DETERMINANTS OF ISLAMIC BANK DEPOSIT IN INDONESIA

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ABSTRACT

The purpose of this paper is to examine the influence of Financing to Deposit Ratio (FDR), Profit Sharing Ratio (PSR), and Gross Domestic Product (GDP) toward mudharabah deposit in Indonesia's Islamic banking institution. Quantitative approach with purposive sampling was used. The result shows that all of independent variables (FDR, PSR and GDP) are 5% significance level to mudharabah deposit, in other words all independent variables influence mudharabah deposit and this research accepts all alternative hypotheses. The finding contributes to the growth of Islamic banking industry and provides evidence of factors that can increase the number of mudharabah deposit. So, both the Islamic banks and the bank customer can perceive high profit and increase their assets (wealth).

Keywords: *Islamic Bank, Mudharabah Deposit, Indonesia.*

INTRODUCTION

Islamic banking in Indonesia has a function as intermediary financial institution that collects deposits from individuals and channels them to other economics entities in the form of financing. In order to support the function, Islamic banks need to get resources. Given the most business organizations especially in developing country are highly dependent on bank loans as a source of capital (Haron and Azmi, 2008: 618). There are three types of bank resources, namely paid in capital (first party funds), loans (second party funds), and depositor funds (third party funds). Given that, the products of collection deposit are one of the essential products for Islamic banks in order to obtain deposit funds and to support the function as financial intermediary institution Kuncoro and Suhardjono (2002: 152).

Mudharabah deposit is one of deposit collection products in Indonesia's Islamic banking institution which its contribution is the biggest in the accumulation of depositor funds (Nurdin, 2004). *Mudharabah* deposit is depositor funds with *mudharabah* contract – an agreement partnership or a partnership contract between two parties which the first (*shahibul maal*) provides all the funds and the second (*mudharib*) is responsible for managing the business then the profit will be distributed among the two parties based on profit sharing ratio that have been agreed in the beginning (Karim, 2008: 205). This profit sharing ratio is the important characteristic of Islamic banking because while conventional banking earning is fixed comes from the interest, Islamic banking earning comes from generating income which seems as profit that is variable (Awan and Azhar, 2014:55).

Every year during the period of 2008-2015, *mudharabah* deposit in Indonesia's Islamic banking shows growing number. However, there is a thing to note that the growth of *mudharabah* deposit has experienced decline in 2012 and 2015 namely 40% and 29% (figure 1). The important function of *mudharabah* deposit in Islamic banking institution also impact on economic growth given that the *mudharabah* deposit will be channeled to fulfill financing needs of the real sector. So the economic activities will run continually and people can

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increase their income. Therefore, by using some variables like Financing to Deposit Ratio, Profit Sharing Ratio and Gross Domestic Product, the authors try to find out empirically whether these variables have influence on *mudharabah* deposit or not.

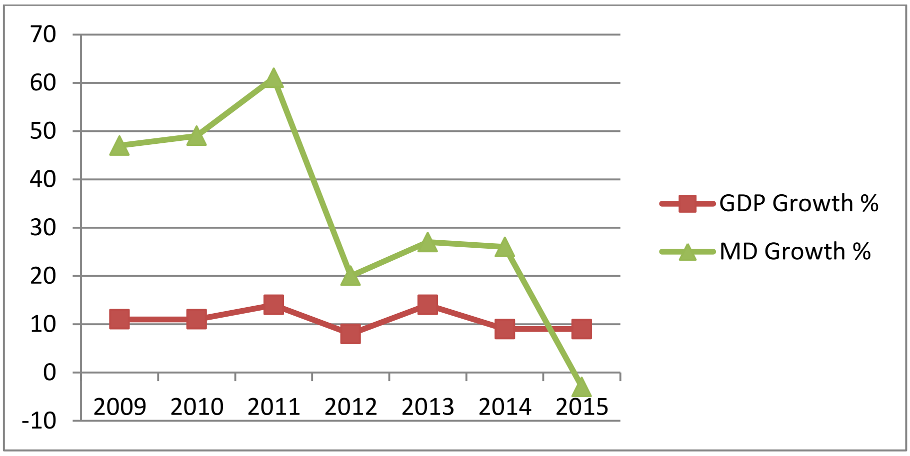

Figure 1. GDP and Mudharabah Deposit Growth (*OJK and BPS*)

LITERATURE REVIEW

Mudharabah Deposit

Mudharabah deposit is one of the fund raising products of Islamic banks in Indonesia which legalized by the government and the Sharia Board Member of Indonesia Council of *Ulama*. Under the Law No. 21 year 2008 about Islamic banking, Deposit of Islamic bank is an investment fund with *mudharabah* contract or other contract that do not conflict with Islamic principles which only can be withdrawn at certain time based on the agreement between the bank costumer and the Islamic bank and/or the sharia business unit of conventional bank. Differ from conventional bank deposit that uses interest, *mudharabah* deposit in Islamic banks is required to use profit/revenue sharing system (*nisbah*), means the return portion of deposit is determined by the result of used deposit fund. The characteristics of *mudharabah* deposit as described by Perwataatmadja dan Antonio (1999:20) are: 1) *mudharabah* investment deposit is an investment through third party fund which can be withdrawn at certain period of maturity, with profit sharing as the return; 2) The return of *mudharabah* deposit is in the form of revenue sharing based on the usage of deposit fund that allowed by Islamic principles; 3) The time period of *mudharabah* deposit range from 1 month, 3 month, 6 month, and 12 month.

Financing to Deposit Ratio (FDR) and *Mudharabah* Deposit

Muhammad (2009: 265) states that generally the concept used to measure liquidity in Islamic banking is through Financing to Deposit Ratio (FDR) – a ratio that shows how big the bank's ability to repay the customers when they make withdrawal of their funds by relying on the given financing as the source of liquidity (Andriyanti dan Wasilah, 2010). So it is important for depositors to pay attention first about the liquidity ability of the bank before they put their funds (deposit) given the credit management of Islamic bank will affect the bank's liquidity and ultimately affect the funding from third parties (Nasution, 2003). However, Yulianto and Badingatus (2016) found that FDR does not affect the fundraising of *mudharabah* deposit because the depositors do not paying attention about the liquidity of Islamic bank when they choose to open their bank account. Besides, the bank customer's loyalty will also lead no influence of FDR on *mudharabah* deposit.

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Profit Sharing Ratio (PSR) and *Mudharabah* Deposit

Profit sharing ratio (PSR) is the thing that differentiates between Islamic banking and conventional banking. PSR should be agreed in the beginning of *mudharabah* contract as a percentage of the business profit based on the result of used deposit funds, so the profit earned by depositors cannot be definite number as in conventional banks. In order to calculate the revenue of *mudharabah* deposit in current month, Islamic banks will use the profit sharing ratio from previous month (Yudho, 2010). This also distinguishes Islamic banks from conventional banks that set interest rate at the beginning without referring to the previous month. However, Novianto and Hadiwidjojo (2013: 602) suggest that some of Muslim believers using Islamic banks are not only motivated by the profit, but also based on the spirit of helping each other (*tabarru'*) in order to drive the real sector of economic activities. Other motivation is they believe that interest in conventional banks contains usury which forbidden in Islam.

Gross Domestic Bruto (GDP) and *Mudharabah* Deposit

Gross Domestic Product (GDP) is a number that has been used as one of growth indicators of a country. Many empirical studies show the ambiguity relationship between saving and growth (represented by GDP) as well as the debate about the causality direction of them. However, the relationship between GDP and *mudharabah* deposit can be seen through demand side – growth led finance theory – economic growth will encourage the development of financial sector (Levine, 1997; Patrick, 2000 cited by Baroroh, 2000: 181). Agrawal's study (2001) shows that both high rate of growth of income per capita, and rapidly declining age dependency ratio contributed of the high rate of savings in seven Asian countries (South Korea, Taiwan, Singapore, Malaysia, Thailand, Indonesia and India). Meanwhile in some studies like Rachmawati and Syamsulhakim (2004) found that GDP does not influence *mudharabah* deposit; Haron and Azmi (2008) found various results that GDP influences deposit and demand deposit, yet does not influence saving.

HYPOTHESES AND RESEARCH MODEL

Based on literature review provided earlier, hypotheses tested in this study will reflect the influence of Financing to Deposit Ratio (FDR), Profit Sharing Ratio (PSR), and Gross Domestic Product (GDP) on *mudharabah* deposits that can be formulated as follows:

H_1 : Finance to Deposite Ratio (FDR) influence *mudharabah* deposit significantly

H_2 : Profit Sharing Ratio (PSR) influence *mudharabah* deposit significantly.

H_3 : Gross Domestic Product (GDP) influence *mudharabah* deposit significantly.

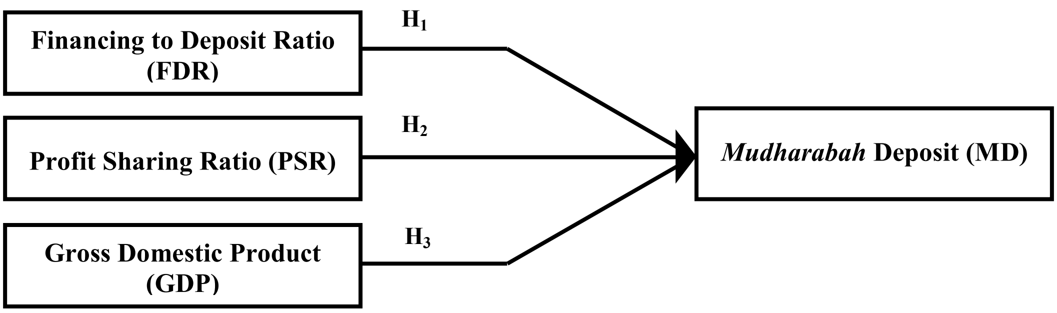

Figure 2 - Research Model

RESEARCH METHODOLOGY

A quantitative research approach will be used in this paper. There are more explanations about research methodology used in this paper as follows:

Population and Sample

The population is Indonesia's Islamic banking industry, and by using purposive sampling technique, the authors choose the samples. Considering the big difference of *mudharabah* deposit number between Islamic commercial banks (incl. Islamic business unit of conventional banks) and Islamic rural banks, the authors took Islamic commercial bank and Islamic business unit of conventional bank as the sample. For the period of research observation, the authors used year 2008-2015 (quarterly).

Data Collection and Research Variables

Secondary data is used in this paper. The data was collected from database of Otoritas Jasa Keuangan (OJK) in the form of Statistik Perbankan Syariah (SPS) 2008-2015, and other data was collected from database of Badan Pusat Statistik (BPS) – Indonesia Central Bureau of Statistics. These data can be access through (www.ojk.go.id) and (www.bps.go.id). Variables in this study are presented systematically in the following matrix:

Table 1 - Research Variables

Variable		Operational Definition	Formula	Data Source
Independent Variable	Financing to Deposit Ratio (FDR)	Describes the liquidity ability of Islamic banks through their financing ratio which is obtained by dividing total financing with total third party fund	$FDR = \frac{\text{Total Financing}}{\text{Total Deposits}}$	SPS – OJK
	Profit Sharing Ratio (PSR)	Describes the equivalent of profit sharing ratio which is obtained by calculating the average of profit sharing ratio of *mudharabah* deposits that have several period of time (1,3,6 and 12 months)	$PSR = \frac{PSR_{1month} + PSR_{3month} + PSR_{6month} + PSR_{12month}}{4}$	SPS – OJK
	Gross Domestic Product (GDP)	Describes the aggregate revenue of Indonesian people using GDP at current market price	$GDP = C + I + G + (X\text{-}M)$	Badan Pusat Statistik (BPS)
Dependent Variable	*Mudharabah* Deposit (MD)	Describes the collected funds from bank customers in the form of *mudharabah* deposit with several period of time (1,3,6 and 12 months)	$MD = MD_{1month} + MD_{3month} + MD_{6month} + MD_{12month}$	SPS - OJK

Data Analysis

The IBM SPSS 20 application program was used to analyze the collected data and to examine the research hypotheses. The authors use multiple linear regression as data analysis technique. A multiple linear analysis is a parametric analysis that must fulfill several requirements (assumptions) before the deduction of the result of regression analysis test (Baroroh, 2013: 5). The requirements also known as the classical assumption consists of normality test, multicoliniearity test, heteroscedasticity test, and autocorrelation test. The regression model proposed in this research is below:

$$MD = a + ß_1FDR + ß_2PSR + ß_3GDP + e$$

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Where, MD : *Mudharabah* Deposit (Y)
FDR : Financing to Deposit Ratio (X_1)
PSR : Profit Sharing Ratio (X_2)
GDP : Gross Domestic Product (X_3)
a : Constant
β_1- β_3 : Coefficient of regression
e : Error

The next test is goodness of fit. The test has to be done in order to know that the regression model proposed good enough to be used. For examining the research hypotheses – whether accepted or not, t test is used. The last test is coefficient of determination to see how much the influence of independent variables in explaining the dependent variable. While the probability value used is 5%.

FINDING AND DISCUSSION

Given the discussion about data collection earlier that the authors used quarterly period data from year 2008-2015, there are 32 data observation used in this study. Based on central limit theory, if research data is more than 30 can be considered as normal data (Gani and Amalia, 2014: 113), so basically in this study the data are normal. As for autocorrelation test, the authors take the run test and have the result with significant level over 5% which means there is no autocorrelation (table 2).

Table 2. Runs Test

	Unstandardized Residual
Test Value[a]	-.00095
Cases < Test Value	16
Cases >= Test Value	16
Total Cases	32
Number of Runs	12
Z	-1.617
Asymp. Sig. (2-tailed)	.106

a. Median

Next step is heteroscedasticity test using scatterplot that can be seen from figure 3. The dots spread randomly over and below zero number so the research data have pass heteroscedasticity. As for multicoliniearity test can be seen from value of Tolerance and VIF in the table 3. The result shows that each variable has Tolerance value not more than 1 and VIF value less than 10 which means all research data variables freed from multicoliniearity. These tests prove that classical assumption has been successfully bypassed and multiple linear regressions can be performed. The result of linear regression is below:

Tabel 3. Multiple linear regression

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	22.790	.459		49.653	.000		
	FDR	.003	.001	.071	2.426	.022	.947	1.056
	PSR (Lag 1)	.030	.009	.105	3.206	.003	.759	1.318
	GDP	.376	.012	1.039	31.853	.000	.762	1.312

a. Dependent Variable: MD

The result of multiple linear regressions can be formulated as the following model below:

$$MD = 22.790 + 0.003\ FDR + 0.30\ PSR + 0.376\ GDP + e$$

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The model shows that each independent variable namely: Financing to Deposit Ratio (FDR), Profit Sharing Ratio (PSR), and Gross Domestic Product (GDP) has positive value. It means that every increment or decrement from each variable will influence *mudharabah* deposit in the same direction.

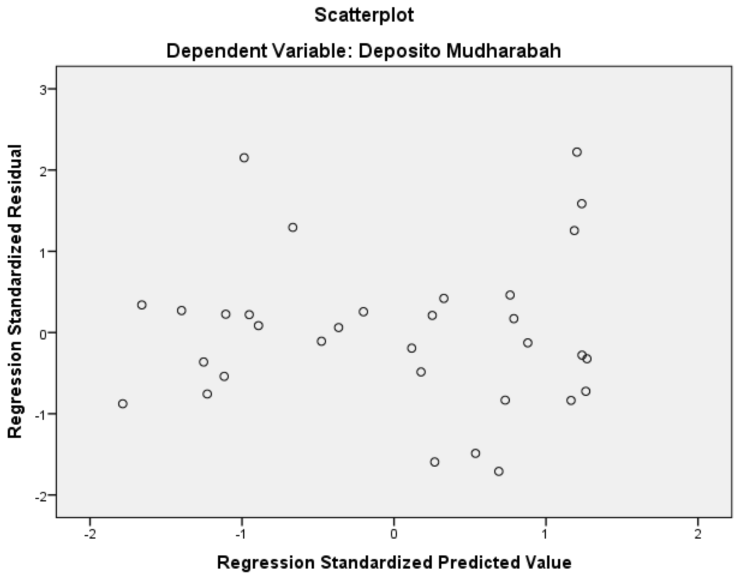

Figure 3. Scatterplot of heteroscedasticity test

Furthermore, the authors perform goodness of fit test using F test. The result can be seen from table 4 that the significant level is 0 which below the probability value used. It means the model is good (fit) to be used. In order to test the research hypotheses, t test is used, and can be seen from table 4 that each variable has lesser significant level than probability value namely significant level of FDR is 0.022; significant level of PSR is 0.003; and significant level of GDP is 0. Therefore, all of the hypotheses are accepted. Meanwhile, coefficient of determination test used to determine how much the influence contribution given from independent variables to dependent variable. As can be seen from table 5, the influence contribution is 97,5% which means 2,5% of contribution (100% – 97.5%) is come from other variables aside the research variables.

Table 4. Goodness of Fit Test

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	2.043	3	.681	401.989	.000[b]
1	Residual	.047	28	.002		
	Total	2.090	31			

a. Dependent Variable: MD

b. Predictors: (Constant), FDR, PSR (Lag 1), GDP

Tabel 5. Coefficient of Determination Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.989[a]	.977	.975	.04115

a. Predictors: (Constant), FDR, PSR (Lag 1), GDP

b. Dependent Variable: MD

The Influence of Financing to Deposit Ratio (FDR) on *Mudharabah* Deposit

The first hypothesis (H_1) of this study is accepted that Financing to Deposit Ratio (FDR) significantly influences *mudharabah* deposit of Indonesia's Islamic banks. This result is consistent with other studies such as Nasution (2003) and Ramadhania (2016) that found the positive influence of FDR towards *mudharabah* deposit. The possibility that FDR influences *mudharabah* deposit it is because the number of Indonesian people's financial literacy and financial inclusion is increasing. Therefore, the people gain awareness about the important of FDR function as the purpose of financial literacy in OJK regulation (POJK) No. 76/POJK.07/2016: 1) Improve individual's financial decision making; and 2) Change the attitude and behavior in order to get better financial management. So the individuals can determine and utilize financial institutions, products and services that fit their needs and capability in order to achieve prosperity. In addition, Ramadhan (2015) explains that the higher FDR that done efficiently will certainly increase the Islamic bank's profitability through the increment of Return on Asset (ROA). So, the depositors will get more return because their *mudharabah* deposit used optimally and efficiently without exceeding the limit regulated by Bank Indonesia.

The Influence of Profit Sharing Ratio (PSR) towards *Mudharabah* Deposit

The second hypothesis (H_2) is also accepted that Profit Sharing Ratio (PSR) significantly influences *mudharabah* deposit of Indonesia's Islamic banks. This result is consistent with other studies such as Yudho (2010) and Alinda and Riduwan (2016) that PSR positively influences mudharabah deposit caused by the customer's rationality about making high profit. The result of this study prove that the people doing saving not merely based on religious sentiment only, but on economic rationality. As further analysis from Bank Indonesia (2014) that the religious reason is not a valid one; it is proven in the logit analysis that they; who tend to keep adopting; does not belong to this group (religious sentiment), but to the consideration of profit-sharing reason. In other words, religious sentiment is useful for entry point only; when they are dissatisfied, especially with economic rationality, they tend to quit Islamic banking. Given the various background of customers' religiosity in Islamic banking, Widiastuti (2011) found that whether the customers of Bank Muamalat Indonesia is Muslim or not, their decision about saving is influenced by several factors – profit is one of them which in this case can be obtained through the high-low of PSR. Therefore, besides of the possibility due to the tendency to always adopting, indeed financial literacy also plays an important role in order to enhance economic rationality. Without override the religious sentiment reason which still used by other researchers, the authors analyze that with many choices of Islamic bank institutions in Indonesia i.e. 13 banks (SPS, 2016), the individuals still can use economic rationality in order to select the right Islamic bank based on their profitability analysis.

The Influence of Gross Domestic Product (GDP) towards *Mudharabah* Deposit

The third hypothesis (H_3) is accepted that Gross Domestic Product (GDP) significantly influences *mudharabah* deposit of Indonesia's Islamic banks. This result is consistent with Yulianto (2013) and Musthofa (2013) who found that GDP positively affect *mudharabah* deposit while Haron and Azmi (2008) found various results which GDP influences deposit and time deposit, but does not influences saving. As seen from table 1, there is enough similarity line between GDP growth and *mudharabah* deposit growth that likely to cause the positive influence of GDP towards *mudharabah* deposit. Furthermore, the authors analyze that there is possibility the community – especially Islamic believers – gain awareness about Islamic teaching which encourage to save, to skimp, to fair, and to prepare the future (see: Qur'an 25: 67; 17:29; 59:18, also see: Hadith Bukhari 2757). Therefore, even though income increasing, the people prefer to deposit it rather than spend it. Beside, in Islam, saving is not merely a 'residual' concept like Keynes theory, in the sense that what is left over from consumption is treated as saving where no ethical values and social responsibilities are attached. A Muslim saves to perform his duties to himself, family, society, and Almighty Allah, which definitely require economic backing and (Jalaluddin, 1992 cited by Kasri and

Kassim, 2009: 186). Thus, there is a social welfare dimension to the savings behavior of a Muslim.

CONCLUSION

This research was conducted with the purpose of providing empirical evidence about the factors that influence *mudharabah* deposit of Indonesia Islamic banking. The study found that every independent variable namely: Financing to Deposit Ratio (FDR), Profit Sharing Ratio (PSR), and Gross Domestic Product (GDP) influences *mudharabah* deposit positively and significantly. The study also found that Islamic banks should maximize their ability to channel the depositor funds efficiently within the limits given by Bank Indonesia in order to get more confidence from the community. This confidence certainly because of the increment of the bank's FDR that will affect the profitability through Return on Assets (ROA). In the long-term, the more deposit done by the community which later channeled efficiently by Islamic banks will impact the continuity of economic activities.

FUTURE RESEARCH

This study has limitations such as the range of population that only consisted of Islamic commercial banks so the result can only be generalized to Islamic commercial banking industry. Future research should consider Islamic rural banks and expand the research population such as in the Asia or others given the magnitude of Islamic financial growth. Regarding to the consistency of the research, addition of time series data should be considered. Future research also should find other variables that might have influence toward *mudharabah* deposit considering the importance of it.

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