Factors that Influence Revenue-Based Financing in Islamic Banking in Indonesia

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ABSTRACT

There are only 13 Islamic banks operating in Indonesia, compared to 102 conventional banks, although it holds status as world’s largest Muslim population. This research focuses on revenue-based financing in Islamic banking whose potential to Indonesia’s economy remains underexplored. This paper analyzes five factors that influence revenue-based financing: profit sharing rate, financing to deposit ratio, capital adequacy ratio, nonperforming financing, and Bank Indonesia Sharia Certificate (SBIS). Using multiple linear regression, this paper examines the data from quarterly financial reports during 2011-2017 of nine Islamic banks as the sample. This paper finds that financing to deposit ratio and SBIS have the positive influence. Regression estimation results shows the model prediction capability of 46.9%, while the remaining 53.1% is influenced by variables outside the model. Future studies might extend observation period and research scope to examine the contribution of revenue-based financing to country’s economy further.

Keywords: Islamic banking, revenue-based financing, financing to deposit ratio, nonperforming financing

1. Introduction

Indonesia, the world’s largest Muslim-majority country, has two types of banking operational system: conventional and Islamic/sharia. There are only 13 Islamic banks operating in Indonesia, which is not proportional to its 222 million Muslim population and in comparison to its 102 conventional banks. In general, the operation of banks cover three main aspects: funding, credit/financing, and service. Islamic banks are managed in accordance to Islamic teachings, which poses differences to the conventional system. The distribution of funds is called financing, not credit, which means a fund to support planned investments. Instead of a fixed or floating interest rate on each loan, Islamic banks implement a profit-sharing system in which the amount is based on agreement between banks/creditors and customers/debtors. Interest system is not allowed as it is considered usury (Muhammad, 2005).

Islamic banking could channel funds based on several types of contracts, namely mudharabah, musyarakah, murabahah, salam, istishna, qardh, or other contracts that conform with sharia law. There are two payment patterns based on the composition of bank capital shares in the customer’s business: (1) Mudharabah, a financing agreement/planting funds from the fund owner (shahibul maal) to fund managers (mudharib) to conduct certain business activities that are suitable with sharia, by dividing the results of the business between the two parties based on the agreed ratio. This usually applied to consumer’s projects financing by the bank. After the project is completed, consumers return the funds together with the results agreed upon by the bank. This partnership contract is divided into two types, namely: (a) Mudharabah Mutlaqah, when the capital owner gives the manager a complete freedom to use the capital in a business that he considers good and profitable, and (b) Mudharabah Muqayyad, when the capital owner determines the terms and restrictions for the manager in using the capital in a specific period of time, place, type of business, etc. (2) Musyarakah, a contract of cooperation between two or more parties for a certain place where each party contributes funds with an agreement that the profit from the risk will be borne together in accordance with the agreement (Antonio, 2001).

This study examines factors that influence financing in Islamic banks, which consist of: Financing to Deposit Ratio (FDR), Capital Adequacy Ratio (CAR), Non Performing Financing (NPF), Bank Indonesia Sharia Certificates/Sertifikat Bank Indonesia Syariah (SBIS), and Profit Sharing Rate (PSR). This study aims to determine whether the PSR, FDR, CAR, NPF, and SBIS have an effect on profit-based financing in Islamic banking. The related FDR and SBIS have an influence on liquidity. The higher the ratio, the lower the bank’s liquidity capacity, while the SBIS holds excess liquidity. CAR and NPF are related to each
other. CAR plays as a sufficient capital in helping to cover losses and reserves for banks in the event of a risk, while NPF is the corresponding ratio between financing problems and total financing channeled by Islamic banks. If bank reserves are insufficient, financing will be problematic and will be included in the NPF criteria.

2. Theoretical Review

Sharia enterprise theory views wealth distribution or added value is not only applied to directly related parties who contribute to the company’s operation (shareholders, creditors, employees, government), but also to other parties that are not directly related. Sharia enterprise will benefit stockholders, stakeholders, the society and the natural environment without leaving the important obligation to fulfill zakat as a manifestation of worship to Allah (Triyuwono, 2012).

Islamic Financial Institutions/Lembaga Keuangan Syariah (LKS), according to the National Sharia Council/Dewan Syariah Nasional (DSN) are financial institutions that issue sharia financial products and obtain operational permits as sharia financial institutions (DSN-MUI, 2003). Therefore, LKS in Indonesia must meet two requirements: conformity with sharia law and the legality of operation as a financial institution.

The principle of profit sharing is a general characteristic and the basic foundation of the operation of Islamic banks. The calculation of profit sharing is determined at the beginning of the making of business cooperation agreement and it must be known by both parties. This is deemed important because it will be considered as ghoror or incompatible with Islamic principles if it is not done. The widely used sharia principles as bank’s main contract are mursyarakah and mudharabah. The plantation financing or financing by several Islamic banks are using muzaro’ah and musakoh.

FDR is a ratio between credit volumes compared to the volume of deposits held by banks (Muljono, 2000). This means that the level of liquidity is getting smaller, and vice versa, because the source of the funds (deposits) owned have been used up to fund financing portfolio. The higher the ratio, the lower the liquidity ability of the bank. A high ratio indicates that bank lends all its funds or is relatively illiquid.

Capital Adequacy Ratio (CAR)

CAR is a ratio that shows how far all risk-bearing bank assets (credit, investment, securities, bills on other banks) are financed from the bank's own capital funds in addition to obtaining funds from sources outside the bank, such as funds from the community, loans, etc (Dendawijaya, 2009). The high capital ratio can protect customers, therefore it can increase customer confidence in the bank.

Non Performing Financing (NPF)

NPF is a risk of financing received by a bank. It is one of the bank's business risks, which is caused by not repaying loans given or investments being made by the bank (Muhammad, 2005).

Bank Indonesia Sharia Certificate/Sertifikat Bank Indonesia Syariah (SBIS)

SBIS is a certificate issued by Bank Indonesia as a proof of short-term fund safekeeping under the principle of ju’alah in rupiah currency.

Development of Hypotheses

Effect of Profit Sharing Levels on Financing

Profit sharing between banks and customers is called a ratio. The profit sharing ratio applies to the distribution of funds in the form of profit-based financing, the shared profit must be divided proportionally between shahibul maal and mudharib. Net profits must be shared between shahibul maal and mudharib in accordance with the proportion agreed before and explicitly stated in the initial agreement. There is no profit sharing until all losses have been closed and the equity of shahibul maal has been repaid. If there is profit sharing before the agreement expires, it will be considered as an upfront profit sharing. When the profit-sharing financing are channeled to customers, Islamic banks expect to get return and profit sharing ratio
from the financing provided to customers, in which it will become bank’s profit (Asri, 2016; Rahman and Rochmanika, 2012).

H1: Profit sharing has positive effect on financing.

Effect of Financing to Deposit Ratio on Financing

FDR is the ratio between financing channeled by banks from third party funds and the capital of the said bank. FDR is used to measure the extent to which loan funds are sourced from third party funds. This high and low ratio shows the level of liquidity of the bank. Therefore, the higher the FDR of a bank, it is less liquid compared to banks that have smaller ratio (Choirudin, 2017; Riyadi and Yulianto, 2014; Kusnianingrum, 2017).

H2: Financing to Deposit Ratio has positive effect on financing.

Effect of Capital Adequacy Ratio on Financing

CAR indicates bank's ability to cover a decrease in its assets as a result of bank losses caused by risky assets. The higher the value of CAR, the more the bank is able to bear the risk of various loans that may be at risk, therefore the bank will be able to finance various operational activities and contribute maximally for profit (Asri, 2016; Pratama, 2010).

H3: Capital Adequacy Ratio has positive effect on financing.

Effect of Non Performing Financing on Financing

NPF is the ratio between problematic financing with the total financing channeled by Islamic banks. In day-to-day banking practice, according to Dendawijaya (2009), the lower the NPF, the higher the amount of funding channeled by the bank. High non-performing loans will trigger difficulties for banks to channel credit because they have to form a large reserve for write-offs (Palupi, 2015).

H4: Non Performing Financing has negative effect on financing.

Effect of Bank Indonesia Sharia Certificates on Financing

Banks that deposit their funds through SBIS will get returns in the form of SBIS bonuses. By depositing funds to Bank Indonesia, Islamic banks will reduce the amount of funds that will be used for financing. The yield in a form of high SBIS bonus can attract banks to provide funds for SBIS. Conversely, if the SBIS bonus is low, banks will prefer to give more funds to financing because it is considered more profitable (Asri, 2016).

H5: Bank Indonesia Sharia Certificate has negative effect on financing.

3. Research Method

Type of Research and Overview of Population (Object) Research

This study uses a quantitative approach to determine causal variables. The data is in the form of numbers and the analysis uses statistics. The research population is quarterly financial statements of Islamic commercial banks registered with Bank Indonesia during the 2011-2017 period.

Sampling Technique

This study uses not randomized or non-random sampling with purposive sampling method. The purposive sampling method is sampling according to certain criteria, and this study employs the criteria as follow: (1) Islamic commercial banks that publish quarterly financial statements for the period of 2011-2017. (2) Fund profit sharing in each quarterly report. (3) RWA in financial statements.

Data Collection Technique

This study uses documentary data in a form of archive which contains what and when the events happened and who were involved. This research data uses secondary data obtained from Bank Indonesia and
The samples used in this study were 9 sharia commercial banks registered with Bank Indonesia.

Variables and Operational Definitions of Variables

Dependent Variable

*Financing (FIN)*

Financing, according to sharia principles, is the provision of money or equivalent bills based on an agreement or agreement between the bank and other party that requires the financed party to return the money or bill after a certain period of time with compensation or profit sharing.

Independent Variables

*Profit Sharing Rate (PSR)*

PSR is income earned from *mudharabah* and *musyarakah* financing activities for Islamic banks at certain times, which are stated in billions of rupiahs. The number of levels of profit sharing is obtained from financial report data (profit/loss). According to Yaya et al. (2014), the level of profit sharing can be obtained by the following formula:

\[
PSR = \frac{(Bank\ Revenue-Sharing)}{(Total\ Profit-Sharing\ Financing)} \times 100\%
\]

*Financing to Deposit Ratio (FDR)*

FDR is used to measure the level of bank liquidity (high/low). According to Muhammad (2005), the calculation of FDR is measured by the formula:

\[
FDR = \frac{(Amount\ of\ Funding\ Channeled)}{(Total\ Funds)} \times 100\%
\]

*Capital Adequacy Ratio (CAR)*

CAR is the minimum ratio based on the comparison between capital and risk assets. The higher CAR ratio indicates that the bank is getting a more sound capital. According to Taswan (2010), CAR calculation formula is as follows:

\[
CAR = \frac{(Capital)}{RWA\ (Risk\ Weighted\ Assets)} \times 100\%
\]

*Non Performing Financing (NPF)*

NPF can be interpreted as financing that experiences difficulties in returns due to intentional factors or external factors beyond the ability of customers (Siamat, 2005). According to Riyadi and Yulianto (2014), NPF can be measured by the formula:

\[
NPF = \frac{(Problematic\ Financing)}{(Amount\ of\ Financing\ Given)} \times 100\%
\]

*SBIS (Bank Indonesia Sharia Certificate)*

SBIS are securities of performance in rupiah issued by Bank Indonesia as short-term debt recognition with a discount system. The values of SBIS have been included in the financial statements, therefore they do not use formula calculations (Taswan, 2010). Data is transformed using Ln from SPSS.

Data Analysis Technique

The data analysis technique, or the process of testing data in this study is quantitative with regression analysis and descriptive analysis.

Test Descriptive Statistics

This study uses Classical Assumption Test to provide certainty that the regression equation obtained has accuracy in estimation, is unbiased and consistent. Each variable studied produced a normal distribution and found no autocorrelation, multicollinearity, or heteroscedasticity.
Analysis of Multiple Linear Regression

Multiple regression analysis is used to determine the effect of independent variables on the dependent variable. Multiple linear regression analysis is used because there are more than one independent variable.

\[ \text{FIN} = \alpha - \beta_1 \text{PSR} + \beta_2 \text{FDR} - \beta_3 \text{CAR} - \beta_4 \text{NPF} + \beta_5 \text{SBIS} \]

Note:
- FIN = Financing
- \( \alpha \) = constant
- \( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \) = coefficient of the independent variable
- PSR = Profit Sharing Rate
- FDR = Financing to Deposit Ratio
- CAR = Capital Adequacy Ratio
- NPF = Non Performing Financing
- SBIS = Bank Indonesia Sharia Certificate

Hypothesis Testing

Coefficient of Determination

The Coefficient of Determination (R\(^2\)) measures how far the ability of the model in explaining the variation of Ghozali (2011) dependent variable. The coefficient of determination is between 0 (zero) and 1 (one). A small R\(^2\) value means that the ability of independent variables to explain variations in the dependent variable is very limited.

Goodness of Fit Test

The F statistic test shows whether all independent variables or independent variables included in the model have an influence on the dependent variable. The significance level is 0.05 with the following criteria: (a) If the significance value of F \( \geq 0.05 \), it means that the independent variables together do not give significant influence on the dependent variable. (b) If the significance value of F < 0.05, it means that the independent variables together have significant influence on the dependent variable.

Hypothesis Test (t test)

The t statistical test shows how far the influence of the independent variables individually in explaining the variation of the dependent variable. This is in line with the hypothesis in the study which wants to know the effect of each independent variables on the dependent variable. The criteria for making a decision whether or not a hypothesis is accepted in this study are as follows: (a) If the significance value is \( t > 0.05 \), then H\( 0 \) is accepted which means that the independent variable does not affect the dependent variable. (b) If the significance value is \( t < 0.05 \), then H\( 0 \) is rejected which means that the independent variable has an effect on the dependent variable.

4. Analysis And Discussion

Overview of Research Objects

The object of research is quarterly reports of 9 Islamic commercial banks registered with Bank Indonesia in 2011-2017. The method used in this study is purposive sampling which determines samples by a set of criteria. The total sample obtained was 63 data.

Data Analysis

Analysis of Multiple Linear Regression

Multiple linear regression analysis is used to test whether the relationship between the independent variable and the dependent variable has a positive or negative influence. The following are the results of multiple
linear regression analysis tests that were processed using the SPSS 23 program. Based on the data from the multiple linear regression analysis, a multiple linear regression equation is formulated as follows:

\[
\text{FIN} = 12,817 - 0.002 \cdot \text{PSR} + 0.028 \cdot \text{FDR} - 0.055 \cdot \text{CAR} - 0.052 \cdot \text{NPF} + 0.027 \cdot \text{SBIS}
\]

**Determination Coefficient Test (R²)**

The coefficient of determination aims to determine the percentage of the influence of independent variables and dependent variable. Small R² means that the ability of independent variables to explain variations in the dependent variable is very limited. A value close to one means that the independent variables provide almost all the information needed to predict variations in the dependent variable. The value of R² of this study is 46.9%, which means that research on PSR, FDR, CAR, NPF and SBIS had an effect of 46.9% and the remaining 53.1% is explained by variables not described in this study.

**Hypothesis Testing**

**Goodness of Fit Test**

The F statistical test shows whether all the independent variables included in the model influence the dependent variable. The significance level is 0.05. The significant level of F test value is 0.000 using significance level of \( \alpha = 0.05 \). Therefore, this research model can be said to be feasible to be used as a regression model because with the calculation resulted that the sig value is 0.000 < 0.05.

**Hypothesis Test (t test)**

The t statistical test shows how far the influence of the independent variables individually in explaining the variation of the dependent variable. With a significance level of \( \alpha = 0.05 \), based on the results of the t test, it shows that each independent variable explains the existence of positive or negative influences on the dependent variable. The following explanation is as follows: (1) The first hypothesis test examines whether the PSR influences Financing. The value of t shows -4.585 with a significance value of 0.000. This means that it is smaller than the value of \( \alpha = 0.05 \) or 5%, then the first hypothesis is accepted. Therefore, PSR has negative effect on financing. (2) The second hypothesis test examines whether FDR affects Financing. The value of t indicates a value of 3.020 with a significance value of 0.004. This means that it is smaller than \( \alpha = 0.05 \) or 5%, then the second hypothesis is accepted. Therefore, FDR has positive effect on financing. (3) The third hypothesis test examines whether the CAR affects Financing. The value of t shows a number of -2.511 with a significance value of 0.015. This means that it is smaller than the value of \( \alpha = 0.05 \) or 5%, then the third hypothesis is accepted. Therefore, CAR has negative effect on financing. (4) The fourth hypothesis test examines whether NPF influences Financing. The value of t shows -0.619 with a significance value of 0.538. This means that it is greater than the value of \( \alpha = 0.05 \) or 5%, then the fourth hypothesis is rejected. Therefore, NPF has negative effect on financing. (5) The fifth hypothesis test examines whether SBIS affect Financing. The value of t shows equal to 0.842 with a significance value of 0.404. This means that it is greater than the value of \( \alpha = 0.05 \) or 5%, then the fourth hypothesis is rejected. Therefore, SBIS has positive effect on financing.

**Discussion**

**Effect of Profit Sharing Rate on Financing**

The profit sharing level has a negative and significant influence on financing, meaning that the increase and decrease of financing is influenced by the ups and downs on the level of profit sharing. The negative influence is because the risk of financing, in which the income obtained by the bank is not in accordance with the estimates and considerations at the beginning when the bank provides financing. Costs incurred in managing financing revenue sharing are also higher than other types of financing. Profit sharing revenue of Islamic commercial banks obtained from the distribution of revenue sharing may still not be optimally obtained, therefore they have not been able to offset the costs incurred. The results of this study are consistent with the research conducted by Rahman and Rochmanika (2012) and Asri (2016), which prove that PSR variables have negative effect on Financing.

**Effect of Financing to Deposit Ratio on Financing**
FDR has a positive and significant influence on Financing, this is because the distribution of loan funds affects the financing by Islamic banks. The greater the credit, the earned incomes increases, because when income rises the profit will also increase. Most of the funds received by banks are channeled back to the community. Therefore, the channeled funding increased. The results of this study are consistent with the research conducted by Riyadi and Yulianto (2014), Choirudin (2017), Kusnianingrum (2017), which prove that the FDR variable has positive effect on Financing.

Effect of Capital Adequacy Ratio on Financing

CAR has a negative and significant effect on Financing, meaning that the increase and decrease of financing is influenced by the ups and downs of the CAR ratio. The negative effect is due to the high CAR which indicates the existence of financial resources or idle capital, therefore the bank will reduce financing because the increase in funding channeled will increase risk assets. The results of this study are consistent with the research conducted by Pratama (2010) and Asri (2016) which prove that the CAR variable has negative effect on Financing.

Effect of Non Performing Financing on Financing

NPF has negative and insignificant effect on Financing, meaning that the increase or decrease in NPF has no effect on the increase in Financing. This happens because a high NPF will make it difficult for banks to channel their funds as they have to form a large reserve for write-offs. The high NPF level has resulted in banks experiencing difficulties and decreasing bank’s soundness, therefore banks are expected to maintain the NPF range at a reasonable level which determined by Bank Indonesia at the minimum of 5%. If the NPF level is above 5%, the bank will be more careful and reduce the funding disbursed. The results of this study are consistent with the research conducted by Palupi (2015) which prove that NPF variables have negative effect on Financing.

Effect of Bank Indonesia Sharia Certificates on Financing

SBIS have a positive insignificant influence on Financing. This indicates that any increase in SBIS will not affect Financing. The positive effect occurs because banks will get returns in the form of bonus when placing funds in the SBIS. The more funds channeled into SBIS, the more bonuses will be obtained, and bank liquidity will increase, so that the bank has a lot of funds that can be channeled to finance. The results of this study are consistent with the research conducted by Asri (2016) which prove that the SBIS variable has positive effect on Financing.

5. Conclusions And Suggestions

Based on the results of the analysis and discussion described in the previous chapter, it can be concluded as follows: (1) The results of testing the first hypothesis indicate that the PSR has a negative effect on Financing. This is because there is a problem between the total profit sharing of financing and the revenue sharing received, therefore the level of profit sharing obtained by the bank is small. Profit sharing revenue of Islamic commercial banks obtained from the distribution of revenue sharing may still not be optimally acquired, therefore they have not been able to offset the costs incurred. (2) The results of testing the second hypothesis show that FDR has positive effect on Financing. This happens because the greater the credit, the income earned will increase, and then profit will also increase. Most of the funds received by banks are channeled back to the community, therefore the distribution of funds for the community increases. (3) The results of testing the third hypothesis shows that CAR has negative effect on Financing. This happens because a high CAR indicates the existence of financial resources or idle capital, so that the bank will reduce financing because the increase in channeled funding will increase the risk assets. (4) The results of testing the fourth hypothesis shows that NPF has negative effect on Financing. This happens because the high NPF level causes banks to experience difficulties and decrease the level of the bank’s soundness, so the bank must maintain NPF level. (5) The results of testing the fifth hypothesis shows that the SBIS has positive effect on Financing. This happens because bonuses obtained by Islamic banks which are acquired from the distribution of funds to SBIS will affect bank's liquidity. The more funds channeled to the SBIS, the more bonuses that will be get, and therefore banks have a lot of funds that can be channeled to finance.
Based on the results of the analysis of data and conclusions above, there are several suggestions given as follows: (1) For Islamic banks, it is expected to increase financing, especially financing for profit sharing. This is because profit sharing financing can provide profits that can be used to meet bank capital. In terms of financing distribution, banks need to establish strategies that are more conducive to avoiding the risk of unwanted financing. (2) For the next research, it would be better to extend the observation period and increase the research’s scope, such as to include all Islamic commercial banks, Islamic business units, and Islamic finance banks registered with Bank Indonesia.

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