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What Causes Non-Performance Financing? Insights Islamic Commercial Banks in Indonesia and Malaysia

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Abstract

This study aims to assess the determinants of Non-Performing Financing (NPF), particularly in the Islamic Commercial Banks (ICBs) setting. It seeks to test the effect of financing to deposit ratio (FDR), capital adequacy ratio (CAR), and return ratio (RR) on NPF at the ICBs in Indonesia and Malaysia, being the largest Islamic financial hubs in Southeast Asian region. The whole population were 13 ICBs in Indonesia and 16 ICBs in Malaysia for the observation period from 2014 to 2018, resulting in 142 observations. The period was selected to avoid the effect of COVID-19 pandemic towards the variables tested in this study. This study uses multiple linear analyses of panel data to analyze the data collected. It was found that that FDR, CAR, and RR, respectively, have an impact on the level of NPF. At the country-specific level, for ICBs in Indonesia, FDR was found to have a positive effect on the NPF level, while CAR and RR have a negative effect on NPF. Meanwhile for ICBs in Malaysia, all independent variables, namely FDR, CAR, and RR have a positive effect on the NPF level. The slightly variation in the findings may be attributed to the different regulatory settings in the two countries which may need further evidence. The findings of this study imply that NPF determinants may have different influence in two neighboring countries despite they seem to share many similar regional characteristics. The findings also suggest that to maintain low level of NPF the ICB may need to focus on the attributes of FDR, CAR and RR.

Keywords: non-performance financing, financing to deposit ratio, capital adequacy ratio, return ratio, Islamic bank

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INTRODUCTION

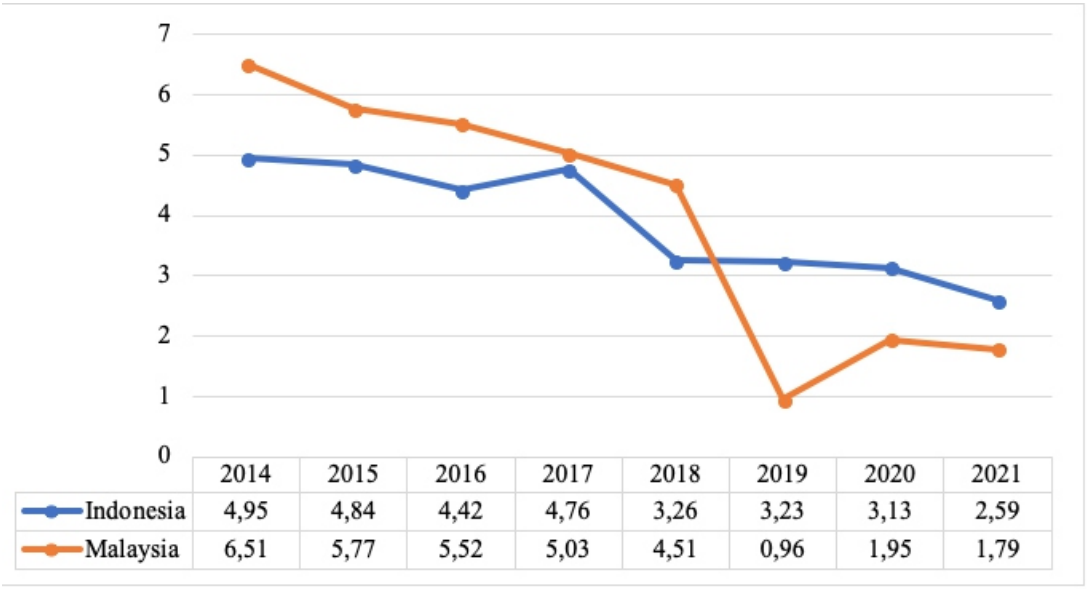
In the banking-centered economic system, banks play a crucial role in in realizing national development and known as the key source of funding (Moradi et al. in Khan et al., 2020). Banking industry has been further characterized by the establishment of Islamic banking in the present days to support the optimal implementation of the global economy and its development in Southeast Asia region is particularly impressive (Akbar, 2016). Two countries from Southeast Asia rank in the top 10 countries of the world's Shariah-compliant assets with Malaysia at the third and Indonesia at the ninth position (The ASEAN Post Team, 2020). For instance Indonesia which only had 1 Islamic Bank and 78 Islamic Rural Banks (*Perkreditan Rakyat Syariah* - BPRS) in 1998 (Prastanto, 2013) has witnessed significant growth evidenced by the existence of 14 ICBs, 20 Islamic Business Units, and 165 BPRS in 2019 (Otoritas Jasa Keuangan, 2019). The growth in total assets and market share continues to increase with the average growth of Islamic Commercial Bank assets from 2014-2019 was 12.67%, while the market share growth achieved by Islamic Banks in Indonesia until 2018 was 6.35% (Otoritas Jasa Keuangan, 2019).

In comparison, the development of Islamic banking in Malaysia is much more encouraging entitle it as a leading Islamic financial center in the Asian region (Adebola et al., 2011). Malaysia has 16 Islamic banks, some of which have assets and capital strength that are large enough to be classified in the Qualified Asean Bank (QAB) standard (Hosen & Muhari, 2017). The growth of Islamic Bank assets in Malaysia has increased by 11.45% each year from 2014-2019, while its market share has shown a significant achievement, reaching 27.17% by 2018.

Adapting for a transition period for the implementation of an integrated financial system in the ASEAN Economic Community (AEC) in 2020, Islamic banks in the Southeast Asia region, including Indonesia and Malaysia, need to ensure the stability of business operations and improve their market share. The durability of the financial system is indicated by one of the major factors is the lower level of NPF (Adebola et al., 2011). The relatively higher level of NPF indicates a fragile financial system that could potentially raise concerns with implications for the financial crisis (Rajha, 2016). Non-performing loans defined as the bank loans in which the borrowers have not paid their regular installment payments or interest payments for 90 days or more (Farooq et al., 2019; Rachman et al., 2018). The Non-Performing Loans (NPL) are initially affected by macroeconomic factors such as GDP growth, unemployment, and interest rates (Çifter, 2015). Some evidence shows that the global financial crisis that occurred in 2008 in the United States was triggered by the failure of Subprime Mortgage loan payments by customers, which drastically increased the level of Non-Performing Loans (NPL) (Adebola et al., 2011). Therefore, according to Messai and Jouini (2013) NPL are among the fundamental causes of economic stagnation's problems.

Since Islamic banks are used for financing rather than loans, non-performing loans are replaced by non-performing financing (Chabachib et al., 2019). Chabachib, et al. (2019) defines non-performing financing as financing that falls into the substandard, doubtful and congested category. Rachman et al., (2018) explained based on Bank Indonesia Regulation Number14/15/Pbi/ 2012 Concerning Assessment of Commercial Bank Asset Quality: (1) sub-standard: the borrower has not paid his scheduled installments or interest payments between 90 to 120 days, (2) doubtful: the borrower has not paid his scheduled installments or interest payments between 120 to 180 days, and (3) loss: the borrower has not paid his scheduled installments or interest payments in more than 180 days.

In contrast to the ideal condition, the development in Islamic banks, particularly in the Asian region, is accompanied by a relatively high level of NPF. Figure 1 shows the level of NPF, which reflects the occurrence of non-performance financing in Islamic banking in Indonesia and Malaysia. Until 2021, the NPF level of Islamic banking in Indonesia was at 2.59% from a maximum NPF of 5%, which is an indicator of the health level of a bank referring to Indonesian Central Bank regulations. The phenomenon of changes in NPF also occurs in Islamic banks in Malaysia. Until 2021, the NPF rate stood at 1.79%. The NPF level in Islamic banking in Malaysia is considerably higher than Indonesia for some years, nevertheless, the different pattern may be attributed to the different classification of NPF between Malaysia and Indonesia (Mokhtar et al., 2005).



	2014	2015	2016	2017	2018	2019	2020	2021
Indonesia	4,95	4,84	4,42	4,76	3,26	3,23	3,13	2,59
Malaysia	6,51	5,77	5,52	5,03	4,51	0,96	1,95	1,79

Figure 1.The Trends of NPF of Islamic Banks in Indonesia and Malaysia
Source: Otoritas Jasa Keuangan (2021) and Calculated Figures from Malaysian ICBs

Karim et al. (2010) stressed that NPF have become an obstacle to economic stability and economic growth. The higher level of NPF is an important issue to study because the increasing level of NPF continuously can cause liquidity problems for banks and will trigger a wider financial crisis that affects in slowing the development of a country's economy (Adusei, 2018). Experience shows that recovery from the financial crisis takes a long time to improve the financial sector back to stability (Škarica, 2014). Additionally, the high level of NPF also creates uncertainty and affects the willingness and ability of banks to continue to distribute financing, hence affect the overall level of investment (Szarowska, 2018).

Previous studies discovered several factors influencing NPF of Islamic banks, including external factors, such as Gross Domestic Product (GDP), interest rates, and goods prices (Sukmana, 2015) and internal factors, including FDR (Akbar, 2016; Popita, 2013), CAR (Akbar, 2016), and the RR (Popita, 2013; Mutamimah & Chasanah, 2012). Previous research found that only the RR variable consistently has an influence on NPF in ICBs (Popita, 2013; Mutamimah & Chasanah, 2012), while the CAR and FDR variables generated inconsistent findings regarding their effect on NPF in ICBs. Therefore, it is believed imperative to examine several factors that influence the level of NPF at ICBs especially in the context of Indonesia and Malaysia considering they are the largest Islamic financial centers in southeast Asia. Specifically, the objective of this study is to test the relationship between the FDR, CAR, and RR variables on the NPF in ICBs in Indonesia and Malaysia for the period of 2014-2018. The period of 2014-2018 was selected to avoid the potential effect of COVID-19 pandemic towards this study.

Islamic Banking and Financing

One of the main functions of Islamic banking is distributing funds in the form of financing to the public which is a form of support in terms of funding that is distributed for planned investment activities (Rahman & Rochmanika, 2012). Financing is important in achieving optimal profit at a low-risk level, then maintaining public reliance by ensuring that the level of bank liquidity remains under control (Rahman & Rochmanika, 2012). Even though Islamic financing has been closely monitored, potential risks remain an obstacle, which affect the bank's policy in choosing the contract used in its financing activities. *Mudharabah* and *Musyarakah* financing that included in the Profit Loss Sharing (PLS) scheme are the riskiest types of financing as it does not require guarantees and gives full confidence to the *mudharib* as business manager without interference from *shahibul maal* as the capital owner, but *shahibul maal* has the potential to bear the risk of loss if the business managed by the *mudharib* falls in a loss. Meanwhile, *Murabahah* financing has the smallest level of risk because this type of

financing has a more transparent and more fixed rate of return and the agreement will not change during the contract period.

Determinants of Non Performing Financing (NPF)

NPF is the ratio of doubtful financing in an Islamic Bank (Firmansyah, 2014), reflected on bank's credit risk, efficiency in the allocation of resources to productive sectors, and also on the asset quality (Setiawan et al., 2017). NPF is an indicator used to assess the health of Islamic banks (Asnaini, 2014). A large increase in NPF causes the amount of provision for earning asset losses in banks (Firmansyah, 2014). In the long term, this can erode the bank's capital reserves. Therefore, the management of financing, especially NPF, is extremely important for Islamic banks.

According to Ekanayake and Azeez (2015), NPFs are certainly affected by bank-level factors. These factors, according to previous studies are the factors of Financing to Deposit Ratio (FDR), Capital Adequacy Ratio (CAR), and Ratio of Return from Profit Loss Sharing Financing to Total Financing (RR). Financing to Deposit Ratio (FDR) describes the ability of Islamic banks to repay depositors' funds by relying on the financing they have distributed as a source of liquidity (Popita, 2013). The higher the FDR value, the greater amount of third party funds distributed in financing (Popita, 2013). In addition, an exorbitant FDR value will increase liquidity risk, where third party funds obtained by banks are no longer able to cover the liabilities of the Islamic banks. Previous studies resulted in different findings, Akbar (2016) and Popita (2013) found that FDR value influenced the NPF level. Meanwhile, Havidz and Setiawan (2015) found that FDR had no effect on NPF.

Financing to deposit ratio (FDR) is the ratio between the amount of financing distributed to the public and the number of third party funds that have been collected from the community (Akbar, 2016). The FDR ratio describes a bank's ability to repay depositors' withdrawals by relying on the financing that has been distributed as a source of liquidity (Wahyu, 2016). The standard FDR value adjusted by Bank Indonesia for the FDR ratio is 80% - 110% (Rimadhani & Erza, 2011). The increase in financing has indicated that the bank's performance is getting better because the potential income to be received is higher. This will have an impact on rising the bank's liquidity. A bank will be liquid when the bank is able to fulfill its debt obligations, repay funds belonging to its depositors, and is able to fulfill financing requests without any delay (Kusnianingrum & Riduwan, 2016).

Another factor that affects NPF is the Capital Adequacy Ratio (CAR). CAR is a bank's capital adequacy that is used to mitigate the potential assets declining that will boost the risk of the firm to become lost (Asnaini, 2014). This ratio is also an indicator of the minimum

capital obligation that must be maintained by a bank from the total assets that have a potential risk (Choirudin, 2017). The increasing CAR value indicates that the bank has the greater financial strength to cover the risk of loss caused by default financing so that with large capital it can reduce the level of NPF, which is reflected in the decline of the NPF value. On the other hand, a reduction in CAR value indicates a decrease in the amount of capital owned by the banks or an increase in financing. Akbar (2016) and Sukmana (2015) found that CAR affected the NPF level, while Havidz and Setiawan (2015) found that CAR had no effect on NPF.

Other factors that influence NPF are the ratio of return Profit Loss Sharing financing and return on total financing or in this study called the Return Ratio (RR). RR is applied to see the extent of the seriousness of Islamic banks in overcoming moral hazard, which is reflected in the NPF level (Mutamimah & Chasanah, 2012). Profit Loss Sharing financing (*Mudharabah* and *Musyarakah*) is the riskiest financing to become default financing. To reduce risk, the bank has the policy to set a high ratio for this financing (Popita, 2013). The policy to determine the *nisbah* (return) is represented by the RR value. The higher the RR value indicates that Islamic banks have policies to minimize moral hazard in the distribution of financing. This will have an impact on decreasing the NPF level. Consistently, previous research has found that there is an influence between RR and NPF (Popita, 2013; Mutamimah & Chasanah, 2012).

The above three factors are selected as they are deemed as the most influencing factors evidenced from previous studies yet previous studies have not looked in such a comparative context between the two most contributing countries in Islamic finance particularly in Southeast Asia, i.e. Indonesia and Malaysia.

Hypotheses Development

The Effect of Financing to Deposit Ratio on Non Performing Financing

Liquidity is an important aspect that must be maintained by the banks, especially Islamic banks. The main indicator for measuring the liquidity of ICBs is the financing to deposit ratio (FDR). FDR is used to assess the number of third party funds which is distributed to the public as financing (Firmansyah, 2014). FDR also shows the capability of ICBs in distributing third party funds that have been collected from the public (Asnaini, 2014).

The higher FDR value indicates that ICBs distribute all third party funds they collect for financing, so they are relatively illiquid (Firmansyah, 2014). It shows that the greater the funds distributed for financing, the higher the FDR value which caused the potential risk of default financing will increase, it will increase the NPF value (Poetry & Sanrego, 2011). Previous research conducted by Popita (2013) and Firmansyah (2014) found that FDR has a positive effect on NPF, while Akbar (2016) found that FDR has a negative effect on NPF in ICBs in Indonesia.

***H1**: Financing to Deposit Ratio affects NPF of the ICBs in Indonesia and Malaysia.*

The Effect of Capital Adequacy Ratio on Non Performing Financing

Capital sufficiency is a major factor in banking operations to anticipate the potential risk of loss, especially the risk of failure of financing. CAR is a ratio that shows the extent of a bank's assets that contain risk is also financed by capital funds owned by ICBs (Kusnianingrum & Riduwan, 2016). The excess of capital funds will tend to be used by ICBs to increase the amount of financing because financing activities are currently still the main source of income for ICBs. The abundance capital also causes banks to feel secure in disbursing financing and to become more relaxed in their financing distribution policies, thereby increase the risk of financing to inappropriate customers (Asnaini, 2014). The distribution of risky financing will lead to the failure of financing returns and result it increasing NPF value.

Meanwhile, a decrease in the CAR value at ICBs indicates a reduction in the amount of the bank's capital or an increase in the amount of financing that is distributed. The reduction in the amount of the bank's capital is generated by a decrease in the profit earned by the bank. One of the reasons for the decline in profit was the increase in the number of NPF (Asnaini, 2014). Previous research conducted by Akbar (2016) and Asnaini (2014) found that CAR has a negative effect on NPF in ICBs in Indonesia.

***H2**: Capital Adequacy Ratio affects Non Performing Financing of the ICBs in Indonesia and Malaysia.*

The Effect of Return Ratio on Non Performing Financing

Financing is the central source of income for ICBs. ICBs have various kinds of Islamic financing, one of them is Profit Loss Sharing (PLS) financing. PLS financing is the riskiest kind of Islamic financing which include *Mudharabah* and *Musyarakah*. PLS financing potentially increase NPF since the profits obtained by the bank as the fund owner are relatively uncertain and even have the potential to get losses (Mutamimah & Chasanah, 2012).

In the effort to mitigate the moral hazard that will affect the increase in NPF, Islamic banks set a higher return for the PLS financing (Mutamimah & Chasanah, 2012; Nasution & Wiliasih, 2007). The way to get a higher return can be achieved by increasing the bank's profit ratio in the agreement with its customers which is expected to suppress the level of NPF. Previous studies conducted by Popita (2013) and Mutamimah and Chasanah (2012) found that the return ratio has a negative effect on NPF in ICBs in Indonesia.

***H3**: The Return Ratio affects Non Performing Financing of the ICBs in Indonesia and Malaysia.*

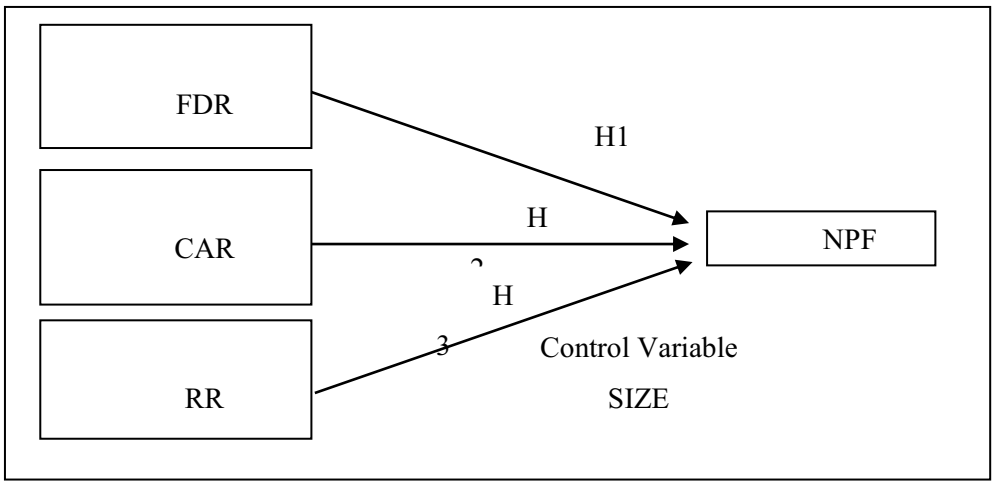


Figure 2. The Proposed Research Model

METHOD

Population and Sample

The population in this study is all ICBs which operate in Indonesia and Malaysia in the period of 2014-2018. In totality, there are 29 ICBs, consisting of 13 ICBs in Indonesia and 16 ICBs in Malaysia. This is excluded one ICB from Indonesia, which is PT. BPD Nusa Tenggara Barat Syariah due to its establishment after the observation period, specifically on September 24, 2018. The list of samples and total observations are provided in the following table 1:

Table 1. The List of Sample and Observations

No.	Company Name	Location	Number of observation (bank-year)
1	PT. Bank Muamalat Indonesia	Indonesia	5
2	PT. Maybank Syariah	Indonesia	5
3	PT. BCA Syariah	Indonesia	5
4	PT. BRI Syariah	Indonesia	5
5	PT. Bank Mega Syariah	Indonesia	5
6	PT. Bank Bukopin Syariah	Indonesia	5
7	PT. Bank BNI Syariah	Indonesia	5
8	PT. Bank BTPN Syariah	Indonesia	5
9	PT. Bank Victoria S yariah	Indonesia	5
10	PT. Bank Jabar Banten Syariah	Indonesia	5
11	PT. Bank Mandiri Syariah	Indonesia	5
12	PT. Bank Panin Syariah	Indonesia	5
13	PT. Bank Aceh	Indonesia	2
Total ICBs in Indonesia		**13**	**62**

1	Affin Islamic Bank Berhad	Malaysia	5
2	Al Rajhi Banking & Investment	Malaysia	5
3	Alliance Islamic Bank Berhad	Malaysia	5
4	AmBank Islamic Berhad	Malaysia	5
5	Bank Islam Malaysia Berhad	Malaysia	5
6	Bank Muamalat Malaysia Berhad	Malaysia	5
7	CIMB Islamic Bank Berhad	Malaysia	5
8	HSBC Amanah Malaysia Berhad	Malaysia	5
9	Hong Leong Islamic Bank Berhad	Malaysia	5
10	Kuwait Finance House Berhad	Malaysia	5
11	MBSB Bank Berhad	Malaysia	5
12	Maybank Islamic Berhad	Malaysia	5
13	OCBC Al-Amin Bank Berhad	Malaysia	5
14	Public Islamic Bank Berhad	Malaysia	5
15	RHB Islamic Bank Berhad	Malaysia	5
16	Standard Chartered Saadiq Berhad	Malaysia	5
Total ICBs in Malaysia		**16**	**80**
Total Observation			**142**

Operationalization of Variables

The following table depicts the operationalization of variables.

Table 2. Operationalization of Variables

Variabel	Definition	Meaurement	Scale	Reference
Non Performing Financing (NPF)	the comparison between impaired financing with total financing distributed by Islamic banks.	NPF = $\frac{\sum \text{Impaired financing}}{\sum \text{Total distributed financing}}$	Ratio	Barus and Erick (2016), Popita (2013)
Financing to deposit ratio (FDR)	the proportion of deposit used for the distribution funds of financing.	FDR = $\frac{\text{Total financing}}{\text{Total third party fund}}$	Ratio	Asnaini (2014)
Capital Adequacy Ratio (CAR)	This ratio refers to the level of capital a bank should set aside as a proportion of its risky assets. This measure aims at ensuring that the capital set aside is commensurate with the possible credit risks and at upholding banks' solvency by preventing them from taking excessive leverage.	CAR = $\frac{\text{Total capital}}{\text{Risk weighted assets}}$	Ratio	(Jabbouri & Naili, 2019)

Return Ratio (RR)	the extent of the commitment of Islamic banks in preventing moral hazard	RR = % return of profit/loss sharing / % return of total financing	Ratio	Mutamimah & Chasanah (2012)
Company size (SIZE)	Size of the company	Company Size = Log of total assets	Ratio	Ratnawati, 2012

Analysis Method

Secondary data of financial reports was downloaded from ICBs' websites, the official website of the Financial Services Authority (www.ojk.go.id), and Bank Negara Malaysia (www.bnm.gov.my). Multiple regression analysis with unbalanced panel data was used to test the hypotheses. This analysis aims to examine the effects of FDR, CAR, and RR on the NPF of ICBs in Indonesia and Malaysia during the observation period from 2014 to 2018 using the following regression equation:

$$NPF_{i,t} = \alpha_0 + \beta_1 FDR_{i,t} + \beta_2 CAR_{i,t} + \beta_3 RR_{i,t} + \beta_4 SIZE_{i,t} + \varepsilon$$

where, $NPF_{i,t}$ is the level of non-performance financing of company i in period t. $FDR_{i,t}$ is the Financing to Deposit Ratio of company i in period t. $CAR_{i,t}$ is the Capital Adequacy Ratio of company i in period t. $RR_{i,t}$ is the company's Return Ratio i in period t. $SIZE_{i,t}$ is the size of firm i in period t, and ε is the error term.

The data in this study was confirmed to be in BLUE (Best, Linear, Unbiased Estimator) through a series of classical assumption tests. Based on the model suitability test, the data on ICBs in Indonesia were tested using multiple regression analysis through the Random-Effects model approach, meanwhile, the data on ICBs in Malaysia were tested using multiple regression analysis through the Fixed-Effects model approach.

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics provide a description of the characteristics of each variable studied. The result of descriptive statistics is presented in Table 3

Table 3. Descriptive Statistics.

	INDONESIA					MALAYSIA				
	NPF	FDR	CAR	RR	SIZE	NPF	FDR	CAR	RR	SIZE
Unbalanced Panel Data period 2014 - 2018						*Balanced Panel Data period* 2014 - 2018				
Minimum	0.01	70.30	11.51	0.00	32.22	0.89	69.00	11.25	0.00	30.90
Maximum	22.04	110.53	113.07	0.84	27.22	12.24	301.95	29.16	0.52	34.33
Mean	3.98	85.00	27.31	0.31	29.92	3.80	111.84	16.90	0.13	32.17
Std. Dev.	3.67	8.23	15.55	0.23	1.24	2.56	45.04	3.65	0.17	0.86
Observation	62	62	62	62	62	80	80	80	80	80

The table presents descriptive statistics for all variables tested. NPF is the non-performing financing level as measured by the NPF value at each Bank. FDR is the Financing to Deposit Ratio as measured by the FDR value at each Bank. CAR is the Capital Adequacy Ratio as measured by the CAR value at each Bank. RR is the Return Ratio as measured by the comparison value between the return rate of Profit Loss Sharing financing and the rate of return of the total financing. SIZE is the bank size which calculated by the natural logarithm of total assets.

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Table 3 describes the descriptive statistics of the NPF variable as the dependent variable and the independent variables, namely FDR, CAR, and RR. Meanwhile, firm size is the control variable in this study. The average NPF value at ICB in Indonesia was 3.98, with a minimum value of 0.01 referring to Maybank Syariah in 2017 and 2018. The maximum value of 22.04 owned by Bank Jabar Banten Syariah in 2017. Meanwhile, the average value of NPF at ICB in Malaysia was 3.80, with a minimum value of 0.89 faced by CIMB Islamic Bank Berhad in 2018 and a maximum value was 12.24 held by Kuwait Finance House (Malaysia) Berhad in 2014. It shows that the average level of NPF at ICBs in Indonesia during 2014-2018 was slightly higher than ICBs in Malaysia during the same period, yet they still in the category of healthy financing since they are still below 5% as stipulated by the central Banks.

The average FDR value at ICBs in Indonesia was 85.00, with a minimum value of 70.30 owned by Bank Muamalat Indonesia in 2015, and a maximum value was 110.53 refers to Maybank Syariah in 2018. Meanwhile, the average FDR value at ICBs in Malaysia is 111.84, with a minimum value of 69.00 owned by Bank Muamalat Malaysia in 2014 and a maximum value was 301.95 held by Standard Chartered Saadiq Berhad in 2016. It shows that the average level of liquidity at ICBs in Indonesia during 2014-2018 was higher than ICBs in Malaysia during the same period. It indicates that the ICBs in Malaysia distribute more financing than the third-party funds they have.

The average CAR value at ICBs in Indonesia was 27.31, with a minimum value of 11.51 owned by Bank Panin Syariah in 2017 and the maximum value of 113.07 held by Maybank Syariah in 2018. Meanwhile, the average CAR value at ICBs in Malaysia is 16.90, with the minimum value of 11.25 refers to Al Rajhi Banking & Investment Corporation (Malaysia) Berhad in 2016 and a maximum value of 29.16 owned by Kuwait Finance House (Malaysia) Berhad in 2017. It shows that the average level of capital sufficiency at ICBs in Indonesia during 2014-2018 was much lower than ICBs in Malaysia during the same period. It is because the ICBs in Malaysia provide more financing than the capital they have.

The average RR value at ICBs in Indonesia was 0.31, with a minimum value of 0.00 owned by Bank Mega Syariah in 2014 and the maximum value of 0.84 held by Bank Panin Syariah in 2015 and BTPN Syariah during the observation period. Meanwhile, the average RR value at ICBs in Malaysia was 0.13, with the minimum value of 0.00 refers to Affin Islamic Bank Berhad in 2014, as well as Al Rajhi Banking & Investment Corporation (Malaysia) Berhad, Alliance Islamic Bank Berhad, Ambank Islamic Berhad, Bank Islam Malaysia, Bank Muamalat Malaysia Berhad, Hong Leong Islamic Bank, and MBSB Bank Berhad during the observation period. The maximum value of 0.52 owned by Standard Chartered Saadiq Berhad

in 2017. It shows that the average rate of return on PLS financing at ICBs in Indonesia during 2014-2018 was higher than ICBs in Malaysia in the same period. It indicates that the ICBs in Malaysia tend to distribute their financing more in other schemes than PLS.

The average SIZE value at ICBs in Indonesia was 29.92, with a minimum value of 27.22 owned by Maybank Syariah in 2018 and the maximum value of 32.22 held by Bank Mandiri Syariah in 2018. Meanwhile, the average SIZE value at ICBs in Malaysia was 30,90, with the minimum value of 0.00 referring to Al Rajhi Banking & Investment Corporation (Malaysia) Berhad in 2014 and 2015. The maximum value of 34.33 owned by Maybank Islamic Berhad in 2018. It shows that the size of the ICBs in Malaysia during 2014-2018 was larger than the ICBs in Indonesia in the same period. It is because the ICBs in Malaysia have bigger assets than in Indonesia. The average SIZE value at ICBs in Indonesia is 29.92 with a minimum value of 27.22 and a maximum value of 32.22. Meanwhile, the average RR value at ICBs in Malaysia is 32.17 with a minimum value of 30.90 and a maximum value of 34.33. It shows that the size of the ICBs in Malaysia during 2014-2018 was larger than the ICBs in Indonesia in the same period. It is because the ICBs in Malaysia have bigger assets than Indonesia.

This descriptive statistic was conducted to see the general characteristics of the data on the observed research object. From these data, it can be seen that there are differences in the character of Islamic Commercial Banks in Indonesia and Malaysia. This is interesting when the characteristics of the independent variables that affect the NPF value as the dependent variable have regional differences. From these data, it can be concluded that Islamic Commercial Banks in Malaysia are more aggressive in distributing sharia financing, especially in other schemes than the PLS scheme as the main product compared to Islamic Commercial Banks in Indonesia.

The Result of Regression

This study aims to test the hypothesis using a multiple regression analysis. Before the regression analysis was tested, the data in this study had been confirmed to be in BLUE (Best, Linear, Unbiased Estimator) through a series of classical assumption tests. Based on the model suitability test, the data on ICBs in Indonesia were tested using multiple regression analysis through the Random-Effects model approach, meanwhile, the data on ICBs in Malaysia were tested using multiple regression analysis through the Fixed-Effects model approach. The regression results are presented in Table 4.

Table 4. The Result of Regression

	Indonesia			Malaysia		
Variabel	Sign	Coefficient	Sign. value	Sign	Coefficient	Sign. value
FDR	(+)	0.004236	0.8118	(+)	0.258811	0.4787
CAR	(-)	-0.048634***	0.0000	(+)	0.055312***	0.0008
RR	(-)	-3.296675***	0.0000	(+)	0.229596	0.7587
SIZE	(+)	0.315029	0.0845	(-)	-0.754614***	0.0014
C		-6.605226	0.2692		23.25573***	0.0015
Observations		62			80	
Determination R-Square		0.4999			0.8639	
Prob(F-statistic)		0.0000			0.0000	

Based on the results of the statistical testing of the regression model in Table 4, the FDR variable has a coefficient value of 0.0042 and 0.2588, respectively. This shows that the FDR has a positive influence on the NPF level at ICBs in Indonesia and Malaysia during 2014-2018, however, the effect of FDR on the fluctuation level of the NPF rate at ICBs in Malaysia is greater than in Indonesia. In addition, the average FDR value at ICBs in Malaysia is also seen to be higher at 111.84% compared to Indonesia, which was 85% (Table 4). This indicates that the ICBs in Malaysia are more optimal in providing their intermediation functions than the ICBs in Indonesia. The results of this study are in line with the finance theory that the higher the FDR value reflects the greater distribution of financing hence the potential risk of impairment financing also increases in the ICBs in Indonesia (Popita, 2013; Firmansyah, 2014) and Malaysia (Ahmad & Ariff, 2007). In short, the results of this study supported the first hypothesis.

Next, the CAR has an estimated coefficient of -0.0486 and 0.0553 for Indonesia and Malaysia, respectively. The test results show a difference in direction of the effect of CAR on the NPF level of the ICBs in Indonesia and Malaysia during the 2014-2018 period. The negative influence on ICBs in Indonesia is caused by management steps to increase bank capital as an effort to reduce the level of NPF (Poetry & Sanrego, 2011). ICBs in Indonesia have relatively more limited capital than ICBs in Malaysia as indicated in the descriptive statistics. Banks with less capital are more willing to take the portfolio risk which will result in a higher level of NPF in the future (Berger & DeYoung, 1997). According to Sukmana (2015) capital is used as an instrument for financing risk management, where one of the strategies is by developing company facilities, such as updating information systems or increasing the expertise of their human resources. The additional facilities are expected to be able to manage and reduce the level of impairment financing. On the other hand, the positive influence of CAR on ICBs in Malaysia indicates that the banks with larger assets have the ability to increase their capital as reserves to absorb the potential risk of losses that may occur due to increased the level of NPF (Ahmad & Ariff, 2007). Banks with large capitalization tend to be more willing to take higher risks to get more profitable alternatives because they have the ability to absorb losses. The result of this study is in line with Asnaini (2014), Sukmana (2015), and Akbar (2016) who found that CAR has a negative effect on the NPF level of the ICBs in Indonesia. Similarly, Ahmad and Ahmad (2004) and Ahmad and Ariff (2007) also found that CAR has a positive effect on the NPF level at ICBs in Malaysia. Thus these results supported the second hypothesis.

Finally, the Return Ratio has an estimated coefficient of -3.2967 and 0.2296 for Indonesia and Malaysia, respectively. Referring to Table 4, the study found different effects of Return Ratio on the NPF levels between teICBs in Indonesia and Malaysia during the study period. The negative effect of RR on the NPF of the ICBs in Indonesia shows that management has commitment and seriousness in preventing moral hazard through a financing risk management policy by establishing a higher return ratio on riskier financing, thus reducing the NPF level(Mutamimah & Chasanah, 2012). The return ratio reflects the prudent level of a bank in managing risky financing (Effendi et al., 2017). The higher the return on risky financing indicates that the better bank policy in overcoming moral hazard (Popita, 2013). Ideally, a high return ratio of risky financing indicates the high quality of management prudence in distributing financing, thereby reducing the level of impairment financing. On the other hand, the positive effect on ICBs in Malaysia indicates the possibility of a moral hazard occurring on risky financing, which results in an increase in the NPF value(Nasution & Wiliasih, 2007). This is supported by the fact that the average value of the Return Ratio at ICBs in Indonesia is higher and equally distributed, which is 0.31 with a standard deviation of 0.23 compared to ICBs in Malaysia, which is 0.13 with a standard deviation of 0.17 (Table 4). In addition, the lower level of Return Ratio for ICBs in Malaysia is due to the fact that ICBs in Malaysia are more aggressive in distributing financing based on leasing (*ijarah*), leasing (*ijarah muntahiya bittamlik*), buying and selling (*murabahah*, *salam*, and *istishna'*), as well as lending and borrowing (*qardh*) where the risk is lower than financing based on profit-loss sharing scheme (*mudharabah* and *musyarakah*) which has a higher risk. The result of this study is in line with the research of Nasution and Wiliasih (2007), Mutamimah and Chasanah (2012), and Popita (2013) which found that the Return Ratio affects the NPF level at ICBs. The results of this study support the third hypothesis.

Finally, Firm size has a regression coefficient of 0.3150 and -0.7546, respectively. The test results show the effect of different firm size on the level of NPF at Islamic Commercial Banks in Indonesia and Malaysia during 2014-2018. The negative value on Islamic Commercial Banks in Indonesia shows that the management of Islamic commercial banks, which are relatively smaller in size than Islamic Commercial Banks in Malaysia, has limited funds in managing financing risk as indicated by the NPF value (Nugraha & Setiawan, 2018). Meanwhile, Islamic Commercial Banks in Malaysia which are relatively large, they still have sufficient reserve funds to increase the value of financing which will reduce the NPF value.

This research data has been examined with the classical assumption test, so it can be confirmed that the results of this study have met the requirements in the best, linear, unbiased

estimation conditions. The initial test was conducted through the F test. The F test shows the effect of all the independent variables simultaneously in the model on the dependent variable. If the significance value is greater than 0.05, then all the independent variables together do not affect the dependent variable. If the significance value is smaller than 0.05, then all the independent variables together affect the dependent variable.

In this research, the significance value of each regression model is 0.0000 which is smaller than 0.05. This shows that the independent variables together have a significant effect on the dependent variable. It can be concluded that the FDR, CAR, and the Return Ratio simultaneously affect the level of NPF at Islamic Commercial Banks in Indonesia and Malaysia during 2014-2018.

In addition to the estimated coefficient and significance value, this test was also analyzed through the magnitude of the coefficient of determination (R2). The coefficient of determination test in this study was conducted to see how much influence the independent variable had on the dependent variable. At Sharia Commercial Banks in Indonesia, it can be seen that the R2 value is 0.5888. Thus it can be stated that 58.88% of the variation in the NPF level at Islamic Commercial Banks in Indonesia during 2014-2018 was affected by all the independent variables contained in this study, namely FDR, CAR, and Return Ratio. While 0.4112 or 41.12% the rest is caused by other variables which not examined in this study.

Meanwhile, at Sharia Commercial Banks in Malaysia, it can be seen that each R2 value is 0.8639. Thus it can be said that 86.39% of the variation in the NPF level at Sharia Commercial Banks in Malaysia during 2014-2018 was affected by all the independent variables contained in this study, namely FDR, CAR, and Return Ratio. While 0.1361 or 13.61% the rest is caused by other variables not examined in this study.

CONCLUSION

This study examined the causes of NPF in the Islamic banks in Indonesia and Malaysia, particularly focusing on the potential contribution of FDR, CAR, and RR. Using a panel regression model, the study found that in general there was an influence of FDR, CAR, and RR on the NPF. For ICBs in Indonesia, FDR has a positive effect on the NPF level, while CAR and RR have a negative effect on NPF. In ICBs in Malaysia, all independent variables, namely FDR, CAR, and RR have a positive effect on the NPF level. ICBs in Indonesia in general have performed their function as intermediary institutions well and have relatively high levels of liquidity. However, the capital strength of the ICBs in Indonesia is still relatively low on average, so this tends to

prevent the performance of the Bank in distributing more financing. Therefore, the strategy for managing NPF at the ICBs in Indonesia is more likely to suspend the distribution of financing and increasing the capital reserves to renew internal resources. On the other hand, ICBs in Malaysia in overall have also performed their function as intermediary institutions well but have relatively low levels of liquidity compared to Indonesia. This is due to the relatively high capital strength of ICBs in Malaysia so that the Bank is able to distribute more financing than the third party funds they have. The strategy for managing NPF at ICBs in Malaysia is provided by increasing the distribution of financing even more. The findings of this study imply the different context of NPF determinants in two neighboring countries despite they seem to share many similar regional characteristics. This study may be limited in several dimensions including in the selection of variables and period of the study. Future studies may further enrich in enhancing the complex attributes which may cause NPF in the Islamic banking industry.

BIBLIOGRAPHY

Adebola, S. S., Yusoff, W. S. bin W., & Dahalan, J. (2011). An ARDL Approach To The Determinants of Non- Performing Loans in Islamic Banking System in Malaysia. *Kuwait Chapter of Arabian Journal of Business and Management Review*, *1*(2), 20–30.

Adusei, C. (2018). Determinants of Non-Performing Loans in The Banking Sector of Ghana Between 1998 and 2013. *Asian Development Policy Review*, *6*(3), 142–154. https://doi.org/10.18488/journal.107.2018.63.142.154

Ahmad, N. H., & Ahmad, S. N. (2004). Key Factors Influencing Credit Risk of Islamic Bank: A Malaysian Case. *The Journal of Muamalat and Islamic Finance Research*, *1*, 65–80.

Ahmad, N. H., & Ariff, M. (2007). Multi-Country Study of Bank Credit Risk Determinants. *The International Journal of Banking and Finance*, *5*(1), 135–152.

Akbar, D. A. (2016). Inflasi, Gross Domestic Product (GDP), Capital Adequacy Ratio (CAR), dan Finance to Deposit Ratio (FDR) terhadap Non Performing Financing (NPF) pada Bank Umum Syariah di Indonesia. *I-Economic*, *2*(2), 19–37.

Asnaini, S. W. (2014). Fakor-Faktor Yang Mempengaruhi Non Performing Financing (NPF) pada Bank Umum Syariah di Indonesia. *Jurnal Tekun*, *5*(2), 264–280.

Barus, A. C., & Erick. (2016). Analisis Faktor-Faktor Yang Mempengaruhi Non Performing Loan pada PT. Bank Mandiri (PERSERO). *Jurnal Wira Ekonomi Mikroskil*, *6*(2), 113–122.

Berger, A. N., & DeYoung, R. (1997). Problem Loans and Cost Efficiency in Commercial Banks. *Journal of Banking & Finance*, *21*, 849–870. https://doi.org/10.17016/feds.1997.08

Chabachib, M., Windriya, A., Robiyanto, R., & Hersugondo, H. (2019). A comparative study of Indonesian and Malaysian Islamic banks. *Banks and Bank Systems*, *14*(4), 55–68. https://doi.org/10.21511/bbs.14(4).2019.06

Choirudin, A. (2017). Analisis Faktor Yang Mempengaruhi Pembiayaan Bagi Hasil Mudharabah Pada Bank Umum Syariah. *Jurnal Ilmu Dan Riset Akuntansi*, *6*(9), 1–22.

Çifter, A. (2015). Bank concentration and non-performing loans in Central and Eastern European countries. *Journal of Business Economics and Management*, *16*(1), 117–137. https://doi.org/10.3846/16111699.2012.720590

Effendi, J., Thiarany, U., & Nursyamsiah, T. (2017). Factors Influencing NPF (NPF) at Islamic Banking. *Walisongo: Jurnal Penelitian Sosial Keagamaan*, *25*(1), 109–138. https://doi.org/10.21580/ws.25.1.1540.

Farooq, M. O., Sayed, M., Elseoud, A., Turen, S., & Abdulla, M. (2019). *Entrepreneurship and Sustainability Issues Causes of Non-Performing Loans: the Experience of Gulf Cooperation Council Countries*. *6*(4), 1955–1974. http://jssidoi.org/jesi/http://doi.org/10.9770/jesi.2019.6.4%0Ahttp://jssidoi.org/esc/homehttp://doi.org/10.9770/jesi.2019.6.4

Ekanayake, E., & Azeez, A. (2015). Determinants of Non-Performing Loans in Licensed Commercial Banks: Evidence From Sri Lanka. *Asian Economic and Financial Review, 5*, 868-882.

Firmansyah, I. (2014). Determinant of Non Performing Loan: The Case of Islamic Bank in Indonesia. *Buletin Ekonomi Moneter Dan Perbankan*, *17*(2), 241–258.

Havidz, S. A. H., & Setiawan, C. (2015). Bank Efficiency and NPF in The Indonesian Islamic Banks. *Asian Journal of Economic Modelling*, *3*(3), 61–79. https://doi.org/10.18488/journal.8/2015.3.3/8.3.61.79

Jabbouri, I., & Naili, M. (2019). Determinants of Nonperforming Loans in Emerging Markets : Evidence from the MENA Region. *Review of Pacific Basin Financial Markets and Policies, 22*(4), 33. https://doi.org/10.1142/S0219091519500267

Karim, M. Z., Chan, S. G., & Hassan, S. (2010). Bank Efficiency and Non-Performing Loans: Evidence From Malaysia and Singapore. *Prague Economic Papers, (2),* 118–132. https://doi.org/10.18267/j.pep.367.

Khan, M. A., Siddique, A., & Sarwar, Z. (2020). Determinants of Non-performing Loans in The Banking Sector in Developing State. *Asian Journal of Accounting Research, 5*, 135-145.

Kusnianingrum, D., & Riduwan, A. (2016). Determinan Pembiayaan Murabahah (Studi Pada Bank Syariah Mandiri). *Jurnal Ilmu Dan Riset Akuntansi*, *5*(1), 1–19.

Messai, A. S., & Jouini, F. (2013). Micro and Macro Determinants of Non-performing Loans. *International Journal of Economics and Financial Issues, 3*, 852-860.

Mokhtar, M., Smith, P., & Wolf, S. (2005). Measurement and Management of Non-Performing Loans in Malaysian Islamic Banks: An Analysis. *Islamic Financial Architecture: Risk Management and Financial Stability*, 313. Jeddah: Islamic Research and Training Institute.

Mutamimah, & Chasanah, S. N. Z. (2012). Analisis Eksternal dan Internal Dalam Menentukan Non Performing Financing Bank Umum Syariah di Indonesia. *Jurnal Bisnis Dan Ekonomi (JBE)*, *19*(1), 49–64.

Nasution, M. E., & Wiliasih, R. (2007). Profit Sharing dan Moral Hazard Dalam Penyaluran Dana Pihak Ketiga Bank Umum Syariah di Indonesia. *Jurnal Ekonomi Dan Pembangunan Indonesia*, *8*(2), 231–255.

Otoritas Jasa Keuangan. (2021). *Statistik Perbankan Syariah*.

Poetry, Z. D., & Sanrego, Y. D. (2011). Pengaruh Variabel Makro Dan Mikro Terhadap NPL Perbankan Konvensional dan NPF Perbankan Syariah. *Tazkia Islamic Finance & Business Review*, *6*(2), 79–104.

Popita, M. S. A. (2013). Analisis Penyebab Terjadinya Non Performing Financing pada Bank Umum Syariah di Indonesia. *Accounting Analysis Journal*, *2*(1), 1–10.

Prastanto. (2013). Faktor yang mempengaruhi pembiayaan murabahah pada bank umum syariah di Indonesia. *Accounting Analysis Journal*, *2*(1), 1–4.

Rachman, R. A., Kadarusman, Y. B., Anggriono, K., & Setiadi, R. (2018). Bank-specific Factors Affecting Non-performing Loans in Developing Countries: Case Study of Indonesia. *Journal of Asian Finance, Economics and Business*, *5*(2), 35–42. https://doi.org/10.13106/jafeb.2018.vol5.no2.35.

Rahman, A. F., & Rochmanika, R. (2012). Pengaruh Pembiayaan Jual Beli, Pembiayaan Bagi Hasil, dan Rasio Non Performing Financing terhadap Profitabilitas Bank Umum Syariah di Indonesia. *Iqtishoduna*, *8*(1). https://doi.org/10.18860/iq.v0i0.1768.

Rajha, K. S. (2016). Determinants of Non-Performing Loans: Evidence from the Jordanian Banking Sector. *Journal of Finance and Bank Management, 4*, 125-136.

Ratnawati, A. T. (2012). Analisis Faktor-Faktor yang Mempengaruhi Keberadaan Komite Manajemen Risiko (Risk Management Commitee) (Studi Empiris Pada Perusahaan Non Perbankan yang Listing di BEI). *Media Ekonomi Dan Manajemen*, *26*(2), 66–78.

Rimadhani, M., & Erza, O. (2011). Analisis Variabel-Variabel yang Mempengaruhi Pembiayaan Murabahah Pada Bank Syariah Mandiri Periode 2008.01 - 2011.12. *Media Ekonomi*, *19*(1), 27–52.

Setiawan, C. H., Hassan, M. K., & Mohamad, S. (2017). Non-Performing Loans and Bank Efficiency of Conventional and Islamic Banks in the Organization of Islamic Cooperation (OIC) Countries. *Journal of Islamic Economics, Banking and Finance, 13*(4), 19–44. https://doi.org/10.12816/0051000.

Škarica, B. (2014). Determinants of Non-performing Loans in Central and Eastern European Countries. *Financial Theory and Practice*, *38*(1), 37–59.https://doi.org/10.3326/fintp.38.1.2

Sukmana, R. (2015). Determinants of Non Performing Financing in Indonesian Islamic Banks. *Working Papers 1436-3*, The Islamic Research and Teaching Institute (IRTI).

Szarowska, I. (2018). Effect of Macroeconomic Determinants on Non-performing Loans in Central and Eastern European Countries. *International Journal Monetary Economics and Finance*, *11*(1), 13–14.

The ASEAN Post Team. (2020). Islamic finance in Southeast Asia. The ASEAN Post. https://theaseanpost.com/article/islamic-finance-southeast-asia-0

Wahyu, D. R. (2016). Financing to Deposit Ratio (FDR) Sebagai Salah Satu Penilaian Kesehatan Bank Umum Syariah (Study Kasus Pada Bank BJB Syariah Cabang Serang). *Jurnal Ekonomi Keuangan Dan Bisnis Islam*, *7*(1), 19–36.