Analysis of Effect of Depositor Funds; Demand Deposits, Saving Deposits, And Time Deposits on Return On Asset (ROA) Syariah Bank in Indonesia

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Abstract

Islamic Banks' profitability can be measured by the ratio Return On Asset (ROA) which is contained in the ratio units of measure the success. Success can also be seen from the stability of growth that can be achieved annually. To support the business growth of Islamic banks need to continue to develop the share market both in total assets and in terms accumulating Depositor Funds. This research aims to study how effective contribution depositor funds in improving financial performance of syariah bank performance proxy by ROA. As basis data used secondary data Islamic banks nationally published by Bank Indonesia and analyzed with multiple linear statistical test. Results of regression analysis showed that the depositor funds have a positive influence on ROA in which the contribution of independent variables on the dependent variable indicated by the value of \( R^2 \) \( (R - squared) 37.8\% \). Depositor funds is one of many items in the financial statements which contributed to financial performance of syariah banks so that there are other variables influence about 62.2\% but these variables are not addressed in this study.

Keyword: Islamic Banks, Financial Performance, Depositor Funds, ROA

Introduction

The development of Islamic Banking in 2014 grew quite good compared with previous years. Data from Bank Indonesia in the period of 2014 shows the performance of the national Islamic bank’s total assets grew by 12\% , financing grew 8\% , and depositor funds (demand deposits, saving deposits and time deposits) grew better at 22\%. Compared with conventional banks, Islamic banks performance is quite behind. And growth as mention earlier does not significantly increase the proficiency level market share total assets of Islamic banks compared with conventional banks.

In 2014 the Islamic banks has a market share of total assets compared to commercial banks reached 3.73\%, up by 0.16\% compared to 2013. Furthermore, from the depositor funds which consist of the kind of saving product as demand deposits, saving deposits and time deposits islamic banks only able to occupied 10.33\% market share, decline about 0.33\%
compared to previous year which is able to captured a share of 10.66% marketshare compared to commercial banks. Looks like Bank Indonesia also needs to revise the amount of a number of targets that have been published according with Islamic banking total assets performance, which already targeted about 6.50%\(^1\) market share of total assets compared to conventional banks.

Total assets is very common parameter of measurement, because it easily observable and clearly visible on each company’s financial statements including Islamic banks financial report. FASB defines assets as something that has a future economic benefit and it is possible to be obtained or controlled by an entity as a result of past transactions or events\(^2\), in other words asset is property owned by an entity that is derived from historical transactions in which can be managed and controlled in the future time. The higher growth of a business can be reflected from the increasing amount of assets owned by the company.

By total assets approach we can also measure how productive business activities handled. One ratio that commonly used in financial management regarding to the measurement of the profitability level is return on assets (ROA). ROA is a profitability ratio which is able to provide information about how productive the company's able to generate profits by optimizing its total assets. ROA ratios resulting from the comparison between the earnings before interest and taxes (EBIT) to total assets. Wheneve\(r\) ROA value on positive level indicates that of the total assets held and used for operations of the company is able to generate profits for the company. So that the higher value of ROA the greater potential return on assets which is prove continues to growth.

In financial management, there are several other ratios that can be used in measuring the level of profitability, but among its ROA is the most complete measurement. Some excellence assessment using ROA ratios compared to others; (1) ROA has more comprehensive measurement item because of all items included in the balance sheet entirely, while on the income statement figures were taken before interest and tax revenue thus with this ratio analysis

\(^{1}\)http://www.syariahmandiri.co.id/2012/12/target-pangsa-aset-perbankan-syariah-65
\(^{2}\)SFAC No. 6, paragraf 25
using almost all items that affect the financial statements. (2) ROA relatively easier to quantify, easier to understand, and has a deep meaning. (3) Because almost all the components that affect the financial statement involved in the proceed ROA's calculation describe that the responsibility own's by every levels of the company both at the level of the bottom of the management and staff involved in creating value ratio is good and shows the distribution of responsibilities are evenly distributed throughout the company line.

The existence of depositor funds for both conventional and Islamic banking has a very important meaning. Depositor funds collected have three different types such as demand deposits, saving deposits and time deposits. depositor funds is the major part of the operations of the bank, given the definition of the bank by Bank Indonesia as business entities that raise funds from the public in the form of savings and distribute them back in the form of loans or other different product. Bank has a role as an intermediary agent between people with excess liquidity (depositors) to the people who lack of liquidity (the debtor) in other word this activities and role are usually called as intermediary institution

Core business and activities of Islamic banks is financial services so that the availability of the money collected in the form of depositor funds indispensable as raw material of production. With the depositor funds, bank as operator (fund manager) will earn revenues to finance its operations. The Revenue of islamic banks primarily derived from profit sharing ratio financing disbursed. The greater depositor funds that able to collected, the greater the potential for banks to obtain profit.

in term of support the business growth, of Islamic banks need to continue increasing market share both in total assets and in terms collecting depositor funds. Various attempts were made to increase the market share of Islamic banks from creating competitive products innovation breakthrough. The larger the number of depositor funds held by Islamic banks would increase their income potentially.

Depositor funds affects the total assets in three ways, which is in the pattern of conceptual relationships between variables can be described as follows:
1. Depositor funds affect the total assets from the liabilities side, in which the addition and subtraction on the depositor funds products will directly affect the size and composition of the total assets of Islamic banks.

2. Depositor funds affect the total assets from the assets side, conceptually stock of depositor funds in Islamic banks will provide an opportunity distribute it in form of financing product and earn more profit. Furthermore, if the depositor funds collected are not optimally distributed to productive assets portfolio it will impact opposite effect. The unoptimal financing portfolio would only be a burden because depositor funds collected consequences for cost of fund.

3. Depositor funds affect total assets from liabilities side indirectly, this happens when the financing distributed will generate earnings and produce profits in the liabilities side of the balance sheet, and it will be recorded as a part of equity component, more specifically Islamic banks in the current year profit account.

**Literature study and previous research**

**a. Previous Research**

The first study by Herlandi 2011 entitled the influence of third-party funds and liquidity (LDR) towards profitability (ROA) at PT Bank Danamon Indonesia tbk, the sample in this research is the consolidated annual financial statements 2000-2010 where multiple linear regression analysis results show that third-party funding and liquidity (LDR) effect significantly to profitability (ROA) either simultaneously or partial value of the indicated the significance level more than 5%.

A second study by Iswamati 2009, entitled the influence of Financing to Deposit Ratio (FDR), the Cash Ratio (CR), Capital Adequacy Ratio (CAR), and third-party Funds against the level of Profitability at PT Bank SyariahMandiriTbk period 2006-2008. The results of this research show that simultaneously can be inferred that the FDR, CR, CAR and third-party Funds affect the variable coefficient determination of ROA of 51.3%. However partially proved that the
variable capital adequacy ratio (CAR) of third party funds and variable which proved positive and significant effect against ROA while variable financing to deposit ratio (FDR) did not affect ROA and cash ratio (CR) proved to be a significant negative effect against ROA.

b. Literature study

Islamic Banking

According to Act No. 7 of 1992 about banking as amended by Act No. 10 of 1998, the bank’s understanding of is as follows "a Bank is a business entity that funds from the public in the form of savings and channel it to the community in the form of credit and or other forms in order to improve the people's livelihood". Based on Decision Letter of the Minister of Finance of Indonesia No. 792 of 1990, the sense of the bank is: "the Bank is an agency that its activities in the field of finance did a gathering together and channeling funds to the community especially in order to finance the company's investment". The Islamic Bank or Islamic bank is the bank that operate by not relying on the interest. The Islamic Bank or commonly referred to with the Bank without interest, is the financial institutions which products are developed based on the Qur'an and the Hadith of the Prophet. Or in other words, The Islamic Bank is a financial institution that the effort anyway provide financing and other services in payment traffic and money circulation whose operations are adapted to the principles of Islamic jurisprudence (Muhammad, 2005). The main characteristic of Islamic banks is the lack of interest as a representation of the riba which Allah has forbidden. It is this characteristic that makes the Islamic banking is superior on some of the things included in the operational system running. According to Act No. 9 of 2008 about Islamic banking, Islamic banking is a Bank that runs its business activities based on sharia principles and according to its kind consisting of public Bank Syariah and Islamic people's Bank Financing.

**The functions and activities of Islamic banks**

The functions and activities of Islamic banks is disbursing funds and muster funds in the terminology of Islamic banks termed the financing, as mentioned in Act No. 21 of 2008 article 19 paragraph 1. The presence of Islamic Bank is expected to contribute to economic growth
through Community financing-financing issued by Shariah. This financing through the Islamic Bank can be a partner with the customer, so that the bank's relationship with the customer is no longer the Islamic as creditors and the debtor but becomes partnership (Muhammad, 2005).

According to Akhyaar (quoted from Muhammad, 2002) widespread means financing financing or funding, i.e. spending incurred to support investments that have been planned, well made and run by others.

**Depositor Funds**

Depositor funds or called the bank's third-party funds are usually better known by the Community Fund, funds collected by financial institutions that originate from communities in the broad sense, covering the communities of individuals, as well as a business entity (Ismail, 2010:43). Community trust bank of existence and beliefs of the community that the bank would hold as well as possible financial problems, a situation that was expected by all banks. According to law No. 21 of 2008 about Islamic banking (Chapter 1) mentioned that, "Deposits are funds which are entrusted by the customer to the Islamic Bank and/or the contract based on wadi’ah UUS or other Contract which are not contrary to Islamic Principles in the form of Checking, savings, or any other form of equated with it". Community funds deposited in the bank is the largest source of funding the most reliable bank that consists of 3 types, namely: in the form of current account, deposits, and savings.

**Return On Assets**

Return On Assets (ROA) is a measurement of the bank's management ability in gaining advantage in overall. If a bank gets bigger ROA, the greater the level of profit achieved the bank and the better the position of the bank in terms of asset security. In order to measure the level of health of the bank, there is little difference between the calculation of the ROA upon theoretical and method of calculating based on the provisions of Bank Indonesia. Theoretically, the profit that counts is profit after taxes, while the CAMEL spider that counts is the earnings before tax (Dendawijaya, 2005).
Research Methods

This research uses descriptive quantitative method which is a form of research that is based on data collected in a given period. Quantitative research is the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect. Furthermore, according to Sekaran (2003: 5) defines quantitative research as an activity of organized, systematic, data-based, critical, objective, scientific research or investigation of certain issues, conducted with the aim to find an answer or solution for it.

Variables used in this research consists of a variable Y (dependent variable) ROA Islamic bank in which this variable is a proxy of the profitability of Islamic banks and this variable also reflect growth and profitability going concern a business activity. The next variable which become inputs in this study is the variable X (dependent variable) that is collected depositor funds of Islamic banks and breakdown on each type of depositor funds such as; demand deposits (X1), saving deposits (X2) and time deposits (X3).

The type of data used in this research is secondary data that contains the value of ROA and the amount of depositor funds consist of current accounts, saving deposits, and time deposits arranged in series on a monthly basis in the period 2010 to 2015. Each of the data is a compilation (aggregation) are compiled are base on monthly reports, quarterly reports and annual reports Islamic Commercial Bank and Islamic Business Unit operating in Indonesia. Source of data obtained from the publication of Bank Indonesia and the Indonesian Financial Services Authority.

Data collection techniques using the Library Research by looking for secondary data obtained from various sources, both from the literature, articles, corporate data, and others that are considered relevant to the investigation. The research objective of this literature is to obtain theoretical data to build a strong theoretical basis to support this research.

Once the data tabulated in the same group and the same period of time then performed a quantitative analysis method using statistical tools Statistical Product and Service Solutions
SPSS) more specifically using IBM SPSS Statistics v.20 application. The purpose of this analysis is to solve relation between variables with multiple linear regression analysis to see the effect of the independent variable on the dependent variables.

Some statistical test performed order to get the results that are expected: (1) The validity and reliability test, which is to see the precision or accuracy of an instrument to measure what it wants to be measured or in other words whether a tool measurement used has adequate reliability and validity. While the reliability test is useful to determine whether the instrument in this case the compiled data can be used more than once, at least in the same scoop will produce consistent data. (2) Multiple regression test, which is to analyze the influence of the independent variables of depositor funds in form of demand deposits (X1), saving deposits (X2) and time deposits (X3) on the dependent variable (Y) which is the value of ROA and subsequently formed the model analysis using linear regression models multiple. This research model is estimated using OLS (Ordinary Least Square).

**Results and Discussion**

Multiple linear regression statistical models generated from the relationship between variables of demand deposits (X1), saving deposits (X2) and time deposits (X3) Islamic banks to variable ROA value (Y) obtained relationship equation as follows:

\[
Y = \alpha + b_1X_1 - b_2X_2 - b_3X_3 \\
Y = 0.016 + 1.696X_1 - 1.095X_2 - 2.052X_3 \\
\]

Y = Dependent variable (ROA of Islamic banks—on percentage)  
X1 = Independent variable (demand deposits of Islamic bank—on billions rupiah)  
X2 = Independent variable (saving deposits of Islamic bank—on billions rupiah)  
X3 = Independent variable (time deposits of Islamic bank—on billions rupiah)  
a = Constanta (value of Y if X1, X2…..Xn = 0)  
b = regression coefficients (an increase or decrease in value)
Table 1. Coefficient Model

<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></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.016</td>
<td>.002</td>
<td></td>
<td>7.496</td>
</tr>
<tr>
<td>Demand Deposits</td>
<td>1.696E-06</td>
<td>.000</td>
<td>1.280</td>
<td>3.749</td>
</tr>
<tr>
<td>Saving Deposits</td>
<td>-1.095E-07</td>
<td>.000</td>
<td>-.319</td>
<td>-.363</td>
</tr>
<tr>
<td>Time Deposits</td>
<td>-2.052E-07</td>
<td>.000</td>
<td>-1.291</td>
<td>-1.720</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROA

Multiple regression equation above can be explained as follows; Constants of 0.016 has meaning if the demand deposits (X1), saving deposits (X2) and time deposits (X3) value is 0, then the value of ROA (Y) value was 1.6%.

Regression coefficients demand deposits variable (X1) 1.696 has meaning if another independent variable value is fixed and the amount of savings in the form of demand deposits increased 1 billion rupiahs, the value of ROA (Y) will be increased by 1.696%. This positive coefficient means there is a positive relationship between savings in the form of demand deposits with a value of ROA, the greater the amount of deposits in demand deposits, the higher the percentage ROA owned Islamic bank.

Regression coefficient of Saving deposits variable (X2) amounted to -1.095 has meaning if another independent variable value is fixed in the form of saving deposits increased 1 billion rupiahs, the value of ROA (Y) will be decreased by -1.095%. The coefficient is negative, it means there is a negative relationship between savings in the form of savings with ROA value, the greater the savings in the form of savings then ROA Islamic banks will sliding down.

Regression coefficient of time deposits Variable (X3) at -2.052 has meaning if another independent variable value in the form of fixed and savings deposits increased 1 billion dollars, the value of ROA (Y) will be decreased by 2.052%. The coefficient is negative, it means
there is a negative relationship between savings in the form of deposits with a value of ROA, the greater the savings in the form of deposits, the ROA Islamic banks will fall.

Table 2. Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.615a</td>
<td>.378</td>
<td>.344</td>
<td>.00409420</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Time Deposit, Demand Deposits, Saving Deposits  
b. Dependent Variable: ROA

From the results of regression analysis as the shows in Table 2, obtained figures R value is 0.615. The R value indicates that there is strong correlation between the number of demand deposits, saving deposits and time deposits to Islamic banks ROA. Furthermore, from the same table figures obtained $R^2$ (R Squared) of 0.378, or 37.8%. This figure shows that the percentage contribution of the influence of the independent variable (demand deposits, saving deposits and time deposits) on the dependent variable (ROA) of 37.8%. Or variations of the independent variables used in the model (demand deposits, saving deposits and time deposits) amounted to 37.8% were able to explain the variation dependent variable (ROA). While the remaining 62.2% influenced or explained by other variables not included in this research model.

Standard Error of the Estimate is a measurement of the number of errors in the regression model to predict the value of Y. From the table 2 model summary shows value of Standard Error of the Estimate is 0.00409420, this means that the number of errors in the prediction of ROA value of 0.00409420 in other hand standard deviation of variable Y (ROA) is obtained to 0.00505646. In the theory, if the standard error of the estimate is less than the standard deviation of variable Y, means regression model has a good prediction the value of Y. The comparison figures Estimate Standard Error of the standard deviation to the value of variable Y (ROA) showed is less then standard deviation value of variable Y (ROA) so that the resulting model is well worth.
From the results of the F test results obtained F-statistic = 11.331 while F-table (α = 0.05; db residual = 57) is equal to 3.16. Because the F-statistic > F-table that is 11.331 > 3.16 then the effect of X1 (demand deposits), X2 (saving deposits) and X3 (time deposits) is significant at α = 5% error. This means that H0 is rejected and H1 accepted, so that it can be concluded that the value of ROA can be affected by demand deposits, savings and time deposits.

In the t-test which is used to determine whether the independent variables in the regression model (X1, X2 and X3) partially significant effect on the dependent variable (Y), will be tested for each independent variable as follows:

a. Variable X1 (demand deposits) we concluded that t-statistic is 3.749 while t-table (α = 5%: 2 = 2.5% - 2 side test) in the figure 2.00324. This means t-statistic > t-table (5.964 > 2.131), so we can say H0 rejected, it means there is a partial significant effect between the amount of demand deposits with Islamic banks ROA value. So that from this relationship can be concluded that there is positive partial influence between amount of demand deposits and value of ROA in Islamic banks.

b. X2 (saving deposits) we concluded that t-statistic is -0.363 while t-table (α = 5%: 2 = 2.5% - 2 side test) in the figure -2.00324. This means t-statistic > t-table (-0.363 > -2.131), so we can say H0 rejected, it means there is a partial significant effect between the amount of saving deposits with Islamic banks ROA value. So that from this relationship can be concluded that there is negative partial influence between amount of saving deposits and value of ROA in Islamic banks.

c. X3 (time deposits) we concluded that t-statistic is -1.291 while t-table (α = 5%: 2 = 2.5% - 2 side test) in the figure -2.00324. This means t-statistic > t-table (-1.291 > -2.131), so we can say H0 rejected, it means there is a partial significant effect between the amount of time deposits with Islamic banks ROA value. So that from this relationship can be concluded that there is negative partial influence between amount of time deposits and value of ROA in Islamic banks.
The next test is to find out whether there is heteroscedasticity in the error term variables in a regression model using the Glejser test using SPSS. The test results indicate that the significance of the model generated by the Glejser test series Glejser value 1.0. In this test, it is declared when the significant value generated from this test > 0.5 then there is the problem of heteroscedasticity. As the estimates obtained significant value 1.0 > 0.5 so otherwise there are no problems heteroscedasticity.

Based on a series of statistical tests above, there is a relationship between the independent variables (demand deposits, saving deposits, and time deposits) and the dependent variable (ROA). Wherein each partially also have an influence in different relation. Total number demand deposits collected by Islamic banks have a positive influence, so that the greater demand deposits collected will contribute to an increase in ROA significantly. Instead of saving deposits and time deposits have a negative influence on ROA so that the greater value and saving deposits and time deposits collected will decrease significantly ROA. Time deposits contribute greater decline in value of ROA compared to the saving deposits.

Each type of deposits have consequences fees vary according to the contract agreed sharing ratio with the depositors. Profit sharing ratio of demand deposits generally the lowest compared to the other deposits, follow by saving deposits, and highest profit sharing ratio is time deposits.

In a period during 2014, obtained information that the amount of profit sharing ratio for deposits in the form of demand deposits (equivalent rate) at 0.57% up to 0.76% P.A. While the profit sharing ratio for saving deposits (equivalent rate) at 3.36% up to 5.75% P.A. and the highest is in the form of time deposits which have the result (equivalent rate) primarily to the maturity of more than 12 months at 5.34% up to 17.06% P.A.

From the above points can be concluded that the saving product in the form of demand deposits is the most profitable kind of deposits for Islamic banks because these deposits have a lowest profit sharing. However, the portion savings in the form of demand deposits amounted only 8.56% from the total portfolio. The small size of the portfolio to current accounts due to
the requirements of the most complex procedure during account ownership compare to other types of deposits since this deposit is generally used for transactional purpose. Demand deposit also has facilities in form of check as cash payment instrument and or bilyetgiro as non cash payment instrument. Selection less stringent for possession of a current account has broad implications and moral hazard concern appears to misuse paper (checks and bilyetgiro) provided by Islamic banks.

The most attractive saving production depositors point of view is saving product in form of time deposits because it has very high yield (profit sharing portion). Had under normal conditions and continuing each depositor get the results by more than 17 % a year it will invite the parties which have large funds to put their funds in Islamic banks. It is very normal whenever portfolio of time deposits in Islamic banks in period 2014 had the greatest portion reaching 62.26 %, far above the time deposit portfolio of commercial banks, which only reached 41.86%.

Conclusion

The existence of a large time deposit portfolio is very good for the bank's business because it given the nature of long-term contractual and certainty, but the compensation for bank to divide the result by the depositors are also greater. So the greater the amount of savings in the form of deposits will decrease the value of ROA for the allocation of revenue Islamic banks will be allocated for shared profit. Thus recorded net income will be less than the gross receipts.

Saving product in form of demand deposits is beneficial considering the profit sharing ratio is relatively small compared to the other two types of deposits, but the nature of the demand deposit account that can be withdrawn at any time does not allow Islamic banks allocate to productive asset long term given the uncertainty of his maturity. If the bank can not be taken into account maturity of a deposit then the level of risk in its distribution has the potential miss-match that endanger bank liquidity.
From discussion above we can be concluded that the savings in the form of demand deposits, saving deposits and time deposits affect ROA value of Islamic banks and from all of form of saving, only demand deposits that have a significant positive relation to the value of ROA. However, the large of existence of demand deposits will endanger management in financing activities because its given nature of the short-term. It is necessary for assets and liabilities management mechanisms that are reliable to maximize portfolio of Islamic banks in particular with regard to depositor funds.

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