

# Murabahah Margin Determination Factors at Islamic Banks in Indonesia for the 2016 – 2020 period (Artificial Neural Network perspective)

Haswardi<sup>1</sup>, Rossje V Suryaputri<sup>2</sup>, Eko Budi Nurdianto<sup>3</sup>

<sup>1,2,3</sup>Universitas Trisakti, Indonesia

Haswardi85@gmail.com, rossje.vi1@gmail.com, ekobudinurdianto176@gmail.com

## Abstract

The research has aims of analysis factor to determine of margin murabahah are cost operating of variable, third parts of funds (DPK), financing deposit to ratio (FDR), net performing finance (NPF) and firm sizes as well as short term mismatch as variable on sharia banking from period 2016 – 2020. The quantitative approach has been used due to match on this research. The research using of type and shape data are secondary data have in the form of the data kinds are time series. The population has been used to period January 2016 to December 2020 using of statistical data to official banking from OJK has been focused with BUS and UUS are noted. The data sample has been taken by using to saturate sampling methods. And then the research a usage to based on Artificial Neural Network (ANN) application. The results of the study using N(6-1-1) in processing the best results to obtain the results of the margin level on murabahah which is influenced by the classification of factors according to the Network Diagram, in the input layer it is used in the research form. And these types include Operational Costs (BOPO), Third Party Funds (DPK), Financing Deposit Ratio (FDR), Non Performing Finance (NPF) and Company Size and Short Term Mismatch. The results showed that the determining factor that influenced the murabahah margin the most influential was the third party fund variable with importance of 31.04%, the next financing deposit ratio with importance was 27.21%, non-performing finance with importance was 17.18%, the ratio liquidity in the form of short term mismatch of 12.92%, company size of 11.48% and operating costs with importance of 0.14%. This result is also in line with Islamic banking statistics published by the Financial Services Authority (OJK) in 2021 that the increase in TPF from 2016 to 2020 is directly proportional to the increase in financing, so it can be assumed that the increase in TPF has an effect on financing.

## Keywords

Operate costs; third parts of funds (DPK); financing deposit to ratio (FDR); net performing finance (NPF); firm sizes; short term mismatch and the margin murabahah



## I. Introduction

Institutions or business entities that have a function as a place for collecting public funds both in redistributing them in the form of financing according to sharia principles in the momentum or in order to improve the standard of living of the community are called Islamic banks. In the competitive world of banking, especially in the field of economic growth, banking plays an important role that is beneficial for economic actors and MSMEs to provide services for providing financing facilities in accordance with the needs and developing business models. Its presence on February 1, 2021, PT. Bank Syari'ah Indonesia Tbk is an important breakthrough that is expected to accelerate the development and growth of Islamic banking in Indonesia as well as economic growth. From the results of the merger, BSI is in the seventh largest position as a bank with total assets of

Rp.239.56 trillion recorded as of December 2020, with this achievement, BSI has been named the bank with the largest scale in the world banking industry at the national level. The assets of the bank codenamed BRIS are below PT Bank CIMB Niaga Tbk (Rp281.7 trillion) and above PT Bank Panin Tbk (Rp216.59 trillion) as of September 2020 (Bisnis Indonesia, February 2, 2021). These enormous assets can leverage greater ability to support economic financing. In addition, it is expected to be an accelerator for the development of the Islamic economy in Indonesia. The following is shown through table 1.

**Table 1.** Performance of 3 BUMN Islamic Banks and BSI Merger Results

	BNI Shariah		BRI Shariah		Mandiri Shariah		Bank Shariah Indonesia
	2019	2020	2019	2020	2019	2020	As of Desember 2020
Total Assets	44,98	55,01	43,12	57,70	112,29	126,85	239,56
Financing	43,77	47,97	34,12	49,34	99,81	112,58	209,98
Thirty Party Funds	32,58	33,05	27,38	40,00	75,54	83,43	156,51
Profit	0,6	0,6	0,074	0,25	1,28	1,43	2,19

Source: *Exposure of PT Bank Syariah, Tbk. Bisnis Indonesia, February 2, 2021.*

Murabahah contracts, mudharabah, musyarakah, ijarah, istishna, and qardh contracts financing products owned by Islamic banking. Of these products and services, one of the sharia-based financing and the main one preferred by Islamic bank customers, namely murabahah, is one of the most dominating sharia banking financing products. This can be seen in table 2. Below:

**Table 2.** Composition of Funding for Mudharabah, Mudharabah, Musyarakah, Ijarah, and Istishna', and Qardh BUS and UUS 2016-2020  
(in IDR Billion)

Contracts	2016	2017	2018	2019	2020
Murabahah	139.536	150.276	154.805	160.654	174.301
Ratio	56,26%	52,60%	48,34%	45,23%	45,39%
Mudharabah	15.292	17.090	15.866	13.779	11.854
Ratio	6,16%	5,98%	4,95%	3,87%	3,08%
Musyarakah	78.421	101.561	129.641	157.491	174.919
Ratio	31,62%	35,54%	40,48%	44,34%	45,55%
Ijarah	9.150	9.230	10.597	10.589	8.635
Ratio	3689,41%	3230,71%	3309,56%	2981,28%	2249,02%
Istishna'	878	1.189	1.609	2.097	2.364
Ratio	354,02%	416,17%	502,50%	590,40%	615,71%
Qardh	4.731	6.349	7.674	10.572	11.872
Ratio	1907,6%	2222,3%	2396,6%	2976,5%	3092,1%

Source: *Sharia Banking Statistics by the Financial Services Authority (OJK) processed, 2021.*

In murabahah , a bank is required to clearly explain the characteristics or characteristics of murabahah , both the rights and obligations of customers in the context of transparency of information on banking products from Bank Indonesia in accordance with the regulations written in No.9/19/ BI/207/jo in accordance with regulations held by Bank Indonesia. Based on the DSN-MUI Fatwa Number 111/DSN-MUI/IX/2017, it is explained that the sale and purchase transaction contract involving the seller and the buyer will have an item which states that the purchase price involves the buyer and the buyer pays it according to the terms of the fee or price paid from the seller. the seller is accompanied by a profit. Meanwhile, the meaning murabahah is written in the Fatwa of the DSN Number 04/DSN-MUI/IV/2000 explaining that murabahah is a general provision also written in a business entity or sharia bank institution in accordance with point the fourth according to the will or desire of the bank, and the purchase is free and must be legal from the practice of usury. So that the murabahah product becomes the main product of the many products that are liked and in demand by the public, if it is reviewed in terms of the productivity and activity of other banking products, the pattern of the murabahah can work well and match standards and have minimal risk.

The characteristics murabahah which have a low risk for customers make it widely used in various types of financing. The high amount of murabahah has an impact on the amount of income sourced from murabahah or commonly called murabahah. Therefore, it is only natural that the growth of the murabahah has an increase every year. In 2016 total murabahah was 139,536 billion, in 2017 it increased to 150,276 billion, in 2018 it was 154,805 billion, and in 2019 it was 160,654 billion, and as of December 2020 it reached 174,301 billion (See Table 2).

In accordance with the provisions contained in the statistical data, it can be seen that from 2016-2020 murabahah is still in demand by customers, as evidenced by the largest difference murabahah financing and other financing contracts such as mudharabah, musyarakah, ijarah, istishna, and qardh which reached 60% of the distribution by Islamic banking of the total amount of financing channeled to Islamic banks. In connection with the public's view that it is not much different for murabahah with conventional banks which have credit, it lies in the high/same credit interest rate with loan interest at conventional banks.

Based on research from Fakhri and Rifki Ismal (2019) which examines the variables that affect financial performance, as well as predicts the decline and increase in financial performance using the Artificial Neural Network (ANN) model method, where the results of this study produce variables that affect the financial performance of Islamic banking and predictions of financial performance for the next five months are influenced predominantly by inflation or macroeconomic factors. Thoin's research (2019) which examines the financial performance of Islamic banking with several variables that examines the performance of Islamic banking shows that of the five variables being compared, only ROA and ROE show differences between before and after the ASEAN Economic Community (AEC). Fakhri and Darmawan's research (2020) was to determine the financial performance factors affected by the Covid 19 pandemic in Islamic banking using the Artificial Neural Network (ANN) with 6 financial performance variables for the January 2020 - September 2020 period, namely Capital Adequacy Ratio (%), Operating Expenses/Operating Income (%), Net Operation Margin (%), Landing on Deposit. The ratio (%), Short Term Mismatch (%) which is used as the independent variable, and Return on Assets which is used as the dependent variable shows that the Funding to Deposit Ratio financial performance factor is the most influential and vulnerable to the impact of Covid 19.

Based on the phenomena that occur in the community, it is necessary for researchers to carry out follow-up research to find out what happened to the determining factors that affect changes in the murabahah. This research raises the initial suspicion that there is a relationship between operational costs (BOPO), third party funds (DPK), financing deposit ratio (FDR), non-performing finance (NPF), company size and short term mismatch margin murabahah with the Artificial Neural Network (ANN) method according to the previous research method.

## II. Review of Literature

The definition of a bank is a business entity that contributes to managing finances with parties who have a need for funds and excess funds, as well as a business entity that facilitates the circulation of payments, this statement is in accordance with the provisions recorded in PSAK No. 31. When viewed through the distribution of funds, what is defined as financing is a bill of funds or provision adjusted according to the provisions of Law no. 21 of 2008 is.

1. For this type of transaction, the form of sharing and profit is called musharaka or mudharabah.
2. For in the form of ijarah or lease purchase, namely the form of leasing transactions or ijarah vomiting bittamlik.
3. For istishna, salamreceivables, murabahah namely in the form of buying and selling transactions.
4. Receivables qardh , namely in the form of borrowing and borrowing transactions.
5. For multi-service transactions, namely in the form of leasing or ijarah.

### 2.1 Murabahah Financing Margin

Meant murabahah is a sale and purchase contract of an item using a selling price/cost according to the amount of the acquisition cost plus a determined profit or profit and the seller must disclose or be transparent about the cost/acquisition price for buyers, in accordance with the provisions of the DSN fatwa No. .04/DSN-MUI/IV/2000. Meanwhile, according to PSAK 102 (2020) in his book published by the Indonesian Institute of Accountants (IAI). The characteristic murabahah is that the price that has been mutually agreed upon in the murabahah is a selling price. The seller must notify and disclose the acquisition cost of a murabahah to a buyer. In the murabahah , the seller requires the seller to notify the cost/price of the goods he buys in advance and ensure the profit or profit rate in addition, with payments that can be made in cash or cash or can be made in installments.

### 2.2 Operating Expenses and Operating Income (BOPO)

Operational costs are costs used to get the main income. Operational costs are the efficiency of business management shown to the extent to which costs are carried out. Operational cost is a cost that shows how efficient it is in managing a business according to Wardiyah's statement (2017:13). Operations against administrative costs and sales costs are carried out. In general, operations that are related within the company and are measured in units of money can be interpreted as operational costs. Where business costs or operational costs are also often referred to as operating costs. To achieve the Bank's level of efficiency, it can be measured through the ratio of Operating Costs to Operating Income (BOPO) (POJK no. 06/POJK.03/2016). The BOPO ratio in the research of Festiani (2016), Triasmoro et al (2017), Fakhri et al (2021) includes this ratio in

influencing banking performance. The formula for the BOPO ratio is :

$$\text{BOPO} = \frac{\text{Operating Cost}}{\text{Operating Income}} \times 100\%$$

### 2.3 Third Party Funds

The biggest mainstay source of funds that banks will have, are sources of funds that come from the public, called third party funds (DPK) according to Parenrengi, S and Hendratni, TW (2018:12). By channeling funds, the bank can use these funds to make an income.

Margin murabahah obtain funds through third party funds that provide funds for the results. According to Yuli Mustikawati (2021), the increase in third party funds causes banks to increase the value of financing, so that in the end the bank can maximize profit and be able to share profits with a larger amount than before. This is also in line with Mauluddi, H, A (2020) in his statement The operational mechanism for raising funds in Indonesian Islamic banking is in accordance with Sharia. The name of the product for raising funds in sharia banking is adjusted to the sharia principles that underlie it, be it financing murabahah.

### 2.4 Financing Deposit to Ratio (FDR)

Financing deposit to ratio (FDR) is the amount of credit granted by the bank and received by the bank. FDR is determined by funds originating from the public distributed by the level of the bank's ability, which includes demand deposits, time deposits, and savings, this is indicated by the ratio in the form or type of credit. Sumarlin (2016) states that the level of profitability of Islamic banks is influenced by the Financing deposit to ratio (FDR). Financing deposit to ratio (FDR) is a comparison between the level of financing disbursed by Islamic banks to third party funds (DPK) that have been collected from public funds according to Andriyanti and Wasilah (2010). So, if the Financing deposit to ratio (FDR) is higher, the higher the funds disbursed by third party funds (DPK) so that an income or profitability will be able to increase.

The increase in income and the decrease in the number of idle funds, the bank's profitability will be influenced by the size of a bank's FDR. So that the bank's profitability also increases, this certainly increases the FDR. The FDR ratio in the research of Al Iqbal and Budiyanto (2020), Ramadhani and Rahman (2021) shows the value of liquidity in banks. The assessment of liquidity at the bank is indicated by the ratio and formulates it as follows :

$$\text{Financing Deposit to Ratio} = \frac{\text{Amount of funds given}}{\text{Third Party Funds (DPK)}} \times 100\%$$

### 2.5 Non Performaing Financing (NPF)

Criteria for doubtful financing, substandard funding, or non-performing financing are included in the collectability category of financing, defined as non-performing financing (NPF). In addition, non-performing financing (NPF) is part of the bank's financial ratios used to measure the risk of loss and the possibility of debtors failing to pay their debts to the bank according to Husaeni (2017). According to Yani in Syardiansyah (2020) performance is a result of work achieved by a person in carrying out the tasks assigned to him based on skill, experience and sincerity as well as time. However according to Kasmir (2016) that performance is the result of work and work behavior of a person in a period, usually 1 year. Then the performance can be measured by the ability to complete the tasks and responsibilities given. This means that in work contains elements of the standard that achievement must be met, so, for those who reach the standards set



means good performance.

The very high level of non-performing loans of Islamic banks shows that the quality of Islamic banks is not healthy. Facing risks such as financing problems, Islamic banks need to have sufficient capital to cover losses and become bank reserves according to Muniarti & Firsta (2018). The NPF ratio in Meilani & Wirman's (2021) research includes this ratio to determine the size of the level of risk of loss and the possibility of debtors failing to pay. The formula for the NPF ratio is calculated as follows :

$$\text{Non Performing Financing} = \frac{\text{Problem financing}}{\text{Total financing disbursed}} \times 100\%$$

## 2.6 Size Firm

According to Muchlisin Riadi (2020) which is also supported by the opinion of Muslim Ansori (2018), citing the idea of Ferry and Jones stating that the average total of assets, the average total of sales, the number of sales, the total of assets or assets can be used to measure company size. Virginia Elsa Haryono (2018) The higher the total assets obtained by a company, the greater the level of the company classified as a large company, so that the company tends to have high profit growth. Conversely, if the business has a small amount of assets, it will be classified as a small business and will tend to have low profit growth.

$$\text{Size Firm} = \text{In Total Aktiva}$$

## 2.7 Short Term Mismatch

Meeting the needs and needs of short-term liquidity against the known capabilities of Islamic banks so that this ratio determines the level of short-term assets compared to short-term liabilities. The assessment of banking financial performance is contained in a Circular which is stipulated in accordance with the Financial Services Authority (SEOJK) Short Term Mismatch Ratio. Based on the explanation from Bank Indonesia that the Short Term Mismatch (STMR) is in fulfilling its short-term obligations to the ability of short-term assets or assets in Islamic banks to the main ratio of liquidity in Islamic banks. In the research of Fakhri, UN, & Darmawan, A. (2021) explained that Short term Mismatch Ratio is an indicator of the quality of banking performance in Indonesia. The formula for the Short Term Mismatch Ratio is :

$$\text{Short Term Mismatch (STMR)} = \frac{\text{Short Term Assets}}{\text{Short Term Liabilities}} \times 100\%$$

## 2.8 Artificial Neural Network Model (ANN)

A biological nervous system that has a function similar to a mathematical tool or a physical device is called an Artificial Neural Network (ANN) according to Bondarenko (2020). They consist of building blocks, called "artificial neurons", which resemble the structure of real neurons. Each biological neuron includes three main parts: dendrites, soma, and axon. Correspondingly, each artificial neuron also consists of three main parts: input (or "dendrites"), transformation function ("soma"), and output ("axon"). The terminology commonly used for biological neurons is also often applied to artificial neurons.

## 2.9 Previous Research

Research from Fakhri and Rifki Ismal (2019) which examines the variables that affect financial performance, as well as predicts a decrease and increase in financial performance using the model method Artificial Neural Network (ANN), where the results

of this study produce variables which affect the financial performance of Islamic banking and predictions of financial performance for the next five months are influenced predominantly by inflation or macroeconomic factors.

Thoin's research (2019) which examines the financial performance of Islamic banking with several variables that examines the performance of Islamic banking shows that of the five variables being compared, only ROA and ROE show differences between before and after the ASEAN Economic Community (AEC).

Fakhri and Darmawan's research (2020) was to determine the financial performance factors affected by the Covid 19 pandemic in Islamic banking using the Artificial Neural Network (ANN) with 6 financial performance variables for the January 2020 - September 2020 period, namely Capital Adequacy Ratio (%), Operating Expenses/Operating Income (%), Net Operation Margin (%), Landing on Deposit. The ratio (%), Short Term Mismatch (%) which is used as the independent variable, and Return on Assets which is used as the dependent variable shows that the Funding to Deposit Ratio financial performance factor is the most influential and vulnerable to the impact of Covid 19.

This previous study supports the results of the research on the determinants of murabahah in Islamic banks in Indonesia for the 2016 – 2020 period (Artificial Neural Network perspective) with the similarity of the perspective ANN in the research analysis. As for this research, it involves the variables of BOPO, TPF, FDR, NPF, company size, and short term mismatch.margin murabahah which is influenced by the classification of internal factors based on the Network Diagram, in the input layer (input layer) used in the research of this form and type include BOPO, TPF, FDR, NPF and Company Size and Short term Mismatch. hidden layer (hidden layer) consists of 1 bias.margin murabahah using the dependent variable is referred to as the outermost layer (output layers).

### III. Research Method

A quantitative approach is used because it is suitable for this form of research. Research uses or uses data types in the form of secondary data which is carried out in time series data. Divided into two component variables for this study, namely the independent (free) and the dependent (bound).variables independent (free) in it consist of operational costs, third party funds, financing to deposit ratio (FDR), non-performing financing (NPF) in this form of research. While the dependent (bound) in this form of research is the level and form of the murabahah.

From a Sharia Banking Statistics (SPS) data in this study obtained Operational Costs, third party funds, and Financing to Deposit Ratio (FDR), as well as Non Performing Financing (NPF) as well as murabahah through [www.ojk](http://www.ojk.go.id) the official website of the OJK (.go.id) issued by the Financial Services Authority (OJK) in the form of a percentage (%). From January 2016 to December 2020 according to this study.

The research focuses on Islamic Commercial Banks (BUS) and Sharia Business Units (UUS) which are listed and recorded in Sharia Banking Statistics which have been officially published by the OJK as the population used from January 2016 to December 2020. The author uses and uses data through saturated sample for the study. Sharia Commercial Banks (BUS) and Sharia Business Units (UUS) listed and recorded in the official Sharia Banking Statistics data published from the period January 2016 belonging to the OJK until December 2020 are samples in the form of this research.

## IV. Results and Discussion

### 4.1 Descriptive Analysis

Based on descriptive statistical analysis, it can be used by explaining all the variables used and used descriptively. The purpose of descriptive statistical analysis is to collect, process, estimate, then conclude from statistical data to obtain the necessary and necessary information. Information generated from descriptive statistical data consists of including a minimum value, and a maximum value, as well as standard deviation and average (mean).

**Table 3.** Descriptive statistical test results for all Islamic banking

<b>Variable</b>	<b>Minimum</b>	<b>Maksimum</b>	<b>Mean</b>	<b>Std Dev</b>
Biaya Operasional Costs	2848,49	34149,32	16975,51	8853,06
Third Party Funds	173229,61	322852,54	243671,72	40140,25
Financing Deposit to Ratio	76,36	89,32	81,22	3,57
Non Performing Finance	3,12	6,16	4,19	0,83
Size Firm	287440,06	593947,98	431096,86	83173,87
Short Term Mismatch	19,41	44,46	28,09	5,94

The results of the statistical descriptive test in table 4.1 are a general description of all the data used and used in a study. The interpretation of the data above is that in Islamic Banking the minimum operational costs occur in January 2020 and the maximum in December 2016, in third party funds the minimum in January 2016 and the maximum in December 2020, the minimum FDR in December 2020 and the maximum in June 2016, the minimum NPF in December 2020 and the maximum in May 2016, the minimum Company Size in January 2016 and the maximum in December 2020, the Short Term Mismatch minimum in July 2016 and the maximum in June 2017. Based on the results of descriptive statistical data, it can be seen that during the year 2016-2020 with the limitation of monthly financial report data shows that the operational cost variable has a data of mean 16975.51 and a standard deviation of 8853.06. From this result, it can be seen that the value standard deviation has a level smaller than the mean, indicating that the distribution of data from the operational cost variable is evenly distributed, because the equation of one data with other data is smaller than the average value.

The variable in third party funds (TPF) has an average or mean value of 243671.72 and a standard deviation of 4014.24. When compared, the standard deviation value of third party funds is smaller than the mean, indicating that the distribution of data from third party funds is evenly distributed.

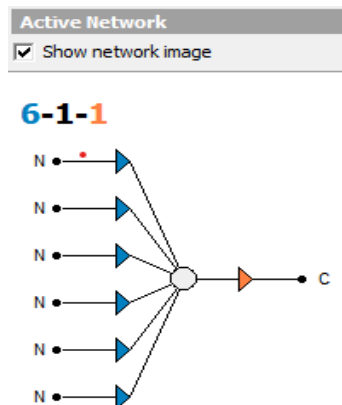
The variable financing deposit ratio (FDR) has an average value 81.22 and standard deviation of 3.57. When compared, the standard deviation of the financing deposit ratio is smaller than the mean meaning that the data distribution of the financing deposit ratio even. variable non-performing finance (NPF) mean of 4.19 and standard deviation of 0.83. When compared, the value of the standard deviation of non-performing finance is smaller than the mean indicating an even distribution of data from non-performing finance. size variable, the data value is mean Firm 431096.86 and the standard deviation is 83173.87. When compared, the value of the standard deviation of company size with a level smaller than the mean indicates that the data distribution of company size is evenly distributed.



variable Short term mismatch value mean is 28.09 and standard deviation is 5.94. When compared, the value of the standard deviation of the short term mismatch is smaller than the mean meaning that the data distribution of the short term mismatch evenly distributed.

#### 4.2 Network Diagrams

The best logarithm in processing murabahah margin data in Islamic banking is N(6-1-1). The results of the logarithm of the murabahah margin in Islamic banking can be seen in the graphic image below :

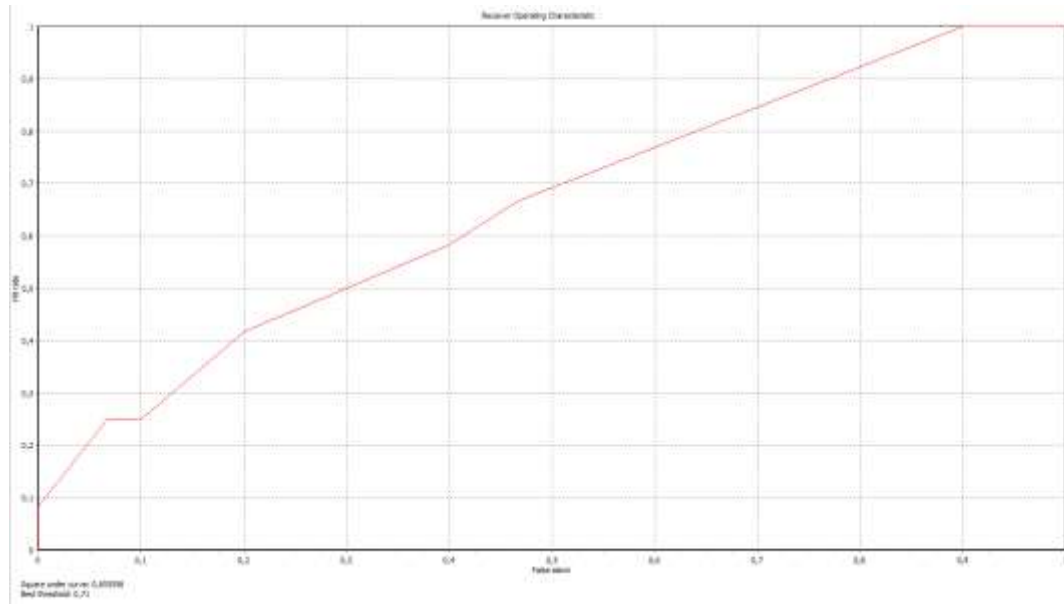


*Figure 1. Murabahah Margin Logarithmic Structure in Islamic Banking*

The network diagram structure is the best result to obtain the results of the classification of impacting factors and influencing the level of murabahah. Based on research in this form, namely Operational Costs (BOPO), Third Party Funds (DPK), financing deposit ratio (FDR), non-performing finance (NPF) using the input layer, this is based on the Network Diagram. Company size and short term mismatch. The hidden layer consists of bias. margin murabahah using the dependent referred to as the output layer.

#### 4.3 Receiver Operating Characteristics (ROC) Curve

The evaluation of the model in this study also uses the ROC curve to determine the results of the AUC value. From the results of the analysis, the Area Under Curve (AUC) value of 0.718 means that the criteria are fair (enough) for the data studied, while the mean CCR of the ROC curve is 66.66%, which is above > 50%, which means it can be accepted by the ANN method. . Below is the result of the ROC curve :



**Figure 2. Receiver Operating Characteristics (ROC) Curve**

The ROC curve strengthens the results of the analysis of the decrease in the determination factor of the murabahah margin other than the CCR (Correct Classification Rate) result, which is 67%.

#### 4.4 Independent Variabel Importance

Independent Variable Importance determines the neural network on the importance of the independent which is indicated by providing sensitivity or percentage information. Independent Variable Importance shows the effect of the size of the independent on the size of the dependent. The sample of training, testing, and disagreement of 70%: 15%: 15% which is used for the Independent Variable Importance of the ANN research model is shown in figure 3.

Network Statistics	
Input column name	Importance, %
Biaya Operasional (X1)	0,142627
Dana Pihak Ketiga (X2)	31,04468
FDR (X3)	27,214692
NPF (X4)	17,189698
Ukuran Perusahaan (X5)	11,483663
Short Term Mismatch (X5)	12,924641

**Figure 3. Determination factors for Islamic banking murabahah margin**

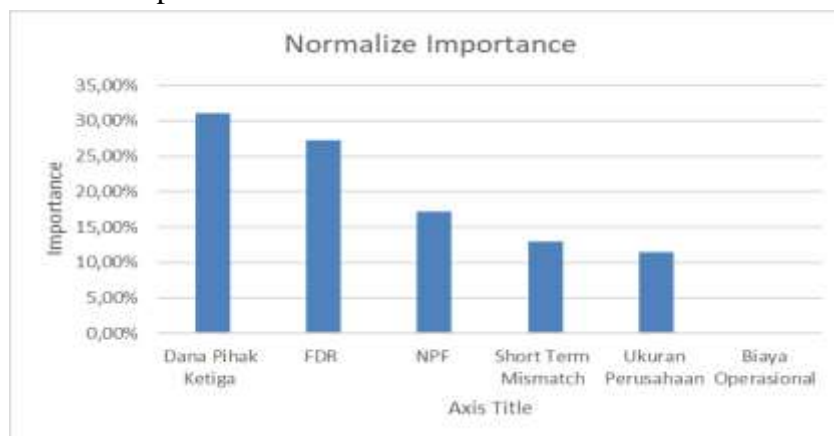
The picture above shows that the factors for determining the level of the murabahah in Islamic banking are :

1. Third Party Funds (DPK) of 31,04%
2. Financing Deposit to Ratio of 27,21%
3. Non Performing Finance of 17,18%
4. Operation Expand of 0,14%

Meanwhile, for the control variable, Company Size is 11.48% and *Short Term Mismatch Liquidity* is 12.92%.

From the statistical results above, it can be concluded that the determining factor

that affects the margin murabahah the most influential is the third party fund variable with an importance of 31.04%, the next financing deposit ratio with an importance of 27.21%, non-performing finance with an importance of 17, 18%, liquidity ratio in the form of short term mismatch is 12.92%, company size is 11.48% and Operational Cost with importance is 0.14%. The graph that illustrates the results of the strength of the influence of the variable independent generated from the results of the appropriate test based on the Independent Variable Importance is as follows :



**Figure 4.** *Normalize Importance*

The results of this finding prove that the Third Party Funds factor that has the most influence in increasing the margin of murabahah financing when compared to research by Fakhri & Darmawan explains that the performance of Islamic banking has the most influence on the liquidity factor, namely the Financing Deposit Ratio (FDR). However, based on Islamic banking statistics at the Financial Services Authority (OJK) in 2021, the increase in TPF from 2016 to 2020 is directly proportional to the increase in financing, so it can be assumed that the increase in TPF has an effect on financing. This is in accordance with the theory put forward by Ismail in his work entitled *Banking Management: From Theory to Application*, according to him, third party funds, which are usually better known as public funds, can be interpreted as funds collected by banks originating from the community in a broad sense, including individuals and business entities. So it can be said that the larger the third party funds, the greater the financing provided by the community.

## V. Conclusion

The variable size of third party funds (TPF) and the financing deposit ratio (FDR) have the most important effects in influencing the margin murabahah in Islamic Commercial Banks and Sharia Business Units in Indonesia. indirectly, this shows that Islamic banks in Indonesia must focus on adding third party funds in the form of savings, current accounts or time deposits and pay attention to the conditions of providing financing to customers with the amount of customer deposits so as not to exceed the provisions of Bank Indonesia, namely a healthy FDR between difference of 85% - 110%. In fact, the more funds that will be distributed to the wider community, the Islamic banks have a great opportunity to get the opportunity to get large profits or margins followed by an increase in the number of third party funds so that the liquidity risk of Islamic banks is maintained.

## References

- Al Iqbal, M H., & Budiyanto, I.(2020). Analisis Pengaruh KPMM, BOPO, FDR, dan Inflasi Terhadap ROA pada Bank Umum Syariah di Indonesia Periode 2016-2019. *MALIA: Journal of Islamic Banking and Finance*, Vol 4 No.1, Hal.1-11.
- Andriyanti, A. dan Wasilah (2010). Faktor-faktor yang Mempengaruhi Jumlah Penghimpunan Dana Pihak Ketiga (Deposito Mudharabah 1 Bulan) Bank Muamalat Indonesia (BMI). Laporan Penelitian.
- Bondarenko (2020). Embedded neural network system for microorganisms growth analysis. *Journal Society of Photo-Optical Instrumentation Engineers (SPIE)*.
- Dewan Syariah Nasional MUI. (2000). Fatwa DSN Nomor 04/DSN-MUI/2000 Tentang Murabahah. Jakarta : Dewan Syariah Nasional MUI.
- Fakhri, U. N., & Darmawan, A. (2021). Comparison of Islamic and Conventional Banking Financial Performance during the Covid-19 Period. *International Journal of Islamic Economics and Finance (IJIEF)*, Vol. 4, page 19-40.
- Festiani, E. R. (2016). Analisis Pengaruh Rasio CAR, NPF, BOPO, ROA, dan FDR terhadap Tingkat Kesehatan Bank Umum Syariah di Indonesia. *El Dinar: Jurnal Keuangan dan Perbankan Syariah*, Vol 4 No. 2, Hal. 196-211.
- Haryono, Virginia Elsa (2018) Perputaran kas, perputaran persediaan dan perputaran piutang dengan ukuran perusahaan sebagai variabel kontrol terhadap profitabilitas, *Dinamika Akuntansi, Keuangan dan Perbankan*, , Vol. 7, No. 1 2018.
- Husaeni, U. A. (2017). Analisis Pengaruh DPK dan NPF terhadap ROA pada BPRS di Indonesia. *Jurnal Ekonomi Syariah*, Vol 5, No.1, Hal.1-16.
- Ikatan Akuntan Indonesia IAI, (2020). Standar Akuntansi Keuangan Syari'ah Tentang PSAK 102, Jakarta : Ikatan Akuntan Indonesia IAI.
- Mauluddi., H, A (2020). Pengaruh BOPO, DPK, NPF terhadap tingkat margin pembiayaan murabahah pada bank umum syariah di Indonesia, Vol. 5, No. 2. November 2020, Hal. 16-30.
- Meilani. D., & Wirman. (2021). Pengaruh DPK dan NPF terhadap Pembiayaan Mudharabah. *Jurnal Indonesia Sosial Sains*, Vol. 2, No. 3, Hal. 360-367.
- Muniarti, & Firsta. (2018). Pengaruh DPK, NPF, CAR, dan ROA terhadap Pembiayaan Mudharabah dan Musyarakah pada Bank Syariah Mandiri Periode 2011-2016. 15.
- Muslim Ansori (2018) Pendeteksian kecurangan laporan keuangan menggunakan rasio keuangan dengan umur perusahaan dan ukuran perusahaan sebagai variabel kontrol, *Journal of applied managerial accounting*, Vol 2 No.2 September 2018.
- Mustikawati, Y (2021). Influence of Third Party Funds, Operating Costs, BI Rates and Inflation on Margin Murabahah Income. *JESKaPe : Jurnal Ekonomi Syariah, Akuntansi dan Perbankan*, Vol. 5, Issue. 1.
- Otoritas Jasa Keuangan. (2020). Statistik Perbankan Indonesia, diambil dari <https://www.ojk.go.id/id/kanal/perbankan/data-danstatistik/statistik-perbankan-Indonesia/Pages/Statistik-PerbankanIndonesia---Desember-2020.aspx>.
- Parenrengi, S dan Hendratni, T.W. (2018). Pengaruh DPK, kecukupan modal dan penyaluran kredit terhadap profitabilitas bank. *Jurnal manajemen strategi dan aplikasi bisnis*, 1 (1).
- Peraturan Otoritas Jasa Keuangan. (2016). Kegiatan Usaha dan Jaringan Kantor Berdasarkan Modal Inti Bank. Diambil dari <https://www.ojk.go.id/id/kanal/perbankan/regulasi/peraturan-ojk/Documents/Pages/pojk-kegiatan-usaha-dan-jaringan-kantor-berdasarkan-modal-inti-bank/SALINAN-POJK.6%20BUKU.pdf>.

- Ramadhani, L D., & Rahman, T. (2021). Peran BOPO dalam Hubungan Pembiayaan dengan ROA pada Bank Umum Syariah di Indonesia. *Jurnal Perbankan Syariah (JPS)*, Vol 2, No.2, Hal.165-182.
- Riadi, M. Pengertian, Jenis dan Sistem Multi Level Marketing (MLM) diakses dari <https://www.kajianpustaka.com/2018/04/pengertian-jenis-dan-sistem-multi-level-marketing.html>.
- Riadi, M. Ukuran Perusahaan (Pengertian, Jenis, Kriteria dan Indikator) diakses dari <https://www.kajianpustaka.com/2020/04/ukuran-perusahaan-pengertian-jenis-kriteria-dan-indikator.html>.
- Sumarlin (2021). Analisis Pengaruh Inflasi, CAR, FDR, BOPO, dan NPF Terhadap Profitabilitas Perbankan Syariah, Vol. 6, No. 2 2016.
- Tho'in, M. (2019). The Comparison of Islamic Banking Financial Performance In Indonesia. *International Journal of Scientific Research And Education*, 7(5).
- Triasmoro, Adiasma Yulianto. Nazar, M Rafki dan Khairunnisa. 2017. Pengaruh BOPO, NPF dan FDR Terhadap ROA Bank Umum Syariah. *E-Proceeding of Managemen*, Vol. 4 No. 3: 2667-2674.
- Wardiyah, M. L. (2017). Analisis Laporan Keuangan. Cv. Pustaka Setia.
- Syardiansyah. et al.(2020). Knowledge Management Strategies to Improve Learning and Growth in Creative Industries: A Framework Model. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*. P. 1903-1915