



Determinants of Islamic Bank Profitability: Evidence from Indonesia

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ABSTRACT

Objective – Islamic Banks have a distinct advantage that is not only conduct a commercial operation, but to also conduct social operations. Therefore, Islamic Banks plays an important role in developing the Indonesian economy. The aim of this study is to investigate the impact of internal and external factors that affect the profitability of Islamic Banks in Indonesia.

Methodology/Technique – The methodology of this research is multiple regression. The object of this research is the Islamic banking industry in Indonesia. Internal factors include size, liquidity, asset quality, management, and efficiency ratio. External factors include interest rate and inflation. Return on Assets is used to measure profitability. The monthly data is collected from the financial reports of Islamic Banks between 2011 to 2016.

Findings – The findings show that size, liquidity, assets quality, management ratio, interest rate and inflation lead to a greater Return on Assets (profitability) in Islamic Banks in Indonesia. Efficiency however does not have a significant effect on profitability of Islamic Banks in Indonesia.

Novelty – Based on the results of this research, it can be concluded that the Islamic banking industry can use those variables to improve the profitability of Islamic banks in the future. In addition, there are two variables that affect the profitability of Islamic banking industry. For the Islamic banking industry should anticipate the movement of inflation and interest to improve the profitability of Islamic banks.

Type of Paper: Empirical paper.

Keywords: Islamic Banks; Profitability; Internal Factors; External Factors; Indonesia.

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1. Introduction

Banking plays an important role in the economy of a country as an intermediary between parties who have excess funds with parties who need funds.

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Noor (2012) describes the role of banks as an intermediary between units of excess funds and units of small amounts of funds. This is in line with the role of banks, which is to allocate funds for economic activities. Islamic Banks as a financial institution have the basic mechanisms, namely accepting deposits from the owners of capital (depositor) as well as liabilities (liability) when offering finance to investors on the side of its assets, with the scheme in accordance with Islamic jurisprudence. This intermediary function is very important for the development of a country's economy (Zainudin, 2010). In terms of profits, conventional banks use the concept of interest rates and Islamic Bank use the principle of profit and loss sharing.

According to Indonesian Law No. 21/2008 Chapter 1 verse 7, the Islamic bank is a bank that runs its business activities based on Islamic principles and consists of the Islamic Commercial Bank and Islamic Rural Bank. The Islamic Bank is a financial institution that serves as intermediary between parties with excess funds and those who lack funds for business activities and other activities in accordance with Islamic law (Zainudin, 2010; Noor, 2012). The existence of Islamic banking in Indonesia began with the establishment of Bank Muamalat Indonesia in 1991. Since 1998, Indonesia has ratified its financial law using a dual banking system, namely the banks with conventional principles and with the Islamic principles (UU No.10/1998). After more than 25 years established in the Financial Industry, the internal performance of Islamic Banks is growing rapidly. Indonesia has a majority Muslim population and represents a very large market share for Islamic banking.

Macroeconomic conditions or external factors may have an impact on Islamic banks in Indonesia particularly in terms of their income. Income is one of the essential elements for a financial institution because investors and depositors would certainly want to get an advantage from the placement of their funds. When a financial institution is not able to generate a profit then it would reduce investor interest to invest in financial institutions, whereby Islamic banks seeks to increase it. Hence, the development of Islamic banks in Indonesia, one of which can be seen from his ability to generate profit or in financial management is more known for its profitability.

Inflation can be interpreted as an increase in the price of goods and services in general. In research conducted by Zarrouk, Ben Jedidia and Moualhi (2016) and Eltabakh, Ngamkroekjoti and Siad (2014), inflation is said to have a relationship with a negative profitability of the bank. On the other hand, Chowdhury (2015) says that inflation is associated positively with the profitability of the bank. The interest rate is the yield on money given. Interest rates are not used by Islamic banks in deciding margins or ujarah, however Islamic banks operate in Indonesia among the conventional banks, where interest rates are used to determine the rate of return on the funds provided. The relationship interest rate of Islamic banking profitability is competition between the two types of banks to attract the customers to apply for financing. In addition, interest rates also affect the amount of third-party funds. The results of the research conducted by Eltabakh, Ngamkroekjoti and Siad (2014) conclude that the interest rate has a direct relationship with the Islamic banking industry profitability in Qatar.

Table 1. Financial Ratio of Islamic Banking Industry (in percentage)

Years	2012	2013	2014	2015	2016
ROA	2,16	2,02	0,86	0,88	1,08
Ln Size	32,92	33,14	33,26	33,34	33,38
Liquidity	29,30	27,84	30,11	31,83	30,58
Intermediary	100,4	100,7	92,08	92,70	91,17
Risk	84,73	82,52	81,12	83,42	84,62
Efficiency:					
BOPO	77,90	80,99	76,68	83,22	92,31
IER	6,54	7,42	7,25	8,06	9,43

Sources: Compiled from Banking Statistic of Financial Service Authority (2012-2016)

Based on Table 1 above, the movement of ROA is followed by movements in company size, liquidity, intermediary, level of risk and efficiency. When the size of the companies increased from 2013 to 2014, the ROA of the Islamic banking industry fell dramatically. Liquidity therefore appears to have a negative or inverse relationship with ROA as seen between 2011 to 2012 when liquidity decreased, and profitability increased. The intermediation function has a direct or positive relationship, such as in 2011 to 2012. The risk level at a glance has a negative relationship from year to year when the level of risk falls then profitability rises. Meanwhile, efficiency is measured by OER and TOE and has a randomized relationship.

In research conducted by Masood and Ashraf (2012), it was concluded that the size of the company has a positive effect on the profitability (ROA) of the bank. However, the magnitude of the company's owned assets also could have a negative effect on the profitability of the bank if the management is not appropriate. This is in accordance with the research conducted by Eltabakh, Ngamkroeckjoti and Siad (2014) which concluded that the size of the company negatively effects profitability.

There is a negative and significant relationship between liquidity with ROA in Islamic banks (Masood & Ashraf, 2012). The advantages and disadvantages alike have an impact on the bank. If a bank is too conservative to manage liquidity this will lead to lower profitability despite the shortage of liquidity risk. Conversely, if the bank pursues an aggressive liquidity management system then it is likely to be close to the liquidity shortage risk but will have the opportunity to gain a high profit (Muhamad, 2014). However Zarrouk, Ben Jedidia and Moualhi (2016) state that liquidity has a positive effect on profitability. In addition there is no significant relationship between liquidity and the profitability of Islamic banks (Masood & Ashraf, 2012).

FDR has a significant impact on the profitability of Islamic banks in Indonesia. Level of risk (debt to total assets) is one part of this ratio whereby leverage ratio measures how much debt (other party) the company has. The level of risk is associated positively and significantly to the profitability of Islamic banks (Masood & Ashraf, 2012).

Efficiency is making every effort to produce a maximum output possible with minimal input possible; the more efficient the better. All companies certainly try to be as efficient as possible to manage their assets in generating profits. The more efficient the company is will enhance the value of the company as it can manage the assets properly. Efficiency has a positive effect on the profitability of banks (Zarrouk, Ben Jedidia & Moualhi, 2016). Research on efficiency is measured by a negative relationship BOPO towards Islamic banking profitability (Nikmatus & Sriyana, 2014). Islam also explains that people have to utilize the property with the best possible or not to squander the treasure.

The main purpose of this study is to determine what factors affect the profitability of Islamic banks in Indonesia, because profitability can be used to increase the value of the company. Higher profitability of Islamic banks will increase the enthusiasm of investors or depositors to place their funds in Islamic banks, considering that Indonesia has the largest Muslim population in the world. In this research, the factors affecting profitability are divided into two: internal factors and external factors. The internal factors are firm size, liquidity, asset quality, risk level, and efficiency. The external factors are interest rates and inflation.

2. Literature Review

2.1 Profitability

One indicator of the financial performance of financial institutions is the level of profits generated which is known as profitability (Brigham, 2015). There are several ways to measure the profitability of a company where each measurement is associated with the volume of sales, total assets and capital of its own. The overall measurements will enable one to evaluate the level of earnings in relation to sales volume, total assets and investments of the company owner.

Return on Asset (ROA) shows the ability of the company to generate profit compared with the amount of funds that are grown within the company (Brigham, 2015). This ratio indicates the effectiveness of the use of

funds in a given period. The greater the ratio, the more effective its usage cycle which increases the company's ability to generate profits. The profitability of Islamic banks can be measured based on regulation of Bank Indonesia No. 13/24/DPNP dated 25 October 2011 using the following equation:

$$ROA = \frac{\text{earning before tax}}{\text{average of total asset}} \quad (1)$$

2.2 Size

Generally, the size of a Bank will have an impact on its' profitability (Almaqatari et. al., 2019). Larger banks indicate that the bank is more profitable than smaller Banks (Căpraru & Ilnatov, 2015). This is in accordance with the economics of scale which states that larger companies will be able to lower their operating costs (Adelopo, Lloydking & Tauringana, 2018). Previous research shows that the size of Islamic banks has a positive impact on profitability (Alzoubi, 2018; Alharbi, 2017). Islamic banks have a better chance in a diversified portfolio of investments and assets. Larger banks look more secure so as to help them to improve profitability.

The larger the company is, indicates that the company is getting better, as it can give confidence to investors in managing their investment funds. The size of a bank is calculated using the natural logarithm of the total assets (Masood & Ashraf, 2012; Alexiou & Sofoklis, 2009).

2.3 Liquidity Ratio

The liquidity ratio is used to measure a bank's ability to meet its' short-term obligations at the time they are due (Kasmir, 2008). In other words, it can pay back its customers and is able to fulfill any credit requests. The formula to find the liquidity ratio is as follows:

$$\text{Quick Ratio} = \frac{\text{Cash Assets}}{\text{Total Deposito}} \times 100 \% \quad (2)$$

The benefits of liquidity measurement for banks are heightening public confidence and government. The community is very concerned with the liquidity of the bank to find out the extent to which banks can provide leeway for the customer if at any time withdraw funds saved (Judiseno, 2002).

2.4 Intermediary Function

The two main functions of Islamic banks are raising funds and distributing funds. From the brief description above, the primary function of Islamic banks is the bridging between the underfunded with excess funds. This function is the main purpose of the State established banks, because this function can improve the economy of the State (Muhamad, 2014).

The function of intermediaries can be seen with how to compare between funds that distributed banking with funds collected from the public. In Islamic banking, the intermediation function can be measured using the Financing to Deposit Ratio (FDR). The following equation is used to measure the function of the intermediary:

$$FDR = \frac{\text{Total Financing}}{\text{Total Deposit}} \quad (3)$$

2.5 Level of Risk

Level of risk is the proxy of the leverage ratio. Level of risk reflects how far the Islamic banks' assets are financed by debt. Debt in banking is not just long-term debt but can also be third-party funds. Third-party funds are also considered debt. In banking, level of risk (leverage) can be defined as the ability of banks to source funds to finance its activities (Kasmir, 2010). From this definition it could be said how the debt amount of Islamic banking in drawing up the assets. The following equation is used to measure level of risk:

$$TLA = \frac{\text{total debt}}{\text{total assets}} \quad (4)$$

2.6 Efficiency

Efficiency is the comparison between the input and output. The input is processed through a particular process will give the output according to the size and certain criteria (Muhammad & Ismal, 2015). The ratio of efficiency in this study uses two measuring instruments: the Income Expense Ratio (IER), which is the comparison between total income and total operating expense (Zarrouk, Ben Jedidia & Moualhi, 2016), and operating expenses against operating income (BOPO) (Muhamad, 2014).

Efficiency is calculated by BOPO which emphasizes how efficient the company is in using the load (the input) to generate income (output). The ratio of IER emphasizes how big the operational activities carried out by the Islamic banking assets owned are. The following equations are used to measure the ratio of IER and BOPO:

$$BOPO = \frac{\text{Operational Expense}}{\text{Operational Income}} \quad (6)$$

$$IER = \frac{\text{total income}}{\text{total operating expense}} \quad (5)$$

2.7 Interest Rate

Interest rate is the cost of the loan or the price paid for the loan funds (Mishkin, 2011). Interest can be defined as the price that must be paid by the bank and/or the customer as retribution over transactions between the bank and the customer (Ismail, 2010). Interest rates can be used to regulate the money supply and to control inflation in a country.

2.8 Inflation

Inflation is the rise in the price level in general. The rate of inflation is the rate of change in the general price level (Samuelson & Nordhaus, 1994). Inflation means the increase in the price level in general of goods/commodities and services during a certain period. Inflation can be considered as a monetary phenomenon due to the decline in the value of the unit of calculation of a monetary commodity (Karim, 2013).

3. Research Methodology

This study uses time series data to examine the Islamic banking industry in Indonesia. The source of data was derived from the monthly statistics of Islamic banks uploaded by the Financial Service Authority (Otoritas Jasa Keuangan). The number of samples in this research was 67. The Islamic banking industry consists of Islamic banks, Islamic business units and Islamic financing banks. This research uses multiple linear regressions to find the correlation between the independent variables and the dependent variables. The equation model used in this research is as follows:

$$ROA = a + \beta_{LnTA} + \beta_{QR} + \beta_{FDR} + \beta_{TLA} + \beta_{BOPO} + \beta_{IER} + \beta_{IR} + \beta_{IF} + e \quad (7)$$

3.1 Variables

A total of 8 variables were used to determine factors affecting the profitability of Islamic banks. These variables were divided into 2 groups: internal and external factors.

This research uses ROA as the dependent variable since it can describe how the intermediary gives the function of Islamic banks in Indonesia. ROA is calculated by comparing profits before tax with total assets. These total assets include a finance element. Therefore, this financing serves as the main function of both Islamic and conventional banks to develop the country's economic growth. On the other hand, there were 8 independent variables, consisting of company size, liquidity, intermediation function, risk level, solvency, efficiency, interest rates and inflation.

3.2 Analytical Techniques

The analytical techniques used in this research are multiple regression, because the researchers wanted to identify the relationship between the free variables and the bound variables. However, before the multiple linear regression is used, the data must be tested with a classic assumption test which aims to get the best regression model equations, which consists of a test of autocorrelation, multicollinearity, heterokedasticity, and test of normality. To facilitate the research, SPSS software is used for multiple linear regression. The stage techniques of analysis conducted in this study are as follows (Gujarati & Porter, 2009):

The test for Multicollinearity aims to determine whether there is a connection between the independent variables. Inflating Variance Factor (VIF) is used to determine this question. In this method there are several indicators of VIF including:

If the value of the VIF is more than 10 and the tolerance value is less than 0.1, then multicollinearity exists.

If the VIF value is less than 10 and the tolerance value is more than 0.1, then multicollinearity does not exist.

Heterokedasticity is a perversion of the OLS assumption in the form of variance estimation of interference generated by OLS estimation which is not a constant value. One way to identify heterokedasticity is by using a Scatter plot. If in a particular pattern there is no chart made by the points, then the data does not experience heterokedasticity.

Autocorrelation is the existence of a serious relationship between the disturbance estimation of one observation with the interference estimation of observation to another. The results of the presence of a serious relationship between the disturbance estimation of this observation is the standard error. The Durbin-Watson test is used to determine autocorrelation. The indicators of autocorrelation are as follows:

If the value of d is less than or greater than the dL ($4-dL$), then positive and negative autocorrelation occurs sequentially.

If the value of d is located between dU and $(4-dU)$, then autocorrelation does not exist.

If the value of d is located between the dL and dU or between $(4-dU)$ and $(4-dL)$, then autocorrelation exists.

The normality test aims to determine whether the data follows a distribution or normal distribution approach. Good data is data which has a pattern such as a normal distribution, i.e. the distribution of the data is not leaning to the left or leaning to the right. The test of normality can be done by looking at the value of the Kolmogorov-Smirnov. The following factors are relevant:

The significance of Numbers greater than 0.05 means the data is normally distributed.

The significance of Numbers less than 0.05 means the data is not normally distributed.

The statistics used to identify relationships between the independent variables and the dependent variable is multiple linear regression analysis. The Dependent Variable in this study is the Return on Assets (ROA), while the independent variables are the size of the enterprise, efficiency, liquidity, interest rates, and inflation.

The F-test is used to identify relationships between the independent variables and the dependent variable simultaneously. Hence, the f test can also be used to determine whether multiple linear regression equation function formed influential significantly or not against variable is bound. The stages in conducting test F is to determine their significance levels determined by the hypothesis, and then test the hypothesis.

The T-Test aims to identify relationships between the independent variables with the dependent variable in the way one by one or in other words one direction (one way). The t-test stages are not too dissimilar to the F Test i.e., formulating hypotheses, determine the rules of decision, and test the hypothesis.

4. Results and Discussion

4.1 Result Regression Test

The regression model is used to estimate the dependent and independent variables. This research uses company size, liquidity, interest rate and inflation as the dependent variables, whilst profitability is the an independent variable by employing linear regression to explain the results of the data process with SPSS 24 below:

Table 2. Result Regression Test

	Unstandardized Coefficients	
	B	Std. Error
(Constant)	.069	.031
LAG_lnTA	-.005	.001
LAG_QR	.052	.017
LAG_FDR	.061	.012
LAG_TLA	.035	.022
LAG_BOPO	-.014	.007
LAG_IER	.061	.026
LAG_IR	-.384	.063
LAG_IF	.074	.024

Source: Author's Calculation from SPSS

Table 2 shows the results of the model equation:

$$ROA = 0,069 - 0,05lnTA + 0,052QR + 0,061FDR + 0,035TLA - 0,014BOPO + 0,061IER - 0,384IR + 0,074IF \quad (8)$$

From the results of the data process, there are 8 interpretations of the data in terms of company size, liquidity, intermediation function, risk level, OER, IER, interest rate and inflation.

The coefficient of company size is -0.0005 – it is assumed that liquidity value, intermediation function, risk level, efficiency and interest rate remain constant. Hence, the 0.01 increase in value of company size would decrease ROA by 0.0005.

The coefficient of liquidity, which is 0.052 shows that the 0.01 rise in liquidity would grow ROA by 0.052. This is as long as the variables of company size, intermediation function, risk level, efficiency and interest rate remain steady.

The coefficient of intermediation function, which is 0.061 which, on the assumption that the variables of company size, liquidity, risk level, efficiency and interest rate remain constant would conclude that a 0.01 increase of intermediation function could increase ROA by 0.061.

The coefficient of risk level is 0.035 which, assuming that company size, liquidity, intermediation function, efficiency and interest rate remain constant, means that a 0.01 rise in the value of risk level would increase ROA by 0.035.

The coefficient of OER is -0.014 which, assuming that company size, liquidity, intermediation function, efficiency (IER) and interest rate remain constant, means that a 0.01 increase in EOR would reduce ROA by 0.014.

The coefficient of IER is 0.061 which, on the assumption that company size, liquidity, intermediation function, efficiency (OER), interest rate and inflation remain the same, means that a 0.01 increase of TEA would increase ROA by 0.061.

The coefficient of interest rate is -0.384 which, on the assumption that company size, liquidity, intermediation function, risk level, efficiency and inflation remain constant, means that each 0.01 increase of interest rate would decrease ROA by -0.384.

The coefficient of inflation is 0.074 which, on the assumption that company size, liquidity, intermediation function, risk level, efficiency and interest rate remain constant, means that each 0.01 increase of inflation would increase ROA by 0.074.

4.2 The relationship between the independent variables and the dependent variables

The coefficient of determination (R²) is used to indicate how far the independent variable is capable of explaining the dependent variables. The highest value of the coefficient of determination is 1, if the value of (R²) getting closer to 1 the more information given by the independent variables is able to explain the dependent variables. The results of the coefficient of determination of the data are as follows:

Table 3. Simultaneous Test Results

Model	R	R Square	F	Sig.
1	.897	.805	23.97	0.00

Source: Author's Calculation from SPSS

The simultaneous regression tests found that the independent variables can explain the dependent variable proxied with the ROA of 0.805 or 80.5% as presented in Table 3. On the other hand, the rest (19.5%) could not be explained by the independent variables.

Table 4. Results of Partial t-Test

	B	Std. Error	T	Sig.
(Constant)	.069	.031	2.253	.028
lnTA	-.005	.001	-4.021	.000
QR	.052	.017	3.120	.003
FDR	.061	.012	5.178	.000
TLA	.035	.022	1.555	.126
BOPO	-.014	.007	-1.869	.067
TEA	.061	.026	2.329	.024
IR	-.384	.063	-6.044	.000
IF	.074	.024	3.033	.004

Source: Author's Calculation from SPSS

Based on partial test shown in Table 4, the results of the regression test performed partially or independently. The Table shows that efficiency and risk level have no significant correlation with the profitability of Islamic banks. In the partial test, the risk level demonstrated a positive correlation, whilst

efficiency had a negative correlation. Company size had a significant negative correlation. Both asset quality and liquidity had significant positive relationships. On the other hand, the external variables of interest and inflation rates had significant positive and negative relationships, respectively.

Table 5. ANOVA TEST

Model	df	Mean Square	F	Sig.
Regression	8	.000	28,97	.000
Residual	56	.000		
Total	64			

Source: Author's Calculation from SPSS

Based on a simultaneous test as shown in Table 5, the ANOVA test results where a significant value is 0.000 (less than 0.05), meaning that all dependent variables (company size, liquidity, intermediation function, risk level, interest rate and inflation) are statistically significant to the ROA of Indonesia Islamic banks.

Company size had a negative and significant influence on the profitability of Islamic banks. This finding is consistent with a study conducted by Rochman (2017). Between 2011-2016, there was a weakening global economy that resulted in an increase of non-performing financing since most Islamic banks spent a lot of money to help fund commodity companies in Indonesia (Indonesia, 2014). The bigger the company size is, the easier the industry develops its market. This means that the bigger Islamic banking size is, the easier it accumulates deposits and provides financing. Moreover, the operational costs of Islamic banks becomes more efficient to reach the market. However, the research proves that company size could have a significant negative impact on Islamic bank profitability due to its external factors. One external factor that could affect Islamic bank profitability is China's economic slowdown as the biggest worldwide consumer, especially in Indonesia (LPI, 2014). China's economic slowdown hits Islamic bank profitability on non-performing financing (NPF) where the main sector that Islamic Banks provide financing to is the commodity sector, in particular mining. This could impede the performance of the commodity industry to pay off Islamic bank financing. Recently, Islamic banks have achieved a significant increase in assets which attracts investors and depositors. The major reason for this is that the return rate can be measured by a profitability scheme. Thus, Islamic banks should consider external factors before granting financing.

Liquidity (QR) has a positive and significant influence, in which maintaining the trust of depositors has a significant influence on the profitability of Islamic banks since it will increase the amount of third-party funds in Islamic banks. This finding is consistent with research by Zarrouk, Ben Jedidia and Moualhi (2016) and Bougatef (2017) who state that liquidity has a positive and significant effect on Islamic bank profitability. This shows that financing contributes positively and significantly to the profitability of Indonesian Islamic bank industries. Liquidity can be defined as a bank's ability to guarantee depositors asset using banking assets. Liquidity plays a critical role in Islamic banking due to its' intermediary function, delivering equity from surplus to deficit units. When the depositor, for instance, withdraw their deposits, the bank should give his deposit. This role builds the bank's trustworthiness, which should be maintained. Once the bank fails to provide a deposit, it will abuse consumers trust which deteriorates consumer's willingness to save their money in an Islamic bank. This research output is in line with the hypothesis, which states that liquidity can be measured by comparing cash assets and total third party funds, which results in a positive and significant effect on Islamic bank profitability. This causes Islamic banks to keep the consumer's trust in order to convince them to put their funds in an Islamic bank. This could increase the cash at bank for Islamic banks which enables them to deliver more financing in the productive sector. In addition, Islamic banks should keep people's mandate who leave their money to the Islamic bank. Hence, Islamic banks should protect consumers trust instead of gaining profits.

Intermediation function has a positive and significant correlation as an increase in financing to deposit ratio (FDR) will increase the profitability of Islamic banks. The research proves that intermediation function has a significant and positive effect on the profitability of Islamic banks. This fact would seem to indicate that Indonesia Islamic banks involves an intermediary function management because Islamic banks succeeds in managing the cost of costumer's fund which major Islamic bank contract is cost-plus financing service. This contract means that Islamic banks have to gain funds before giving financing. There are operational costs in gaining funds such as marketing, human resources and cost returns. Having gained the funds, Islamic banks could conduct a financing contract with some margins to pay off the gained funds. When the Islamic banks can deliver financing along with gaining margins to pay the costs, the Islamic banks will generate a profit. The profitability of Islamic banks will increase if the amount of fund-channeling coming from depositors is higher. It should be noted that the banks must maintain the confidence of the funds they leave because the source of funds channeled by Islamic banks comes from depositors. In addition, Islamic banks must also reflect the nature of trust in maintaining the trust of depositors.

The risk level of TLA companies does not have a significant effect on the profitability of Islamic banks. This finding was not consistent with a study conducted by Izhar and Asutay (2007) which concluded that risk level has a negative correlation with the profitability of Bank Muamalat Indonesia. The risk level refers to the amount of loan in financing an asset from an Islamic bank. The higher the risk level is, the higher the Islamic bank poses a risk level because the assets come from another resource which does not belong to the Islamic bank. The research findings explain that the risk level does not affect profitability. This fact shows that the total amount of Islamic bank loans as part of their total assets does not influence Islamic bank profitability. This is because not all of the third party funds, accounts payable and long-term loans are distributed to a productive asset, such as financing. Rather, those assets are held in cash assets to keep Islamic bank liquidity and asset ownership at a secure rate. Hence, the total loan to total assets does not affect Islamic bank profitability.

Efficiency has two different results between Operational Expense to Operational Income and Income Expense Ratio (IER). First, efficiency is measured by comparing Operational Expense to Operational Income (BOPO) which would not affect the performance of Islamic banks in Indonesia, since the source of income is not only financing, but the income of the services provided by Islamic banks also contributes greatly to the profitability of Islamic banks. Research by Javaid and Alalawi (2018) concludes that operating expenses negatively affect profitability. Competitive financial institutions generally have small efficiency meaning that they have low expenses to optimize output (Alexiou & Sofoklis, 2009).

Second, efficiency was measured by comparing Operational Expense to Total Assets which showed that efficiency has a significant and positive influence on profitability, as the greater amount of expenses of total assets indicates better profitability of Islamic banks. This is consistent with research conducted by Zarrouk, Jedidia and Moualhi (2016) which concludes that efficiency measured by IER would create a positive and significant impact on Islamic bank profitability (Zarrouk, Jedidia and Moualhi, 2016). Efficiency measured by IER would seem to indicate how optimal Islamic bank asset in its operational activities is. This means that the greater the ratio is, the more optimal the management uses its assets for operational activities.

Generally, the expense is a deduction in the income statement, but greater expenses indicate that the company undertakes more activities. Therefore, the greater TEA ratio will increase the profitability of Islamic banks. This indicates that Islamic banks do not maximize the amount of assets they have.

The correlation of interest rate and profitability of Islamic banks was negative and significant. This finding was not consistent with a study conducted by Eltabakh, Ngamkroekjoti and Siad (2014) which concludes that interest rates have a positive and significant effect on the profitability of Islamic banks in Qatar.

The interest rate is a financial instrument used to regulate liquidity and regulate the inflation rate in Indonesia. In essence, Islamic banking does not use interest rates to determine policies in seeking profits or operational activities. However, the existence of the Islamic banking industry in Indonesia is still around

conventional banks that use interest rates as a reference for their operational performance, so that this will disrupt the operational performance of the banking sector through competition.

This negative and significant relationship occurs because Islamic banks currently operate in a market that is mostly controlled by conventional banks (Rochman, 2017). Even though Islamic banks do not set interest rates, interest from funding or financing, Islamic banks will not be able to get rid of the interest rate risk (Karim, 2013). The rising interest rates will increase the cost of fund placement by the customers; therefore, the conventional bank will have a more attractive rate of return because it gives a return on fund placement and fund-channeling using interest rates. In contrast, when the interest rate rises, the Islamic banks, which use revenue sharing, will lose depositors because the customers will choose a conventional bank since it provides a more attractive rate of return.

Research conducted in Malaysian Islamic banks suggests that financing programs of Islamic banks could be an alternative to a surge in conventional bank credit. This shows that the Islamic banks could be more profitable when interest rates increase (if an Islamic bank could anticipate the rise of the Central Bank interest rate).

Inflation is a general condition of price increase. The results of this study indicate that inflation has a positive and significant influence on profitability. This finding is consistent with research conducted by Chowdhury (2015) and (Căpraru and Ilnatov (2015). In contrast, the results of this research are different from those of Zarrouk, Jedidia and Moualhi (2016). In general, not all inflation has an adverse effect on the economy of a country. Low inflation (IF <10%) in a developing country, such as Indonesia, is a sign of economic activity (Suparmoko, 1999). The rise of Indonesia's inflation typically coincides with the increase of the country's income which could boost disposable income and communities (industry). Thus, producers will have to exert themselves to expand production capacity and apply for financing of Islamic bank to face the possibilities amid high price seasons. This condition occurs when the economy rises as it will increase the per-capita income of a country. The increase of per-capita income of a country will increase the purchasing power which will eventually shift the aggregate demand and raise the price of goods. This increasing demand will enhance profitability of Islamic banks as entrepreneurs will apply for financing to take advantage of the rising prices of their goods coupled with the increased purchasing power of the society.

5. Conclusion

Profitability is the most important element in a company since it can increase the value of the company. The main purpose of this research is to investigate the determinant factors of profitability of Islamic banking in Indonesia, including the internal and external factors of the company. Profitability in this research is peroxide with ROA. The results of statistical tests indicate that company size, liquidity, intermediation function, operational expense to total assets, interest rates and inflation significantly influence the profitability of Islamic banks. On the other hand, solvency and operational expense to operational income has no real effect on the profitability of Islamic banks. It could be inferred that macro-economies, including interest rates and inflation rates, significantly affect the profitability of Islamic banks. In addition, the results of observation show that Islamic banks are ready to cope with external factor movement. Nevertheless, the external factors are not limited to interest and inflation rates, as there are still other factors such as gross domestic product, policy, international condition and others.

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