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BAD DEBT ISSUES IN ISLAMIC BANK: MACRO AND MICRO INFLUENCING (INDONESIA CASES)

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Abstract
The research aims to test the influence of the variables affecting Non-Performing Financing (NPF) in this case is Financing Debt Ratio (FDR), Capital Adequacy Ratio (CAR), Operational Expense Ratio against Operation Income (BOPO), Exchange Rate, Inflation and Real National Income (PDBR). The data analysis method used in this study is multiple regression. Regression analysis method, in addition to measuring the strength of the relationship between two or more variables, also shows the direction of the relationship between the dependent variable with the independent variable The result of processing obtained from the value of R2 adjusted equal to 0,362 which means variation or behavior of independent variable that is FDR, CAR, BOPO, Kurs, Inflation, and PDRB able to explain variations or the behavior of the dependent variable that is NPF equal to 36,2%. The rest is equal to 63,8% are variations or actions of other independent variables that affect the NPF but are not included in the model.
Keywords: *Micro Influencing in Bad Debt, Macro Influencing in Bad Debt, Non Performing Financing (NPF), Islamic Bank, Bad Debt.*
JEL Classifications: G14, G24, G32

1. Introduction

Islamic banking in Indonesia was supposed to have the prominent role in Indonesia's economy. Indonesia as a country with a total population of number The world's largest Muslim population. The consequence of the government's commitment to making Indonesia as the center of Islamic finance in the world, then in Indonesia should have a sustainable Islamic financial system (sustainability) and one of the actors of the financial system is sharia banking. Banking as an intermediary institution has significance for the economic system other than as an intermediary institution that supports financial transactions, but banking has a systemic impact on the economy in the event of bankruptcy from the bank. It happened in Indonesia during the monetary crisis in mid-1997 where 16 Banks were liquidated, among others: Bank Dwipa, Majapahit Jaya Commercial Bank, Anrico Bank, Bank Harapan Sentosa, Andromeda Bank, and others. There are also several state-owned banks that are required to merge namely Bank Dagang Negara, Bank Bumi Daya, Indonesia Export-Import Bank, and Bank Pembangunan Indonesia (Bennte, 1999; Tarmidi, 2003; Nugroho et al., 2017). Reflecting on the incident, then to make Indonesia as the center of Islamic finance of the world, it is necessary for Islamic banking that has good quality and fundamentals.

The interest of the world community towards Islamic banking in the aftermath of the global economic crisis has increased since the Islamic finance, particularly Islamic banking the alternative to reduce the possibility of a worldwide financial crisis in the future. This is due to Islamic banks that have market discipline which can monitor and to maintain the balance of credit or financing growth with the real sector growth and there are bans of Maghrib (maysir-gambling and speculation, gharar-uncertainty and riba-interest rate) transaction which imply injustice and unproductive activity (Ahmed, 2010; Sukmadilaga & Nugroho, 2017). Also, compared to conventional banks, Islamic banks aim hasn't only improved its financial performance, but also on the distribution of welfare such as poverty alleviation (financial access for the poor and remote communities) and also providing care in realizing social prosperity for the people. These concerns are also aligned with the Islamic bank's commitment to achieving economic objectives of Islam (maqashid sharia) which includes social justice, equitable distribution of income, financial wealth with the entire purposes is social well-being (Wadji Dusuki, 2008; Alam Choudhury & Syafri Harahap, 2008, Nugroho et al. 2017).

Therefore the existence of sharia banking must be maintained and strived for to provide benefits or maslahah (maqhasid sharia). Regarding Choudhury (2014) and aPrastowo (2015), the presence of sharia banks will have a positive impact on the whole society because the principle of maqhasid sharia is in harmony with sustainable development (profit, people, and planet). Islam is a religion of rahmatan lil 'alamin meaning Islam is a religion that brings grace and prosperity to all, the entire universe, including animals, plants, and jinns, let alone fellow human beings. By the word of Allah in Surat al-Anbiya verse 107 which reads: "And We have not sent you, [O Muhammad], except as a mercy to the worlds." The main principles of maqhasid sharia include:

- First, Maintaining Faith (din). Humans require absolute faith or religion. Without religion, there is no guidance in life, and even religion is the most important of all basic needs. Religion ranks first because it is in the Qur'an and Hadith of a man driven to believe in Allah, and that is set up a way of life;
- Second, self or preserving life (nafs). Nourishes the soul is intended to keep the right to live in dignity and nourishes the soul to avoid acts of persecution such as murder, as well as activity that harms involve eating foods that can provide negative impact to the body or excessive in taking it;
- Third, Maintain Intellect (aql). Sharia sees the human intellect or mind as the original gift from Allah which is very important. With mind, the human mind can discern what is right and what is wrong. With the brain, the people assigned to worship because of that, the brain or mind must be maintained and protected. For this reason, Islamic law forbids drugs, alcohol and all kinds that can kill the creativity of the human and degrade of morale;
- Fourth, Maintaining lineage or descendants (nasl). Descendants very important to protect discontinuity of population from one generation to another generation. Therefore, Islam regulates marriage and forbid adultery, assigns anyone who may marry the ordinance of marriage and terms, and the regulation that must be met. These made for preserving evident and healthy descendants in a serene and peaceful atmosphere;
- Fifth, maintain the wealth or property (mal). Although the property principally belongs to Allah, maqhasid sharia framework recognizes an individual's right. Islam requires that regulations concerning activity such as purchase, lease, borrow or lend and so on, but prohibits fraud and practicing usury. Maintaining a well-understood property set up the activity system of fairness and willingness;
- Sixth, Maintain the environmental, QS. Ar-Rum verse 41 stated: "Corruption has appeared throughout the land and the sea by [reason of] what the hands of people have earned so He may let them taste a part of [the consequence of] what they have done that perhaps they will return [to righteousness]." In this verse, Allah revealed the emergence of the environmental damage caused by human activities, and people will accept the consequences. Because of environmental damage would threaten human existence, especially our future descendants."

Sharia banks in channeling financing will face the problem of risk financing. According to Sukmadilaga and Nugroho (2017), Islam is a complete religion. Therefore, none of the affairs of the world and the hereafter has been described in Islam. As in Surat al-An'am, 38, it means: "And there is no creature on [or within] the earth or bird that flies with its wings except [that they are] communities like you. We have not neglected in the Register a thing. Then unto their

Lord, they will be gathered'. Business activities (business) is the nature of humans because with a human endeavor to meet various needs. Any business run by humans will inevitably lead to two consequences in the future, namely profit and loss. Thus the risk itself is a nature that is always inherent in human life. Therefore, Islam does not recognize the existence of risk-free business transactions (Rosly et al. 2001).
The average NPF of Sharia Banks during the period 2007 to 2017 is relatively high, i.e., 3.37% above the ideal rate of financing is 3%. The NPF of Islamic Bank for the period 2007-2017 shown in the table below:

Table 1.1 Non Performing Financing of Islamic Bank 2007-2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	*2017	Average
NPF	4.05	1.42	4.01	3.02	2.52	2.22	2.62	4.33	4.34	4.16	4.43	3.37

Source: Indonesian Banking Statistics Indonesia Financial Services Authority data
* June 2017

Hou and Dickinson (2007) argue that the NPF's impact on the economy is hampering economic growth and leading to low levels of economic efficiency, which in turn have an effect on lending behavior by banks. This result may ultimately lead to a crisis, a situation where financial institutions limit their financial supply so that intermediary functioning is not working appropriately (Gertler & Kiyotaki, 2010).
One of the primary financial indicators of banking has a good quality the ability of banks in lending. The primary financial sign is NPL (non-performing loan) in the conventional bank or NPF (non-performing financing) at sharia bank. If the NPF of a bank is high, then the bank has a high risk due to the loan disbursement or bank financing is experiencing problems and there is a possibility of default customers that may result in losses of the Bank. Furthermore, if the loss is significantly going to be increasing a possibility bank tend to bankrupt if not able to cope that matter. Therefore, to prevent the occurrence of problematic financing, it is necessary to know the cause of the bad debt. Therefore, the purpose of this study to investigate the factors that cause bad financing in Islamic banks.
This research is expected to add to the literature related to the causes of problem financing in Bank Syariah so that it can become an input for sharia banking management in taking policy and being careful of the factors that cause the problematic financing in question. Also, this research is expected to be an input for regulators, especially in regulating the operation of sharia banking

2. Methodology and Literature Review

2.1. Methodology

Research Design

The research design used is hypothesis testing by using multiple regression models. The research aims to test the influence of the variables affecting Non-Performing Financing (NPF) in this case is Financing Debt Ratio (FDR), Capital Adequacy Ratio (CAR), Operational Expense Ratio against BOPO, Exchange Rate, Inflation and Real National Income (PDBR).

Variables and Measurements

In this research type of research used is causal research, that explains the influence of independent variable (independent variable) to the dependent variable (dependent variable). The data analysis method used in this study is multiple regression. Regression analysis method, in addition to measuring the strength of the relationship between two or more variables, also shows the direction of the relationship between the dependent variable with the independent variable (Ghozali, 2006). The statistical model used in this research is as follows:

$$NPF = \beta_0 + \beta_1 FDR + \beta_2 CAR + \beta_3 BOPO + \beta_4 Kurs + \beta_5 INFLATION + \beta_6 PDBR + \varepsilon$$

- NPF: Non-Performing Financing formula as follows:

$$\frac{\text{Bad Financing Outstanding}}{\text{Financing Outstanding}}$$

- FDR: Financing Deposit Ratio formula as follows:

$$\frac{\text{Financing Outstanding}}{\text{Third Party Fund}}$$

- CAR: Capital Adequacy formula as follows:

$$\frac{\text{Capital}}{\text{Weighted Risk Asset}}$$

- BOPO: Cost Efficiency Ratio/BOPO formula as follows:

$$\frac{\text{Operating Cost}}{\text{Operating Income}}$$

- Kurs/exchange rate: Comparison of the value of the rupiah against the dollar is indicated by Rp/$
- Inflation: Inflation formulas as follows:

  IHK: the consumer price index

$$\frac{IHK_t - IHK_{t-1}}{IHK_{t-1}} \text{x}100\%$$

- Economic Activities/PDRB: Real Gross Domestic Product with the base year of 2010

2.2. Literature Review

Agency Theory

Application of agency theory according to Jensen and Meekling (1976), aims to explain a relationship between one or more people who as the principal (principle) with management as a manager of capital (agent). The understanding of management here is the party in the contract with the owner of capital, which then given the authority to represent the interests of shareholders. In fact, the management is required to account for each job to the owners of capital. Thus, Jensen and Meckling (1976) emphasize the separation of the principle ownership function by the agent management function. In the application of agency theory according to Eisenhard (1989) is based on three assumptions, namely:

- Human nature that humans have selfishness (self-interest) and do not like risk;
- Organizing that there is a conflict between members within an organization;
- Information that there is asymmetric information between principal and agent.

Moral Hazard in Islamic Perspective

Moral hazard is one of the most significant management challenges for sharia banks. In conducting its business, Sharia Banks must conform to the values of Islamic rules. Risk taking in business led by managers and owners should be by religious principles (Mili & Abid, 2017). These religious beliefs must be based on morals imposed by the Quran and Hadist since the manager and owner exercise the trust of the stakeholders who wish to implement the Islamic values in totality (kaffah). Also, financial business reporting in Islamic banking and finance aims to create equitable equity, where priority is channeled equity financing rather than debt-based financing (Kassim et al., 2009) so that there is a share of sharia banks for the success or failure of the financing distribution indeed.

According to the Kim and Santomero (1988), the definition of credit risk is the potential that the debtor or counterparty will fail to fulfill its obligations under the agreed terms. Regarding If macroeconomic conditions and credit disbursement policies are in good condition, then NPL/NPF positions will be good, and vice versa. But if NPLs are found to increase while other factors support means congestion is more due to risky lending behavior as banks do not implement the principle of prudentiality in lending. This condition also indicates the occurrence of moral hazard in banking. Moral Hazard Theory is a part of agency theory known as asymmetric information that is neither worth nor equal. This asymmetric information condition can cause problems. First, moral hazard is when the agent does not implement the things that have been mutually agreed upon in the employment contract. Second, adverse selection is a situation where the principal cannot know whether a decision taken by the agent is based on the information it has acquired or occurs as negligence in the task (Arrow, 2001; Hölmstrom, 1979; Eisenhardt, 1989; Harahap, 2008).

Definition of moral hazard, according to Dowd (2009) is where one party is responsible or bear the burden on the interests of others. This is because of one of the parties who prioritize their interests without regard to the rights of others. Moral hazard arises when one party takes more risks for others to bear the burden of the risk. Moral Hazard occurs because there is asymmetric information. Asymmetric information is caused by a lack of action that can be verified and validated by those who do not have access to that information (Macho & Perez, 2001). The primary cause of moral hazard is the lack of information and knowledge that are the primary risks in the relationship.

One of the causes of the banking crisis in Indonesia in the period 1997-1998 was the presence of moral hazard element in bank management (Ibrahim & Ragimun, 2011). The monetary crisis has been detrimental to the government that has issued bailout funds amounting to trillion rupiah against bad debts against 16 liquidated banks and state banks merged into Bank Mandiri (Adhyaksana, 2008). According to Mishkin (2001) and Godlewski & Weill (2011), moral hazard in the banking industry is also caused by information asymmetry. There are two main issues related to information asymmetry, namely the presence of adverse selection and moral hazard, which can be explained as follows:

- Adverse selection is a problem of information asymmetry that occurs before the occurrence or conduct of financial transactions (credit disbursement) where low-quality borrowers (with high credit risk), will seek loans at very high-interest rates.
- Moral hazard is a problem of information asymmetry that occurs after a credit transaction is made. After the credit is withdrawn, the risk of transferring to the lender/bank. Moral hazard problems can arise because the borrower makes a profit for diverting his project on a high-risk project, which is not desired by the lender. The behavior of the borrower is based on a significant benefit if the project is successful, but if the project fails will be borne by the lender (credit provided is not returned).

Conventional banks are forced to reform the problems that caused the global financial crisis. Some of the causes of these problems are derivative products that are not supported by real assets, the implementation of risk transfer, the application of interest rates, market prices not by actual conditions and capital banking that cannot cover the losses (Gupta, 2010). Thus the Islamic financial principles can be a solution because have their origins in Sharia law which prohibits the payment or receipt of riba (interest) (Obaidullah, 2005; aNugroho et al., 2017; bNugroho et al. 2017). Islamic banks also face other restrictions – such as the use of many derivative products because according to Sharia, all contracts should be free from gharar (extreme uncertainty or speculation) (Obaidullah, 2005; Masyita, 2015; aNugroho et al., 2017; bNugroho et al. 2017). According to Arafat and Nugroho (2016), the principles and values contained in sharia banking can be used as a solution to prevent the occurrence of financial crisis, especially the value of Islamic banks are the values of social values, environmental sustainability, and spirituality. Moreover, the principles of operational Islamic banking are the prohibition mechanism "Maghrib": maysir (gambling and speculation), gharar (uncertainty) and riba (interest) thus the objectives of Islamic banks is to create a social well-being (Choudhury, 2014; bPrastowo, 2015; Arafah and Nugroho 2016).

Obligation to Manage Risk in Islam

According to Bouheraoua and Ali Jinnah Ahmad (2015), the scholars agree that two relevant rules must be considered in running the business and every business transaction, namely al-kharaj bidh dhaman (risk accompanied by the attitude of responsibility) and al-ghunmu bil ghurmi (profit accompanied by the risk of loss). The two rules derive from the hadith of the Prophet sallallaahu 'alaihi wa sallam from Aisya radhiyallahu'anha, that a man bought a slave man then the slave lived with him for some time. One day the buyer got a defect on the slave. Then the buyer tells the seller to the Prophet shalallahu 'alaihi wa sallam and the Prophet-decided that the slave is returned. So the messenger said, "O Messenger of Allah, did he hire my slave?" So the Prophet said: "profit is a reward for loss" (HR Ahmad, At-Tarmidhi, Abu Dawud, An-Nasai and stated by Al-Bani). The logical consequence is the person entitled to profit is the person who has an obligation to bear the loss (if it happens). A trader is allowed to take advantage of the goods he sells because he has assumed all the risks associated with his merchandise (damage to goods before the sale, loss of merchandise, unsold and so on). Based on this rule, Islam prohibits any transaction in which there is an imbalance between risk and profit. In other words, Islam prevents any profit-making deal without any willingness to bear a loss. That is why Islam forbids any additional (interest) in debt transactions that can occur in the conventional financial system. The lender has no risk whatsoever for the funds it lends because Islam requires each borrower to repay the debt. Therefore, any additional debt repayments are considered usury.

Regarding Sukmadilaga and Nugroho (2017), risk can be defined as a potential occurrence of events that can cause losses. The risk of a possibility of the existence of undesirable outcomes, which can cause harm if not anticipated and not managed properly. Risks in banking are a potentially anticipated and unanticipated potential event that negatively impacts both bank earnings and capital. These risks cannot be avoided, but can be managed and controlled. Risks can be differentiated into two major groups: systematic risk, i.e., The risks posed by certain macro-specific conditions or situations, such as changes in the political situation, changes in government economic policy, changes in the market situation, crisis or recession situation. The situation and condition could affect the general economic conditions; and Unsystematic Risk (Unsystematic risk) is a unique risk, inherent in a particular company or business only. Various Risks Faced by the Bank are Liquidity Risk, Market Risk, Financing Risk, Operational Risk, Compliance Risk, Legal Risk, Reputation Risk, Strategic Risk.

Macro Economics

According to Suyuti (1989), macroeconomy is an external factor consisting of events that come from outside the company. Thus the company is unable to control it. Athanasoglou et al., (2006), says that banks gain profitability influenced by internal and external factors. External factors in question is a factor that is not directly related to bank management, but it has an indirect impact on the economy and financial institutions.

Bad Debt

Bad debts' refers primarily to losses arising from transactions made on credit in the ordinary course of business, that is, losses on trade accounts and notes receivable (Smith & Butters, 1949). In the daily practice of sharia banking, the definition of problem financing is financing whose category of collectibility falls into the criteria of in special attention, doubtful and loss. Troubled financing has multiple interpretations:

a) Financing, for which the installment payment has not reached the desired target by the bank, including financing, which has the potential for future risk to the bank in the broadest sense;

b) Having difficulties in settlement of its obligations either in the form of principal repayment or profit sharing, late fines and bank charges incurred by the debtor;

c) Criteria of financing in which the installment is threatened with arrears, especially if the expected repayment resources are not expected to pay the installments so as not to achieve/meet the desired target;

d) Financing in which there is a pledge injury in the payment of installments of the agreement so that there are arrears, or there are potential losses in the debtor company to have the possibility of risks in the future of the bank;

e) Financing in special attention, substandard, doubtful and loss and current financing with the potential to be delinquent.

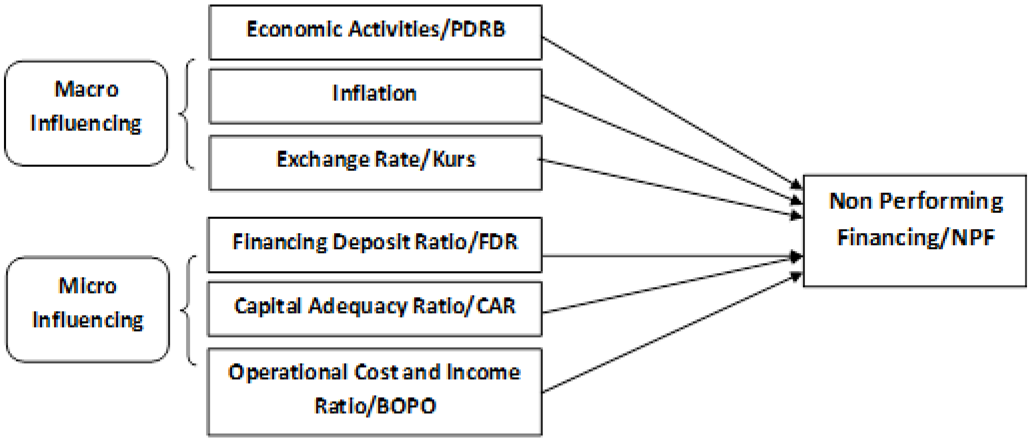
- **Non Performing Financing**
  NPF ratio is the ratio used to measure the failure risk of financing, where NPF is the ratio between non-performing financing (which falls into the criteria of non-performing financing, doubtful and loss) with total financing disbursed. According to Bank Indonesia Regulation Number 6/10 / PBI / 2004 the financing, which belongs to the special attention category, the class is substandard, doubtful and loss is called NPF gross. While the net NPF is financing that goes into financing substandard, doubtful and loss. Bank Indonesia has set the gross NPF level to a maximum of 5 percent at a tolerant rate for the health of a bank. The higher the NPF (above 5 percent) then the bank is declared unhealthy or high risk. High NPFs lead to reduced profits to be received by banks due to the rising costs of provision that must be created due to potential losses from declining financing quality (Ruziqa, 2013, Purbaningsih, 2014; Nasih, 2014; cNugroho et al., 2017).

- **Factors Causing NPF**
  The causes of bad loans (NPF) can be seen from the external and internal side of the bank (Margaretha & Zai, 2013). The external factors of bad debt financing are changes in government policy on the real sector, high rise of production factor prices due to changes in exchange rate, increased lending rates, recession-related to declining levels of economic activity, devaluation, inflation, deflation and other monetary policies. Moreover, the existence of natural disasters and increased competition is the cause of the occurrence of bad financing also caused the external side of bad debt increasing (Louzis et al.,2012). Internally, due to the lack of financial planning of fixed assets/working capital, the failure to meet the requirements in lending, and the weakness of analysis by credit officers since the beginning of the feasibility process of credit/financing proposal (Messai & Jouini, 2013).
  Several previous studies (Louzis et al., 2012, Margaretha & Zai, 2013, Messai & Jouini, 2013; Klein, 2013; Dimitrios et al., 2016) also mentioned that factors leading to bad credit or bad financing or Non-Performing Financing in sharia bank. NPF can be caused by three elements, namely (i) from the bank itself (creditor), (ii) from the debtor, (iii) and outside the creditors and the debtor, such as a factor that caused by the performance of banks (microeconomics). Several factors that are causing NPF from the external element, such as (i) Economic activity (PDRB), (ii) inflation, and (iii) exchange rate. The causes of bad financing from the internal bank itself is related to the characteristics of the existing system in Islamic banks. The policy of financing types can be reflected in the (i) Financing Deposit Ratio (FDR), (ii) the capitalization policy to maintain liquidity that represented by Capital Adequacy Ratio (CAR), (iii) and operational effectiveness of banking represented by BOPO/Cost Efficiency Ratio.

Research Framework

The methodology used in this study is multiple regression with secondary data obtained from the statistics of sharia banking of the Financial Services Authority (OJK) and the Central Bank of Indonesia (BI). The framework of this research is as follows:

Figure 1.1 Research Framework



3. Result and Analysis

3.1. Result

Descriptive statistics

The results of the processing of descriptive statistics can be seen in table 3.1. For NPF variables obtained the average value of the Islamic banking industry NPF in Indonesia amounted to 3.91%, which means that NPF Syariah banking in Indonesia has a good performance that is at the value of NPF between 2 to 5 %. The standard deviation value of 1.128 shows that the variation of NPV value every month is in the range between 2% to 6% where the maximum value of NPF is 6.618% while the drinking value is 2.220%.

For FDR variables, the results of descriptive statistical processing resulted the average value of FDR of Islamic banking industry in Indonesia amounted to 95.028%, which means that the overall performance of FDR from Indonesian Syariah banks falls into the category of good groups. This is because the value of FDR is <110% as perceived by Bank Indonesia. The standard deviation score of 5,890 indicates that the variation of the FDR value of Syariah banking in Indonesia from month to month is in the range of 90% to 100%. The minimum FDR value is 85.99%, and the maximum value is 104.83%.

Descriptive statistics for CAR variables yield an average value of 15.376%, which means that the overall performance of Islamic banking CAR in Indonesia has a good capital adequacy that can finance business expansion and has a high coverage risk because the value exceeds the provisions of Bank Indonesia of 8%. The standard deviation score of 1,267 indicates that the variation in CAR value of Indosat Sharia banking is relatively stable. The minimum value of CAR is 12.230%, while its maximum value is 20.230%.

Statistical descriptive results of BOPO variables obtained an average value of 84.163%. The standard deviation score of 9,290 shows the variation of the BOPO value of sharia banking industry from month to month in the range of 75% to 95%. The maximum value of BOPO is 99.04%, and its minimum value is 70,430%. The average value of the BOPO variable was 84.163%. The standard deviation score of 9.290% indicates the variation of the BOPO value of sharia banking industry from month to month in the range of 75% to 95%. Maximum value of BOPO is 99.04%, and its minimum value is 70.430%

Exchange rate variable, the result of descriptive statistic calculation yields an average value of Rp11240/$. The standard deviation value of Rp1885.91 indicates that the movement of the rupiah against the US dollar is very significant. The lowest exchange rate is Rp8504/$ while the highest value is in the range of Rp14652/$.
The inflation variable yields an average value of 0.422%, which means that during the period 2011 to 2016. The standard deviation score of 0.558% indicates that the month-to-month inflation movement in Indonesia during the period 2011 to 2016 is quite varied. The maximum monthly inflation rate is 3.29% and the minimum value is -0.450%.
Descriptive statistics for real GDP variables yield an average value of Rp2,089,651 billion. With a standard deviation of Rp190,925.2 billion, indicating a significant increase in real GDP per month. The maximum value of GRDP is Rp2,428,570 billion, while its minimum value is Rp1,748,731 billion.

Table 3.1 Descriptive Statistics of Research Variables

	NPF	FDR	CAR	BOPO	KURS	INFLATION	PDBR
Mean	3.919	95.026	15.376	84.163	11240.33	0.422	2089651.
Median	3.630	94.950	15.185	79.055	11571.00	0.305	2081092.
Maximum	6.168	104.830	20.230	99.040	14653.00	3.290	2428570.
Minimum	2.220	85.990	12.230	70.430	8504.00	-0.450	1748731.
Std. Dev.	1.128	5.890	1.267	9.290	1885.91	0.588	190925.2
Observations	72	72	72	72	72	72	72

Source: Bank Indonesia statistics that have been processed

Research Hypothesis Testing

After using the four classical assumptions (Normality, Autocorrelation, Heterokesdasitas, and Multicollinearity). Two assumptions are violated autocorrelation and multicollinearity on the inflation and exchange rate variables so that the additional process using the autocorrelation coefficient (rho) and the result of regression model processing after the additional process can be seen in Table 3.2 as follows:

Table 3.2 Results of NPF Model Regression

Variable	Expected Sign	Coefficient	p-value	Conclusion
FDR2	(-)	0.007378	0.3272	Rejected
CAR2	(-)	-0.001781	0.4806	Rejected
BOPO2	(+)	0.027485	0.0018	Accepted
KURS2	(+)	0.000184	0.0392	Accepted
INFLATION2	(+)	-0.140739	0.0096	Rejected
PDBR2	(-)	1.73E-06	0.0451	Rejected

R-squared	0.417005	F-statistic	7.629660
Adjusted R-squared	0.362349	Prob(F-statistic)	0.000003
Jarque Berra	0,074782	LM Test	0,542267
Prob	0,963299	Prob	0,4615
White test	6,930984		
Prob	0,5157		

Testing hypothesis theory

- Goodness of fit model (R2)

The result of processing obtained by the value of R2 adjusted equal to 0,362 which means variation or behavior of independent variable that is FDR, CAR, BOPO, Kurs, Inflation, and PDRB able to explain variations or behavior of the dependent variable that is NPF equal to 36,2%. The rest is equal to 63, 8% are variations or actions of other independent variables that affect the NPF but are not included in the model.

- Simultaneous Testing (Test -F)

The result of processing obtained by prob. The value of F statistics equal to 0,000 <0,05 which means Ho is rejected (Ha accepted) so it can be concluded that proved that at least one independent variable has significant effects of the dependent variable.

- Individual Testing (Test-t)

Individual test results for each independent variable can be explained as follows:

a) The processing result of testing the effect of FDR on the NPF is shown by the estimated coefficient value of 0.0073 which means the increase of FDR will increase the NPF and the decrease of FDR will decrease the NFP. These findings suggest that hypothetical theory which indicates that FDR negatively affects NPF are not proven

b) The processing result in the CAR variable is indicated by the estimated coefficient value of -0.0017 which means increasing the CAR will decrease the NPF and vice versa the decrease of CAR will increase the NPF. With prob. Of 0.9612 / 2 = 0.4806> 0.05 then Ho accepted which means proven that the negative effect of CAR on NPF but not significant.

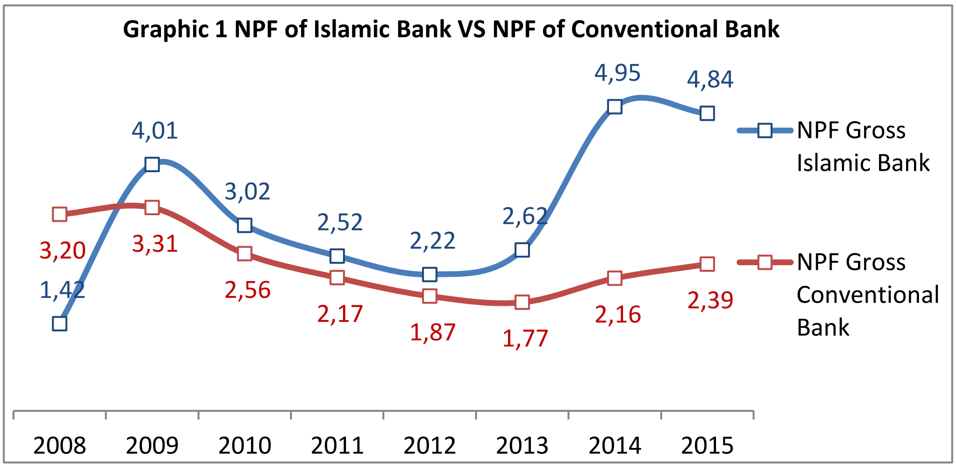
c) Testing the influence of BOPO on NPF obtained the estimated coefficient of 0.0274 which means the increase of BOPO will increase the NPF and vice versa decrease BOPO will decrease the NPF. With p-value value of 0.0018 <0.05 then Ho is rejected (Ha accepted) so it is evident that the positive influence of BOPO on NPF is significant.

d) Testing the effect of exchange rate on NPF resulted in the estimated coefficient value of 0.000184 which means that the rising of rupiah exchange rate against the dollar (depreciation) will increase NPF and vice versa decrease of the rupiah exchange rate to the dollar (appreciation) will decrease NPF. With a p-value of 0.0392 <0.05 then Ho is rejected (Ha accepted) so it is evident that the effect positively of exchange rate on NPF is significant.

e) Testing the effect of inflation on NPF is shown by the coefficient value of -0.140739 which means that rising inflation will decrease NPF and on the contrary decrease of inflation will increase NPF. These findings indicate the theoretical hypothesis that inflation has a negative effect on NPF is not proven.
f) The result of influence test from PDBR to NPF is shown by the coefficient value of 0.173E-06 which means increasing of PDBR will increase NPF and otherwise decrease of PDBR will decrease NPF. These findings suggest that the theoretical hypothesis that PDBR negatively affects the NPF is not proven.

3.2. Analysis

Based on the result of statistical data processing, it is known that only BOPO/Cost Efficiency Ratio was affecting NPF significantly. This is in line with the previous research (Demirgüç-Kunt, 1989; Whalen, 1991; Barr and Siems, 1994; Wheelock and Wilson, 1995). Nevertheless, increasing the number of NPF in the period 2008 to 2015 which is higher than the conventional banks as follows:



Related to Messai and Jouini (2013), beside the internal and external factors that can be influencing Non-Performing Financing, there is also another factor that will be possible to affect of Non-Performing Financing such as the experienced of the bank. Based on graph 1 (one) related to the growth of NPF of sharia banks above conventional banks, it is possible that the distribution of financing/asset quality of sharia bank has no better than conventional banks. From the history of the establishment of the first Syariah bank in Indonesia in 1992 (Bank Muamalat Indonesia), the operational experience of sharia banks and the fulfillment of employees with a specialized competence on sharia products is still limited (bNugroho et al., 2017). The oldest conventional bank in Indonesia is BRI established in 1896, so there is a big gap of experience between sharia banks and conventional banks. Islamic banks are still very young, which is 25 years old, so it in the early stage and should have a lot to improve quality and efficiency (cNugroho, et al., 2017). The ability to perform financing schemes and competitiveness are essential in anticipating the emergence of problem financing (Mishkin, 2001; Louzis et al., 2012; Messai & Jouini, 2013).

The majority of researchers agree that knowledge assets such as human capital play an essential role in generating company performance (Alam Choudhury & Nurul Alam, 2013; Swart & Kinnie, 2013). Furthermore, human beings are core capital related to previous research proves that human capital investment is positively associated with the process of adding value to the company (Hsu, 2007; Crook et al., 2011; Chang, 2015; Taswar, 2017; dNugroho & Kiranti, 2017). At the same time, with the emergence of intense competition, the knowledge of workers becomes vital for companies to gain and maintain their competitive advantage in the market (Hislop, 2013; Nawaz, 2017). In the Qur'an, Surah al-Bayyinah verse 7: "Indeed, they who have believed and done righteous deeds - those are the best of creatures." Furthermore, the ability to compete not only regarding human resources that should be improved, but also information technology and also a simple or slim organization. Rapid competition of market conditions required innovation of products and services. Therefore, products or services produced by Islamic Bank should be delivered with appropriate to the needs of the community. Currently, the demand for technological, financial services and digital banking, especially in developing countries such as Indonesia increasing rapidly (Shaikh et al., 2017). Characteristics of services and products needed today are easily accessible and cheap thus banks are required to perform efficiency and innovation. However, business processes and business model needs to be appropriately targeted to reduce risk, speed up service time and lower costs also become the issue to improve services of Islamic Bank.

Indonesia as the most significant Muslim country in the world has the potential of a large Islamic financial system. However, knowledge of sharia bank products is still deficient (Lestari, 2015) therefore, the religious and consciousness of society as a debtor must be increased to avoid the occurrence of moral hazard from the customer side (Lestari 2015). Furthermore, with the awareness of religion based on the Qur'an and Hadith related to the debt:

- QS Al Baqarah verse 282: "O you who have believed, when you contract a debt for a specified term, write it down. He let him fear Allah, his Lord, and not leave anything out of it. Dictate himself, then let his guardian dictate in justice And if there are not two men [available], then a man and two women from those whom you accept as witnesses - so that if one of the women errs, then the other can remind her And do not be [too] weary to write it, whether it is small or large, for its [specified] term That is more just in the sight of Allah and stronger as evidence and more likely to prevent doubt between you, except when it is an immediate transaction which you conduct among yourselves. For [then] there is no blame upon you if you do not write it. And take witnesses when you conclude a contract. Let no scribe be harmed or any witness. For if you do so, indeed, it is [grave] disobedience in you. And fear Allah. And God teaches you. And Allah knows all things.

- HR. Ibn Majah: "Whoever owes, while he intends not to pay off his debt, then he will meet God as a thief."
- HR. Muslim: "All the sins of the martyr are forgiven except the debt."

4. Conclusion

- The existence of Islamic banks is necessary to provide benefits for the broader community so that the occurrence of problem financing should be avoided both from the internal and external side. There are several important issues in the prevention of problem financing;
- Currently, banks are required to have a level of intense competition, so banks should have an advantage in the field of information technology, organization, and human resources. This will have an impact on business processes and business models that can reduce operational costs, reduce risk and increase service quality;
- The importance of science and awareness of sharia products has become one of the keys to reduce problematic financing to avoid moral hazard either from the internal side of the bank or the customer side;
- Good governance, well-targeted business planning and the selection of appropriate financing segments can contribute to reducing the occurrence of problematic financing in the future.

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