customer reviews of digital banking services is security. Customers can easily lose trust and destroy relationships built over time due to cybersecurity attacks, data breaches, and unauthorized access (Jafri et al., 2024; Taneja et al., 2024). Previous studies have also shown a positive effect of perceived security on trust and satisfaction in the setting of mobile and online banking (Che et al., 2023; Haghghinasab et al., 2025). Nevertheless, much literature treats security as a direct predictor of loyalty, with inconclusive results, with inconclusive results,

which may be attributed to differences in research contexts, sample characteristics, and measurement approaches across studies. In contrast, the psychological process underlying it, i.e., trust, has been investigated little in detail in integrated empirical studies.

Corporate reputation is also an important element in determining customer behavior in financial services. Reputation is a strong indicator of the bank's overall credibility, moral principles, and sustainability in the context of information asymmetry. (Cardoso & Cardoso, 2024; Riza & Anadila, 2024). A strong reputation can be used to build trust in digital banking, where customers often face uncertainty about the quality of service and the safety of their data. Perceived risk reduces perceived risk, and positive expectations foster responsible behavior. (Almaiah et al., 2023; Raj et al., 2024). Although it is an important concept, reputation has been mostly addressed as a direct cause of loyalty or as an outcome measure, and its indirect role via trust has not been sufficiently explained.

Combined, this existing literature demonstrates two main weaknesses. To start with, the existing literature tends to examine risk management, security, and reputation as individual issues, rather than within an integrated framework that captures the nature of digital banking as an institution. Second, trust is often viewed as a critical factor. However, it is often formulated as a separate predictive variable or even ignored, rather than placed as an explicit mediating mechanism that facilitates the translation of institutional factors into customer loyalty outcomes. (Naruetharadhol et al., 2021).

To seal these gaps, this research paper's hypothesis empirically analyzes a mediation model in which trust is the focal point of the interconnection between risk management, security, reputation, and customer loyalty in digital banking. The study bases its argument on trust and signaling theories, arguing that loyalty is not directly created by institutional capabilities and signals but is internalized by the customer as trust. This study addresses calls to conduct more context-specific studies of trust-based mechanisms in technology-intensive bank financial services by focusing on the users of digital banking. (Ho et al., 2025; Jafri et al., 2024).

This study has a triple contribution. Conceptually, it enhances the digital banking literature by incorporating the concepts of risk management, security, and reputation into a coherent framework that explains customer loyalty through trust. Empirically, it provides evidence of the mediating role of trust using data from digital banking customers, thereby explaining the inconsistent results of previous studies. In practice, the findings are informative for banking sector managers because they underline the need to enhance institutional trust-building processes as a channel for attaining sustainable customer loyalty in digital banking settings.

## **Literature Review**

Customer loyalty is an indication of a long-term intent by a customer towards the desire to have a relationship with a service provider, even when there is an option. Customer loyalty is especially valuable in the banking sector since it leads to higher lifetime value, less switching behavior, and word of mouth (Bui et al., 2022; Tiwari, 2022). In the framework of digital banking, loyalty exceeds the repetitive use of technology and reflects the willingness of customers to entrust complicated and hazardous financial operations to technological infrastructure. The speed of banking services digitization inherently changes the character of loyalty formation because online communication deprives people of physical interaction, adds complexities to the technological

interactions, and exposes the customer to an increased risk of operational and security threats (Che et al., 2023; Shahid et al., 2022; Zhou et al., 2021). Consequently, loyalty to digital banking is less premised on functional benefits like convenience and more based on institutional mechanisms, which lower uncertainty.

According to relationship marketing theory, loyalty is established on a relational basis, especially trust and commitment, and not on a transactional basis. (Naruetharadhol et al., 2021). Trust is thus a key pillar in digital banking, where the customer foregoes the control of sensitive financial data and transactions to systems facilitated by technology, and in many cases, has no direct human interaction. (Aldboush & Ferdous, 2023). According to the trust theory, trust diminishes the perceived uncertainty and enables long-term relationships in the risk- and information-imbalanced environment. (Damberg et al., 2022; Zhang et al., 2023). The results of empirical research have continuously shown that trust has a positive impact on the intention to continue using, commitment to relationships, and bank loyalty in digital and mobile banking environments. (Cardoso & Cardoso, 2024; Naruetharadhol et al., 2021).

Trust is also applied as a psychological process in terms of which customers internalize institutional messages in digital banking. Since customers do not have a chance to see the actual organizational processes, they use perceived signals to develop trust and behavioral intentions. Risk management is one such indicator that is used to determine the capacity of a bank to define, evaluate, and address financial, operational, and technological risks. Risk management helps to increase the reliability of the system and its continuity of service, which is an indicator of institutional competence and reliability to the customers. (Wang et al., 2024). Regular control of risks in the long term reinforces trust, and it could directly stimulate loyalty, as people will feel confident about using the services of digital banking again. (Krishna et al., 2025).

Trust (*amanah*) is a principle of economic transactions in the Islamic view, which places an emphasis on honesty, accountability, and the protection of the rights of stakeholders. The Islamic financial institutions are supposed to uphold Sharia values, such as justice (*adl*), transparency, and the lack of such bad practices as *gharar* (excessive uncertainty) and *riba* (interest), which are embodied in their governance and operation practices. Trust in the context of Islamic banking is not only a psychological construct but also the views of customers towards Sharia compliance and ethical accountability. (Farooq et al., 2021). Moreover, previous research emphasizes that trust is a key factor in producing customer loyalty in Islamic banking, especially with institutional integrity and ethical commitment. (Muflih et al., 2024). Thus, risk management, security, and reputation are institutional features of Islamic digital banking both as functional features and as indicators of ethical and Sharia compliance, which are vital in establishing sustainable customer trust.

Security is another important institutional indicator, which is defined as how customers link the efficiency of technical and organizational mechanisms that safeguard personal data, as well as financial transactions. Considering the level of cyber threats, one of the greatest concerns in digital banking and determiners of trust is perceived security (Jafri et al., 2024). According to the signaling theory, apparent security implementation like authentication, encryption, and notifications of security decreases information asymmetry and promotes perceived trustworthiness (Almaiah et al., 2023). According to previous empirical research, it has been proven that security has a positive impact on trust and may also have a direct effect on customer

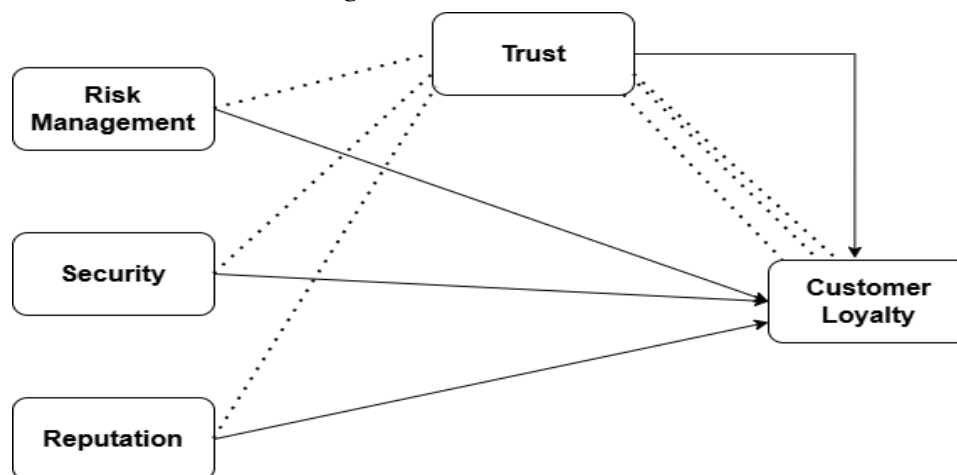
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loyalty by decreasing customer intentions to change to other platforms (Apau et al., 2025; Dias et al., 2025).

Corporate reputation also helps to influence customer perception as it is an intangible asset in which the credibility, ethical behaviors of an organization, and its performance over the long term are reflected. Reputation is a heuristic in digital banking settings in which transparency is limited, resulting in customers basing their expectations and trust on it. (Cardoso & Cardoso, 2024; Maysyaroh, 2024). Signaling theory implies that a good reputation means stability, professionalism, and responsible conduct, which reduces the risk in its perception, thus creating trust. (Farooq et al., 2021; Olaleye et al., 2018). Reputation can have a direct effect on loyalty due to the emotional connection. Still, in this case, its effects will be more pronounced when embedded by the customers in the form of trust as reputational signals. (Sharma & Joshi, 2024).

Combining both trust theory and signaling theory, trust may be seen as the key intermediate variable whereby the institutional characteristics, comprising risk management, security, and reputation, influence customer loyalty in digital banking. However, prior studies tend to examine these variables in isolation or focus on limited relationships, resulting in fragmented findings and an incomplete understanding of how institutional factors jointly shape customer loyalty. Although other researchers have performed research that supports the mediating influence of trust on technology-enabled services, most studies are conducted in general digital or mobile banking contexts, with limited attention to Islamic digital banking and emerging market settings such as Indonesia. Furthermore, the role of trust is often treated as a partial mediator, rather than being examined within a comprehensive mediation framework that simultaneously integrates multiple antecedents. To fill this gap, the current paper suggests an elaborate framework whereby trust mediates the relation between risk management, security, reputation, and customer loyalty in digital banking. The proposed research model illustrating these relationships is presented in Figure 1.

*Figure 1. Research Model*



Based on this framework, the following hypotheses are developed:

H1: Risk management has a positive effect on trust in digital banking.

H2: Security has a positive effect on trust in digital banking.

H3: Reputation has a positive effect on trust in digital banking.

H4: Risk management has a positive effect on customer loyalty in digital banking.

H5: Security has a positive effect on customer loyalty in digital banking.

H6: Reputation has a positive effect on customer loyalty in digital banking.

H7: Trust has a positive effect on customer loyalty in digital banking.

H8: Trust mediates the relationship between risk management and customer loyalty in digital banking.

H9: Trust mediates the relationship between security and customer loyalty in digital banking.

H10: Trust mediates the relationship between reputation and customer loyalty in digital banking.

## Research Methodology

A quantitative explanatory research design, using a cross-sectional survey, was employed in this study to investigate the interrelationships among risk management, perceived security, reputation, trust, and customer loyalty in the context of Islamic digital banking. The quantitative method is considered suitable in theorizing and estimating associate (rather than strictly causal) relationships between latent constructs in an integrated model. (Creswell, 2014). The Islamic digital banking environment is of special relevance, as technology-intensified transactions increase uncertainty and, in turn, heighten vulnerability, making trust one of the most significant relational processes for bridging institutional protection with loyalty effects.

Customers of Islamic banks in Indonesia who actively use digital banking services (mobile and/or internet banking) were the target population. A purposive sampling strategy was used to ensure that the respondents had adequate experience assessing the study constructs. (Etikan, 2016), although this approach may introduce selection bias and limit generalizability. Sampling criteria included: (1) customers of Islamic banks, which operate in Indonesia; (2) minimum six months of mobile/internet banking use; and (3) customers who suffered or heard about cyber-related disruptions, e.g., temporary service outage or limited access to their accounts, to ensure respondents' familiarity with security-related issues, although this criterion may involve subjective perception. The data were gathered in January-April 2025 through an online questionnaire distributed via email and social media. After the completeness and eligibility screening, 252 valid responses were included for analysis. This sample size meets the minimum requirements for PLS-SEM based on the "10-times rule" and is considered adequate for models with moderate complexity. (Hair et al., 2019), although caution is needed in generalizing the findings.

Validated measurement scales were modified to operationalize the constructs based on prior research in digital banking and financial services and subsequently narrowed to reflect a post-cyber-incident environment. The detailed measurement items and their respective sources are presented in Table 1.

**Table 1. Measurement Items and Sources**

Construct	Code	Measurement Item	Reference
Customer Loyalty (CL)	CL1	Satisfaction with Islamic bank services	(Bui et al., 2022; Naruetharadhol et al., 2021; Tiwari, 2022)
	CL2	Low intention to switch to other banks	
	CL3	Emotional attachment to the bank	
	CL4	Intention to continue using the service	
	CL5	Willingness to recommend to others	
	CL6	Perceived reliability of bank services	

	CL7	Continued use despite alternative offers	
<b>Risk Management (MR)</b>	MR1	Ability to identify cyber threats quickly	(Hossain et al., 2025; Jafri et al., 2024; Raza et al., 2020)
	MR2	Effectiveness of mitigation against cyber risks	
	MR3	Speed of service recovery after disruptions	
	MR4	Existence of proactive and future-oriented risk procedures	
	MR5	Transparency of risk management policies	
<b>Security (SC)</b>	SC1	Protection of personal data	(Hossain et al., 2025; Jafri et al., 2024; Raza et al., 2020)
	SC2	Prevention of unauthorized access	
	SC3	Use of secure transaction technologies	
	SC4	Regular updates of security systems	
	SC5	Compliance with international security standards	
<b>Reputation (RP)</b>	RP1	Consistency in applying Sharia principles	(Farooq et al., 2021; Madariaga & Rivero, 2022)
	RP2	Reputation resilience after adverse events	
	RP3	Commitment to Sharia values	
	RP4	Positive media influence on perception	
<b>Trust (TR)</b>	TR1	Reliability of digital services	(Alrasyid et al., 2023; Muflih et al., 2024)
	TR2	Perceived safety of digital transactions	
	TR3	Trust strengthened by service improvement.	
	TR4	Long-term commitment to using the service	

Source: Author's data

All measures were taken on a five-point Likert scale, with options ranging from 1 (strongly disagree) to 5 (strongly agree). It was an analysis using partial least squares structural equation modeling (PLS-SEM), which is appropriate for prediction-oriented models and latent-variable mediation tests. (Hair et al., 2014, 2019). The analysis presented in the paper involved a two-step process: the first step evaluated the measurement model for internal consistency and validity, and the second step tested the hypothesized direct effects and the mediating role of trust. Bootstrapping was the technique used to assess the indirect effects, as it is necessary to infer mediation in SEM strongly. (Hair et al., 2019; Preacher & Hayes, 2008).

## Results and Discussion

### Results

The analysis sample comprised 252 customers of Islamic banks in Indonesia who actively utilize digital banking services. The characteristics of the respondents were also analyzed before hypothesis testing to contextualize the sample and determine whether it was relevant to the research objectives. Table 1 provides detailed demographic and usage profiles of the respondents.

According to Table 2, the sample will consist mainly of young adults (21-30 years old), suggesting that younger customer segments are the most dominant in utilizing digital Islamic banking. The female respondents are marginally higher than the male respondents, so the gender participation is relatively balanced. Education-wise, most respondents have completed up to senior high school or a university education, which is sufficient to demonstrate their level of digital literacy to access mobile and internet banking services. In terms of occupation, students and those in the private sector hold the highest proportion, followed by entrepreneurs and employees in the public sector.

Regarding digital banking experience, Table 2 indicates that most respondents have used Islamic digital banking services for over 1 year, and most use them at least once or twice a week, with many indicating higher frequency. These results suggest that the respondents have sufficient familiarity and experience with transactions to assess risk management, security, trust, and loyalty.

**Table 2. Respondent Characteristics (n = 252)**

Category	Classification	n	%
Gender	Male	108	42.9
	Female	144	57.1
Age	Below 20 years	8	3.2
	21–30 years	183	72.6
	31–40 years	32	12.7
	41–50 years	22	8.7
	Above 50 years	7	2.8
Education	High school	126	50.0
	Diploma/Bachelor	101	40.1
	Master's or above	25	9.9
Occupation	Student	119	47.2
	Private-sector employee	58	23.0
	Entrepreneur	43	17.1
	Public-sector employee	32	12.7
Duration of use	< 1 year	61	24.2
	1–2 years	89	35.3
	> 2 years	102	40.5
Usage frequency	1–2 times/week	111	44.0
	3–4 times/week	78	31.0
	≥5 times/week	63	25.0

*Source: Author's data processing (2025)*

Before evaluating the structural relationships, the measurement model was assessed to ensure reliability and validity. The results, as presented in Table 3, show that all indicator loadings exceed the recommended threshold of 0.70, indicating satisfactory indicator reliability. Furthermore, Cronbach's Alpha and Composite Reliability values for all constructs are above 0.70, confirming strong internal consistency. The Average Variance Extracted (AVE) values also exceed 0.50 for all constructs, demonstrating adequate convergent validity.

**Table 3. Measurement Model Results**

Construct	Indicator	Loading	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Customer Loyalty	CL1	0.773	0.923	0.924	0.938	0.683
	CL2	0.854				
	CL3	0.809				
	CL4	0.863				
	CL5	0.846				
	CL6	0.819				
	CL7	0.819				
Risk Management	MR1	0.856	0.886	0.887	0.916	0.686
	MR2	0.838				
	MR3	0.803				
	MR4	0.838				
	MR5	0.806				
Reputation	RP1	0.830	0.864	0.867	0.907	0.710
	RP2	0.817				
	RP3	0.876				
	RP4	0.845				
Security	SC1	0.836	0.886	0.888	0.916	0.687
	SC2	0.836				
	SC3	0.876				
	SC4	0.785				
	SC5	0.810				
Trust	TR1	0.800	0.861	0.868	0.906	0.707
	TR2	0.892				
	TR3	0.867				
	TR4	0.801				

Source: Author's data processing (2025)

These results confirm that all constructions are measured reliably and are suitable for subsequent structural model analysis. Discriminant validity was assessed using the Fornell-Larcker criterion, with the results presented in Table 4. The findings show that the square roots of the Average Variance Extracted (AVE) values are greater than the inter-construct correlations, indicating that each construct is empirically distinct and confirming that discriminant validity has been achieved.

**Table 4. Discriminant Validity (Fornell-Larcker Criterion)**

Construct	Loyalty	Risk Management	Reputation	Security	Trust
Customer Loyalty	<b>0.827</b>				
Risk Management	0.677	<b>0.829</b>			
Reputation	0.662	0.662	<b>0.842</b>		
Security	0.730	0.678	0.774	<b>0.829</b>	
Trust	0.808	0.618	0.706	0.733	<b>0.841</b>

Source: Author's data processing (2025)

However, given the relatively high correlation between certain constructs, particularly between trust and customer loyalty (0.808), an additional assessment using the Heterotrait-Monotrait ratio (HTMT) was conducted to validate discriminant validity further. The HTMT results, presented in Table 5, show that all values are below the recommended threshold of 0.90 (Henseler et al., 2015), indicating that discriminant validity is established across all constructs. Although the HTMT value between trust and customer loyalty (0.899) is relatively high, it remains within acceptable limits, suggesting that the two constructs, while closely related, are empirically distinguishable.

**Table 5. Discriminant Validity (HTMT Criterion)**

Construct	Loyalty	Risk Management	Reputation	Security	Trust
Customer Loyalty	-				
Risk Management	0.744	-			
Reputation	0.732	0.754	-		
Security	0.803	0.765	0.881	-	
Trust	0.899	0.705	0.815	0.836	-

Source: Author's data processing (2025)

After confirming the adequacy of the measurement model, the structural model was evaluated using bootstrapping procedures, with the results of direct hypothesis testing presented in Table 6. The findings indicate that risk management, security, and reputation have significant positive effects on trust, while customer loyalty is significantly influenced by risk management, security, and trust. In contrast, reputation does not have a significant direct effect on customer loyalty. Among all predictors, trust exhibits the largest standardized path coefficient, highlighting its dominant role in explaining customer loyalty in Islamic digital banking.

**Table 6. Structural Model Results (Direct Effects)**

Hypothesis	Path	$\beta$	t-value	p-value	Result
H1	Risk Management → Trust	0.149	2.734	0.006	Supported
H2	Security → Trust	0.403	5.894	<0.001	Supported
H3	Reputation → Trust	0.295	3.539	<0.001	Supported
H4	Risk Management → Loyalty	0.222	3.881	<0.001	Supported
H5	Security → Loyalty	0.201	2.155	0.031	Supported
H6	Reputation → Loyalty	-0.020	0.213	0.832	Not supported
H7	Trust → Loyalty	0.538	3.898	<0.001	Supported

Source: Author's data processing (2025)

To further examine the role of trust, mediation analysis was conducted using specific indirect effects, with the results presented in Table 7. The findings indicate that trust partially mediates the relationships between risk management and customer loyalty, as well as between security and customer loyalty. In contrast, it fully mediates the relationship between reputation and customer loyalty, as the direct effect of reputation on loyalty is not significant, but the indirect effect through trust is significant.

**Table 7. Mediation Analysis Results**

Hypothesis	Indirect Path	$\beta$	t-value	p-value	Mediation Type
H8	Risk Management → Trust → Loyalty	0.080	2.502	0.012	Partial
H9	Security → Trust → Loyalty	0.217	3.709	<0.001	Partial
H10	Reputation → Trust → Loyalty	0.159	3.293	0.001	Full

*Source: Author's data processing (2025)*

This result points to the fact that reputation does not have a direct effect on customer loyalty, but it works only in terms of trust. It indicates that reputation is an external signal, and before it can affect loyalty, customers must internalize it. The outcome reinforces both signaling and trust theories by finding that trust is the most important mechanism between institutional attributes and customer loyalty.

In the end,  $R^2$  and  $Q^2$  statistics were used to assess the explanatory and predictive power of the structural model. As presented in Table 8, the model explains 71.8% of the variance in customer loyalty and 59.6% in trust, which is considered good. Moreover, the positive values of  $Q^2$  reveal that the model has acceptable predictive relevance.

**Table 8. Model Explanatory and Predictive Power**

Endogenous Construct	$R^2$	$Q^2$
Customer Loyalty	0.718	0.479
Trust	0.596	0.411

*Source: Author's data processing (2025)*

The empirical results presented above provide both direct and indirect evidence of how risk management, security, and reputation influence customer loyalty in Islamic digital banking through the mediating role of trust. These findings are discussed in the following context of the existing theoretical frameworks and recent empirical research on digital banking and fintech, especially the primary role of trust as a means of translating organizational and technological features into long-lasting customer loyalty.

## Discussion

### Risk Management, Trust, and Customer Loyalty

The findings show that risk management affects customer loyalty and customer trust significantly and positively, and trust mediates this relationship partly. This finding aligns with extensive research on digital banking, which shows that perceived risk reduction plays a critical role in building trust and sustaining continued use of the service. (Jafri et al., 2024; Taneja et al., 2024). Financial, privacy, and operational risks are more sensitive in digital banking settings, and risk management is a key element in establishing trust.

According to the partial mediation pattern, risk management is found to affect loyalty in both direct and indirect ways. Customers immediately appreciate strong risk-management measures, as they minimize uncertainty and potential losses. Indirectly, proper risk governance strengthens trust, thereby enhancing loyalty. This result is consistent with research showing that trust is a major psychological process that connects risk-related perceptions and long-term behavioral consequences in mobile and digital banking (Naruetharadhol et al., 2021; Rosula et

al., 2024). Strict risk management in Islamic banking can take on added significance given the institutions' focus on ethical responsibility and accountability. The clients would feel that the firm is compliant, its managers are upright and dependable, which will strengthen trust and loyalty.

### **Trust and Loyalty as a Foundation of Security**

Security turns out to be the strongest predictor of trust and a strong determinant of customer loyalty, and trust partially mediates this relationship. [Click or tap here to enter text.](#) Previous studies have strongly supported the view that security is a precondition for trust in digital financial services. (Dias et al., 2025; Wang et al., 2024). Secure digital infrastructure will help customers gain confidence in using digital banking platforms, as they will be convinced that their data and transactions are secure.

The direct impact of security on loyalty is high, suggesting that customers do not view security solely as a trust-building factor but also as a distinct motivator for continued use. This opinion can be supported by results from fintech and mobile banking research, which show that perceived security directly increases customer satisfaction and loyalty intentions. (Barre et al., 2023; Bui et al., 2022). The partial mediation of trust also indicates that, though security may have a direct influence on loyalty, its overall effect is significantly enhanced when customers internalize security perceptions as part of trust in the institution. These findings support the argument that security serves as both a technical measure and a relationship cue, especially in digital banking environments where cybersecurity anxiety is higher. (Krishna et al., 2025; Nguyen et al., 2021).

### **Reputation as a Trust Signal, and not a Loyalty Direct Driven**

Unlike risk management and security, reputation has little direct impact on customer loyalty. However, reputation has a significant impact on trust and an indirect impact on loyalty through trust, implying complete mediation. The observation aligns with previous literature that, first, corporate reputation affects customer behaviors indirectly through trust, and second, it does not directly influence loyalty. (Cardoso & Cardoso, 2024; Sharma & Joshi, 2024).

Digital banking reputation provides signals that reduce customer uncertainty and expectations before and throughout service use. However, the reputational strength itself does not appear to be enough to sustain the loyalty unless it is converted into credible online service experiences. This explanation is consistent with the results of the research, which state that reputation enhances trust, which consequently results in satisfaction and commitment. (Haghighinasab et al., 2025; Muflih et al., 2024). This research recorded the whole mediation process, which means the shifting role of the reputation in technology-mediated financial services. A positive reputation is a credibility indicator that drives loyalty when customers consider the digital banking service effective, safe, and continuously available.

### **Trust as the Key Driver of Customer Loyalty**

Trust is the strongest predictor of customer loyalty, and its impact is the largest of all. This outcome corresponds to the broad body of literature related to the digital banking and fintech sector, where trust is regarded as one of the important aspects of customer retention and long-term involvement. (Albaity & Rahman, 2021; Tiwari, 2022). Trust also lowers perceived uncertainty, brings in more emotional comfort and commitment by the customers to the bank.

The pivotal quality of trust is also evident in the model, where it mediates several relationships. The possibility of risk management, security, and reputation influencing loyalty is

based on trust as a key element and on the integrated role these elements play in translating organizational and technological properties into a behavioral outcome. Likewise, previous studies have found similar results investigating trust-based channels of loyalty in mobile banking and digital financial services (Haghighinasab et al., 2025; Naruetharadhol et al., 2021). Trust can be especially relevant in the case of Islamic digital banking since trust in technology and trust in ethics are both expected to be met simultaneously. Trust is a pillar of long-term loyalty, as customers use it to assess the system's performance and the institution's integrity.

From an Islamic perspective, the dominant role of trust in influencing customer loyalty aligns with the concept of *amanah* (trustworthiness), which is central to Islamic financial transactions. Customers are more likely to remain loyal when they perceive that the institution not only provides secure and reliable services but also adheres to ethical and Sharia principles. This finding suggests that trust in Islamic digital banking encompasses both technological reliability and moral legitimacy, reinforcing long-term relational commitment. (Albaity & Rahman, 2021; Muflih et al., 2024). Furthermore, the integration of ethical values and institutional trust reflects the importance of Sharia governance in shaping customer perceptions and loyalty outcomes. (Riza & Anadila, 2024; Rosula et al., 2024).

### **Practical and Regulatory Implications**

From a practical perspective, the research indicates that digital security and risk management practices are the most appropriate strategies for Islamic banks to focus on to establish trust and loyalty. Increasing customer trust and convincing them to continue using a system depends heavily on a strong cybersecurity infrastructure, open communication about risk, and frequent system reliability. (Dias et al., 2025; Wang et al., 2024). In addition, reputation should be converted into trust by having physical improvements to the digital service to facilitate the reputational initiatives.

Regulatory-wise, the results demonstrate the importance of well-developed digital banking regulatory measures focusing on cybersecurity standards, safeguarding data, and mitigating risk. Regulatory policies that establish the minimum standard of security measures and enable risk management transparency might help to increase trust among the population and promote the sustainable development of Islamic digital banking ecosystems. (Aldboush & Ferdous, 2023; Jafri et al., 2024).

### **Conclusion**

This research draws a conclusion that customer loyalty in digital Islamic banking is essentially determined by how much the institutional and technological protection is converted into customer confidence. The results prove that risk management and security have both a direct and indirect impact on customer loyalty due to trust, and that reputation has an indirect impact on loyalty due to the capacity to build trust. These findings suggest that institutional performance and reputational indicators are not always followed by loyal behavior unless the customers internalize it as trust. In line with this, the element of trust becomes the focal psychological process that turns organizational capabilities and technological reliability into long-term customer-bank relations in technology-mediated Islamic financial services.

In theory, the study will add to the literature on digital banking and Islamic finance by incorporating the perceived risk, security, and reputation into the conceptual framework of customer loyalty as a trust-based concept. The empirical data support the previous studies by

showing that trust is not an outcome variable, but a significant process of relations where the organizational and technological features are transformed into loyal customer behavior. It is worthwhile to note that the result that reputation does not have a direct impact on loyalty, but rather it solely works through trust, provides novel information on the shifting role of reputational cues in online financial services, especially in the Islamic banking environment, where ethical considerations and reliability of the systems are supposed to coexist.

In practice and policy-related recommendations, the results indicate that Islamic banks should strengthen their digital security infrastructure and risk management practices to build customer trust and loyalty. Reputational capital should be transformed into trust through stable, secure, and transparent digital service delivery to support an effective process of improving reputation. Regulators, the findings highlight the need for governance mechanisms that promote cybersecurity, data protection, and effective risk management controls. These regulatory practices can improve public confidence, consumer protection, and the sustainability of Islamic digital banking in an increasingly digitalized financial system.

### **Acknowledgements**

The authors declare that there is no funding or external support for this research.

### **Author Contributions Statement**

HA conceptualized the study, designed the methodology, conducted data analysis, and drafted the manuscript. KS contributed to data collection and literature review, while NH contributed to strengthening the introduction, literature review, and manuscript revision.

### **Conflict of Interest**

The authors declare that there is no conflict of interest regarding the publication of this paper.

### **AI Usage Statement**

The authors confirm that Artificial Intelligence (AI) tools were only used in the research to edit language, check grammar, and enhance clarity and readability. AI was not employed to come up with fundamental ideas, analyze, examine information, and draw conclusions. The authors assume complete ownership of the originality, accuracy, and academic integrity of the content, and none of the AI tools are listed as an author or contributor.

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