Affecting Financial Inclusion in Indonesia Through Third Deposit Funds of Islamic Banking

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Abstract
This study aims to determine the effect of financial inclusion variables on third-party deposit funds used in Islamic banking. In general, this study uses financial inclusion and non-financial inclusion variables. Financial inclusion variables are proxied by office networks, ATM networks, and savings customers. Financial inclusion variables are proxied by office networks, ATM networks, and savings customers. Third deposit funds, interest rates, profitability, yield equivalent, and the size of sharia banking are all used as non-financial inclusion variable proxies. This quantitative study used the Vector Error Correction Model (VECM) and the Eviews analysis tool. The cointegration test probability value (0.0228 < 0.05) indicates that the data used in the study are cointegrated. According to the data analysis, the office network (2,60397) and the ATM network (2.48865) serve as proxies for financial inclusion variables affecting Islamic banking deposits. The deposit customer (1,55953), on the other hand, is a proxy variable that has no effect. The equivalent yield (2,48469) and Islamic banking size (2,77972) are non-financial inclusion variables influencing Islamic banking deposits. The benchmark interest rate (-0,29262) and profitability (0,90000), on the other hand, do not affect Islamic banking deposits.

Keywords: Financial Inclusion, Third Deposit Funds, Islamic Banking.

Introduction

Financial inclusion refers to people's ability to afford formal financial products and services such as banking, insurance, and other formal financial institutions. Furthermore, Bank Indonesia defines financial inclusion as a means for everyone to access and complete services from financial institutions in a timely, convenient, informative, and affordable manner, with full respect for their dignity and value. Financial inclusion is an effort to reduce or eliminate factors that prevent the community from accessing formal financial institutions' products and services (Nasution et al., 2013). The Financial Services Authority (OJK) has compiled five pillars that serve as the foundation for the implementation of financial inclusion (SNKI) through Presidential Regulation No. 82/2016, namely financial education, community property rights, intermediation facilities and financial distribution channels, financial services in the government sector, and consumer protection (Perpres, 2016). Financial inclusion is measured using three indicators: availability and access, use, quality, and welfare (BI, 2014). Financial inclusion is measured using three indicators: availability/access, use, quality, and welfare (Soetiono & Setiawan, 2018).

Some countries have committed to developing financial inclusion, while others have a National Financial Inclusion Strategy designated as a priority program (Soetiono & Setiawan, 2018). Each country's model of increasing financial inclusion differs between the countries. India implemented a technology system to increase financial inclusion, such as mobile banking, internet banking (Bharali & Borman, 2017; Soetiono & Setiawan, 2018). Indonesia is similar to India in terms of implementing financial inclusion programs. Indonesia also encourages finance and financial technology to increase public financial inclusion.

Furthermore, authorities in Indonesia (OJK and BI) encourage banking agents in areas where banking offices are scarce or unaffordable. The competent authority also encourages all POJKs in Indonesia to develop their products. It is hoped that more Indonesians will be able to take advantage of financial service products, particularly banking products, in the future. Little research has been conducted on the effect of financial inclusion on Islamic banking deposits. Several studies have led to one dimension of financial inclusion access, namely sharia banking service offices, but with two different dependent variables: mudharabah savings and mudharabah deposits

(Hidayanti, 2016; Juniarty et al., 2017; Novianto & Hadiwidjojo, 2013; Rachman et al., 2013).

The study found that many bank offices or branch offices impacted mudharabah deposits and mudharabah deposits. In other words, an extensive office network will increase the public's ability to access and use Islamic banking services. According to Soetiono and Setiawan (2018), the more financial institutions' or ATMs' branch offices, the more likely people will access and use financial service products. It is inversely proportional to empirical data, demonstrating that as the number of sharia banking office networks decreases, sharia banking deposit funds (wadiah and mudharabah) increase year after year. Figure 1 depicts the empirical data:

Figure 1. The Number of Islamic Bank Branches
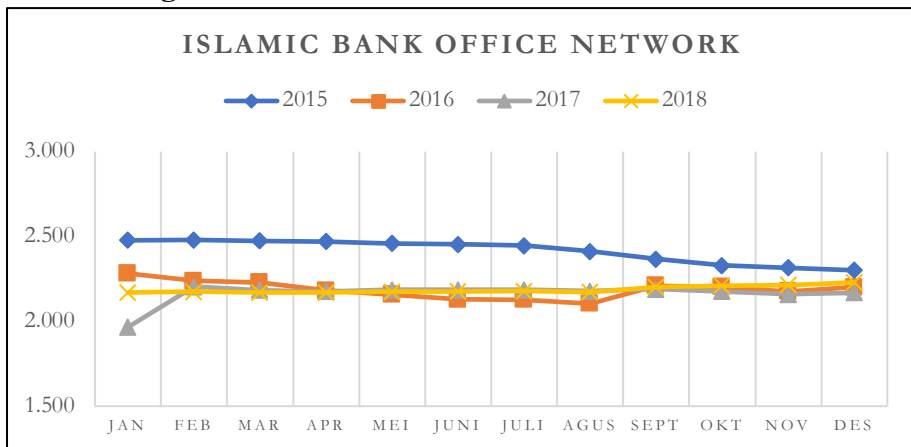
Source: SPS-OJK 2015-2018 (Data Processed)

Figure 2: DPK's Growth in Islamic Banking
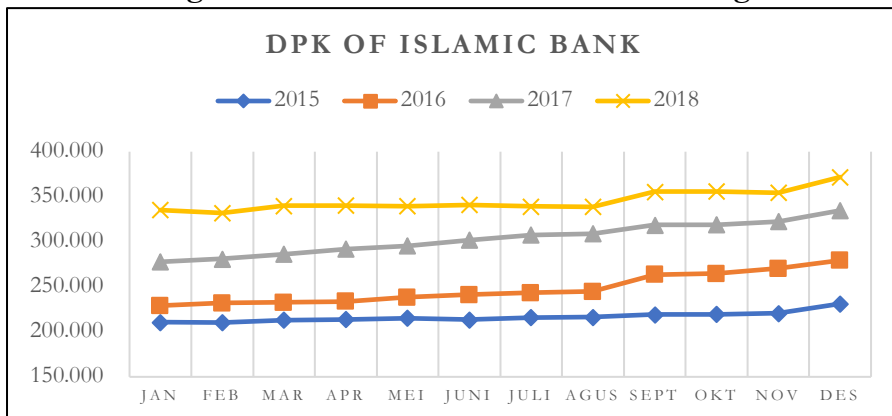
Source: SPS-OJK 2015-2018 (Data Processed)

Several previous studies have found that various factors influence third-party Islamic banking funds in Indonesia. Prasetya et al. (2015), according to their findings, interest rates have a negative impact on Islamic banking deposits. When interest rates rise, Islamic banking deposits fall, and vice versa. Another factor is the size of Islamic banking, as evidenced by Islamic banking assets. According to Al Arif and Hanifah (2017) and Mahmudah (2017), their findings show that the size (assets) of Islamic banking influences the deposit of Islamic banking in Indonesia. The increase in Islamic banking third deposit funds corresponds to an increase in the management of Islamic banking assets. Sharia banking's good asset management will increase profits or profitability, resulting in increased profit-sharing or returns distributed to deposit customers. Increased Islamic banking profitability will impact the equivalent level of customer yields, making the equivalent yield more appealing to customers or prospective customers. According to Mahmudah (2017) and Prasetya et al. (2015), profitability and yield equivalents impact third deposit Islamic banking funds.

Little research has been conducted on the financial inclusion of Islamic banking deposits. This study combines several previous research variables that have used one of the financial inclusion indicators, namely the number of Islamic banking service offices. However, the Third Party Fund variable is only available for savings products with a mudharabah contract. According to the study, many bank offices or branch offices impact mudharabah deposits (Rizki et al., 2013; Hidayanti, 2016; Juniarty et al., 2017; Novianto & Hadiwidjojo, 2013). Furthermore, several other studies that are almost identical to using primary data (questionnaires) find that the distance between the house and the branch office influences the decision to save at an Islamic bank (Abdallah and Lubis 2015; Darmawan et al. 2019). In this study, researchers used indicators of financial inclusion variables as the main discussion, namely the number of offices, ATMs, and deposit customers spread throughout Indonesia. These are elements that contribute to the novelty of this research.

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Research Method

The population studied in this study is Islamic banking in Indonesia. The sample used as research data from this population is Sharia Commercial Banks and Sharia Business Units in Indonesia, with monthly statistical specifications from 2015 to 2020. In addition to OJK data, the author uses data on third deposit fund rates obtained from the Bank Indonesia website over six years (2015–2020). This period was chosen because of differences in the format of the Sharia Banking Statistics (SPS) data table when it was under the authority of Bank Indonesia and the SPS format when it was under the control of the OJK. This study used a quantitative research method with time-series data analysis. This study used the Vector Autoregression (VAR) model.

A Vector autoregression (VAR) is a regression system model with two dependent variables (Hakim, 2017). This model was used to analyse the time-series data. The use of VAR in this study aims to capture the phenomena of Islamic banking in terms of financial inclusion while minimising the theoretical approach. The following VAR equation model can be used to test the effect of financial inclusion variables on Islamic banking deposits:

$$Y_{nt} = \beta_0 + \beta_n Y_{nt-1} + \cdots + \beta_p Y_{nt-p} + \alpha_1 Y_{nt-1} + \cdots + \alpha_p Y_{nt-p} + \gamma_1 Y_{nt-1} + \cdots + \gamma_p Y_{nt-p} + e_{nt}$$

More succinctly, the preceding equation is as follows:

$$Y_{nt} = \beta_0 + \sum_i^p = 1\, \beta_i Y_{nt-i} + \sum_i^p = 1\, \alpha_i Y_{nt-i} + \sum_i^p = 1\, \gamma_i Y_{nt-i} + e_{nt}$$

The above equation is an example of a two-endogenous-variable equation. Several testing procedures must be performed to analyse the data using the VAR. The testing procedure of the VAR method includes stationary, cointegration, and VAR tests. The VAR method employs a method or technique to analyse the test results following the test process, including the impulse response method, variance decomposition, and the Granger causality test.

The VAR formation process begins by testing stationary time series data. If the stationary data are in the level category, then the model used is VAR in levels. However, if the data are not stationary in the level and differentiation categories, they must be tested again using a cointegration test. If cointegration does not occur, the VAR model is in the form of levels. However, if cointegration occurs, the VECM model is used. Because of the

cointegration, which demonstrates the long-term relationship between variables in the VAR system, the VECM model is a restricted model (restricted VAR) (Widarjono, 2018).

Time series data is declared to have constant variance and constant autocovariance for a given lag length, known as the concept of weak stationarity (Hakim, 2017). A root test (unit root test) and an Augmented Dickey-Fuller (ADF) test were used for stationary testing. The stationarity test first determines whether the information is stationary at a certain level, first difference, or second difference. The trick compares the probability value to a 0.05 alpha value.

	KTR	ATM	NSB	BIR
Mean	2238.250	3036.146	17822967	5.796875
Median	2187.500	2947.000	18656779	5.375000
Maximum	2480.000	3734.000	24334556	7.750000
Minimum	1966.000	2104.000	11514231	4.250000
Std. Dev.	116.6293	543.9964	4228562.	1.284789
Skewness	0.838704	-0.141908	-0.080638	0.248150
Kurtosis	3.177480	1.701626	1.628908	1.428678
Jarque-Bera	5.690389	3.532651	3.811809	5.430730
Probability	0.058123	0.170960	0.148688	0.066181
Sum	107436.0	145735.0	8.56E+08	278.2500
Sum Sq. Dev.	639313.0	13908806	8.40E+14	77.58203
Observations	72	72	72	72
	PRO	ER	SZE	DPK
Mean	3.146398	5.017663	350359.3	278396.0
Median	3.095191	4.677586	345399.5	278524.4
Maximum	3.837959	6.566888	477327.0	371828.0
Minimum	2.225995	3.862478	263469.0	210297.4
Std. Dev.	0.465003	0.723378	65687.07	52000.79
Skewness	-0.108277	0.660112	0.235551	0.135469
Kurtosis	1.791621	2.106293	1.659526	1.529077
Jarque-Bera	3.014150	5.083409	4.037617	4.474043
Probability	0.221557	0.078732	0.132814	0.106776
Sum	151.0271	240.8478	16817247	13363010

Sum Sq. Dev.	10.16269	24.59393	2.03E+11	1.27E+11
Observations	72	72	72	72

The VAR test determined whether the variable data influenced the other variables. The number or value inside the sign () represents the standard error, while the value inside the [] sign represents the t-test value. If the t-test value is more significant than two, the variables will be affected (Hakim, 2017). The author of this study employs five endogenous variables to write the VAR equation model as follows:

$$Y_{1t} = \beta_0 + \sum_{i=1}^{p} \beta_i Y_{1t-i} + \sum_{i=1}^{p} \alpha_i Y_{2t-i} + \sum_{i=1}^{p} \gamma_i Y_{3t-i} + \sum_{i=1}^{p} \gamma_i Y_{4t-i} + \sum_{i=1}^{p} \gamma_i Y_{5t-i} + \sum_{i=1}^{p} \gamma_i Y_{6t-i} + \sum_{i=1}^{p} \gamma_i Y_{7t-i} + \sum_{i=1}^{p} \gamma_i Y_{8t-i} + e_{1t}$$

Result Analysis
Descriptive Analysis

According to the data analysis, the average value (mean) of each variable used in this study was 2238,250 (KTR), 3036,146 (ATM), 17822967 (NSB), 5.796875 (BIR), 3.146398 (PRO), 5.017663 (ER), 350359.3 (SZE), and 278396.0 (TPF). Furthermore, the mean (median) of the observation data for each variable was 2187,500 (KTR), 2947,000 (ATM), 18656779 (NSB), 5.375000 (BIR), 3.095191 (PRO), 4.677586 (ER), 345399.5 (SZE), and 278524.4 (TPF). Meanwhile, the maximum and minimum values of these variables are 2480.00 and 1966.00 (KTR); 3734.00 and 2104.00 (ATM); 24334556 and 11514231 (NSB); 7.750000 and 4.250000 (BIR); 3.837959 and 2.225995 (PRO); 6.566888 and 3.862478 (ER); 477327.0 and 263469.0 (SZE); 371828.0 and 210297.4 (ER); 371828.0 and (TPF).

The standard deviation is the square root of the variance and describes the spread level of the data from the mean value. Because the standard deviation value is not close to the average value, the data can be accurate based on the analysis results. The skewness of a normal distribution's skewness is its degree of slope. According to the analysis results, five variables indicate that the slope of the data is skewed to the right because the median value or median value is significant. Meanwhile, three variables indicate that the data slope is skewed to the left because the median value or median value is significant.

The JB value was used to determine the normality of the observational data used in the study. Based on the table, the JB value of each variable has a smaller value than the chi-square table value of 91.6702. As a result, it is

possible to conclude that the data used in the study is typical. The probability values also confirm the JB and Chi-square values in the table, each with a higher probability than alpha () value of 5% (0.05).

Stationary Test

The authors conducted a stationary test on the data used in the thesis research at this stage. The stationary test of time series data was performed using a model developed by Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP). Table 1 shows the results of the stationary testing of the variables used in the study. According to the above table, most stationary variables are in the first difference category, except for the stationary profitability variable in the level category and the stationary TPF and size variables in the second difference category. Data was stationary if the probability value was less than the critical value, 1% (0.01), 5% (0.05), and 10% (0.1). The VAR model in levels cannot be used because the author's research variable data is not stationary in the level category. As a result, the data must be subjected to a cointegration test to determine the relationship between the variables.

Table 2. Stationary Test Results

Variable	Level		1st Difference		2nd difference	
	ADF	PP	ADF	PP	ADF	PP
Third Deposit Fund	0.2553	0.2615	0.1740	0.0000*	0.0000*	-
Office Network	0.8763	0.6980	0.0000*	0.0000*	-	-
ATM	0.4637	0.3497	0.0001*	0.0001*	-	-
Customer	0.0848*	0.0881*	-	-	-	-
Interest Rate	0.9989	0.9949	0.0005*	0.0004*	-	-
Profitability	0.0149*	0.0149*	-	-	-	-
Equivalent Rate	0.9876	0.8042	0.0000*	0.0000*	-	-
Size of Islamic Bank	0.2748	0.1565	0.0857*	0.0000*	-	-

Source: Data Processed, 2020

Cointegration Test

The cointegration test employs a Johansen model with lag intervals ranging from 1 to 1. Table 3 shows the results of the cointegration tests.

Table 3. Cointegration Test Results

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Probability
None *	0.782281	250.9068	197.3709	0.0000*
At most 1 *	0.661621	180.7775	159.5297	0.0021*
At most 2 *	0.589441	130.9325	125.6154	0.0228*

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Probability
None *	0.782281	70.12931	58.43354	0.0025*

Source: Data Processed, 2020

The upper Table 3 displays the cointegration statistical test with trace statistics, while the bottom displays the max-eigenvalues statistics. Based on the trace statistic test and the maximum eigenvalue statistic, there was cointegration with an alpha significance level of 5% (0.05). Probability values indicate cointegration because the probability value is less than or equal to the 5% significance level (0.05). Based on these test results, it is possible to conclude that the data used in the study experienced cointegration; thus, the Vector Error Correction Model (VECM) was used.

VECM Test (Vector Error Correction Model)

Based on previous stationarity and cointegration tests, the Vector Error Correction Model (VECM) is the best model to use in this study. The VAR estimation tables contain nine equations. The value of each equation in [] can determine the effect of each variable. A lag length of 1 to 2 was used in the VECM test. The rule of thumb is that if a variable has a t-test value of more than 2, it will significantly affect it.

Table 4. Long-term Regression Results

Cointegrating Eq:		CointEq1	
DPK(-1)		1.000000	
KTR(-1)	-46.82630	(9.75476)	[-4.80036]*
ATM(-1)	3.276800	(1.35675)	[2.41518]*
NSB(-1)	-0.003521	(0.00061)	[-5.73966]*
BIR(-1)	3263.629	(523.562)	[6.23351]*
PRO(-1)	1815.203	(896.434)	[2.02492]*
ER(-1)	1479.214	(2560.76)	[0.57765]
SZE(-1)	-0.558903	(0.02844)	[-19.6494]*
C		48202.32	

Source: Data Processed, 2020

Table 3 shows the results of a cointegration test-based long-term regression relationship between all the study variables. Table 4 shows that, except for the yield equivalent (ER) variable, all variables affect the long run. In addition, Table 5 shows the short-term results of VAR estimation using the VECM model:

Table 5. VECM Estimation Results

D(DPK(-1))

D(DPK)	D(KTR)	D(ATM)	D(NSB)	D(BIR)	D(PRO)	D(ER)	D(SZE)
0.659748	0.010300	0.041746	90.19261	-6.79E-06	2.43E-05	2.16E-05	1.474667
(0.41358)	(0.00396)	(0.01677)	(57.8330)	(2.3E-05)	(2.7E-05)	(1.4E-05)	(0.53051)
[1.59520]	[2.60397]*	[2.48865]*	[1.55953]	[-0.29262]	[0.90000]	[1.56359]	[2.77972]*

D(DPK(-2))

| 0.986561 | 0.005777 | -0.003658 | 8.651533 | 8.53E-06 | 3.61E-05 | 3.32E-05 | 1.921573 |

(0.400 26)	(0.003 83)	(0.016 23)	(55.96 99)	(2.2E-05)	(2.6E-05)	(1.3E-05)	(0.51 342)
[2.464 80]	[1.5091 5]	[-0.2253 1]	[0.1545 7]	[0.379 85]	[1.380 97]	[2.4846 9]*	[3.742 70]*

Source: Data Processed, 2020

Granger Causality Test Analysis

The Granger causality test analysis technique will investigate the causal relationship between variables in the VAR system. The Granger causality technique was used to analyse Table 6. Values with asterisks (*), (**), and (***) in the probability column are hypotheses that are rejected at significance levels of 1% (0.01), 5% (0.05), and 10% (0.10) with a lag length of 2. A probability value with no asterisk indicates that the hypothesis was not rejected or accepted. Table 6 shows the results of the Granger Causality Test:

Table 6. Causality Granger Test Results

Null Hypothesis	F-Statistic	Probability
KTR *does not Granger Cause* DPK	1.69618	0.1960
DPK *does not Granger Cause* KTR	0.35545	0.7030
ATM *does not Granger Cause* DPK	6.34465	0.0040*
DPK *does not Granger Cause* ATM	1.30284	0.2828
NSB *does not Granger Cause* DPK	0.64163	0.5316
DPK *does not Granger Cause* NSB	2.00701	0.1474
BIR *does not Granger Cause* DPK	3.33628	0.0455**
DPK *does not Granger Cause* BIR	1.98604	0.1502
PRO *does not Granger Cause* DPK	0.03212	0.9684
DPK *does not Granger Cause* PRO	3.06402	0.0575***
ER *does not Granger Cause* DPK	2.91494	0.0655***
DPK *does not Granger Cause* ER	8.42720	0.0009*
SZE *does not Granger Cause* DPK	0.61832	0.5438
DPK *does not Granger Cause* SZE	1.93568	0.1573
ATM *does not Granger Cause* KTR	5.98267	0.0053*
KTR *does not Granger Cause* ATM	8.15834	0.0010*

Source: Data Processed, 2020

Discussion

The Impact of Sharia Banking Office Networks

Tables 3 and 4 show that sharia banking office networks have a short-term and long-term impact on third deposit funds in Indonesia's Islamic banking. It differs from the null hypothesis (H0) of the Granger Causality Test in Table 6, which shows that sharia banking office networks do not have a causal relationship between third deposit funds. Table 6 shows that the first and second probabilities have higher alpha values of 1%, 5%, and 10%, respectively. As a result, there is no two-way causality between sharia banking office networks and DPK.

A sharia banking office network is a network of sharia banking service offices that handle various financial transactions. Sharia Head Operational Offices (HOO/KPO) or Branch Offices (BO/KC), Sub-Branch Offices (SBO/KCP), and Cash Offices (CO/KK) are all part of the Sharia banking office network. According to the regression analysis results from the previous section, the Islamic banking office network influences Islamic banking DPK in Indonesia. However, there is not a bidirectional causal relationship between these two variables. The findings of this study corroborate previous research that found that the number of offices impacts Islamic banking deposit products, which are part of Third Deposit Funds (Prasetya et al., 2015). It suggests that expanding the Islamic banking office network could boost the number of DPKs in the Islamic banking industry.

The network of Islamic banking offices demonstrates the accessibility of Islamic banking to the general public. The availability of broad access can make it easier for the general public or customers to conduct various transactions. Qodriyah (2016) stated that most people prefer banking with more affordable access. As a result, they can be more efficient and effective in conducting financial transactions in banks. According to Soetiono & Setiawan (2018), financial institution office services are accessible to the general public through an access point. According to the causality granger test, the Islamic banking office and the ATM network have a two-way or causal relationship. Most Islamic banking's ATM networks are found only in office networks spread across Indonesia. Unlike traditional banking, the ATM network has spread throughout the region, including supermarkets, minimarkets, rest areas, and other locations.

The Impact of Sharia Banking on ATM Networks

Tables 3 and 4 show that sharia banking ATM networks impact third deposit funds in Islamic banking Indonesia in the short and long terms. The Granger causality test results also show that the third null hypothesis (H0) has a probability value of (0.0040), which is less than the significance value of one percent (0.0040<0.01). A probability value less than alpha can reject H0, implying that ATM has a one-way causal relationship with Islamic banking deposits.

ATM is an abbreviation for Automatic Teller Machine. In Indonesia, ATMs are classified into non-cash ATMs, cash withdrawal ATMs, and cash withdrawal ATMs. Non-cash ATMs are only for non-cash transactions such as electricity payments and credit purchases. Customers typically use cash withdrawal ATMs to withdraw cash in the amount of money in their accounts, but ATM cash withdrawals can also be used for other non-cash transactions. Customers can use ATM cash withdrawal deposits to make cash withdrawals.

Many e-channel banking options are available to customers 24 hours a day, seven days a week. Its nature allows it to operate 24 hours a day, seven days a week, making ATMs a secondary means of conducting financial transactions after the office network. Using ATMs to access the public and customers is considered when using banking products. According to Abdallah & Lubis's (2015) research, ATMs are necessary for customers to use banking products. The ATM network is one of the access points for customers conducting various financial transactions, making ATMs a necessary facility that the public should consider when opening an account in Islamic banking. According to Sharia Banking Statistics (SPS) data, the number of ATMs owned by sharia banks in Indonesia has decreased, as illustrated in Figure 3.

Figure 3. Number of Sharia Banking ATMs
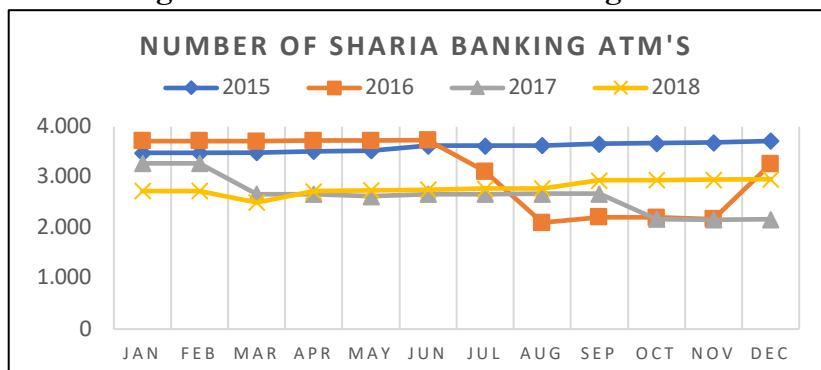
Source: SPS-OJK 2015—2018 (Processed Data)

The decrease in the number of ATMs, as shown above, could be due to the synergy established by Islamic banking with conventional banking as its parent company, allowing Islamic banking to be more efficient in the procurement of ATMs. The synergy in question is the collaboration of conventional banking ATMs that can also be used as sharia banking ATMs, allowing sharia banking customers to benefit from existing conventional banking ATM networks with a broader network. Although sharia banking has merged with conventional banking in using ATM networks, its use is still constrained by each bank's strategies and policies, although ATMs are one of the most important facilities for customers and are widely used by them (Picture 4). Furthermore, ATMs have become the delivery channel facility with Indonesia's highest monthly usage frequency (Picture 5).

Figure 4. The Most Popular Delivery Channel
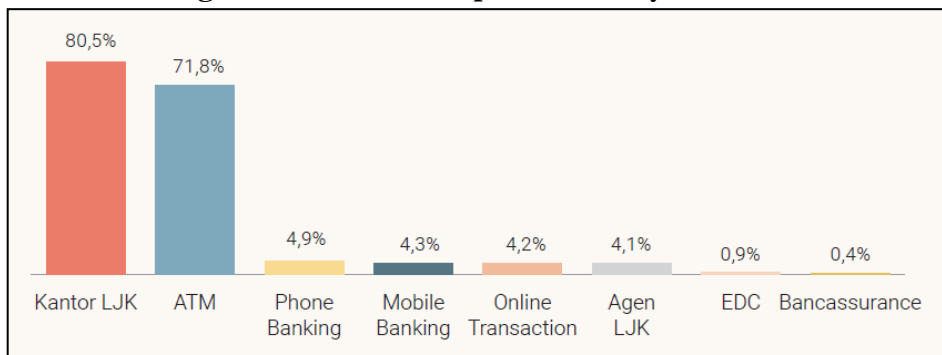
Source: www.ojk.go.id

Picture 5. Frequency of Use of Monthly Delivery Channels
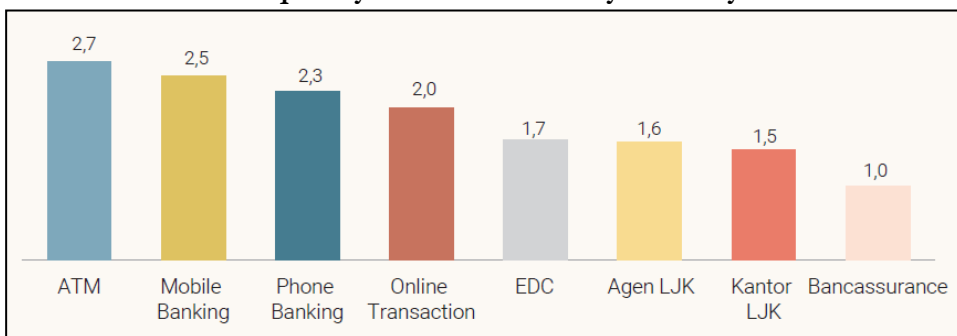

Source: www.ojk.go.id

The Impact of Sharia Banking Customers

Customers in Islamic banking are those who use the products. This study's customers use Islamic banking savings products. According to the

VECM test results (Table 4), the NSB does not affect Islamic banking deposits in either lag one or lag two. That differs from the long-term forecast in Table 3. Table 3 shows that sharia banking customers impact third-party deposit funds. Table 6 shows that the causality relation between third deposit funds and customers' sharia banking does not exist for customers of sharia banking because the probability is greater than alpha 1 percent, 5 percent, and 10%.

The lack of influence of NSB on Islamic banking deposits indicates that most Islamic banking customers use savings products only for transactions, with funds saved only for temporary placements. Furthermore, very few Indonesians still use savings products in Islamic banking. Indeed, the number of deposit customers in Islamic banking increased from 2015 to 2018 (Figure 6).

Figure 6. Number of Sharia Banking Deposit Customers
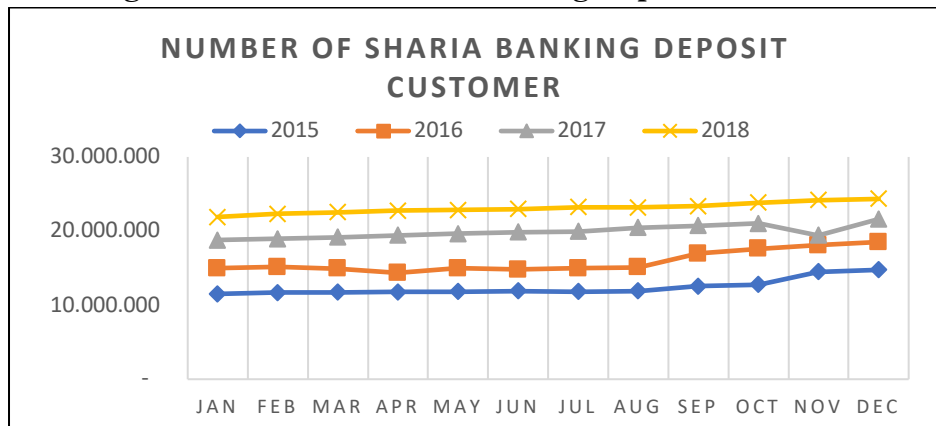
Source: SPS-OJK 2015-2018 (Processed Data)

The Impact of Interest Rates

According to the results of the VECM test (Table 4), the interest rate has no significant effect on the DPK of Islamic banking. It differs from the long-term regression estimate in Table 3. Table 3 shows that interest rates have an impact on third-party deposit funds. The probability value of 0.0455, obtained from the Granger causality test in the seventh null hypothesis (H0), is less than the alpha value of 5% (0.0455<0.05). As a result, H0 is rejected, and it is concluded that BIR has a causal relationship with DPK. These findings contradict the findings of Prasetya et al. (2015), who found that interest rates impact Islamic banking's third deposit funds in Indonesia.

However, according to another study, interest rates have little impact on mudharabah deposits, a third-party deposit fund (Juniarty et al., 2017).

This study uses interest rate data (BI Rate) or what is now known as the BI 7-Day Reverse Repo Rate (BI7DRRR). When BI interest rates rise, deposit rates in conventional banking also rise (Al Arif & Hanifah, 2017). However, this study proves that Islamic banking third-deposit funds are not affected by the benchmark interest rate (BI Rate). Islamic banking does not set interest rates, especially for savings products. Therefore, interest rates do not influence Islamic banking deposits. Islamic banking only makes interest rates a benchmark to compete with deposit products in conventional banking because, after all, conventional banking is their competitor in Indonesia.

Profitability's Impact

Profitability represents a company's ability to generate profits. According to the VECM test results (Table 4), profitability does not affect Islamic banking deposits. That differs from the long-term regression estimate in table 3; the latter's result indicates that profitability affects third deposit funds. The probability value of the Granger causality test in the tenth null hypothesis (H0) is 0.0575, which is less than a ten percent alpha value (0.0575<0.10). As a result, H0 is rejected; it is concluded that the DPK has one-way causality to the PRO but not the opposite hypothesis. These findings are consistent with Mahmudah's (2017) research findings, stating that profitability does not affect Islamic banking deposits. According to Abusharbeh (2016), the profitability of Islamic banking deposits is unaffected by a high or large CAR (Capital Adequacy Ratio), asset quality, or liquidity position. Furthermore, the lack of optimal public financing and improvement in Islamic banking performance does not affect Islamic banking DPK profitability (Mahmudah, 2017).

The Influence of the Equivalent Rate

The rate of return that Islamic banking will provide to its customers is the equivalent of a return. This yield equivalent is only an estimate or a prediction, so the equivalent value may change depending on sharia banking conditions. According to the results of the VECM test (Table 4), the equivalent yield affects Islamic banking deposits in the second lag. It differs from the long-term estimate regression in table 3; the result shows that the yield equivalent (equivalent rate) does not affect third deposit funds. The

Granger causality test (Table 6) yielded probability values of 0.0655 and 0.0009 in the eleventh and twelfth hypotheses, respectively. This value is lower than the alpha values of 10% (0.0655<0.10) and 5% (0.0009<0.05). As a result, both H0 can be rejected, and it is concluded that ER and DPK have two-way causality (the relationship between DPK and ER and ER to DPK).

This finding contradicts the findings of Prasetya et al. (2015), who found that the equivalent rate does not affect the collection of Islamic banking deposits in Indonesia. According to Prasetya et al. (2015), this indicates that an increase in the equivalent yield level offered by Islamic banking does not stimulate fund owners. Fund managers see a comparison between conventional banking interest rates and Islamic banking yields. Depositors prefer conventional banks to place their funds when the conventional banking interest rate is higher than the equivalent rate and vice versa.

Although there are studies that contradict the author's findings, there are also studies that support the author's findings. In the study, Mahmudah (2017) stated that the equivalent rate affects the third deposit funds of Islamic banking in Indonesia. Because of the increased profits obtained by Islamic banking, the yield equivalent on Islamic banking deposits demonstrates the improved performance. As a result, when Islamic banks' profits are high, the equivalent yields offered by Islamic banks rise as well, impacting the number of depositors who place their funds in Islamic banking (Novianti, Badina, & Erlangga, 2016).
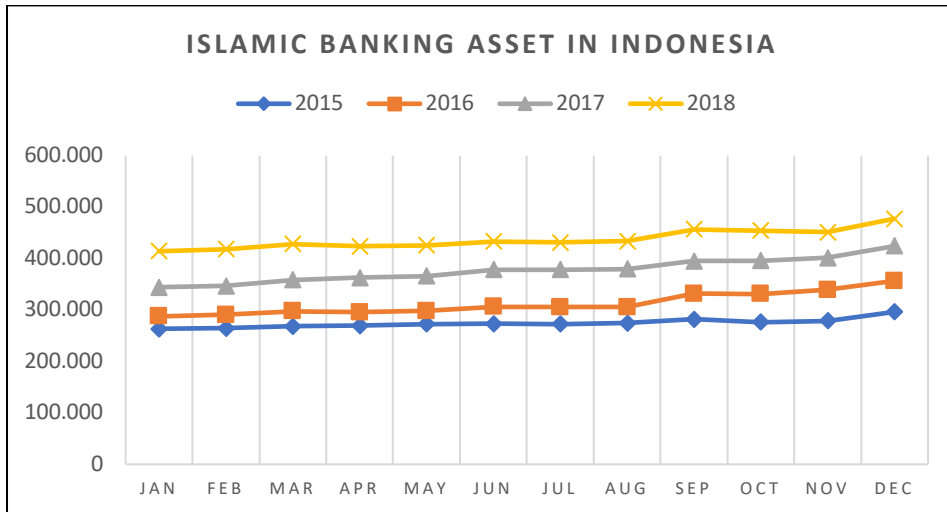
The Impact of Company Size

The number of assets determines the size of a company. Assets are important in Islamic banking because they manage them actively and responsibly. According to the VECM test results (Tables 3 and 4), the company's size impacts the sharia banking DPK in Indonesia, both long and short term. The Granger causality test results (Table 6) in the thirteenth and fourteenth hypotheses do not have probability values of 0.5438 and 0.1573, respectively. These probability values are more significant than the alpha value of 10% (0.5438/0.1573 > 0.1). As a result, both H0 and SZE can be rejected, implying that ATM and SZE lack two-way causality.

The findings of this study are based on research conducted by Al Arif & Hanifah (2017), who found that the size of a company influences the volume of mudharabah deposits in Indonesia. Furthermore, the findings of

other studies, such as Mahmudah's research, indicated the same thing (Mahmudah, 2017).

Figure 7. Islamic Banking Assets in Indonesia

Source: SPS-OJK 2015-2018 (Processed Data)

The increase in Islamic banking assets explains the effect of company size on Islamic banking deposits (Figure 7). According to Rofiatun (2016), many assets and a substantial source of third deposit funds will maximise profits. The statement can mean that Islamic banking can expand its operations if it has many assets and sources of third-party deposit funds. Islamic banking can increase profits when it can expand the business more broadly. Increased profits from Islamic banking will result in higher customer returns. Increased deposits will encourage the general public and customers to save and invest in Islamic banking.

Conclusion

Based on the findings of the previous chapter's analysis and discussion, it is possible to conclude, that in the short term, office networking (KTR) of Islamic banking (BUS and UUS) consists of KPO (Head Operational Offices), KC (Branch Offices), KCP (Sub-Branch Offices), and KK (Cash Offices). This affects Third Deposit Funds (DPK) in Islamic banking in Indonesia in certain lags (lag 1) in the short term and is also influential in the long term. ATM networking (ATM) in Islamic banking affects third deposit funds (DPK) in Islamic banking at certain lags (lag 1) in the short term and also in the long term. The number of customers (NSB) of sharia banking deposits has no

effect on sharia banking deposits in the short run, but it does affect sharia banking deposits in the long run. The conventional banking reference interest rate (BIR) has no effect on sharia banking third deposit funds in the short term, but it does impact sharia banking deposits in the long run. Sharia banking profitability (PRO) has no immediate impact on sharia banking DPK but will have a long-term impact on sharia banking DPK. The equivalent return (ER) of Islamic banking affects the third deposit funds of Islamic banking with a lag (lag 2) in the short term but does not affect the DPK of Islamic banking in the long term. The size (SZE) of Islamic banking affects Islamic banking deposits in all lags (lag 1 and lag 2), both short and long term.

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