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Investigating the Determinants of Islamic Banks' Financing Quality: A Regional Approach

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Abstract

The quality of Islamic banks' financing is pivotal to determine the banking performance. When an Islamic bank has good quality of financing activities, the bank can generate more financial return due to less exposure to bad financing. This study aims to investigate the determinants of Islamic banks' financing quality by considering the regional approach. The study utilized non-performing financing as the proxy of bank's quality financing. The dependent variables consisted of inflation, financing growth, financing to deposit ratio, and asset. In addition, dummy variables were used to identify the period of the COVID-19 pandemic and the regional effect in Java and other regions outside Java. By adopting panel data analysis, this study observed 33 provinces in Indonesia from January 2004 to October 2021. The findings of the study revealed that the determinant of Islamic banks' financing quality in consumption scheme was different from equity and investment schemes. Moreover, only Islamic banks' financing quality in consumption scheme had exposure to inflation risk. Regional influence was present in all sorts of financing schemes at the time the COVID-19 pandemic significantly impacted financing quality in investment and consumption schemes. This study suggests that Islamic banking practitioners and financial authorities should understand the different behavior of each financing scheme in order to maintain Islamic banks' financing quality.

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I. Introduction

Islamic banks in Indonesia have been developing consistently year by year. It can be seen from an increase in total asset of Islamic banks in the last ten years from IDR 95,743 billion in 2011 to IDR 397,072.9 billion in 2020, or an increase of 15.7% annually (OJK, 2021). The consistency of Islamic banking growth in Indonesia cannot be separated from the financing performance to the deficit units. According to Indonesian Financial Service Authority or Otoritas Jasa Keuangan (OJK) (2021), from 2011 to 2020, financing activities of Islamic banks also increased by an average of 16.23%. Regarding the development of Islamic banks' financing, a question arises is what factors determine the quality of financing activities in Islamic banks which directly affects Islamic banking performance.

Therefore, the study attempts to investigate the determinants of Islamic banks' financing quality in Indonesia. The quality of financing activities in Islamic banks remains important due to two aspects: (1) traditionally, the profit from the banks' financing activities is the main source of income (Lee & Isa, 2017), and (2) the performance of banks' financing activities affects economic development (Contreras et al., 2023). Both factors are important to determine banking performance either in profit or economic development motives. When the banks have low quality of financing activities, economically, the banks may possibly misallocate financial resources.

There are some reasons for using Indonesian Islamic banking sectors as a research subject of this study. As previously mentioned, Indonesian Islamic banking industry is consistently developing, and it is ranked among the ten most developed Islamic banks in the world (ICD-Refinitiv, 2022). In addition, Indonesian banking sector is considered to be robust that evidently it could survive during Asian financial crisis in 1997 and 1998 (Khattak et al., 2021). From the regulation viewpoint, Indonesian Islamic bank already possesses a comprehensive national act level namely Law No. 21 of 2008 about Islamic banking which regulates the role of Islamic banks and how they work in dual banking system (Fakhrunnas et al., 2022). Lastly, Indonesian banking system is interesting because Indonesia is the most-populous Muslim country in the world and could potentially support Islamic banking development (Trinugroho et al., 2018).

The findings from this study make two contributions. Firstly, this study adds and enriches previous literature on the quality of Islamic banks' financing which has been studied by many researchers, such as Al Wesabi and Ahmad (2013) who observed Gulf countries, Louhichi and Boujelbene (2016) and Ghenimi et al., (2017) in Middle East and North Africa (MENA), Hassan et al., (2019) in Organization of Islamic Cooperation (OIC) countries, Kabir et al., (2015), Trad et al., (2017), and Bilgin et al., (2021) using cross-countries approach, Misman et al., (2015) in Malaysia, and Priyadi et al., (2021). Some other studies have examined the impact of the COVID-19 pandemic on banking performance, such as Fakhrunnas et al., (2022) in Indonesia and Elnahass et al., (2021) in the global banking industry. However, all of these studies only focus on the aggregate data for the quality of Islamic banks' financing, but they do not cover Islamic banks' financing schemes. In addition, they adopt country level data and do not focus on the regional level.

Secondly, the study provides a novel viewpoint on how to investigate the determinants of Islamic banks' financing quality in the regional level. To the best of my knowledge, only few studies have attempted to explain the performance of Islamic banks from the regional perspectives. Among these studies, Widarjono et al., (2020) found that Islamic rural banks' financing based on profit-loss sharing (PLS) are riskier than non-PLS. In addition, this study also considers the impact of regional differences in the Indonesian Islamic banking industry. Furthermore, Fakhrunnas et al., (2022) examine the determinant of the quality of Islamic banks' financing in multisectoral

industries and regional impact, while Fakhrunnas et al., (2021) only focus on Islamic banks' home financing. By contrast, this study focused on measuring the quality of Islamic banks' financing observed from the schemes of financing activities comprising equity, capital, and consumption schemes either for small-medium enterprises (SMEs) or non-SMEs. The use of regional level remains significant because it can measure the behavior of Islamic banking performance locally by considering the different performance of Islamic banks that varies across regions.

The findings of this study will be of interest to Islamic banks' practitioners to increase the quality of Islamic banks' financing which could improve Islamic banks' performance. Moreover, financial authorities can benefit from this study because they can understand the determinants of Islamic banks' financing quality by considering their strength and vulnerability in each region. Thus, suitable financial policies may be designed to support and accelerate Islamic banks' development in Indonesia.

Finally, the study consists of several sections. After introduction, literature review is discussed with explaining the theory and empirical studies. Moreover, data and method are shown in the next sections which is then followed by result and discussion. Lastly, the section is ended with conclusion and limitation of the study.

II. Literature Review

Theory

Theoretically, one of the ultimate functions of Islamic banks is to channel the funds from surplus to deficit units (Ibrahim & Law, 2019). In its operation, Islamic banks have a different principle from other types of banks in which Islamic banks must comply to shariah. Therefore, in the financing activities, shariah becomes the foundation to operate Islamic banks' activities. Regardless in which sectors the funds are used, Islamic banks have pre-determined profit (ex-ante) and PLS (ex-post) financing contract (Susamto et al., 2021). Regularly, the contracts that adopt *mudarabah, ijarah*, and *tawarruq* approaches determine the profit upfront. Consequently, what happens during the financing contract will not change the pre-determined profit including when facing unstable economic condition. In financing contracts, PLS based contracts, mainly adopt *mudarabah* and *musharakah*, and highly depend on underlying business performance (Al Wesabi & Ahmad, 2013). However, either ex-ante or ex-post financing contracts possess the same risk which has the possibility of not being able to return the principal amount of financing and its profit sharing. If that risk occurs, the quality of banks' financing could decline.

Additionally, the determinant of the banking performance is affected by the bank's internal financial and macroeconomic condition (Masood & Ashraf, 2012; Al Wesabi & Ahmad, 2013; Priyadi et al., 2021). Elaborating the relationship between banking performance and macroeconomic variables in more detail, Dia and VanHoose (2017) explain that banking sector has reciprocal relationship to macroeconomic circumstances. When the bank decides to limit financing activities, it affects economic development in society. The financial authority may issue financial policies to optimize the role of banks by considering a change in macroeconomic condition, such as a change in interest rate or inflation targeting policy by central bank. The economic condition also affects how the deficit units return the borrowed money from the banks (Moore & Kiyotaki, 1997). Intuitively, during a stable economic condition, the deficit units tend to return the money easier than during economic turmoil. The condition can be measured from some economic indicators in which inflation rate becomes one of the most important factors. As

mentioned by Boyd et al., (2001), inflation is an indicator to measure how effective a financial institution can allocate financial resources.

Previous Research and Hypotheses Development

Al Wesabi and Ahmad (2013) found that Islamic banks' financing quality is determined by two important factors: (1) Islamic banks' financial performance and (2) macroeconomic condition. When one factor is in turmoil, the quality of Islamic banks' financing may decline.

From the perspective of Islamic bank's financial performance, the aggressivity of Islamic bank's strategy determines the quality of financing. Islamic bank tends to be risk-taker when the portion of financing to deposit ratio is high. It indicates that the bank decides to take more liquidity risk to channel the funds from the surplus to deficit units. Indeed, a certain percentage of financing to deposit ratio must be managed well, especially to achieve certain level of ratio as regulated by the financial authority. In this viewpoint, Priyadi et al., (2021) found that it has no significant effect on the quality of Islamic bank's financing to financing to deposit ratio. By contrast, Fakhrunnas et al., (2021) state that financing to deposit ratio has both positive and negative relationships to Islamic bank's financing quality. Both directions depend on the quality of credit selection of Islamic bank when providing financing to the deficit units. The bank is probably prudent in certain conditions but less prudent to other conditions (Fakhrunnas et al., 2022).

Moreover, in the perspective of the growth of banks' financing, Hassan et al., (2019) and Ghenimi et al., (2017) found financing growth is not significant to determine the quality of Islamic banks' financing. However, in general, Rizvi et al., (2020) and Albaity et al., (2022) emphasize that financing growth is pivotal to measure how the bank performs its business activities. In a stable financial condition, the bank tends to penetrate the market by providing more financing to deficit units which means that the financing growth tends to increase time-to-time. Inversely, during financial turmoil, the bank possibly prefers to retain the financing acitivites to deficit units for the purpose of risk management. Therefore, an increase of financial stability in the institutional and industrial levels tends to increase the banks' financing growth.

Furthermore, Kabir et al., (2015) explain that a bigger Islamic bank can maintain its financing quality because it has a higher economic scale and capability to diversify the financial risks. In contrast to this outcome, Ghenimi et al., (2017) found that a bigger bank tends to be a risk-taker which makes the bank has more exposure to financial risks. As a result of this, the bank possibly possesses lower quality of financing activities.

In the case of macroeconomic variables, the findings of previous empirical studies reveal that inflation has no significant relationship with Islamic bank' financing quality (Louati et al., 2016), while Ghenimi et al., (2017) and Fakhrunnas et al., (2022) found that inflation positively impacts Islamic banks' non-performing financing (NPF). In contrast, Kabir et al., (2015) and Priyadi et al., (2021) argue that the impact of inflation is negative to Islamic banks' NPF. In addition, Fakhrunnas et al., (2022) further argue that an increase in inflation reduces the ability of borrowers to return the banks' funds because the borrowers experience an adverse effect due to an increase in goods and services. From the banks' side, an increase in inflation makes the banks receive lesser value of money. However, the borrowers actually return less value of money if the inflation rate increases, indicating a negative relationship between NPF and inflation rate (Castro, 2013).

In addition, Anto et al., (2022) argued that regional effect is important to determine the Islamic banking performance. The vulnerability to macroeconomic variable such as regional inflation and

the performance of Islamic bank vary across provinces in Indonesia. Widarjono et al. (2020) also state that Islamic banks in Java and other regions outside Java have different exposure to financial risks. Moreover, Elnahass et al., (2021) and Fakhrunnas et al., (2022) explain that in the case of the COVID-19 pandemic, the banking industry experienced financial instability. As a result, Islamic banks faced higher exposure to financial risks in their operation. Therefore, during the COVID-19 outbreak, banks tended to be underperformed.

Considering the existing literature, the research hypotheses are:

H1: Inflation has a positive and significant relationship with the financing quality of Islamic banks.
H2: Financing growth has a positive and significant relationship with the financing quality of Islamic banks.
H3: The total financing to deposit ratio has a negative and significant relationship with the financing quality of Islamic banks.
H4: The bank's assets have a negative and significant relationship with the financing quality of Islamic banks.
H5: The COVID-19 pandemic has a positive and significant relationship with the financing quality of Islamic banks.
H6: Islamic banks in Java Island have better financing quality than Islamic banks outside Java Island.

III. Methodology

To investigate the determinants of Islamic banks' financing quality using regional approach, this study retrieved monthly data of Islamic bank's statistics from OJK from January 2004 to October 2021 across 33 provinces in Indonesia with balanced panel data. In total, there were 1947 observation periods. The study adapted the conceptual framework of Boyd et al., (2001) and Anto et al., (2022) to model the relationship among the observed variables:

Financing Quality = f(INF, FINGR, FDR, ASSET, COVID, PROV)

With reference to Ibrahim and Law (2019), Generalized Least Square (GLS) was adopted by considering the presence of a time-invariant variable in the model. The econometric equation is as follows:

$$FINQ_{it} = a_0 + a_1 INF_{jt} + a_2 FINGR_{it} + a_3 FDR_{it} + a_4 LNASSET_{it} + a_5 COVID_t + a_6 PROV_j + \varepsilon_{ijt} \ \dots\dots\dots\dots\dots\dots (1)$$

$FINQ_{it}$ is percentage of bad financing compared to total financing (NPF) in the Islamic bank i and *period t*. INF_{jt} is the percentage of consumer price index in the province j and period t. $FINGR_{it}$ is the monthly growth of financing activities in the Islamic bank i and period t. FDR_{it} is the percentage of total financing compared to total deposit from surplus units in the Islamic bank i and period t. $LNASSET_{it}$ is the log of total asset in the Islamic bank i and period t. $COVID_t$ is dummy variable; 1 is COVID-19 period starting from March 2020 onwards, and 0 is non-COVID-19 period. $PROV_j$ is dummy variable; 1 is provinces located in Java Island, and 0 is provinces located outside Java Island. a_0 is constant. $a_1 - a_6$ is coefficient of the variables. ε_{ijt} is error-term.

In the model, financing quality comprised five schemes: financing quality for equity financing for SMEs (FINQ1), equity financing for non-SMEs (FINQ2), investment financing for SMEs (FINQ3), investment financing for non-SMEs (FINQ4), and consumption financing (FINQ5). For the simplification of the analysis, FINQ1 to FINQ5 were explained in models 1 to 5 for each use of the dependent variable. A higher number of FINQ indicated a lower level of financing quality, and it

occurred inversely. According to OJK (2014), different schemes of financing are based on the utilization of financing activities in which equity financing is for working capital purposes, investment financing is for purchasing capital goods and other related goods or services to start the business activities, while consumption financing is for non-business activities such as purchasing vehicles, houses, and others.

Furthermore, to address the issue of outliers, as suggested by Chiaramonte et al., (2022), the study winsorized the data at 5%. To ensure the consistency of the result, this study referred to Alandejani and Asutay (2017), Ibrahim and Law (2019), and Kim et al., (2020) and implemented robustness check by conducting additional econometric tests using two-stage least squares (2SLS) and Hausman-Taylor tests.

IV. Results and Discussion

Results

Based on Table 1, on average, the best financing quality was in the consumption financing, while financing for SMEs either equity (FINQ1) or investment (FINQ3) financing had a lower quality of financing due to higher average of non-performing loan. The descriptive data showed that financing for SMEs had higher default risk compared to financing for non-SMEs. In addition, the average of monthly inflation across provinces was considered to be low, which was under 1% while the financing growth of financing was only 0.10% per month on average. Moreover, the financing growth in certain months.

Table 1. Descriptive Statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
FINQ1	1947	8.34%	6.36%	1.27%	22.50%
FINQ2	1947	7.59%	12.13%	0.00%	37.72%
FINQ3	1947	8.36%	7.44%	0.44%	25.61%
FINQ4	1947	5.46%	9.34%	0.00%	28.12%
FINQ5	1947	2.61%	2.09%	0.46%	7.74%
INF	1947	0.28%	0.43%	-0.34%	1.04%
FINGR	1947	0.10%	0.19%	-0.20%	0.45%
FDR	1947	111.30%	36.34%	64.61%	175.07%
ASSET	1947	IDR 16,940.70 Bn	IDR 54,417.24 Bn	IDR 22.52 Bn	IDR 41,5238.70 Bn

In certain provinces was -0.20%, indicating that the monthly financing activities were lower than previous periods. The percentage of 111.30% for FDR showed that the financing activity performed by Islamic banks was considered to be aggressive because it exceeded the amount of deposit funds from the surplus units. Lastly, from the higher value of standard deviation of the asset, it can be seen that the size of Islamic banks has higher disparity of Islamic banks' development across provinces. As shown in Table 2, there was no issue of serial correlation among the variables because there was no correlation value which was more than 0.8.

Table 2. Correlation Result

	FINQ1	FINQ2	FINQ3	FINQ4	FINQ5	INF	FINGR	FDR	LNASSET	COVID	PROV
FINQ1	1										
FINQ2	0.56***	1									
FINQ3	0.72***	0.64***	1								
FINQ4	0.43***	0.53***	0.52***	1							
FINQ1	0.70***	0.64***	0.77***	0.53***	1						
INF	0.08***	0.08***	0.08***	0.08***	0.07***	1					
FINGR	-0.05**	-0.10***	-0.07***	-0.09***	-0.15***	-0.07***	1				
FDR	-0.17***	-0.09***	-0.08***	-0.06***	-0.04*	-0.08***	0.00	1			
LNASSET	0.01	0.13***	0.12***	0.10***	0.00	0.04*	-0.03	-0.23***	1		
COVID	0.00	-0.04	-0.08	-0.11	-0.11	-0.15	0.05	-0.09	0.07	1	
PROV	-0.02	0.12***	0.00	0.14***	0.04**	0.13***	-0.04*	-0.32***	0.58***	0.00	1

Note: Symbols of ***, **, and * show that it has a significant level at 1%, 5%, and 10% respectively.

In addition, according to the results of GLS test in Table 3 as the baseline finding, inflation had negative and significant relationship in model 5. This indicates that an increase in inflation rate could increase the Islamic banks' financing quality in consumption scheme. However, for other models, the relationship between inflation and the banks' financial quality was not significant which means statistically it was not different from zero. In the case of FINGR and FDR, generally the impact of an increase in both variables negatively affected the FINQ, indicating that an increase in financing growth and financing to deposit ratio may add Islamic banks' financing quality in all models. Only FINQ in model 5 had a positive and significant relationship with FDR at 5% level of significance. Furthermore, the bank's size through LNASSET variable also indicated a negative and significant relationship at 1% level of significance. It means that the higher the asset of the Islamic bank, the better the financial quality of the Islamic banks.

Table 3. Results of GLS Test

VARIABLES	MODELS				
	1	2	3	4	5
INF	-0.16	-0.30	-0.05	-0.26	-0.14*
	0.71	0.60	0.18	0.61	1.93
FINGR	-2.28***	-5.19***	-2.76***	-3.16***	-1.21***
	4.44	4.69	4.50	3.35	7.36
FDR	-0.04***	-0.04***	-0.01	-0.03***	0.00**
	5.83	2.88	1.36	2.84	2.19
LNASSET	-0.01***	-0.03***	-0.02***	-0.03***	-0.01***
	3.82	4.16	3.89	5.02	5.89
COVID	0.00	-0.01	-0.01***	-0.02***	0.00***
	0.18	1.21	3.69	4.70	4.75
PROV	0.01	0.08**	0.03	0.08***	0.02**
	0.50	2.11	1.07	3.04	2.26
C	0.23***	0.34***	0.22***	0.30***	0.07***
	7.66	5.58	6.11	6.35	7.17
R-Within	0.03	0.03	0.04	0.05	0.09
R-Between	0.01	0.00	0.05	0.00	0.00
R-Overall	0.01	0.00	0.01	0.01	0.01
Wald Chi-Square	64.38***	53.86***	68.04***	81.41***	184.20***
Observations	1947	1947	1947	1947	1947

Note: Symbols of ***, **, and * show that it has a significant level at 1%, 5%, and 10% respectively.

Moreover, statistically, the variable of the COVID-19 pandemic had a negative and significant relationship with Islamic banks' financing quality in investment scheme. This suggests that during the outbreak, Islamic banks' quality financings in investment scheme increased. In contrast, there was a positive and significant relationship between COVID and FINQ in model 5 at 1% level of significance. Finally, only financing schemes for non-SMEs and consumption schemes had a positive and significant relationship with PROV at 1%-5% levels of significance.

Table 4. Results of 2SLS Test

VARIABLES	MODELS				
	1	2	3	4	5
INF	-0.15	-0.29	-0.02	-0.26	-0.14*
	0.65	0.59	0.14	0.62	1.90
FINGR	-2.13***	-5.11***	-0.04***	-3.16***	-1.19***
	4.14	4.61	4.30	3.35	7.22
FDR	-0.05***	-0.05***	-2.64*	-0.03***	0.00*
	6.50	3.05	1.82	2.83	1.84
LNASSET	-0.02***	-0.03***	-0.02***	-0.03***	-0.01***
	5.66	4.44	4.99	4.68	6.38
COVID	0.00	-0.01	-0.01***	-0.02***	0.00***
	0.42	1.04	3.28	4.68	4.46
PROV	0.03	0.09**	0.04	0.08***	0.02***
	1.16	2.29	1.50	2.98	2.52
C	0.29***	0.38***	0.27***	0.30***	0.08***
	9.14	5.78	7.00	5.96	7.57
R-Within	0.03	0.03	0.04	0.05	0.09
R-Between	0.01	0.00	0.05	0.00	0.00
R-Overall	0.01	0.00	0.01	0.00	0.01
Wald Chi-Square	81.71***	56.31***	77.69***	78.04***	190.15***
Observations	1947	1947	1947	1947	1947

Note: Symbols of ***, **, and * show that it has a significant level at 1%, 5%, and 10% respectively.

Table 5. Results of Hausman Taylor Test

VARIABLES	MODELS				
	1	2	3	4	5
INF	-0.16	-0.28	-0.04	-0.24	-0.14*
	0.69	0.57	0.14	0.57	1.90
FINGR	-2.20***	-4.88***	-2.61***	-2.72***	-1.18***
	4.27	4.41	4.26	2.89	7.18
FDR	-0.04***	-0.05***	-0.02*	-0.05***	0.00*
	6.15	3.53	1.91	3.97	1.77
LNASSET	-0.02***	-0.04***	-0.02***	-0.05***	-0.01***
	4.59	5.52	5.19	7.09	6.59
COVID	0.00	0.00	-0.01	-0.02***	0.00***
	0.16	0.65	3.17	3.79	4.36
PROV	0.02	0.11***	0.04	0.12***	0.02**
	0.80	2.35	1.37	3.13	2.34
C	0.27***	0.47***	0.28***	0.48***	0.08***
	8.00	6.63	7.02	7.97	7.65
Wald Chi-Square	70.77***	66.87***	80.19***	106.19***	193.9***
Observations	1947	1947	1947	1947	1947

Note: Symbols of ***, **, and * show that it has a significant level at 1%, 5%, and 10% respectively.

By referring to previous studies by Alandejani and Asutay (2017), Ibrahim and Law (2019), and Kim et al., (2020), this study applied robustness check to check the consistency of the findings. Table 4 shows the regression results using 2SLS approach in which the findings revealed the same

direction as it was found in the baseline results. Table 5 also shows that the result of robustness check which adopted Hausman Taylor approach in general found the same findings as it was found in the baseline and 2SLS tests. Moreover, the result of Wald Chi-Square test in both robustness models also showed that it was significant, indicating that both explanatory variables simultaneously were significant to dependent variable in all models. Thus, the results were found to be robust because of its consistency in the results using different econometric tests.

Discussion

In terms of the investigation of the determinants of Islamic banks' financing quality, only model 5 had a positive and significant relationship between inflation and the financing quality in the baseline result. The result was also reported by Kabir et al., (2015) and Priyadi et al., (2021), but is in contrast to Ghenimi et al., (2017) and Fakhrunnas et al., (2022). The finding showed that an increase in inflation rate increased Islamic banks' financing quality in consumption scheme. During a high inflation, the value of money falls which substantially makes the deficit units return less value of money to the banks. The finding also showed that the financing quality in consumption scheme had an exposure to inflation risk while other financing schemes did not.

Moving on to the financing growth, all models had the same result in which financing growth had a negative and significant relationship with NPF. The finding confirms that financing growth in Islamic banks is a pivotal determinant for the quality of financing activities as explained by Rizvi et al., (2020) and Albaity et al., (2022). It also showed that an increase in FINGR increased Islamic banks' financing quality, indicating that it had a positive relationship between the variables. Moreover, the presence of a positive relationship was possibly because Islamic banks could implement risk management well in each additional financing given to the deficit units. Even though Islamic banks were aggressive to do more financing, the bank could possibly maintain the credit selection process and avoid misallocation of resource which only targeted bankable customers to be financed.

Furthermore, financing to deposit ratio, reflecting liquidity risk, had a negative and significant relationship with NPF for SMEs or non-SMEs. The result is consistent with that of Fakhrunnas et al. (2022) which found that Islamic banks possessing higher liquidity risk tend to have better risk management of financing activities for SMEs and non-SMEs. In contrast to the findings of Fakhrunnas et al. (2022), the impact of FDR was positive and significant to NPF in consumption financing. It shows that an increase in liquidity risk may result in lower financing quality of Islamic banks, indicating lower quality of risk management in Islamic banks for consumption financing. Thus, as explained by Fakhrunnas et al. (2021), the impact of the financing to deposit ratio, either positive or negative, on financing quality depends on the quality of the Islamic banks' credit selection.

The size of Islamic banks in all models had a negative and significant relationship with FINQ. The result is in contrast to that of Ghenimi et al. (2017), but it is in line with that of Kabir et al. (2015). The finding in the baseline result suggests that large Islamic banks tend to have better financing quality compared to smaller-size Islamic banks. Large Islamic banks have a better capability to diversify financing activities and better economic scale, which makes the banks tend to be more efficient in their business operation (Kabir et al., 2015).

Regarding the influence of the outbreak and regional effect, the COVID-19 pandemic had a negative and significant influence on NPF in investment scheme either for SMEs or non-SMEs. It is possibly because during the outbreak Islamic banks were more prudent by being more selective

in providing financing activities for only those who had suitable risk profile. However, for financing activities in consumption scheme, the impact of the pandemic was negative and significant on the Islamic banks' financing quality. This finding was also reported by Elnahass et al. (2021) and Fakhrunnas et al. (2022), who found that the COVID-19 pandemic increased risk to financial stability and exposed banks to higher financial risks. From a regional perspective, for models 2, 4 and 5, the quality of Islamic banks' financing in Java Island was lower than in provinces outside Java. This indicates that provinces in Java Island have lower quality of financing including for non-SMEs financing either for equity or investment schemes. The different impact of regional effect is supported by the findings of Widarjono et al. (2020) and Anto et al. (2022) which showed that Islamic banks in and outside Java Islands have different performance.

V. Conclusion and Recommendation

Conclusion

The findings of this study showed that Islamic banks' financing quality had different determinant in each aim of financing schemes. For financing in consumption scheme, it had different behavior compared to others, while higher inflation increased the quality of financing, and the pandemic decreased its financing quality. Furthermore, other banks' variables such as financial growth and financing to deposit ratio in the majority of the models negatively impacted the FINQ. This indicates that an increase in both independent variables increases the quality of Islamic banks' financing. Surprisingly, the COVID-19 pandemic increased the quality of Islamic banks' financing for investment activities. Lastly, the study also observed the presence of regional impact on Islamic banks' financing quality.

Recommendation

The findings of this study have important implications for Islamic banking practitioners to formulate a proper risk management in each type of financing schemes. The advantage to an appropriate risk assessment in Islamic banking level is to increase the quality of Islamic banks' financing. For financial authorities, financial policies that will be and have been issued must consider different characteristics of regions and each type of Islamic banks' financing scheme. It is pivotal to ensure the quality of Islamic banks' financing which directly affects Islamic banks' development. Furthermore, policymakers also need to strengthen risk management in Islamic banks' financing, particularly risk mitigation and supervision for both financial and macroeconomic risks.

Finally, further study is required to improve the investigation of Islamic banks' financing quality because this study only used few variables as exogenous variables due to unavailability of data. Therefore, future studies could extend the observed variables and the data to conduct a more detailed investigation into the determinants of Islamic banks' financing quality.

Conflicts of Interest
The authors declare no conflict of interest.

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