



## Financial Determinants of Qardhul Hasan Financing Growth: Evidence from Islamic Banks in Indonesia

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**Abstract:** The purpose of this paper is to investigate the financial factors that determine the growth of *qardhul hasan* financing in the sharia banks in Indonesia. We employ financial ratios such as Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), Net Interest Margin (NIM), Operational Cost to Operational Income (BOPO), Return on Asset (ROA) and Return on Equity (ROE) to explain the growth of *qardhul hasan* during 2011 to 2014. This paper utilizes the fixed effect model and the random effect model to provide empirical evidences. The empirical result demonstrates that Non-Performing Financing (NPF), Net Interest Margin (NIM), Return on Asset (ROA) and BOPO have significance relationship to the *qardhul hasan* financing. The finding shows that the growth of *qardhul hasan* financing in sharia banks is influenced by financial ratios of NIM, NPF, BOPO and ROA. This finding adds important evidence to the existing research on *qardhul hasan* financing in sharia banks.

**Keywords:** *Qardhul Hasan*, NPF, NIM, CAR, ROE, ROA, Sharia banks.

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### Introduction

Islamic economics encourage the balance of economic activities both profit and non-profit oriented. The equilibrium can protect economic sustainability, social justice, and equitable prosperity. Economic activities that aim to create the profit/margin can be realized in form of sales-based business transaction (e.g. mudharabah, musharakah, ijarah, salam, murabahah, and istishna). While non-profit activities can be performed in form of zakat, nafaqaat, shadaqah, inheritance, and qardhul hasan.

Qardhul hasan is often defined as non-interest or benevolent loans. It has been mentioned in the Quran (5:2, 57:18, 64:17, and 57:11) and Al-Hadist. Qardhul hasan emphasizes on social aspect to help people suffering financial difficulties and to alleviate poverty. However, qardhul hasan would be potential to boost economic growth which is based on profit. The growth of qardhul hasan transactions have been significant in Islamic banking (Sadr, 2014; Arifin & Adnan, 2012). This evidence demonstrated that qardhul hasan has been received extensively. Widyanto et. al (2011) showed that the model of qardhul hasan financing is sufficiently effective for economic empowerment. Many studies stated that qardhul hasan financing has given positive impact on poverty alleviation.

The development of qardhul hasan financing in islamic banking attracts researchers to observe the determinants of qardhul hasan growth. The factors generally can be divided into internal and external factors. Amin *et. al* (2010) found that depositor attitudes, subjective norms, and pricing affected qardhul hasan transaction. Whereas, Hoseini and Shabazi (2008) found that

promotion has positively significant relationship with fund raising of qardhul hasan in Iran. Arifin et. al (2011) recommended Malaysian banks for both simplifying qardhul hasan financing procedure and improving service quality. Fatwa DSN MUI No.19/DSN-MUI/IV/2001 said that the sources of qardhul hasan are a part of bank's owner capital, set aside of bank profit, and the return of qardhul hasan financing. Thus, bank financial performance factor such as return and financing risk can impact the qardhul hasan growth.

Studies about internal factors of Islamic bank which determined qardhul hasan financing growth is still limited. One of the factors that influences financing performance is its islamic bank condition. It has been commonly reflected from financial ratio such as Capital Adequacy Ratio (CAR), Non Performing Financing (NPF), Net Interest Margin (NIM), Operational Cost to Operational Income (BOPO), Return on Asset (ROA), and Return on Equity (ROE). The purpose of this study is to indentify the determinants of qardhul hasan financing growth which can be captured by Islamic bank financial performance in Indonesia. The study result is expected to answer whether the historical of financial performance affect qardhul hasan financing growth in the future. The predictors of financial performance are CAR, NPF, NIM, BOPO, ROA, and ROE.

Furthermore, this paper will also discuss the literature review as theoretical basis of the study, research methodology, data analysis, conclusion, and recommendation at the end of this paper.

## Literature Review

Qardh is a diversion of wealth owner to other people whereby the receiver has obligation to return by the same value (AAOIFI, 2010). Majelis Ulama Indonesia (MUI) mentioned in Fatwa DSN No. 19/DSN-MUI/IX/2000 defined qardh as the loans which are given to needy depositor (*muqtaridh*). Meanwhile, Abdullah (2015) has distinguished between qardh and qardhul hasan. Qardhul hasan is a qardh contract which based on sincerely seeking reward from Allah, avoid from *riba*, and the source of qardh both halal and legal. It is not to be bound with others, allowed depositor borrowing with the long time that have difficult payments and nothing punishment if the payment comes lately.

According to Obaidullah (2008) *muqtaridh* (qardhul hasan receiver) is permitted to give additional return of qardhul hasan financing as long as no previous agreement before. This excessing return also called *hibah* not *riba* (interest). When the financial institution such islamic bank taking a transaction by qardhul hasan financing then the islamic bank can charge actual operational cost of these transaction. This actual operational cost is a true cost that occurred because of qardhul hasan transaction, similar to administration cost. Qardhul hasan financing is a free-interest based not free of charge.

Qardhul hasan contract has a strong social and economic potential for islamic banks. Sadr (2014) stated saving or deposit by qardhul hasan contract brought a flexibility of islamic banks used the fund without asking permission to depositor. This terms is different with wadiah contract which have not transferring ownership funds from depositor to bank so that the bank need allowance whilst used these funds. Qardhul hasan financing also gave borrower enable to use the funds for consumption purposes or production.

Qardhul hasan financing practice in Islamic microfinance (BPRS) in accordance with Ni'mah (2014) is more exciting because the disbursement of funds process is simply and shortly, banks does not interfered in management of financing receiver. Abdullah (2015) showed the lower of default risk on qardhul hasan financing up to 1% compared with non-performing financing (NPF) ratio in Jordan banks in the amount of 5,6% in 2014. Indeed, NOF ratio of qardhul hasan is less comparing with the average of NPF ratio from 2010 until 2014 up to 7,4%. Sadr (2014) revealed that qardhul hasan financing growth in 26 islamic banks in Asia with period 2005 to 2011 are quite various. The most rapid growth occurred on islamic banks in

Indonesia which total asset for qardhul hasan financing ratio achieved 13,46%. Followed by Bank Muamalat Indonesia (BMI) attained 6%. The development data of shariah financing in Indonesia on table 1.

**Table 1: The Competition of Shariah Financing Islamic Commercial Banks in Indonesia and (Billion Rupiah)**

Akad	2008	2009	2010	2011	2012	2013	2014	2015
<i>Mudharabah</i>	6205	6597	8631	10229	12023	13625	14091	8206
<i>Musyarakah</i>	7411	10412	14624	18960	27667	39874	45735	40840
<i>Murabahah</i>	22486	26321	37508	56365	88004	110565	113844	85794
<i>Salam</i>	0	0	0	0	0	0	0	0
<i>Istishna</i>	369	423	347	326	376	582	590	15343
<i>Ijarah</i>	765	1305	2341	3839	7345	10481	10754	13833
<i>Qardh</i>	959	1829	4731	12937	12009	8995	7371	4090

Source: OJK (2015)

Following Fatwa DSN 19/DSN-MUI/IV/2001 stated that the sources of qardhul hasan are originated from the part of bank capital, bank operational profit, and donation from external parties (*infaq*). Whereas, according to PSAK 101 the sources is commonly from *infaq*, *shadaqah*, *waqf*, the return of productive benevolence, fines, and non-halal income. Therefore, the sources of qardhul hasan in islamic banks are determined by the inventory of bank capital, bank profit and rate of return risk. Hamzah (2012) mentioned the factors that enhance qardhul hasan financing based on gold pawn are bank promotion, the disbursement of funds procedure, and the estimation of goods price.

Amin *et. al* (2010) addressed that depositor attitudes, subjective norms, and pricing affected qardhul hasan transaction. The attitudes reflects on the assessment of positive and negative feeling on qardhul hasan financing. While, subjective norm describes the perception related with the agreement and rejection of group or individual on qardhul hasan financing. The internal factors are pricing of qardhul hasan financing. The financing price is the selection process the best cost application in selling qardhul hasan financial products. Attitudes and subjective norm have positive relationship with qardhul hasan financing, whereas, financing price have negative relationship.

Qardhul hasan financing in Islamic banks is often resembled with Corporate Social Responsibility (CSR) program in Conventional banks. Al-Mamun *et. al* (2013) found that the larger banks in Bangladesh are more giving attention on CSR program if compared with small banks. However, he mentioned that there have no relationship between bank net income and CSR expenses. Conversely, CSR expenses do not have influenced on bank profit, though in long term showed a better impact. Moreover, there are positive correlation between CSR expenses and the number of bank deposit. This terms, related by the establishment of bank image so that improved deposit (Samina, 2012). Another study revealed there are significance relationship between CSR level and investment rate. It has been showed by increasing depositor which borrowed for productive purposes. The relationship between CSR level and bank net profit also have positively significant effect. This condition is due to the higher deposit rate and many borrowers.

### Finding and Analysis

This study using the quarterly examination data of qardhul hasan financing in 8 Islamic commercial banks (BUS) and Islamic business unit (UUS) in Indonesia from period 2011-2014. The data were merged from annual report by each banks that have released by Central bank of Indoensia (BI) dan *Otoritas jasa Keuangan* (OJK). The samples both must have qardhul hasan financing in their products and giving the consistent reports quarterly. The sample periods are only 4 years from 2011-2014 due to during this period qardhul hasan financing data. Furthermore, the observtion data consist of 8 banks with 128 observation.

The study used panel data to identified the determinants of qardhul hasan financing. panel data is very useful because it can be analysed characteristic of each banks that could not be employed by cross section or time series model. The panel model :

$$Y_{it} = \beta_0 + \beta_1 X_{it} + u_{it} \quad i=1, \dots, N \quad t=1, \dots, T \quad (1)$$

Using panel regression with both fixed effect and random effect model to indetified empirical model. Fixed effect is commonly used for accomodating heterogenity of explanatory variables in order that the estimation model will generate the notion rather than its observation. While, the random effect can be applied to accomodate the distinction effect of islamic banks sample. It also used to reduce the shortcoming model of fixed effect by use of dummy variables. The empirical models which were developed :

$$\text{LnQardhit} = \beta_0 + \beta_1 \text{LnCARit} + \beta_2 \text{LnNPFit} + \beta_3 \text{LnBOPOit} + \beta_4 \text{LnNIMit} + u_{it} \quad (2)$$

$$\text{LnQardhit} = \beta_0 + \beta_1 \text{LnCARit} + \beta_2 \text{LnNPFit} + \beta_3 \text{LnBOPOit} + \beta_4 \text{LnNIMit} + \beta_5 \text{LnROAit} + u_{it} \quad (3)$$

$$\text{LnQardhit} = \beta_0 + \beta_1 \text{LnCARit} + \beta_2 \text{LnNPFit} + \beta_3 \text{LnBOPOit} + \beta_4 \text{LnNIMit} + \beta_5 \text{LnROEit} + u_{it} \quad (4)$$

Models 2, 3, and 4 qardh are explantarory variables which showed the number of qardhul hasan financing for each quarter. There are the lagged variable to examine the affect od explanatory variables on qardhul hasan financing growth for the next quarter. Meanwhile, the independent varibales are : 1) *Capital Adequacy Ratio* (CAR); (2) *Non Performing Fund* (NPF); (3) *Operational cost to Operational Income* (BOPO); (4) *Net Interest Margin* (NIM); (5) *Return on Asset* (ROA); and (7) *Return on Equity* (ROE).

### Findings and Analysis

Table 1 shows correlation values among variables which are in pairs. The test used to identify the correlation among high variables as indication of multicollinearity in ibdependent variables.

**Table 2: Pairwise correlation matrix.**

	CAR	NPF	BOPO	NIM	ROA	ROE
CAR	1.000					
NPF	-0.546	1.000				
BOPO	0.118	0.132	1.000			
NIM	0.034	0.022	-0.196	1.000		
ROA	-0.206	-0.093	-0.838	0.494	1	
ROE	-0.400	0.051	-0.767	0.220	0.757	1

The result shows the variables which have correlation above 0,7 up to ROA nad ROE (0,75); ROE and BOPO (0,76); ROA and BOPO (0,83). VIF test result indicated the multicollinearity of among variables (ROA, ROE, and BOPO). Because of multicollinearity problems on three variables above then the regression models are employed separately become a different models.

**Table 3: The result of multiple regression with fixed effect model.**

Dependent Variable	Independent Variable					
	(1)		(2)		(3)	
	Coefficient	SE	Coefficient	SE	Coefficient	SE
<b>C</b>	27.071*	2.649	29.676*	3.111	30.144*	3.052
<b>CAR</b>	0.827	0.920	0.821	1.049	0.610	0.959
<b>NPF</b>	2.157*	0.333	2.228*	0.360	2.229*	0.352
<b>NIM</b>	2.355*	0.594	2.619*	0.614	2.458*	0.627
<b>BOPO</b>	-7.399*	2.312				
<b>ROE</b>			0.232	0.208		
<b>ROA</b>					0.399	0.259
<b>Adjusted R-squared</b>	0.720		0.700		0.79	

\*) significance 1% \*\*) significance 5%

Multiple regression result which used fixed effect has a strong Adjusted R-Squared up to 72%, 70%, 79% for each models. While, the models that using random effect have Adjusted R-Squared 42%, 36%, and 35% in models 1, 2, and 3.

NIM, NPF, and BOPO have significance effect on qardhul hasan financing growth on the significance level 1%, 5%, and 5%. NIM and NPF positively affected on qardhul hasan financing while BOPO have negative significance effect. Net Interest Margin (NIM) impiled as the ability of banks to generate the profit from their assets have influenced on qardhul hasan financing positively. This result is appropriate with the assumption that the sources of qardhul hasan financing partly from bank operational profit. An increase of NIM will raise the bank profit so that the expected funds which were retained would be rise.

BOPO generally is used as efficiency indicator in bank operational. BOPO ratio is used to measure the capability of bank management managing operational cost to operational income. The more efficient of banks is expected able to generate the higher bank profit. The relationship between BOPO and qardhul hasan financing are negatively significance. This terms are likely due to the more efficient bank performance then the level of bank profit will increase and the bank would given the additional fund (*infaq*) for qardhul hasan.

NPF ratio reflected on the bank risk on credit or loans which faced potential problem and default. The higher NPF ratio will increase Islamic bank risk experienced to charge the profit. NPF ratio commonly has negative relationship though rarely. The increasing of NPF ratio is also due to the higher financing transaction in Islamic banks. From the result, NPF have positive affect on qardhul hasan financing. This notion may cause of two reasons: (1) the sources of qardhul hasan that are not from banks or (2) The higher of NPF ratio has related positively with bank profit.

The models above which developed only one model that showed the significance positive relationship between ROA and qardhul hasan financing. The both relationship are significance 5% only in model 3 with using random effect. This result implied that the profitability of Islamic banks affected qardhul hasan financing growth. CAR ratio do not have significant impact on qardhul hasan financing. That is showed from the regression result of all models that is developed in this study.

## **Conclusion**

This study shows that Islamic bank financial performances which are reflected by NPF, NIM, and BOPO have significant impact on qardhul hasan financing growth. This term can be seen from the regression result where all the models which researcher developed showing the significant effect on qardhul hasan growth. Meanwhile, ROA only has significant impact on several models. CAR and ROE have no significant result on qardhul hasan growth. Therefore, this paper demonstrates that bank financial performances which have been measured by NPF, NIM, and BOPO are financial determinants that influence qardhul hasan financing growth on Islamic banks in Indonesia. This outcome could be used as additional evidence to improve the future study about qardhul hasan.

Furthermore, the future study should included other variables such as promotion cost, the number of bank capitalization, and other contracts of islamic financing (*mudharabah, murabahah, musyarakah, salaam, ijarah, dan istishna'a*).

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