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## **ANALYSIS OF FACTORS INFLUENCING THE PROFITABILITY OF ISLAMIC BANKING**

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### **ABSTRACT**

This study uses a quantitative approach to analyze the influence of operational costs and income, non-performing financing (NPF), and the Islamicity Performance Index on the profitability of Islamic banking, with intellectual capital as a moderating variable. The population includes Sharia Commercial Banks located in Indonesia and registered with the Financial Services Authority from 2015 to 2022. The sample was determined using purposive sampling, resulting in 56 data points. Hypotheses were tested using Moderated Regression Analysis (MRA) with Eviews 12 software. The results indicate that operational costs and income (BOPO) significantly influence the Return on Assets (ROA), while NPF does not. The profit-sharing ratio (PSR) and the Islamic Income vs Non-Islamic Income Ratio (IsIR) significantly influence ROA. Intellectual capital (IC) has a direct influence on ROA but does not moderate the relationship between BOPO and ROA, nor between NPF and ROA. However, IC can moderate the relationship between the profit-sharing ratio and ROA. It does not moderate the relationship between IsIR and ROA. These findings suggest that operational efficiency, profit-sharing mechanisms, and the proportion of Islamic income are crucial for enhancing profitability in Sharia Commercial Banks, with intellectual capital playing a significant but selective moderating role.

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## **1. INTRODUCTION**

Islam emphasizes that financial actions should meet the standards necessary for life and are integral components of worship. This approach is planned to accommodate and fulfill the needs of individuals and families over the long term, as well as to foster social support and giving in ways that are blessed by Allah SWT (Harahap & Saraswati, 2020). The financial progress in Indonesia continues to improve, significantly driven by the role of Islamic financial institutions. This progress is evident through the increasing number of Islamic banks and the expansion of Sharia-compliant workplaces or offices, particularly in local regions. The strengthening foundation of Islamic banking has a positive impact on the regional economy and contributes to national economic growth (Apriyanti, 2018).

To ensure the continuous growth and development of the monetary foundation, all organizations providing financial services must ensure their well-being, especially their ability to perform tasks effectively to meet their commitments properly and according to relevant guidelines. To maintain functional prosperity, organizations must consistently complete administrative functions, particularly in financial management related to planning, organizing, actuating, and controlling (POAC) (Basyirah & Wardi, 2020). Bank Indonesia sets regulations regarding the assessment level of government assistance for banks as a business to ensure that operating banks maintain adequate levels of benefits amidst the progress of the Indonesian economy. These include business capital, benefits, quality of resources, liquidity, market risk responsiveness, and the quality of management executives (Saifudin et al., 2021).

Following the release of these guidelines, the Otoritas Jasa Keuangan (OJK), as the organization empowered to direct monetary administration, also established guidelines for assessing the strength of banking organizations. According to PJOK Number 4/PJOK.03/2016, the institutions authorized to assess banking adequacy levels are the Monetary Administration Authority and banking institutions that conduct self-assessments. In evaluating a bank's welfare, the institution's current and future ability to respond to critical risks, as well as its compliance with relevant guidelines, must be considered (Otoritas Jasa Keuangan, 2016).

Improving the quality of Islamic banking, which enhances public trust, is expected to contribute to making the country's economy more productive. The primary tasks of Islamic banking require in-depth consideration and study, especially regarding the achievement and smooth operation of the association, as well as ensuring that Islamic banking adheres to Sharia rules. One potential method to audit and monitor this is to examine financial reports, particularly efficiency and its influencing factors (Alwi et al., 2023).

Achieving high profitability from financial business operations is crucial because the overall performance of an organization or bank is assessed by the amount of profit generated. The higher the bank's capacity to create profits or profitability, the greater the financial framework's capacity to withstand challenging economic conditions (Adam et al., 2018). Efficiency can be one of the most appropriate factors when assessing an organization's performance; higher profits indicate improved financial performance. One of the indicators used to determine the efficiency level of Islamic banking is Return on Assets (ROA). ROA reflects the linkage between profit and the bank's total assets, allowing us to understand the productivity level in managing banking resources and measure the suitability of executives in generating benefits from the available resources (Syah, 2018).

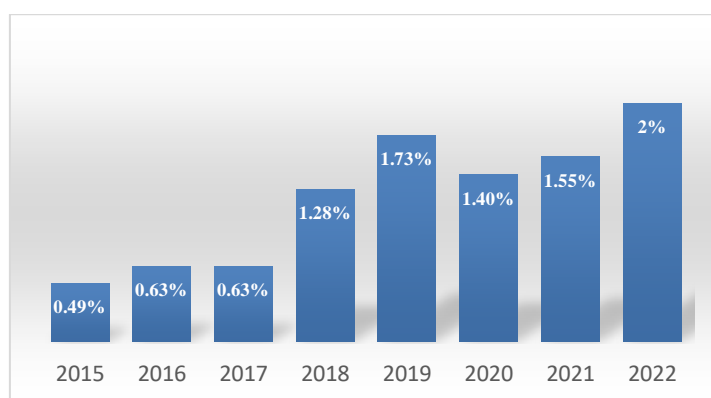


Figure 1. Development of Sharia Banking ROA 2015-2022  
Source: OJK, 2023

That the degree of excellence of sharia banking in terms of the Return on Assets (ROA) indicator continues to experience positive developments. It is known that the ROA obtained in 2015 was (0.49), the increase that occurred in 2016 was (0.63) and experienced stagnation in 2017, namely (0.63). The increase in ROA of Islamic banking in 2018 was ( 1.28), in 2019 it was (1.73). In contrast to previous years, Islamic banking ROA in 2020 fell to (1.4%), and in 2021 it grew to 1.55%.

This increase has an impact on increasing ROA when in 2022 ROA will increase by 2%. Even though it continues to develop, the current conditions cannot be said to be good, because the ROA value can be said to be good assuming >2% (Rahmawati et al., 2021).

There are instruments or estimation markers that can be used to evaluate variables that have an impact on the profitability of a bank. This profitability is influenced by several variables, especially Operational Costs, Operational Income (BOPO), and Non-Performing Financing (NPF) Rahmawati et al. (2021) explained that BOPO is used to weigh the effectiveness and capacity of banks in carrying out their functional functions. BOPO also acts as data that can be used to direct the ability of bank executives to monitor functional expenses and functional salaries. Assuming the proportion of BOPO is smaller, this means that financial institutions are more productive in utilizing functional expenditure (Moorcy et al., 2020).

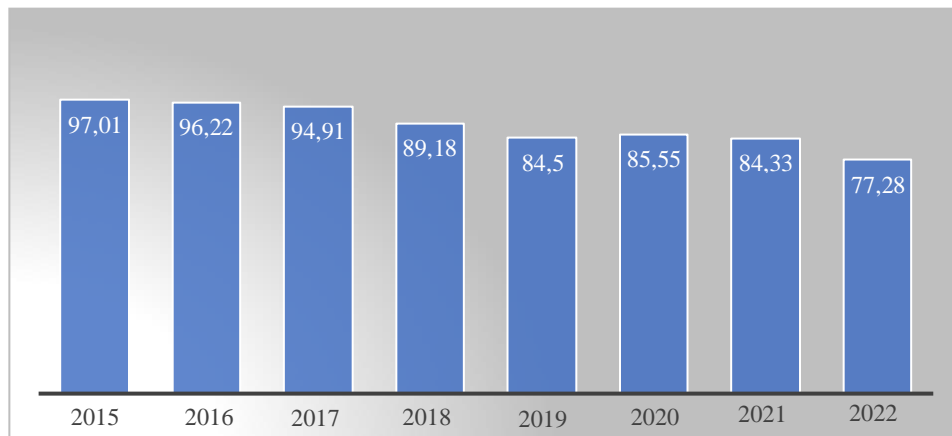


Figure 2. Development of Sharia Banking Operational Revenue Operational Costs (BOPO) for 2015-2022  
Source: OJK, 2023

If you look at the figure 2 above, it can be seen that the BOPO in sharia banking continues to decline, in 2015 it was 97.01%, and it continued to decline to 77.28% in 2022. The decline in BOPO figures shows that financial institutions are becoming more useful in completing their business.

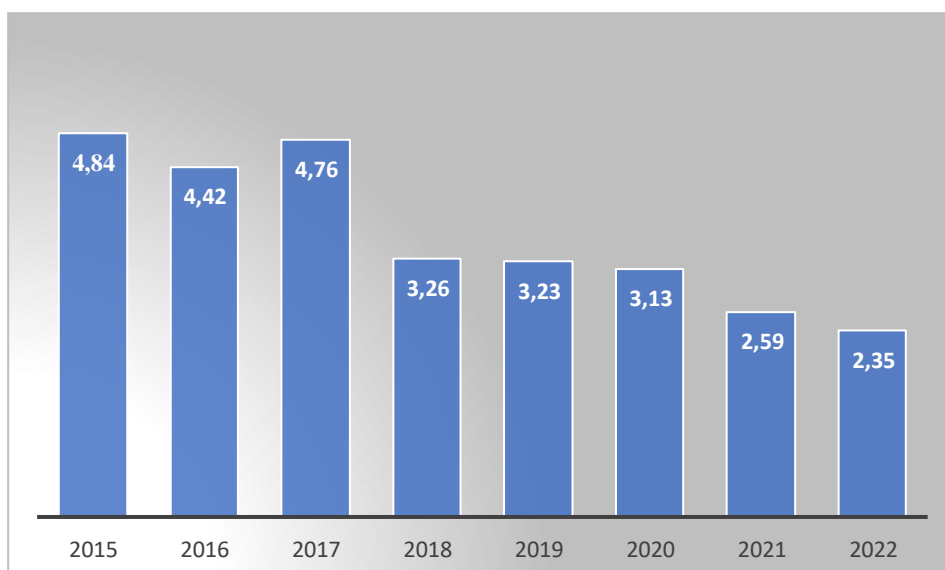


Figure 3. Development Non-Performing Financing (NPF) Banking Sharia Year 2015-2022  
Source: OJK, 2023

Figure 3 shows that Non Performing Financing (NPF), especially the level of non-coordination subsidies for additional financing, has also reduced. It was recorded that the NPF in 2015 was 4.84% and it continued to decline to 2.35% in 2022. The decline in NPF in sharia banking was caused by the issuance of informal regulations through the OJK and the introduction of sharia banking into various existing fields (Effendi & Windiarko, 2023).

Apart from BOPO and NPF which have been explained, banking profitability can also be caused by the Islamicity Performance Index (IPI) (Hameed et al., 2004). In his top to bottom review, Hameed created the Islamicity Performance Index which is an extraordinary methodology for evaluating the performance level of Islamic banks so that they can study several conditions related to money, the principles of justice, halalness and purification (tazkiyah). The assessment cycle can be completed by all parties (depositors, shareholders, religious institutions, government, etc.) There are 7 limitations in the IPI, namely Profit sharing ratio, zakat performance ratio, Equitable distribution ratio, directors-employees welfare ratio, Islamic investment ratio, Islamic Income vs Non-Islamic Income, and AAOIFI index.

As stated by Nurmawati et al. (2020), one of the IPI areas that is important to research is the amount of benefit sharing or Profit Sharing Ratio, because this is the main impact of sharia banking which is a syirkah (musyarakah and mudharabah) product. However, this kind of product actually has a smaller portfolio compared to buying and selling (murabahah). It can be seen in the data obtained from the OJK.

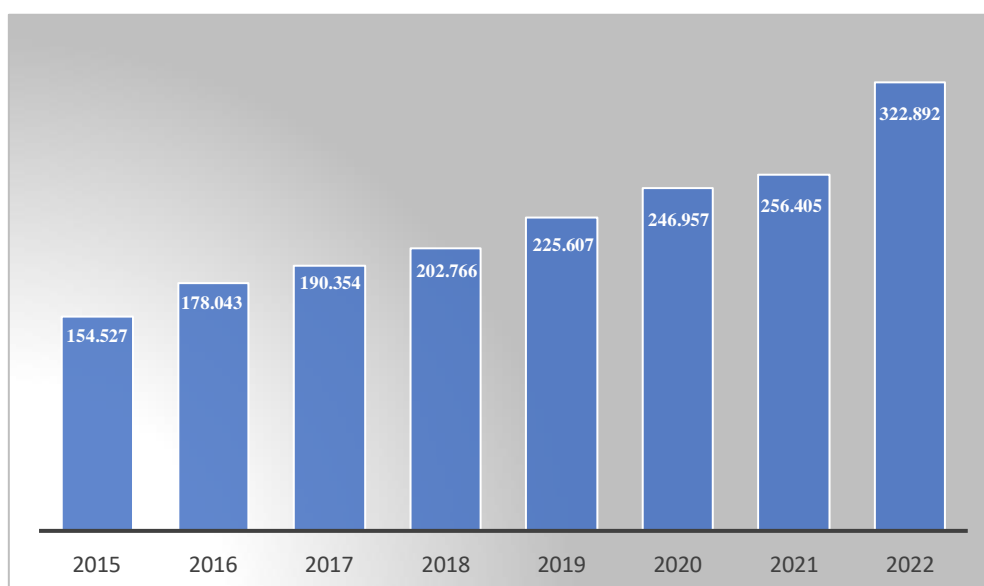


Figure 1. Financing Banking Sharia Year 2015-2022 (In Billion)

Source: OJK, 2023

Looking at Figure 4 above, it can be seen that from 2015 -to 2022, the total support transferred by Islamic banks can be relied upon. This can happen for the reason that the turn of events and fame attached to Islamic banks in general is increasing. So it is important to lead research on how the genuine impact of profit sharing proportion on Islamic banking productivity.

As time progresses, all associations in the world see that the elusive assets possessed by an organization will definitely add to the organization's progress in achieving and matching execution excellence. Therefore, the attractive administration of Scholarly Capital is the main source of significant value creation and superiority in competing with competitors, considering that the Islamic financial administration industry is superior in competing with competitors, considering the Islamic financial administration industry (Hermawan et al., 2020).

Scientific capital in Indonesia is found in Statement of Financial Accounting Standards (PSAK) Number 9 (reviewed 2015) regarding theoretical resources. Despite the fact that this is stated in the PSAK, the investigation of IC in sharia banking is still relatively new and has not been discussed much because human resources are still limited in sharia banking, this makes IC significant to be explored more deeply, especially on profits (Khasanah, 2021).

According to the basic description above, it was realized that there was an interesting point of view that could be studied more deeply, then the assumption was also found that there were differences from the results of previous exploration. This review plans to decide how the NPF, BOPO, Sharia Implementation Notes (PSR and IsIR) impact on productivity (ROA), and to precisely test the IC's capacity to direct NPF, BOPO, PSR and IsIR on profitability (ROA). The variation of this examination from the previous exploration is in further developing the examination model and creating a hypothesis. Based on these several things above, the aim of this study is to analyze the influence of operational costs and income, non-performing financing (NPF), and the Islamicity Performance Index on the profitability of Islamic banking, with intellectual capital as a moderating variable.

## 2. RESEARCH METHODS

This research uses a quantitative method and panel data regression analysis. The population is an area that includes objects or subjects whose own quantity & characteristics are certain, Which sets researchers to study and conclusions. According to Sugiyono (2018), the population in this research is all commercial banks in Sharia. The population determined by researchers in this study is annual financial bookkeeping for all BUS operating in Indonesia, and it has been registered with the OJK for 2015 - 2022. In this case, 13 Sharia Commercial Banks are located in Indonesia and listed on Authority Service Finance.

Based on Sugiyono (2018), the sample is a portion of the number and characteristics owned by a population that has been mentioned, as well as parts small from population members taken according to specific procedures so that they can represent the population. Researchers can use meaningful, purposive sampling to determine specific considerations or criteria in this research. Sample data used are BOPO, NPF, PSR, and IsIR in BUS financial reports taken from OJK data. From the entire population taken in this research sample, the standards below:

- a. Bank General Sharia, which noted in Indonesia and Bank Book financial reports for five years, now 2015 - 2022.
- b. Bank General Sharia, which attaches information on complete financial statements in the books published during the period 2015-2022.
- c. Sharia Commercial Bank, which has financial ratio data required for research activities.

From the standards that have been set, ten banks obtained General Sharia in Indonesia; by the criteria for research, only ten Sharia commercial banks. The strategy used in this study is collecting information through direct observation by collecting annual financial bookkeeping data of Sharia Commercial Banks in Indonesia from 2015-2022. Literature study, especially information and data obtained from books, the results of previous exploration such as postulates, propositions, diaries, and other understanding materials.

This research includes regencies which located on Madura Island, with the consideration that some of these regencies are administratively located in East Java Province. The data used in this study is obtained from Statistics Indonesia, Directorate General of Fiscal Balance in Ministry of Finance, Geospatial Information Agency. To find indications of convergence in the regional economy in Java Island, this research used two kinds of convergence analysis, namely absolute beta convergence and conditional beta convergence. This research uses classic panel regression for examine beta convergence and conditional beta convergence and spatial panel regression for conditional beta convergence analysis. Local generated revenue (LGR), balance funds, personnel expenditure, and capital expenditure are used as fiscal decentralization indicators

### 3. RESULTS AND DISCUSSION

#### T-test

Table 1. T-Test Regression Result

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	0.040996	0.083026	0.493779	0.6246
D(LOG_X1)	-0.661375	0.092333	-7.162897	0.0000
D(LOG_X2)	-0.131953	0.168762	-0.781884	0.4397
D(LOG_X3)	12.35625	3.068610	4.026659	0.0003
D(LOG_X4)	0.192839	0.088140	2.187886	0.0356
D(LOG_Z)	1.092793	0.277194	3.942344	0.0004
D(LOG_X3Z)	-0.011210	0.163277	-0.068659	0.9457
D(LOG_Y(-1))	-0.071022	0.076631	-0.926804	0.3606

Source: Processed data, 2023

T-test statistics are used to see the magnitude of the impact variable independent over dependent variables. Results multiple analysis with the application and Table 1 show results below this:

- Variable X1 has a value. The t-statistic is -7.162897 with a prob value of  $0.0000 < 0.05$ , so it can be concluded that X1 negatively impacts Y.
- The variable X2 has a t-statistic value of -0.781884, with the prob value being  $0.4397 > 0.05$ , so the conclusion is that X2 has no impact on Y.
- Variable X3 I have mark t-statistic a number of 4.026659 with mark prob  $0.0003 < 0.05$ , so it can be concluded that X3 has a positive impact significant over Y.
- Variable X4 I have mark t-statistic a number 2.187886 with mark prob  $0.0356 < 0.05$ . So, it can be concluded that X4 has a significant positive impact over Y.
- The variable Z has a t-statistic value of 3.942344 with a prob  $0.0004 < 0.05$  value. So, Z has a positive impact on Y.

#### F-test and R<sup>2</sup>-test

Table 2. F-test and R<sup>2</sup>-test Regression Result

Weighted Statistics	
R-squared	0.752832
Adjusted R-squared	0.701945
SE of regression	0.857034
F-statistic	14.79407
Prob(F-statistic)	0.000000

Source: Processed data, 2023

Test F is used to understand if all the variables that entered into the model can, at a time, influence the dependent variable. Have a goal for ascertaining whether there is a significant impact of the variables independent in a way that is collective on the variable dependent. If possibility measurement F surpasses 0.05, speculation is ignored, and all factor variables independent of moment Do show influence over variables dependent. As an alternative, if probability measurement F is lower than 0.05, speculation is recognized and can be described and have an impact on the dependent variable. According to the test above, the visible value (*F-statistic*) a number 5.649846 with a prob. value ( *F-statistic* )  $0.000055 < 0.05$ , so the conclusion is that the variable (X) has an impact significant in a way simultaneously over variables dependent (Y).

The R-Square test is carried out to understand the number of independent factors that explain the reviewed dependent variables. Mark this as located in range 0 until 1. A variable can be good if the R-Square value is close to 1 because other factors and more independent factors can be understood as variables, such as the dependent. With an Adjusted R-squared value of 0.701945, it is known that only the independent variable influences the dependent variable simultaneously, amounting to 70.19%. Other variables not included in this research affect the remainder, 29.84%.

### Model Regression Analysis (MRA)

Table 3. Model Regression Analysis (MRA) Regression Result

Variables	Coefficient	Std. Error	t-Statistics	Prob.
D(X1)	-0.027864	0.326232	-0.085412	0.9324
D(X2)	-0.059876	0.015503	-3.862316	0.0004
D(X3)	-1.049608	0.393842	-2.665048	0.0111
D(X4)	6.985684	2.274350	3.071507	0.0039
D(Z)	-3.082500	2.978856	-1.034793	0.3071
D(X1_Z)	-4.416382	1.460756	-3.023353	0.0044
D(X2_Z)	0.021360	0.010757	1.985660	0.0541
D(X3_Z)	0.429321	0.228253	1.880896	0.0675
D(X4_Z)	-2.059098	0.913786	-2.253369	0.0299

Source: Processed data, 2023

The MRA regression results, which are shown above, can be based on the form equation below:

$$Y = - 0.027864 - 0.059876 X1 - 1.049608 X2 + 6.985684 X3 - 3.082500 X4 - 4.416382 Z + 0.021360 X1\_Z + 0.429321 X2\_Z - 2.059098 X3\_Z + 1.520674 X4\_z$$

- IC cannot correlate BOPO and ROA with a mark of 0.0541, which is the value of prob > 0.05.
- IC cannot moderate relationships between NPF on ROA with 0.0675 where mark prob > 0.05.
- IC can moderate the relation between PSR and ROA with a value of 0.0299, Where the mark is prob < 0.05.
- IC cannot modulate the relationship between IsIR and ROA with a mark of 0.2439, the value prob > 0.05.

#### 4. CONCLUSION

Variable cost operational income (BOPO) negatively impacts ROA matters. This caused decreasing the functional effectiveness of banks so that they could create companies that become less prepared to face functional expenditure. Islamic banks must work profitably. As a result, a high BOPO can distinguish ineffective functional control exercises. Temporarily, a low ROA can be caused by waste when extreme expenses reduce the overall income from the resource.

Variable nonperforming financing (NPF) does not have an impact on ROA. This is because if the NPF is high, there is an internal problem with funding that becomes risk profit financial or profitability. In this case, the bank must pay attention to its financial condition because if profitability in banks decreases, so financing in banking will decrease, and the speed will decrease.

Variable profit-sharing ratio (PSR) has a impact significant on ROA. This is because there is only profit sharing between banks, and customers will continue to increase through financing Mudharabah and Musharakah. As a result, ROA Islamic banks can improve.

Islamic Income vs Non-Islamic Income (IsIR) variable has an impact. This is positive for ROA because Sharia banking maintains Sharia standards by maintaining halal payments and banking Sharia to riba, gharar, masyir.

The Intellectual Capital (IC) variable has a positive impact on ROA. This is because good scientific capital administration will influence organizational resources. Benefits can be created by an organization on all claimed resources to increase productivity.

Variable Intellectual Capital (IC) can't moderate interrelationships cost operational income (BOPO) on ROA because it was rejected. This is because multicollinearity occurs on moment testing, so that variable must issued.

Variable Intellectual Capital (IC) can't moderate interrelationships non-performing financing (NPF) on ROA because it was rejected. This is because multicollinearity occurs on moment testing, so that variable must issued

The intellectual capital variable can direct the relationship between the proportion of profit sharing on ROA. in Sharia banks because profit sharing exchange is the center of Sharia banking. Therefore, human resources understanding is needed in supervising profit-sharing exchanges because these exchanges exist outside of conventional banks. To improve and manage the profit-sharing exchange, a good experience is also required by Islamic bank human resources because Indonesian people are used to the usury exchange.

The intellectual Capital variable cannot moderate the relationship between Islamic Income vs Non-Islamic Income (IsIR) on ROA rejected. Because Matter This Because happen multicollinearity on moment testing so that variable the must be issued.

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