The effects of financing and risks on the performance of Islamic Bank: Empirical evidence from Indonesian Islamic Bank

Sutrisno

Magister Management Program – Faculty of Economics, Universitas Islam Indonesia

Email: sutrisno_uii@yahoo.com

Abstract

The purpose of this research is to examine the effects of financing decision and risks on the Islamic bank performance measured by means of return on equity (ROE) and return on assets (ROA). Financing decision consists of murabaha financing, mudaraba financing, and musharaka financing. Meanwhile, the risks are measured by non-performing financing (NPF) and financing to deposit ratio (FDR). There were 8 Islamic banks taken as the population in this research. Here, the analytical tool used was multiple regressions. The result of research showed that Non Performing Financing (NPF) had no any effect on the performance of Islamic banks, measured by ROA and ROE. The risk of financing measured by the Financing to Deposit Ratio (FDR) brought an effect on ROA, but did not influence on ROE. Murabaha financing based on trading provided a positive effect on the performance of Islamic banks. Musharaka financing based on profit sharing provided a negative influence on the performance of Islamic bank, while mudaraba financing did not give any influence on the performance of Islamic banks.

Keywords: murabaha financing, mudaraba financing, musharaka financing, NPF, FDR.

Introduction

Since over the last decade, Sharia banks in Indonesia are experiencing a rapid development. One of the reasons of this rapid growth is related to the potential market in which the majority of Indonesia's population is Moslems. The growing awareness of Moslems in Indonesia to behave based on Islamic rules also includes in the application of the aspects of Muamalah or business. Their awareness is also strengthened by statement of MUI stating that the interest instruments in a conventional bank are not forbidden in Islamic Sharia. Thus, Moslem must be looking for a bank, which does not use the interest such as Islamic banks. It makes Islamic banks to have a large number of customers. Principally, the function of Islamic banks is not much different from the conventional banks as financial intermediaries of the excess funds (surplus units) to people that lack of funds (deficit units). The difference is in the instruments used in which the conventional banks use interest as a reward for people who save their money and those who take the credit. Meanwhile, Islamic banks do not use any interest instruments but other instruments permitted by Islamic Sharia, such as profit sharing instruments and revenue margin instrument. Islamic banks generally aim to encourage and accelerate the economic development of a society by conducting banking, financial, commercial, and investment in accordance with the rules of sharia. The risk faced by Islamic banks is also not much different from those faced by conventional banks. Each bank will face some risks such as the risk of bank capital, risk financing, liquidity risk and operating risk (Muhammad, 2011). Moreover, Masruki, et al. (2010) found that the risk of Islamic banks is higher than conventional banks because Islamic banks provide financing based on the
Islamic concept. In Islamic concept, profit sharing will depend upon the profitability of the customer's business, which is financed by the Islamic bank. Therefore, the leadership of Islamic banks is required to be able to manage Islamic banks professionally to control the risks being faced.

The performance of Islamic banks is affected by the amount of financing provided and the composition of its financing. Haron (1996) showed a positive influence between financing based on profit sharing and financing based on the profit margin on the performance of Islamic banks. Bukhari and Qudus (2012) and Izhaz and Asutay (2007) also found a significant correlation between financing and the performance of Islamic bank. Islamic banking refers to a company with the highly regulated operations by Bank Indonesia (much regulated company), so started from the capital, funding, liquidity, all matters are regulated by the central bank. Therefore, the management of Islamic banks should be able to be managed well. Haron (1996) found a significant correlation between the bank performance and management policies.

Bank performance is often measured by the level of profits earned by the bank. Haron (1996) measured the total income to total assets, income for banks to total assets and net profit before tax to total assets. Akhtar et al. (2011), Zeitun (2012), and Moin (2008) used return on assets (ROA) and return on equity (ROE) to measure the financial performance of the bank. Acaravci et al. (2013) and Ani et al. (2012) measured bank performance by using return on equity, return on assets, and net interest margin. In this study, the authors used two indicators to measure the financial performance of Islamic banking; those are return on assets (ROA) and return on equity (ROE).

The main source of income of the bank is from financing decision, but each financing decision has a risk. To the best of our knowledge, there is a few of researchers who conduct a research on this matter, and they do not examine the research in detail. Therefore, the aim of this research is to examine how the effect of financing decisions and risk on the performance of Islamic banking in Indonesia.

Previous Study

There have been many researched on the factors that determine the profitability of Islamic bank. Haron (1996) used the total income to total assets (TITA) to measure the profitability of Islamic bank. Akhtar and Sadaqat (2011), Zeitun (2012), Kuppusamy and Samudram (2010), Gul et al. (2011) and Moin (2008) used return on assets (ROA) and return on equity (ROE) to measure the profitability. Meanwhile, Srairi (2009) conducted a research of Islamic banks in Gulf countries (GCC) by using the proxy of return on assets (ROA) to measure the profitability. Besides Srairi (2009), other researchers also used ROA as a proxy for profitability including Izhaz and Asutay (2007), Rahman and Rochmanika (2012), Al-Qomar and Al-Mutairi (2008) and Syafri (2012).

Haron (1996) conducted a research in 13 Islamic banks in several Arabic countries to observe the factors of profitability by using 15 variables that have been suspected to affect profitability. From his research, it has been found that financing based on profit margin and profit sharing has a significant impact on profitability. Bukhari and Qudus (2012), meanwhile, examined the relationship of internal and external factors affecting the Islamic banks in Pakistan; one of their results showed a significant relationship between loan (financing) and profitability. Izhaz and Asutay (2007) examined the Islamic banks in Indonesia with a case study on bank Muamalat Indonesia (BMI) showing a significant correlation between financing and profitability. Meanwhile, Rahman and Rochmanika (2012) conducted a study of Islamic bank in Indonesia by taking samples of four Islamic banks found that financing based on trading and financing based on profit sharing have a significant effect to profitability.

Hypothesis Development

Risk and Islamic Banking Performance

Management policy is expected to be capable of improving the financial performance of the bank, the more the company is dare to take a risk, the bigger the possibility of the company to get profit. There is one way relationship between risk and profit, the bigger the risk taken, the bigger the expected profit. It can be seen from the indicator of risk management policy such as FDR if the lower FDR will reduce profits, but high liquidity will also reduce profits. Higher capital ratios also cause many funds to be absorbed into capital, thereby reducing the opportunity for distributed and resulting reduced profits.

Haron (1995) found that the levels of efficiency and capital ratio had a significant positive impact on profitability. Similarly, Akhtar and Sadaqat (2011) found that a non-performance loan and efficiency levels had a positive and significant influence on profitability. Zeitun (2012) and Srairi (2009) also found the effect of capital ratios on the performance of Islamic banks. Bukhari and Qudus (2012), Moin (2008) and Idris et al. (2011) used liquidity as variables affecting the bank performance. Siamat (2005) stated that non performing financing refers to a loan to customer having a difficulty in repayment due to the neither deliberate nor external factors beyond his or her capability/control. Thus, the size of the NPF shows the bank performance in terms of the distributed fund management. Risk with this scheme is divided into two kinds: Financing Deposit Ratio and
Non Performing Financing. Therefore, the hypothesis can be made as follows:

\( H_1: \) financing to deposit ratio has a positive impact on the performance of Islamic bank.

\( H_2: \) non performing financing has a positive impact on the performance of Islamic bank.

**Financing based on profit sharing and Islamic Banking Performance**

The main income of banks including Islamic banking comes from financing. Increasing the amount of funding can increase the level of company profits. Increasing the amount of financing will also increase the profitability if it is not followed by the increasing number of financing problems. Thus, the financing policy is not only quantitative but pursuing the distributed amount but also qualitative, financing the project or a good customer. Thus, the possibility failure to pay is little. Haron (1995) found that financing given in the form of profit sharing financing, financing and financing based on investments had a significant positive impact on profitability. Izhar and Asutay (2007) also found a relationship between the financing based on profit sharing and the bank's ability to generate profits. Rahman and Rochmanika (2012) also examined the effect of the financing based on profit sharing on the profitability of Islamic bank. Financing with this scheme has two kinds namely Murabaha financing and Musharaka financing. Therefore, the hypothesis can be made as follows:

\( H_3: \) Mudaraba financing has a positive impact on the performance of Islamic bank.

\( H_4: \) Musharaka financing has a positive impact on the performance of Islamic bank.

**Financing based on profit margin and Islamic Bank Performance**

Financing is one of the largest asset components in Islamic banking, which will generate revenue in the form of margin / mark up. Murabaha financing in large amounts can bring some profitable results for the bank - if the financing is running well. Profitability is an important factor in the assessment of Islamic banking activities. Bank's ability in generating profits will depend upon the ability of the bank management in managing the existing assets and liabilities and it can be assessed quantitatively by using Return on Assets (ROA). The amount of gain or profit is certainly related to the amount of murabaha financing, which is provided by Islamic bank – indicating the level of success of Islamic banks in conducting their business activities. In this type of financing, the customer is paying back the loan plus a certain profit margin that has been agreed. Haron (1996) suspected that financing based on profit margin (mark-up in fund) has a positive impact on financial performance. Similarly, Rahman and Rochmanika (2012) also studied the effect of the financing based on profit margin with the ability to produce profits. With the mark-up income earned, it will affect the profits earned by Islamic banks. Eventually, it will be capable of affecting the profitability of Islamic Bank. Financing with this scheme has two kinds namely Murabaha financing and Salam financing. Therefore the hypothesis can be made as follows:

\( H_5: \) Murabaha Financing has a positive impact on the performance of Islamic bank.

**Research Method**

**Population and Sample**

In Indonesia, there are 11 Islamic banks. However, this study only involved 8 Islamic banks. The samples taken were the Islamic banks that have been operating for minimum three years and have made profit in Indonesia.

The data needed in this research was the financial data held by Islamic banks in Indonesia. Therefore, this study required the secondary data in form of financial statements of Islamic banks in last 5 years. These data included data sheet, income statement data, cash flow statements, or other statements. Financial statements submitted by banks to Bank Indonesia are financial statements that have been audited by a public accountant, so the data indeed has high level of reliability and validity.

**Research variables**

Research variables need to be clearly defined, so there is no doubt to conduct a research in the field of implementation. This research consisted of five independent variables and two dependent variables. The dependent variable is the variable that is affected by other variables. In this study, the dependent variable is the financial performance.

1. Return on equity (ROE) is the company's ability to generate profit with equity (own capital), which is owned by the company.
2. Return on Assets (ROA) is the company's ability to gain profit with the assets, which is used by the company. ROA measures the level of asset utilization effectiveness (Weston and Copeland, 1986), and it can be formulated as follows:
Independent variable, on the other hand, is a variable that is not influenced by another variable. In this research it consisted of mudaraba, murabaha and musharaka.

1. Financing Deposit Ratio (FDR). Public fund that is deposited in Islamic banks is a mandate from the people to the Islamic banks. The funds will be distributed to those in need with a variety of financing concepts. Bank’s purpose is to provide financing for profit.

2. Non-Performing Financing (NPF). It is a ratio that is used to measure the ability of bank management in managing any existing financing problems.

3. Mudaraba Financing (MUD). It is financing, which is provided to customers where the bank provides all funds and the customers provide project and their management. From the results of the business operations, the profit from the fund will be divided into the bank and the business operator. In Islamic banking, Mudaraba financing is financing that is provided to customers where all the money comes from banks and customers here only need to provide project management (Muhammad, 2005).

4. Musharaka Financing. (MUS). Antonio (2001) defined Musharaka as a partnership agreement between two or more parties to a particular business in which each party contributes funds with an agreement in which the benefits and risks will be shared in accordance with the agreements. In Islamic banking, Musharaka financing is financing that is provided by the bank to its customers in the form of equity investments where the bank participates in management

5. Murabaha Financing (MUR). It is the selling goods at original price with the added agreed advantage price (Antonio, 2001). In Murabaha the sellers must notify the purchased amount of the product price and add a certain level of profit on the price transparently. In Islamic banking, Murabaha financing is financing, which is given by Islamic banks to their customers, where the Islamic bank adds a certain profit margin on the price of the object being financed (Karim, 2010)

Data Analysis

To clarify a correlation between the dependent variable and the independent variable, a statistical analysis is needed. Here, multiple regressions analysis, a regression technique that describes the relationship between the dependent variable with its independent variable, was applied as the tools of statistical analysis in this study. The multiple regression equation is as follows:

\[
ROE = \beta_0 + \beta_1MUD + \beta_2MUS + \beta_3MUR + \beta_4FDR + \beta_5NPF + \epsilon
\]

\[
ROA = \beta_0 + \beta_1MUD + \beta_2MUS + \beta_3MUR + \beta_4FDR + \beta_5NPF + \epsilon
\]

Where:

- ROE = Return On Equity
- ROA = Return On Assets
- MUD= Mudaraba Financing
- MUS= Musharaka Financing
- MUR= Murabaha financing
- FDR = Financing Deposit Ratio
- NPF = Non Performing Financing

Statistical Descriptive Analysis

Based on the analysis of the variables used, the researcher can obtain the descriptive data for NPF (non-performing financing), FDR (financing to deposit ratio), MUR (Murabaha financing), MUD (Mudaraba Financing) and MUS (Musharaka Financing) variables. The detail of the descriptive statistic is as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.16</td>
<td>1.35</td>
<td>4.13</td>
<td>-12.02</td>
<td>1.908821</td>
</tr>
<tr>
<td>ROE</td>
<td>18.98</td>
<td>9.98</td>
<td>74.43</td>
<td>-63.72</td>
<td>24.40293</td>
</tr>
<tr>
<td>MUR</td>
<td>68.03</td>
<td>69.18</td>
<td>99.64</td>
<td>12.93</td>
<td>19.16867</td>
</tr>
<tr>
<td>MUD</td>
<td>10.11</td>
<td>7.88</td>
<td>41.07</td>
<td>0.00</td>
<td>9.28979</td>
</tr>
<tr>
<td>MUS</td>
<td>18.54</td>
<td>14.63</td>
<td>83.41</td>
<td>0.36</td>
<td>13.13447</td>
</tr>
<tr>
<td>FDR</td>
<td>94.42</td>
<td>91.63</td>
<td>205.31</td>
<td>38.58</td>
<td>21.69984</td>
</tr>
</tbody>
</table>
The researcher was able to know the characteristics of the sample in detail and number of data as shown in Table 1. Moreover, by looking at the descriptive statistics, the researcher was able to know the number of samples, average value, and maximum value and standard deviation values of each variable. Return on assets variable has an average value (mean) of 1.16, a maximum value of 4.13, and a minimum value of 12.02 and standard deviation of 1.908821. Return on equity variable has an average value (mean) of 18.98, maximum value of 74.43, and minimum value of -63.72 and standard deviation of 24.40293. Meanwhile, Murabaha financing variable has an average value (mean) of 68.03, maximum value of 99.64, and minimum value of 12.93 and a standard deviation of 19.16867. Mudaraba financing variable has an average value (mean) of 10.11, maximum value of 41.07, and minimum value of 0.00 and a standard deviation of 9.28979. Musharaka financing variable has a value of average (mean) of 18.54, maximum value of 83.41, and minimum value of 0.36 and a standard deviation of 13.13447. Financing to deposit ratio variable has an average value (mean) of 94.42, maximum value of 205.31, and minimum value of 38.58 and a standard deviation of 21.69984. Non performing financing has an average value (mean) of 3.52, a maximum value of 84.72, the minimum value of 0.00 and a standard deviation of 7.988445 From the data above, it can be seen that the range of numbers occurred are close among companies. The data should be transformed into natural logarithm (ln) and the researcher should eliminate some of the data outliers to avoid a bias.

**Hypothesis Test Result**

**Effect of Financing on the Return on Assets**

This analysis is used to determine the existence of the effect of independent variables on the dependent variable individually or partially. Table 2 presents the results of testing on the effect of financing on ROA.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-.037</td>
<td>.010</td>
<td>-3.783</td>
</tr>
<tr>
<td></td>
<td>NPF</td>
<td>-.063</td>
<td>.047</td>
<td>-.106</td>
</tr>
<tr>
<td></td>
<td>FDR</td>
<td>.010</td>
<td>.004</td>
<td>.188</td>
</tr>
<tr>
<td></td>
<td>MUR</td>
<td>.016</td>
<td>.002</td>
<td>.923</td>
</tr>
<tr>
<td></td>
<td>MUD</td>
<td>.001</td>
<td>.001</td>
<td>.079</td>
</tr>
<tr>
<td></td>
<td>MUS</td>
<td>-.011</td>
<td>.003</td>
<td>-.785</td>
</tr>
</tbody>
</table>

As shown in Table 2, it can be seen that NPF has a significance value of 0.183 greater than the required significance level at 0.05. Thus, it can be concluded that the NPF has no any significant effect on ROA. FDR variables showed a significance value of 0.011 smaller than the significance level. Thus, it can be concluded that FDR has a significant effect on ROA. Murabaha financing variables has a positive and significant influence on ROA as indicated by the significance value of 0.000. It is smaller than the significance level at 0.05.

Musharaka financing also has a significant impact on ROA shown with the significance value of 0.000 but has some negative effects. It means that the higher Musharaka financing can make ROA lower. Whereas, Mudaraba financing has no any significant effect on ROA because the significance value of mudaraba financing is 0.558 greater than the required level significance of 0.05.

**Effect of financing on the Return on Equity**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.010</td>
<td>.010</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>NPF</td>
<td>.063</td>
<td>.047</td>
<td>.106</td>
</tr>
<tr>
<td></td>
<td>FDR</td>
<td>.010</td>
<td>.004</td>
<td>.188</td>
</tr>
<tr>
<td></td>
<td>MUR</td>
<td>.016</td>
<td>.002</td>
<td>.923</td>
</tr>
<tr>
<td></td>
<td>MUD</td>
<td>.001</td>
<td>.001</td>
<td>.079</td>
</tr>
<tr>
<td></td>
<td>MUS</td>
<td>-.011</td>
<td>.003</td>
<td>-.785</td>
</tr>
</tbody>
</table>

As shown in Table 3, it can be seen that NPF has a significance value of 0.011 smaller than the required significance level at 0.05. Thus, it can be concluded that the NPF has no any significant effect on ROE. FDR variables showed a significance value of 0.000 equal to the significance level. Thus, it can be concluded that FDR has a significant effect on ROE. Murabaha financing variables has a positive and significant influence on ROE as indicated by the significance value of 0.000. It is smaller than the significance level at 0.05. Whereas, Mudaraba financing has no any significant effect on ROE because the significance value of mudaraba financing is 0.558 greater than the required level significance of 0.05.
From Table 3, it can be seen that the NPF has a significance value of 0.833, which is greater than the required significance level at 0.05. So, it can be concluded that the NPF has no significant effect on ROE. FDR variables showed a significance value of 0.738, which is greater than the significance level. Thus, it could be concluded that FDR does not have a significant effect on ROE.

Murabaha financing variable has a positive and significant influence to ROE indicated by its significance value of 0.000, which is smaller than the significance level of 0.05. Musharaka financing also has a significant impact on ROE as shown with the significance value of 0.000 but with some negative effects. It means that the higher the Musharaka financing, then the lower ROE will be. Whereas, mudaraba financing has no any significant effect on ROE because the significance value of mudaraba financing is 0.091 greater than the required level significance of 0.05.

Discussion

Effect of risks on the performance of Islamic banks

The results of statistical analysis showed that Non Performing Loans (NPF) did not give any influence on the performance of Islamic bank as measured by ROA and ROE. These results indicate that profit rate of Islamic banks are not affected by the magnitude of financing problems. It is reasonable because Islamic banks have the small amount of NPF. Descriptive data showed that the average of NPF in Islamic Banks was 3.52 % as found by Akhtar and Sadaqat (2011) conducting a research in Islamic Bank in Pakistan. Pratin and Akhyar (2005) who conducted a research in Bank Muamalat Indonesia also found the insignificant effect of NPF on the performance of Bank Muamalat Indonesia. Ariyanti and Muharam (2012) also found the same result.

Financing to deposit ratio (FDR) did give an influence to the ROA but it did not give any influence on ROE. These results are not consistent, but most of the studies have found no significant effect of the FDR on the performance of Islamic banks . Idris et al. (2011) who conducted research on Islamic banks in Malaysia found no significant effect of FDR on profitability. Al-Qomar and Al-Mutairi (2008) who conducted research on Islamic banking in Kuwait also found that the effect of FDR on the performance of Islamic bank was not significant. These results can be understood because Islamic banks in Indonesia are more likely to give no-risk finance products such as murabaha financing.

Effect of financing on the performance of Islamic banks

Murabaha financing consistently gave an influence on both performance of Islamic banks measured by ROA and ROE. These results indicate that the murabaha financing significantly give an influence on the performance of Islamic banks. The donations of Murabaha financing were very dominant as the average reimbursing that Murabaha reached up to 69.18 % , even there is a bank that provides Murabaha financing until almost 100%. These results are consistent with Haron (1996) who conducted research on Islamic banks in several Arab countries. Rahman and Rochmanika (2012), who examined four Islamic banks in Indonesia, also found that financing based on trading has a significant effect on the performance of Islamic banks. Vong and Chan (2009) who examined the conventional banks in Macau found a significant effect of loans granted with the profitability of bank.

Mudaraba financing does not give any influence on the performance of Islamic banks. This shows that Islamic banks in Indonesia have not taken any advantage of the profit sharing product. It is because of mudaraba financing has a high risk and the benefits depend on the profits earned by the customers. There are not many of Islamic banks that provide such financing in this form for the difficulty of finding an honest customer. The results of this study are supported by Sutrisno (2014) finding out that mudaraba financing has no significant effect on the profitability of Islamic banks in Indonesia. However,
these findings contradict with the results of Haron’s research (1996) stating that financing based on the significant mark-ups have a significant effect on the performance of Islamic banks. It is also contrary with the results from Rahma and Rochmanika’s research (2012) finding a significant influence of mudaraba financing on the performance of Islamic banks.

Musharaka financing based on profit sharing gives an influence on the performance of Islamic banks as measured by ROA and ROE, though the effect is negative. This means that the higher the musharaka financing, the lower the profitability of bank will be. These results are contrary to the findings of Haron (1996) who found a positive effect of musharaka financing on the performance of Islamic banks. However, from the research results of Sutrisno (2014), it is shown that musharaka financing has a negative influence on the performance of Islamic bank, though it is not significant.

Conclusions

Based on the results of the analysis and discussion in the previous section, it can be concluded that Non Performing Financing (NPF) does not give any influence on the performance of Islamic banks as measured by ROA and ROE. The risk of financing, which is measured by the Financing to Deposit Ratio (FDR) does give an influence on the ROA, but does not influence on ROE. Murabaha financing based on trading does give a positive influence on the performance of Islamic banks.

Musharaka financing based on the profit sharing gives a negative influence on the performance of Islamic bank, while mudaraba financing does not give any influence on the performance of Islamic banks.

Thus, it can be said that Islamic banks prefer to the products of Natural Certainty Contract (NCC) such as murabaha financing. It is because the risk of financing does not give any influence on the performance of Islamic banks. It can be seen from the more portions of the financing granted by bank on murabaha financing. The risk of Murabaha financing based on trading is very little, while the risk of financing based on profit sharing is in large amount and the portion given is very little. Hence, it does not affect the performance of Islamic banks.

References


Pratin and Akhyar Adnan., (2005), Relationship Analysis of Deposit, Equity, NPL, Proﬁ Sahring and Proﬁ Margn on Financing in Islamic Bank: Case Study in Bank

35

Srairi, S. A. Factors influencing the profitability of conventional and islamic banks in GCC countries. Review of Islamic Economics, 11(1), 5-30.


Syafri, (2012), Factors Affecting Bank Profitability in Indonesia, Paper: The 2012 International Conference on Business and Management, Thailand

Vong, Anna. P.I and Hoi Sin Chan, (2011), Determinant of Bank Profitability in Macau, Working Papaer: Faculty of Business and Administration, University of Macau