Does qard financing fortify the trust of bank customers? Lessons from Islamic regional banks in Indonesia

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Abstract

Purpose – This study investigates the impact of qard financing on customer trust in Islamic banks in Indonesia using a nonlinear approach.

Methodology – We examine 123 Islamic regional banks (IRBs) from 2016 to 2023 using quarterly data. The estimation method is the dynamic panel regression method using the generalized methods of moments (GMM). The trust of IRBs' customers is proxied by third-party funds (TPF).

Findings – Moderate qard financing strengthens customer confidence; however, as it exceeds the optimal level, the effect of qard financing on TPF becomes negative. More importantly, the results indicate that the positive impact of qard financing on customer confidence weakens as banks face high liquidity risk.

Implications – First, qard financing must be conducted in a measurable and optimal manner to avoid risk perceptions that are likely to weaken fund collections. Second, IRBs need to warrant that the expansion of qard financing is balanced with prudent liquidity management. The Indonesian Financial Services Authority (OJK) likely includes qard financing as one of the IRB performance indicators.

Originality – Our study is a pioneer in investigating the role of social financing in customer trust using a non-linear approach.

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Introduction

Customer trust in banks as financial intermediary institutions is the main foundation for the sustainability of the banking industry, including Islamic banking (Widarjono et al., 2023). Without trust, banks will have difficulty raising third-party funds, which ultimately interferes with the intermediation function and financial stability. Customer trust in Islamic banks is not built through financial performance alone, but also through compliance with Sharia principles, justice values, and social orientation, which differentiates them from conventional banks (Rita & Sugiarti, 2025).

Third-party funds, which are derived from savings and deposits, are the most tangible indicators of customer trust in banks. The larger the funds that the public entrusts to a bank, the higher the level of trust in the security, stability, and reputation of the bank institution. Following Islamic banking literature, third-party funds (TPFs) are widely used as a proxy for customer trust, especially in empirical studies that focus on depositor behavior and bank stability (Ardana & Nurmalia, 2025).

Qard financing (*qardhul hasan*) is a unique characteristic of Islamic banking. Qard financing is a form of financing based on charitable loans without rewards that aims to help customers in need (Rahmat & Widarjono, 2025). It serves the social function of Islamic banks in fulfilling the *maqasid al Sharia*, notably in the areas of the protection of vulnerable groups and social justice. Qard financing can improve a bank's social image and fortify emotional and moral relationships between banks and their clients, thereby increasing customer trust and loyalty (Danlami et al., 2023).

The economic implications of qard financing for customer trust have not been fully explored. Qard financing likely fortifies the reputation and social legitimacy of Islamic banks, thereby encouraging an increase in TPF (Mukhibad et al., 2019). In contrast, as qard financing does not generate income, excessive qard financing likely lowers a bank's liquidity and profitability, thereby deteriorating depositors' perception of security. This situation suggests the possibility of a nonlinear link between qard financing and customer trust.

Many previous empirical studies have investigated the role of qard financing in Islamic banks' performance. Several studies have shown that qard financing reduces the profitability of Islamic commercial banks in Indonesia (Mukhibad et al., 2017; Oktaviani & Alaidrus, 2022). Other research has found that qard financing increases the profitability of Islamic banks (Maulana et al., 2020; Assyarofi & Ifada, 2023; Syahid et al., 2024). Another study documented that qard financing increases the stability of IRBs; however, (Al-Banna & Nurdany, 2022) another study documents that qard financing decreases IRBs' stability (Rahmat & Widarjono, 2025).

However, empirical studies that explicitly link qard financing to customer trust are still very limited, especially in the context of Islamic banking. Furthermore, most of the research that touches on the social functions of Islamic banks tends to use a linear and static approach, so it has not been able to capture the dynamics of short-term and long-term adjustments in depositor behavior (Mukhibad et al., 2019). In fact, customer trust is dynamic and is greatly influenced by past experience and the reputation of the bank that is gradually formed. In addition, there have not been many studies that consider the possibility of a nonlinear relationship between qard financing and third-party funds. Conceptually, an increase in qard financing at a certain level can increase customer confidence, but once a certain threshold is crossed, the effect can weaken or even reverse due to increased financial risks and reduced banks' ability to offer competitive returns (Rahmat & Widarjono, 2025). The absence of this non-linearity test creates an important research gap in the Islamic banking literature.

Based on this background, this study aims to analyze the linear and non-linear impact of qard financing on the trust of Islamic bank customers in the case of IRBs in Indonesia. Indonesian IRBs are selected in this study because they disburse qard financing to micro, small, and medium enterprises, which constitute a large part of businesses in Indonesia and require this type of social funding. The contribution of this research covers at least three main aspects. First, this study enriches the Islamic banking literature by providing empirical evidence on the role of qard financing as a social instrument in shaping customer trust, a topic that has been relatively neglected in previous studies. Second, by investigating a nonlinear approach, we provide a deeper understanding of the optimal limits of qard financing in improving customer trust without sacrificing the bank's financial stability. Third, our research also examines whether the influence of qard financing on customer trust is affected by liquidity risk.

Literature Review

Qard and customer trust

Qard financing is a special instrument of Islamic banking based on the principles of help (*ta'awun*) and social welfare. Qard is given at no cost and requires only a principal return; thus, it is not

financially profit-oriented. The existence of qard financing reflects the social function of Islamic banks, which differentiates them from conventional banks and reinforces the legitimacy of Islamic institutions (Aderemi & Ishak, 2023).

Following reputation theory, qard financing can be seen as a signal of a bank's commitment to ethical values and social justice. Islamic banks that actively disburse qard financing potentially build a positive image with the public, strengthen customer loyalty, and ultimately boost the trust of Islamic bank depositors. Qard financing in Islamic banks pursues both shareholders' goals and the community's interests, as outlined in the stakeholder theory framework (Nugraheni & Muhammad, 2024).

Customer trust is the main principle for Islamic banks to perform their functions of collecting funds and distributing financing, in line with the theory of financial intermediation. Customer trust indicates that the bank can manage funds safely, stably, and responsibly. However, customer trust generally cannot be measured directly; therefore, third-party funds (TPF) are often used as a proxy for customer trust in Islamic banks (Mukhibad et al., 2019). An increase in TPF indicates an increase in the public 's willingnessto entrust funds to banks, whereas a decrease in TPF reflects a weakening of trust. In Islamic banking, deposits have a broader dimension than in conventional banking because, in addition to considering security and yield factors, customers also pay attention to sharia compliance and the ethical value of banks. Hence, the determinants of deposits in Islamic banks are affected not only by financial variables but also by the social and moral characteristics of the institution.

Empirical studies

The previous empirical study of qard financing focused on the role of qard financing on the performance of Islamic banks. Several studies have documented that qard financing has a positive effect on the profitability of Islamic commercial banks in Indonesia (Maulana et al., 2020; Assyarofi & Ifada, 2023;Syahid et al., 2024). However, some studies have shown that qard financing has a negative effect on the profitability of Islamic banks (Mukhibad et al., 2019;Oktaviani & Alaidrus, 2022). In addition, several studies have concluded that qard financing has no effect on the profitability of Islamic banks (Elyana et al., 2021).

Qard financing enhances customer trust in Islamic banks. Several studies have also analyzed the influence of qard financing on the stability of Islamic banks. Using IRB aggregate data, Al-Banna and Nurdany (2022) it was also indicated that qard financing increased IRB stability, as measured by the Z-score. However, other research using bank-level data shows that qard financing reduces the stability of IRBs (Rahmat & Widarjono, 2025).

Several studies have analyzed the determinants of third-party funds in Islamic banks. Bank profit sharing has a positive effect on the amount of third-party funds of Islamic banks (Mumtazah & Septiarini, 2017). Third-party funds of Islamic banks are also influenced by the promotions they conduct (Indiastary et al., 2020). In addition, internal bank factors in the form of bank liquidity risks have a negative effect on the funds of Islamic banks (Sartono et al., 2023). Several studies have also shown that banks' third-party funds are also influenced by macroeconomic conditions, namely inflation and economic growth (Indiastary et al., 2020Sartono et al., 2023). However, there has been no study that analyzes the effect of qard financing on the funds of Islamic banks' third parties as a proxy of Islamic bank customers' trust

Research Method

Research variables

This study used the dynamic panel data regression method to analyze the influence of qard financing with several control variables on customer confidence in Islamic regional banks. The dependent variable in this study was customer trust. The trust of Islamic regional bank customers was measured by the ratio of third-party funds to assets. The third fund was derived from customers' savings and deposits (Sutrisno & Widarjono, 2022). The main explanatory variable in

this study is qard financing. Qard financing is calculated by the ratio of qard financing to assets (Fitriyani & Lidasan, 2024;Rahmat & Widarjono, 2025).

Our study incorporates control variables, including internal bank variables and external conditions. Bank size, stability, capital, liquidity risk, and operating efficiency represent internal bank variables. External conditions consist of gross regional domestic product (GRDP) and Covid-19. Total assets indicate bank size (Hendri et al., 2025). The Z-score represents bank stability (Putri & Misbah, 2025). The Z-score is calculated using the following formula:

$$Z - score = \frac{ROA + \frac{Equity}{Assets}}{SDROA} \qquad (1)$$

where ROA represents the return on assets and SDROA denotes the standard deviation of ROA.

Bank capital is measured by the capital adequacy ratio (CAR), which is net income divided by the average of risk-weighted assets (Pamikatsih & Purwanto, 2025). Liquidity risk is measured by the financing deposit ratio (FDR) (Sutrisno & Widarjono, 2022). A bank's operating efficiency is measured by the ratio of operating costs to operating income (CIR)(Lestari et al., 2025). Gross regional domestic product (GDP) is the total production of goods and services at the provincial level. COVID-19 is a pandemic that began in the second quarter of 2020. The COVID-19 variable is a dummy variable for which the second quarter of 2020 to the fourth quarter of 2021 has a value of 1, while the other quarters have a value of 0 (Rahmadany et al., 2024).

Analysis method

Dynamic panel data regression was used to investigate the impact of qard financing on third-party funds. This dynamic panel regression is used to avoid endogeneity problems within the regression equation, that is (Pratami et al., 2025Al Zafir & Sudarjah, 2025). The dynamic panel data regression model can be written

$$TPF_{it} = \emptyset_0 + \emptyset_1 TPF_{it-1} + \emptyset_2 Qard_{it} + \emptyset_3 Lasset_{it} + \emptyset_4 Zsocre_{it} + \emptyset_5 CAR_{it} + \emptyset_6 FDR_{it} + \emptyset_7 CIR_{it} + \emptyset_8 LGRDP_{it} + \emptyset_9 COVID19_{it} + e_{it} \qquad (2)$$

Furthermore, this study explores the nonlinear impact of qard financing on third-party funds by including squared qard financing (qard^2) in Equation (2). The dynamic panel regression model is as follows:

$$TPF_{it} = \emptyset_0 + \emptyset_1 TPF_{it-1} + \emptyset_2 Qard_{it} + \emptyset_3 Qard_{it}^2 + \emptyset_4 Lasset_{it} + \emptyset_5 Zsocre_{it} + \emptyset_6 CAR_{it} + \emptyset_7 FDR_{it} + \emptyset_8 CIR_{it} + \emptyset_9 LGRDP_{it} + \emptyset_{10} COVID19_{it} + e_{it} \qquad (3)$$

Qard financing is social financing that does not generate income. This qard financing is greatly influenced by the bank's liquidity risk. If the liquidity risk is high, qard financing will be small because banks face liquidity pressure, and vice versa, if the liquidity risk is low, qard financing will increase (Rahmadany et al., 2024). Furthermore, this study analyzes whether the influence of qard financing on customer confidence is influenced by liquidity risk. To answer this question, this study utilizes a liquidity risk measured with FDR as a moderating variable by interacting qard financing and FDR (qard*FDR). The model is as follows:

$$TPF_{it} = \emptyset_0 + \emptyset_1 TPF_{it-1} + \emptyset_2 Qard_{it} + \emptyset_3 Qard_{it}^2 + \emptyset_4 Qard_{it} * FDR_{it} + \emptyset_5 Lasset_{it} + \emptyset_6 Zsocre_{it} + \emptyset_7 CAR_{it} + \emptyset_8 FDR_{it} + \emptyset_9 CIR_{it} + \emptyset_{10} LGRDP_{it} + \emptyset_{11} Covid19_{it} + e_{it} \quad (4)$$

This study estimates the regression equation of panel data (2)–(4) using the system GMM and utilizing the two-step system GMM. The system GMM is superior to the difference GMM (Arellano & Bond, 1991;Blundell & Bond, 1998).

Data

This study uses secondary data. We examined all IRBs in Indonesia that disbursed qard financing. Of the 175 IRBs, 123 banks distributed qard financing. The study period was 2016–2023 and used quarterly data. The number of observations was 3, 926 in the form of unbalanced panel data. The data used were the financial data of IRBs and provincial-level macroeconomic data. The financial

data of each IRB were obtained from the financial statements and profit and loss statements of each IRB published by the Financial Services Authority (OJK) (www.ojk.go.id). Macro data, namely gross regional domestic product (GDP), were obtained from the Central Statistics Agency (BPS) (www.bps.go.id).

Results and Discussion

Descriptive statistics

Table 1 presents the descriptive statistics. Third-party funds (TPF), as a proxy for customer trust, have an average of 0.6301, indicating that most of the assets of Islamic banks are sourced from public funds, thus reflecting a relatively high level of customer trust. However, the wide range of maximum and minimum values indicates differences in the ability of banks to raise funds. Qard financing, as the main variable in this study, has an average value of 0.0139 with a high variation. This shows that qard financing is not yet the main source of financing for Islamic banks, but its role varies across banks. Assets, as a proxy for bank size, exhibit high heterogeneity, reflecting differences in the IRB business scale. Bank stability, as measured by the Z-score, has an average of 6.96, but considerable variation, indicating differences in the level of financial resilience across banks. The CAR is, on average, above the minimum requirements of the OJK regulator (15%). The average FDR is quite high, which indicates a relatively high level of financing disbursement. Bank efficiency is measured by CIR, with an average of 94.42, indicating large variation and reflecting differences in operational performance between banks.

Table 1. Descriptive statistics

Variable	Mean	Std. dev.	Min	Max
TPF	0.6301	0.2060	0.0055	2.3589
Qard	0.0139	0.0420	0.0000	0.4998
Asset	103.4141	171.4715	0.9546	1911.0000
Zscore	6.9575	5.8804	-2.7089	66.2785
CAR	0.1679	0.2131	0.0178	6.1038
FDR	0.9626	0.5047	0.0000	9.9999
CIR	0.9442	0.9394	0.0023	42.3730
GRDP	206.4732	153.2420	5.1768	524.6860
COVID	0.0958	0.2943	0.0000	1.0000

Source*:* Processed by author(s)

Table 2 presents the correlation matrix of the variables used in this study. Correlation tests were conducted to identify potential multicollinearity problems among the independent variables. The correlation showed that, in general, the correlation coefficient between the independent variables was relatively low, with values below ± 0.5. The highest correlation was between the size of the asset and negative CAR (−0.4666). Overall, the correlation between the independent variables suggests no strong indication of multicollinearity.

Table 2. Correlation

	TPF	Qard	Assets	Zscore	CAR	FDR	CIR	GRDP
TPF	1							
Qard	0.1089	1						
Assets	0.0938	0.0767	1					
Zscore	-0.1236	-0.0054	-0.2907	1				
CAR	-0.0995	-0.0245	-0.4666	0.3619	1			
FDR	-0.2825	-0.0067	-0.0401	0.0299	0.0774	1		
CIR	0.0613	0.0358	-0.1463	-0.0461	0.3010	0.0035	1	
GRDP	0.0766	0.1395	0.1382	-0.3280	-0.0394	-0.0580	0.0336	1
COVID	-0.0233	-0.0015	0.0182	-0.0189	-0.0226	0.0208	0.0085	-0.0013

Source: Processed by author(s)

Finding: Linear model

Table 3 presents the results of the dynamic panel regression using the linear approach. Model 1 includes the bank's internal control variables. Model 2 incorporates the bank's internal control variables and GDP. Model 3 consists of the bank's internal control variables, GDP, and COVID. Before discussing the results, this study tested the validity of the dynamic panel regression with the system GMM. First, the study fails to reject the null hypothesis of the Hansen test, and the number of instruments is smaller than the number of banks for all models. In conclusion, the variables of the instruments used in the GMM system method are valid, and there are no instrument proliferation problems. Second, we also reject the zero AR test hypothesis (2) for all models, indicating that there is no autocorrelation problem. Based on both tests, the dynamic panel regression with the two-step GMM system is valid.

The results of the dynamic panel regression show that third-party funds (TPF) in the previous quarter, TPF(-1), had a positive and significant effect on TPF in the current quarter. These findings indicate the persistence of funds and customer trust, with the decision to place funds in Islamic banks being dynamic and influenced by experience. These results are in line with the model of depositor behavior in banking, which emphasizes the reputational effect; therefore, customers tend to maintain relationships with trusted banks (Cardoso & Cardoso, 2024). The significance of the TPF(-1) variable also confirms that the use of the dynamic panel regression is appropriate to capture the dynamics of the IRBs' collection of funds, compared with the static panel data regression.

Table 3. Linear model

Variable	Dependent variable: TPF		
	(1)	(2)	(3)
TPF (-1)	0.8593***	0.8596***	0.8676***
	(0.0000)	(0.0000)	(0.0000)
Qard	0.0496**	0.0466**	0.0437*
	(0.0300)	(0.0390)	(0.0520)
Lassets	0.0002	0.0001	0.0001
	(0.8950)	(0.9520)	(0.9650)
Zscore	-0.0001	0.0000	0.0001
	(0.8140)	(0.9390)	(0.8360)
CAR	-0.0465***	-0.0471***	-0.0473***
	(0.0000)	(0.0000)	(0.0000)
FDR	-0.0127***	-0.0125***	-0.0119***
	(0.0020)	(0.0020)	(0.0030)
CIR	0.0140***	0.0141***	0.0142***
	(0.0000)	(0.0000)	(0.0000)
LGRDP	-	0.0019	0.0018
	-	(0.3120)	(0.3190)
COVID	-	-	0.0014
	-	-	(0.5120)
Constant.	0.0927***	0.0718*	0.0673
	(0.0080)	(0.0880)	(0.1160)
N. Banks	123	123	123
Observations	3,925	3,925	3,925
Instruments	38	39	40
AR (1)	0.000	0.000	0.000
AR (2)	0.108	0.108	0.108
Hansen	0.207	0.206	0.205

Probabilities are in parentheses. *, **, *** are significant at 1%, 5%, and 10%.
Source: Processed by author(s)

Qard financing, as the main independent variable, has a positive impact on TPF. Our results prove that the social function of Islamic banks builds customer trust. Following trust theory, trust in Islamic bank customers is formed when institutions demonstrate benevolence, competence, and

integrity (Nugraheni & Muhammad, 2024). Qard financing directly reflects the benevolence and integrity dimensions of Islamic banks. Our results verify that the application of social values by Islamic banks can increase public trust and legitimacy in Islamic banks (Danlami et al., 2023). Accordingly, qard financing has a normative dimension and generates an economic impact by increasing TPF.

Bank size, proxied by assets, is a positive but not significant influence on third-party funds. These results imply that bank scale is not the main determinant of customer confidence when third-party funds are measured relative to assets. These findings indicate that in Islamic banking, reputation, sharia compliance, and proximity to customers are often more important than the size of the institution (Afkar, 2017). In other words, Islamic bank customers do not simply assume that larger banks are always more trustworthy.

The Z-score, which represents stability, was positive but not significant. These results show that technical financial stability indicators are not necessarily the main consideration of customers when saving funds. These findings indicate that retail depositors generally have limited information related to bank risks and rely more on general perceptions and deposit guarantees. In the context of Islamic banking, customer trust tends to be shaped by ethical values and service experience rather than complex risk indicators (Nugraheni & Muhammad, 2024).

CAR has a negative effect on third-party funds. This result can be explained through a trade-off approach between stability and intermediation. Excessively high capital reflects excessive prudence or low financing disbursements, thereby reducing the attractiveness of banks to depositors. These findings indicate that although capital is important for bank stability, high levels of capital do not always have positive implications for fundraising, especially when depositors focus more on yield and ease of service (Özkan et al., 2020).

Liquidity risk, proxied by the financing-to-deposit ratio (FDR), has a negative effect on third-party funds. These findings are consistent with market discipline theory, in which depositors respond to increased liquidity risk by reducing their deposits (Rahmadany et al., 2024). In Islamic banking, liquidity plays a crucial role because of the limitations of Islamic money market instruments; therefore, an increase in the FDR can be perceived as a signal of higher risk by customers.

Operational efficiency, as measured by the cost-to-income ratio (CIR), positively influences third-party funds. Although a high CIR theoretically reflects inefficiencies, these findings can be explained from a service quality perspective. Higher operating costs may reflect the bank's investments in the network, technology, and customer service. This result is in line with that of, Hidayat and Abduh (2012) who found that Islamic bank customers are more sensitive to service quality than cost efficiency alone.

The macroeconomic variable, GDP, has a positive but not significant influence on third-party funds. These findings indicate that regional economic growth does not automatically increase deposits in Islamic banks. These results show that the influence of macroeconomic variables on bank performance and fundraising is often indirect and influenced by people's consumption behavior and investment preferences. The COVID-19 dummy is positive but not significant, showing that the pandemic has not significantly reduced customer trust in Islamic banks. These findings are in line with those of, Elnahass et al. (2021) who found that Islamic banks are relatively more resilient during crises because of asset-based business models and stronger prudential values.

Findings: Non-linear model

Table 4 presents the results of the dynamic panel regression using the nonlinear approach. Before discussing the results, this study tested the validity of the dynamic panel regression with the two-step system GMM. First, the study fails to reject the null hypothesis of the Hansen test, and the number of instrument variables is smaller than the number of banks for all models. In conclusion, the instruments used in the system GMM are valid, and the instrument proliferation problem does not exist. Second, we also reject the null hypothesis of the AR (2) test for all models, indicating that there is no autocorrelation problem. Based on both tests, the dynamic panel regression with the two-step GMM system is valid.

The results show that qard financing has a positive and significant influence on third-party funds, and squared qard financing has a negative and significant effect. The combination of these two coefficients indicates the existence of a non-linear relationship in the shape of an inverted U-shape between qard financing and third-party funds. These findings suggest that at the initial level, increasing qard financing can increase customer confidence and encourage third-party funds. However, after reaching a certain level, an increase in qard financing has the potential to reduce third-party funds.

Theoretically, this result can be explained through the trade-off between the social function and financial sustainability of Islamic banks. Qard financing at moderate levels serves as a strong signal of social commitment and Sharia compliance, thereby increasing trust and public legitimacy (Nugraheni & Muhammad, 2024). Our results reflect the dimensions of benevolence and integrity, which strengthen the bank-customer relationship in Islamic banks. However, as Islamic banks disburse qard financing excessively, customers may perceive it as a potential risk, which deteriorates the performance and liquidity of Islamic banks. This negative perception can weaken trust, especially among depositors who consider the security of their funds.

The non-linear method demonstrates that social activities do not always have a direct impact on depositor performance, confirming the theory of corporate social responsibility (CSR). Empirical studies on CSR in the banking sector indicate that the reputational benefits of social actions likely decline after reaching an optimal level because of increasing concerns about risk and efficiency (Dell'Atti et al., 2017Aramburu & Gómez Pescador, 2019). In the context of Islamic banks, excessive qard financing can reduce productive funds and depress profitability, which ultimately affects depositors' perceptions of bank stability.

Table 4. Non-linear model

Variable	The dependent variable: TPF		
	(4)	(5)	(6)
TPF (-1)	0.8558***	0.8563***	0.8643***
	(0.0000)	(0.0000)	(0.0000)
Qard	0.1230**	0.1148**	0.1097**
	(0.0175)	(0.0250)	(0.0270)
Qard^2	-0.2252*	-0.2080*	-0.2021*
	(0.0510)	(0.0665)	(0.0665)
Lassets	0.0000	-0.0001	-0.0001
	(0.9980)	(0.9500)	(0.9420)
Zscore	-0.0001	0.0000	0.0001
	(0.7850)	(0.9770)	(0.8720)
CAR	-0.0468***	-0.0474***	-0.0476***
	(0.0000)	(0.0000)	(0.0000)
FDR	-0.0130***	-0.0128***	-0.0122***
	(0.0010)	(0.0020)	(0.0030)
CIR	0.0140***	0.0141***	0.0142***
	(0.0000)	(0.0000)	(0.0000)
LGRDP	-	0.0018	0.0017
	-	(0.3390)	(0.3450)
COVID	-	-	0.0014
	-	-	(0.5190)
Constant.	0.0987***	0.0782*	0.0734*
	(0.0060)	(0.0720)	(0.0990)
N. Banks	123	123	123
Observations	3,925	3,925	3,925
Instruments	39	40	41
AR (1)	0.000	0.000	0.000
AR (2)	0.108	0.108	0.109
Hansen	0.214	0.213	0.212

Probabilities are in parentheses. *, **, *** are significant at 1%, 5%, and 10%.
Source: Processed by author(s)

Moderating effect of liquidity risk

Table 5 presents the results of the dynamic panel regression with a nonlinear influence approach, using liquidity risk (FDR) as a moderating variable. Before discussing the results, this study assesses the validity of the dynamic panel regression. First, the study fails to reject the Hansen test, and the number of instruments is smaller than the number of banks for all models. In conclusion, the instruments are valid. Second, we also reject the AR (2) test for all models, ensuring that there is no autocorrelation problem. Accordingly, the dynamic panel regression with the two-step system GMM is valid.

Table 5. The moderating effect of liquidity risk

Variable	Variable dependent: TPF		
	(7)	(8)	(9)
TPF (-1)	0.8312***	0.8312***	0.8353***
	(0.0000)	(0.0000)	(0.0000)
Qard	0.8177***	0.8157***	0.8053***
	(0.0020)	(0.0020)	(0.0020)
Qard²	-0.2814*	-0.2762*	-0.2727*
	(0.0620)	(0.0685)	(0.0690)
Qard*FDR	-0.6159***	-0.6163***	-0.6087***
	(0.0040)	(0.0030)	(0.0030)
Lassets	-0.0005	-0.0005	-0.0005
	(0.7980)	(0.7900)	(0.7960)
Zscore	-0.0002	-0.0001	-0.0001
	(0.6660)	(0.7440)	(0.7840)
CAR	-0.0515***	-0.0515***	-0.0510***
	(0.0000)	(0.0000)	(0.0000)
FDR	-0.0133***	-0.0132***	-0.0130***
	(0.0010)	(0.0010)	(0.0010)
CIR	0.0152***	0.0152***	0.0152***
	(0.0000)	(0.0000)	(0.0000)
LGRDP	-	0.0006	0.0005
	-	(0.7650)	(0.7650)
COVID	-	-	0.0006
	-	-	(0.7860)
Constant	0.1247***	0.1181**	0.1148**
	(0.0020)	(0.0100)	(0.0170)
N. Banks	123	123	123
Observations	3,925	3,925	3,925
Instruments	40	41	42
AR (1)	0.000	0.000	0.000
AR (2)	0.138	0.138	0.139
Hansen	0.186	0.185	0.187
Marginal test: the effect of FDR when Qard:			
Percentile 25	0.3403***	0.3380***	0.3335***
	(0.0040)	(0.0040)	(0.0040)
Percentile 50	0.2672***	0.2647***	0.2612***
	(0.0070)	(0.0080)	(0.0080)
Percentile 75	0.1910**	0.1885**	0.1859**
	(0.0230)	(0.0270)	(0.0270)

Probabilities are in parentheses. *, **, *** are significant at 1%, 5%, and 10%.
Source: Processed by author(s)

Qard financing positively and significantly influences TPF, and squared qard financing has a negative effect. These results confirm the existence of a non-linear relationship in the form of an inverted U-shape between qard financing and TPF. The interaction term between qard financing and FDR (qard*FDR) has a negative and significant effect on TPF. These findings suggest that the effectiveness of qard financing in increasing customer confidence depends on the bank's liquidity conditions (Rahmadany et al., 2024). Substantively, these results indicate that at a high level of

liquidity risk, the positive impact of qard financing on TPF weakens and may even turn negative. In other words, customers appreciate the social function of Islamic banks but still pay attention to the bank's ability to maintain liquidity and fulfil its withdrawal obligations.

The findings indicate that trust is built not only by benevolence but also by competence. Qard financing reflects benevolence, whereas FDR rates reflect the bank's competence in managing liquidity. When FDR is high, the bank's perception of competence decreases; therefore, the reputational benefits of qard are no longer strong enough to maintain depositors' trust. These results imply that depositors are actively responding to increased liquidity risk by adjusting their deposits.

Robustness test

This study conducts a robustness test of the consistency of previous results. The robustness test is conducted using static panel regression. Static panel regression is a fixed-effects method. Table 6 presents the results of the robustness test. Qard financing has a positive effect, while squared qard financing has a negative effect on TPF. These findings indicate that the effect of qard financing on TPF is U-shaped and consistent with the dynamic panel regression. The interaction term qard*FDR has a negative and significant effect on third-party funds, consistent with previous findings using dynamic panel regression. The impact of the control variables on TPF is also consistent with previous findings using dynamic panel regression.

Table 6. Robustness test

Variable	The dependent variable: TPF		
	(10)	(11)	(12)
Qard	3.1914***	3.1005***	3.1007***
	(0.0000)	(0.0000)	(0.0000)
Qard²	-2.4145***	-2.4744***	-2.4749***
	(0.0000)	(0.0000)	(0.0000)
Qard*FDR	-1.8315***	-1.7464***	-1.7481***
	(0.0000)	(0.0000)	(0.0000)
Lassets	-0.0249***	-0.0467***	-0.0458***
	(0.0000)	(0.0000)	(0.0000)
Zscore	-0.0052***	-0.0058***	-0.0058***
	(0.0000)	(0.0000)	(0.0000)
CAR	0.2364***	0.2301***	0.2300***
	(0.0000)	(0.0000)	(0.0000)
FDR	-0.0223***	-0.0210***	-0.0209***
	(0.0000)	(0.0000)	(0.0000)
CIR	0.0105***	0.0097***	0.0098***
	(0.0000)	(0.0000)	(0.0000)
LGRDP	-	0.1403***	0.1356***
	-	(0.0000)	(0.0000)
COVID	-	-	-0.0083*
	-	-	(0.0865)
Constant	1.0748***	-0.1826	-0.1433
	(0.0000)	(0.4970)	(0.5960)
R-squared	0.1665	0.1718	0.1772
N Banks	123	123	123
Observations	3925	3925	3925

Probabilities are in parentheses. *, **, *** are significant at 1%, 5%, and 10%.
Source: Processed by author(s)

Conclusion

The findings of the linear approach show that qard financing has a positive effect on TPFs. These findings indicate that qard financing can increase customer confidence, as it reflects the bank's social commitment and compliance with Sharia principles. Thus, the social function of Islamic

banks not only has normative value but also provides economic benefits through increased TPFs. More importantly, the nonlinear method found that the link between qard financing and TPFs is quadratic in terms of an inverted U-shape. Qard financing initially increases customer confidence; however, as it exceeds the optimal level, its impact on TPFs decreases. These results imply that an excessive increase in qard financing as a social activity can generate risk perceptions and concerns about financial sustainability. In addition, the link between qard financing and TPFs is clearly affected by liquidity risk. Qard financing on customer confidence will weaken as Islamic banks encounter high liquidity risk. Thus, the social functions of Islamic banks through qard financing effectively increase customer trust, as long as it is supported by good liquidity management.

Our study highlights some important implications of these results. First, Islamic banks pay attention to qard financing. It is not only a social obligation but also an important instrument for building trust and loyalty among clients. However, qard financing must be managed well to avoid risk perceptions that can deteriorate customer trust. Second, Islamic banks must ensure that the distribution of qard financing is accompanied by good and prudent liquidity management. High liquidity risk can weaken the effectiveness of qard financing in increasing customer trust. Accordingly, integrating risk management and social policy is key to maintaining the sustainability of TPF. Third, for the OJK, as the banking regulator, our results highlight the importance of the social function of Islamic banks while preserving prudential banking policies. To support qard financing, a strict liquidity supervision framework is applied to ensure that each Islamic bank can achieve *maqasid Sharia* without sacrificing its stability.

Several weaknesses in this study need consideration. First, it measures customers' trust using the ratio of third-party funds to assets. However, trust can be measured using other indicators. Therefore, further research should include other measurements, such as third-party fund growth. Second, this study focuses on the case of Islamic regional banks. Future research could apply these findings to Islamic commercial banks with different business scales.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the authors used Grammarly to improve the clarity of the language and readability of the article. After using these tools, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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References

Aderemi, A. M. R., & Ishak, M. S. I. (2023). Qard hasan as a feasible Islamic financial instrument for crowdfunding: Its potential and possible application for financing micro-enterprises in Malaysia. *Qualitative Research in Financial Markets*, *15*(1), 58–76. https://doi.org/10.1108/QRFM-08-2021-0145

Afkar, T. (2017). Influence analysis of mudharabah financing and qard financing to the profitability of Islamic banking in Indonesia. *Asian Journal of Innovation and Entrepreneurship*, *2*(3), 335–351. https://journal.uii.ac.id/ajie/article/view/8355/7503

Al Zafir, A., & Sudarjah, G. M. (2025). Credit risk, COVID, and bank profitability in Indonesian conventional banks. *Economics, Finance, and Business Review*, *2*(2), 78–87. https://doi.org/10.20885/efbr.vol2.iss2.art2

Al-Banna, H., & Nurdany, A. (2022). Sustainability of Islamic rural banks: A social qardh financing approach. *Global Review of Islamic Economics and Business*, *9*(2), 87–96. https://doi.org/10.14421/grieb.2021.092-08

Aramburu, I. A., & Gómez Pescador, I. (2019). The effects of corporate social responsibility on customer loyalty: The mediating effect of reputation in cooperative banks versus commercial banks in the Basque Country. *Journal of Business Ethics*, *154*(3), 701–719. https://doi.org/10.1007/s10551-017-3438-1

Ardana, Y., & Nurmalia, G. (2025). Determination of Islamic social responsibility disclosure in Indonesian sharia commercial banks. *Economics, Finance, and Business Review*, *2*(1), 32–42. https://doi.org/10.20885/efbr.vol2.iss1.art4

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, *58*(2), 277–297. https://doi.org/10.2307/2297968

Assyarofi, A. A., & Ifada, L. M. (2023). The influence of financial ratios and qardhul hasan financing on financial performance in Islamic banks. *International Journal of Current Science Research and Review*, *6*(8), 5549–5555. https://doi.org/10.47191/ijcsrr/V6-i8-20

Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, *87*(1), 115–143. https://doi.org/10.1016/S0304-4076(98)00009-8

Cardoso, A., & Cardoso, M. (2024). Bank reputation and trust: Impact on client satisfaction and loyalty for Portuguese clients. *Journal of Risk and Financial Management*, *17*(7), 277. https://doi.org/10.3390/jrfm17070277

Danlami, M. R., Abduh, M., & Abdul Razak, L. (2023). Social finance, institutional quality and stability of Islamic banks: Evidence from four countries. *International Journal of Social Economics*, *50*(8), 1186–1216. https://doi.org/10.1108/IJSE-06-2022-0441

Dell'Atti, S., Trotta, A., Iannuzzi, A. P., & Demaria, F. (2017). Corporate social responsibility engagement as a determinant of bank reputation: An empirical analysis. *Corporate Social Responsibility and Environmental Management*, *24*(6), 589–605. https://doi.org/10.1002/csr.1430

Elnahass, M., Trinh, V. Q., & Li, T. (2021). Global banking stability in the shadow of Covid-19 outbreak. *Journal of International Financial Markets, Institutions and Money*, *72*, 101322. https://doi.org/10.1016/j.intfin.2021.101322

Elyana, E., Jalauddin, J., & Nureani, N. (2021). Pengaruh pembiayaan ijarah dan pembiayaan qardh terhadap tingkat laba bersih di Bank BRI Syariah. *Ar Rihlah: Jurnal Keuangan dan Perbankan Syariah*, *1*(1), 46–54.

Fitriyani, Y., & Lidasan, M. S. (2024). Determinant of qard: Evidence from Indonesian Islamic rural banks. *Muqtasid: Jurnal Ekonomi dan Perbankan Syariah*, *14*(2), 93–114. https://doi.org/10.18326/muqtasid.v14i2.93-114

Hendri, Z., Wulandari, E., & Shuib, M. S. (2025). Do we need large Islamic rural banks? *Economics, Finance, and Business Review*, *2*(1), 1–11. https://doi.org/10.20885/efbr.vol2.iss1.art1

Hidayat, S. E., & Abduh, M. (2012). Does financial crisis give impacts on Bahrain Islamic banking performance? A panel regression analysis. *International Journal of Economics and Finance*, *4*(7), 79–87. https://doi.org/10.5539/ijef.v4n7p79

Indiastary, D., Suprayogi, N., & Indrawan, I. W. (2020). A meta-analysis of the determinant of third party fund on Islamic banking in Indonesia. *JEBIS: Jurnal Ekonomi dan Bisnis Islam*, *6*(2), 175–188. https://doi.org/10.20473/jebis.v6i2.12766

Lestari, L. B., Yeni, A. A. P., & Ayu, A. Y. (2025). Determinants of non-performing financing of Islamic rural banks in Indonesia. *Economics, Finance, and Business Review*, *2*(2), 100–112. https://doi.org/10.20885/efbr.vol2.iss2.art4

Maulana, D. R., Ruchjana, E. T., & Nurdiansyah, D. H. (2020). The effect of profit sharing financing and qard financing on net profit sharia bank in Indonesia. *El Dinar: Jurnal Keuangan dan Perbankan Syariah*, *8*(2), 147–158.

Mukhibad, H., Kiswanto, K., & Jayanto, P. Y. (2017). An analysis on financial and social performance of Islamic banks in Indonesia. *International Journal of Monetary Economics and Finance*, *10*(3-4), 295–308. https://www.researchgate.net/profile/Assoc-Prof-Dr-Hasan-Mukhibad/publication/320477414_An_analysis_on_financial_and_social_performance_of_Islamic_banks_in_Indonesia/links/60c86c3592851c8e63963256/An-analysis-on-financial-and-social-performance-of-Islamic-banks-in-Indonesia.pdf

Mukhibad, H., Anisykurlillah, I., Nurkhin, A., & Jayanto, P. Y. (2019). Can social performance improve financial performance and increase customers trust? *International Journal of Financial Research*, *10*(4), 37–45. https://doi.org/10.5430/ijfr.v10n4p37

Mumtazah, W., & Septiarini, D. F. (2017). Analisis faktor-faktor yang mempengaruhi jumlah dana pihak ketiga pada bank umum syariah di Indonesia (Periode triwulan I 2010 - triwulan I 2015). *Jurnal Ekonomi Syariah Teori dan Terapan*, *3*(10), 800–815.

Nugraheni, P., & Muhammad, R. (2024). The optimisation of qardhul hasan management in Islamic banking: Enhancing its role in empowering the community. *Journal of Enterprising Communities*, *18*(3), 469–486. https://doi.org/10.1108/JEC-08-2022-0113

Oktaviani, I. N., & Alaidrus, S. (2022). The influence of qard and zakat on profitability of Islamic banks in Indonesia. *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, *5*(1), 220–235.

Özkan, P., Süer, S., Keser, İ. K., & Kocakoç, İ. D. (2020). The effect of service quality and customer satisfaction on customer loyalty: The mediation of perceived value of services, corporate image, and corporate reputation. *International Journal of Bank Marketing*, *38*(2), 384–405. https://doi.org/10.1108/IJBM-03-2019-0096

Pamikatsih, M., & Purwanto, P. (2025). Competition and profitability of sharia rural banks in Indonesia. *Economics, Finance, and Business Review*, *2*(2), 88–99. https://doi.org/10.20885/efbr.vol2.iss2.art3

Pratami, A., Roslan, M. N. H., & Ismail, I. (2025). Determinants of financing in Indonesian Islamic banking. *Economics, Finance, and Business Review*, *2*(2), 67–77. https://doi.org/10.20885/efbr.vol2.iss2.art1

Putri, D. W. E. P., & Misbah, H. (2025). The impact of funding risk on the stability of Islamic rural banks in Indonesia. *Economics, Finance, and Business Review*, *2*(1), 12–21. https://doi.org/10.20885/efbr.vol2.iss1.art2

Rahmadany, A. N., Risfandy, T., Achsanta, A. F., & Rifai, B. (2024). Liquidity and credit risks during the COVID-19 pandemic: Evidence from a dual banking system. *Journal of Islamic Accounting and Business Research*. Advance online publication. https://doi.org/10.1108/JIABR-11-2023-0407

Rahmat, R., & Widarjono, A. (2025). Qard financing and stability of Islamic rural banks. *Jurnal Perbankan Syariah*, *6*(2), 175–191. https://doi.org/10.46367/jps.v6i2.2625

Rita, D. S., & Sugiarti, D. (2025). Islamic performance index and profitability with the moderating role of intellectual capital in Indonesian Islamic banks. *Economics, Finance, and Business Review*, *2*(1), 43–54. https://doi.org/10.20885/efbr.vol2.iss1.art5

Sartono, S., Sapta, A. E., & Pratama, I. R. (2023). Factors influencing third-party funds of Islamic bank: A case study in Indonesia. *e-Academia Journal*, *12*(2), 105–118.

Sutrisno, S., & Widarjono, A. (2022). Is profit-loss-sharing financing matter for Islamic bank's profitability? The Indonesian case. *Risks*, *10*(11), 207. https://doi.org/10.3390/risks10110207

Syahid, M., Elzaanim, A. A. A., Noviarita, H., Kartika, A. P., & Noval, M. (2024). The influence of working capital financing, micro financing and qardhul hasan funds on the performance of Islamic commercial banks in Indonesia. *Jurnal Ilmiah Ekonomi Islam*, *10*(3), 3210–3220. https://doi.org/10.29040/jiei.v10i3.15433

Widarjono, A., Alam, M. M., & Rafik, A. (2023). The dynamic link between Islamic and conventional deposit rates in a dual banking system. *ISRA International Journal of Islamic Finance*, *15*(1), 91–108. https://doi.org/10.55188/ijif.v15i1.487