Indonesian Journal of Economics and Management
Vol. 4, No. 1, November 2023, pp. 194 – 202
https://doi.org/10.35313/ijem.v4i1.5775

Assessing the Bank Stability Nexus: Islamic Bank Competition in the Indonesian Financial Landscape

Setiawan
Department of Accounting, Politeknik Negeri Bandung, Bandung, Indonesia

Research article
Received 25 August 2023; Accepted 27 October 2023
How to cite: Setiawan. (2023). Assessing the Bank Stability Nexus: Islamic Bank Competition in the Indonesian Financial Landscape. *Indonesian Journal of Economics and Management*, *4*(1), 194-202.
***Corresponding author:** setiawan@polban.ac.id

Abstract: The existence of Islamic banks in Indonesia has contributed to the competition in the banking world. Apart from competing with fellow Islamic banks, Islamic banks must also compete with conventional banks which are much larger and experienced. The purpose of this research is to explore the influence of Islamic bank competition on financial stability and the differences among Islamic banks in Indonesia. This research is quantitative research with an associative approach using secondary data. The sample of Islamic banks is 11 Islamic commercial banks registered with the Financial Services Authority (OJK). The results of the study show that in model 1 it is found that Islamic bank competition has a significant effect on Islamic bank stability, and in the second model it is found that Islamic bank competition has a significant effect on Islamic bank stability with moderation in Islamic bank size. Competition motivates Islamic banks to enhance operational efficiency through cost reduction, increased productivity, and the adoption of advanced technology. This efficiency strengthens their financial performance and resilience to economic shocks.

Keywords: competition; stability; bank size; Islamic commercial banks.

1. Introduction

The positive growth of the Islamic banking sector, mainly due to increasing public awareness of sharia-based financial products, is the main highlight (BeritaSatu.com, 2023). Despite the increase, Islamic banks in Indonesia are faced with increasingly fierce competition, considering their market share is still relatively small. In the face of these challenges, Islamic banks need to adjust their focus to strengthening capabilities through product and service innovation, policy development that supports growth, and improved operational efficiency. These measures are expected to enhance the competitiveness of Islamic banks in the overall banking industry and expand their market share sustainably. This effort is also consistent with the views of Moudud-Ul-Huq et al. (2021) which show that competition can be a trigger for banks to increase efficiency and innovate, create new ideas, and provide.

In an atmosphere of fierce competition in the banking sector, there has been a decline in lending rates and an increase in deposit rates. This situation has a positive impact on both depositors and borrowers (Hope et al., 2013). The importance of competition in the banking sector cannot be ignored, given that in many other industries, lack of competition can hinder innovation, quality, and efficiency. This situation can also lead to practices such as underprovision and anti-competitive measures, such as the application of excessive transaction fees. This impact can also be felt more directly in the financial sector. In addition, the intensity of competition also affects business access to external financing (Claessens & Laeven, 2005; Simatele, 2015). In this context, external financing refers to sources of funds that a business obtains from outside, such as bank loans, bonds, or equity financing.

According to the Competition-Stability theory, there is a view that competition plays a role in increasing the level of stability in the banking sector (Fiordelisi & Mare, 2014; Moudud-Ul-Huq et al., 2021). This competition-stability theory is defined by Boyd & De Nicolo (2005), which states that competition contributes to increased stability for banks. In their view, when the level of concentration of the banking market is higher (and less competitive), banks tend to have greater dominance of market power, and as a result, they apply higher interest rates to borrowers. This idea is in line with the views expressed by Mishkin (1999) and Stern & Feldman (2004), which indicate that increased market dominance can bring greater credit risk. When loan interest rates are high, this can create difficulties for borrowers in paying off their loans, which in turn can encourage them to repay.

Research conducted by Moudud-Ul-Huq et al. (2021) made a significant contribution to understanding the relationship between market dominance and financial stability of banks in the Middle East and South Africa (MENA) region. The results of this study specifically highlight the importance of competitive market orientation regarding financing risk, which has an impact on increasing overall risk. In the context of bank ownership, these findings suggest that Islamic banks have a lower level of risk. In a broader perspective, these findings emphasize the importance of bank ownership strategies and market dynamics in shaping the stability of the banking sector in the MENA region. Therefore, Islamic banks tend to show a higher level of stability compared to other bank ownership structures.

This research will explore the stability of Islamic banking, with a primary focus on the Islamic banking sector in Indonesia and its determining factor, namely the level of competition. With the increasing number of Islamic banks in Indonesia, there is a tendency that competition in this sector is becoming fiercer than before (Arif & Awwaliyah, 2019). In addition, several Islamic banks have also succeeded in dominating total assets and deposits in the entire Indonesian Islamic banking sector (Al Arif et al., 2020; Arif & Awwaliyah, 2019). Therefore, there are indications that the size of Islamic banks has the potential to moderate the impact of competition on Islamic banking stability in Indonesia.

2. Literature Review

2.1. Competition-Stability Theory

The competition-stability view, introduced by Boyd & De Nicolo (2005), indicates that competition correlates with a higher level of stability in the banking sector. They assert that as banking markets become more concentrated (and less competitive in nature), banks tend to demonstrate dominance of market forces by applying higher interest rates to borrowers. This concept is in line with the views of Mishkin (1999) and Stern & Feldman (2004) who assert that increased market dominance can increase credit risk. High loan interest rates can present difficulties for borrowers in repaying loans, thus encouraging them to take greater risks.

The competition-stability view implies that an increase in the level of competition will contribute to stability, or in other words, financial stability may increase due to the higher intensity of competition. A theory that supports the competition-stability view is the risk-shifting paradigm, which addresses the impact of competition in the lending market on moral hazard and choice incentives that may harm borrowers. In addition, the too-big-to-fail concept discusses the influence of market structure on regulation in the banking system (Ak Kocabay, 2009). Thus, it can be concluded that the competition-stability view shows that the higher the level of competition, the greater the tendency towards stability.

2.2. Bank Competition, Bank Size, and Bank Stability

The banking sector plays a crucial role in potentially transmitting instability to various sectors of the economy. This can occur through disruptions in the interbank lending market and payment mechanisms, a decrease in the availability of credit, and the freezing of deposits. Historically, concerns about heightened competition have driven regulators to prioritize the formulation of policies aimed at maintaining stability within the banking industry (Berger et al., 2017).

Through the theoretical framework proposed by Boyd & De Nicolo (2005) in Competition-Stability, it is explained that a higher level of competition in the banking industry will have a positive impact on stability. Healthy competition occurs when a bank lacks market power, indicating the presence in the market of perfect competition. Conversely, banks that have market power will tend to set higher interest rates for customers, which in turn can make it difficult for customers to pay off loans (Sinha & Sharma, 2016). High interest rates can trigger default conditions, potentially causing instability for banks (Berger et al., 2017; Stiglitz & Weiss, 1981). Thus, it can be concluded that the existence of market power by banks signifies participation in an environment of unfair competition or can even be categorized as a monopoly market.

The positive impact signifies that the higher level of competition in the banking industry reflects increasingly fierce competition, indicating that banks do not have market dominance, and therefore, the risk of bankruptcy is minimal, leading to a better level of stability. The high level of competition encourages banks to continue to innovate, improve operational efficiency, and provide superior products and services to customers. Overall, this can create a dynamic environment, stimulating economic growth in the Islamic banking sector. Research conducted by Beck (2008) shows that competition among banks is associated with a lower likelihood of bankruptcy. Therefore, the hypotheses that may be proposed in this study are as follows:

H1: Bank competition has a significant effect on financial stability in Islamic banks.

Market forces are often associated with the level of competition in the banking industry. The low level of competition in a bank can be recognized through high market power, which occurs when one or several industries control the market and reduce competition in it (Hawtrey & Liang, 2008). Coccorese & Santucci (2020) explain that more concentrated markets tend to have lower levels of competition, with a few large banks dominating and enjoying significant market power. Nevertheless, bank size is not always a determining factor, as even small-sized banks can acquire different market forces, which creates diverse competitive behavior (Coccorese & Santucci, 2020).

Banks that have market dominance tend to set high interest rates, thus triggering an increase in projects that are riskier in nature. In more concentrated banking markets, large banks tend to leverage their market power more intensively and encourage greater risk-taking (Maudos & de Guevara 2011). Previous studies have also shown the impact of bank size on financial stability, as indicated by research conducted by Adusei (2015) and Coccorese & Santucci (2020). Thus, the next hopotesis can be proposed, namely:

H2: Bank competition has a significant effect on financial stability in Islamic banks moderated by bank size

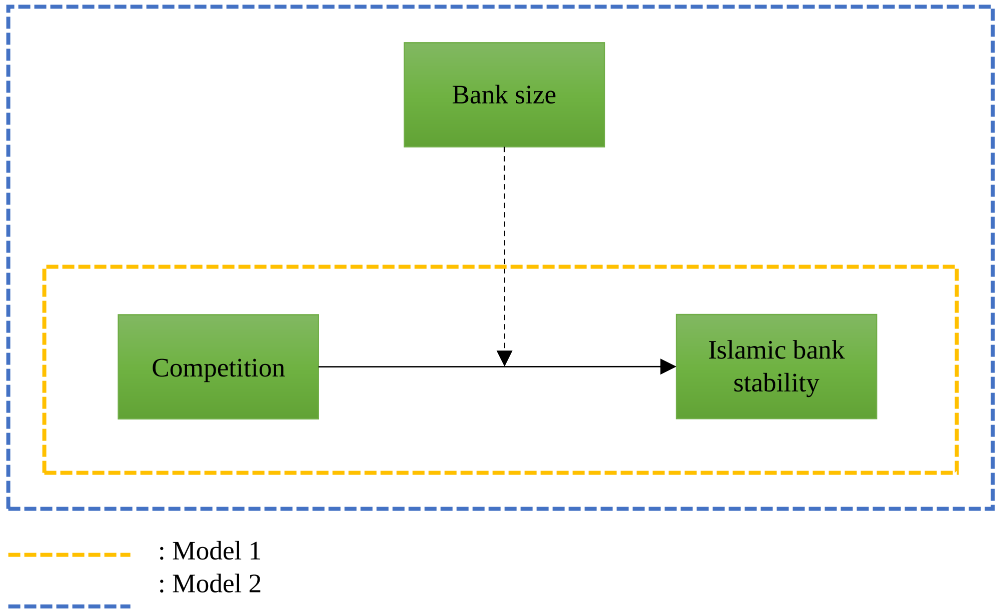

Figure 1. Research Model

3. Research Methods

3.1. Research Design

This study adopts quantitative methods with an associative approach. Quantitative method is a type of research in which the findings are obtained with statistical procedures or other measurement methods (Sujarweni, 2015). The data used in this study are secondary and obtained from Islamic commercial banks in Indonesia. Sampling was carried out using purposive sampling method, and as many as 11 banks in Indonesia became research samples, as listed in Table 1 below.

Table 1. Sharia Commercial Banks in Indonesia

No.	Bank
1	Bank Muamalat Indonesia
2	Bank Central Asia Syariah
3	Bank Jabar Baten Syariah
4	Maybank Syariah
5	Bank Panin Dybai Syariah
6	Bank Syariah Bukopin
7	Bank Mega Syariah
8	Bank Victoria Syariah
9	Bank Tabungan Pensiun Nasional Syariah
10	Bank Aceh Syariah
11	BPD Nusa Tenggara Barat Syariah

3.2. Variable Operationalization

3.2.1. Dependent Variable

The dependent variable used in this study is Financial Stability. Financial stability is the ability of banks to carry out their intermediation functions properly to avoid vulnerability or instability (Apriadi et al., 2017; Beck, 2008). In this study the stability variable was proxied by the Z-Score. Z-Score is one of the methods used to measure the probability of failure or bankruptcy of a bank (Fatoni, 2022; Lepetit et al., 2008; Moudud-Ul-Huq et al., 2021; Sinha & Sharma, 2016). The Z-score formula is as follows.

$$ZROA = \frac{\boldsymbol{ROA} + \frac{Eq}{TA}}{\boldsymbol{SD}ROA}$$

3.2.2. *Independent Variabel*

The independent variable in this study is bank competition which is proxied using the Lerner Index. Bank competition is a process of gaining customers over time to increase market share and greater profits (Ak Kocabay, 2009; Bailey & Whish, 2012). The Lerner Index represents a bank's ability to sell products above its marginal cost. Therefore, Bank Competition is used as an independent variable that will affect the dependent variable. Some studies that use the Lerner Index include Beck (Beck, 2008); Berger et al. (Berger et al., 2017); and Kanas (Kanas et al., 2019). In his research, the Lerner Index was used to measure competition. The formula of the Lerner Index is as follows.

$$Indeks\ Lerner = \frac{TR - TC}{TR}$$

4. Results and Discussion

4.1. Descriptive Statistics

In this section, an overview of the results of descriptive statistical processing will be given. The main purpose of descriptive statistics is to provide a clear and concise picture of existing data, facilitating better understanding, benchmarking, and decision-making based on it. The number of observations in this study was 92. The following descriptive statistical results are presented in table 2.

Table 2. Descriptive Statistics

	N	Mean	Maximum	Minimum	Std. Deviasi
Competition	92	0,520	0,762	-1,286	0,341
Bank size	92	25,906	30,969	15,127	4,292
Bank Stability	92	13,113	54,427	-5,202	10,999

Based on table 2 above it can be seen that the bank competition measured by the Lerner index has an average of 0.520; maximum value of 0.762; minimum value of -1.286; and a standard deviation of 0.341. For the size of the bank obtained an average of 25,906; maximum value 30.969; minimum value of 15.127; and a standard deviation of 4.292. For stability, an average value of 13.113 was obtained; maximum value of 54,427; minimum value -5.202; and a standard deviation of 10.999.

4.2. Regression Analysis

In this section, regression analysis was carried out for 2 research models, namely the effect of Islamic bank competition on Islamic bank stability; and the influence of Islamic bank competition on the stability of Islamic banks with variable moderation of bank size. The following are presented the results of regression analysis in table 3.

Table 3. Regression Analysis Results

Model	Unstandardize Coefficients B	Unstandardize Coefficients Std. Error	t	Sig.
Model 1				
Intercept	2.090	0.112	18.583	0.000
Competition	0.540	0.181	2.980	0.004
Model 2				
Intercept	2.094	0.107	19.553	0.000
Competition	5.856	1.669	3.509	0.001
Competition *Bank size	-1.648	0.514	-3.203	0.002

Based on table 3 above, the following research model can be obtained:

$$Competition = 2{,}090 + 0{,}540 Competition + \varepsilon \quad (1)$$
$$Competition = 2{,}090 + 0{,}540 Competition - 1{,}648 Competition * Size + \varepsilon \quad (2)$$

4.3. Coefficient of Determination

This section will present the coefficient of determination, which has the aim of evaluating the extent to which the independent variable (explanatory) can explain the variation that occurs in the dependent variable (bound).

Table 4. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Model 1				
1	0.300	0.090	0.080	0.589
Model 2				
2	0.429	0.184	0.166	0.561

Based on table 4 above, the R Square in model 1 is 0.090, which means that the contribution of Islamic bank competition variables in influencing stability variables is only 9% and the remaining 91% is influenced by other variables outside this study. While the R Square in model 2 is 0.184, which means that the contribution of Islamic bank competition variables in influencing stability variables with moderation of Islamic bank size variables is only 18.4% and the remaining 81.6% is influenced by other variables outside this study. The variety in size of Islamic banks can provide additional contributions in strengthening the influence of competition on the stability of Islamic banks.

4.4. Test F

In this section will be presented the results of testing F. Test F aims to see whether the model that has been produced can be a good predictor. The following F test results are presented in table 5 below.

Table 5. ANOVA

Model	Sum of Square	df	Mean Square	F	Sig.
Model 1					
Regression	3.076	1	3.076	8.878	0.004

Model	Sum of Square	df	Mean Square	F	Sig.
Residual	31.185	90	0.346		
Total	34.261	91			
Model 2					
Regression	6.299	2	3.150	10.025	0.000
Residual	27.962	89	0.314		
Total	34.261	91			

Based on the test results in table 5 above, in model 1, the F value is 8.878 with a probability value smaller than 0.05. Thus, it can be concluded that the independent variable, namely Islamic bank competition, has a significant effect on the stability of Islamic banks. Likewise, the test results for model 2 show that the F value obtained is 10.025 with a probability of 0.000 which is far below 0.05, so it can be concluded that the independent variable, namely the competition of Islamic banks with moderation in the size of Islamic banks, has a significant effect on bank stability.

4.5. Discussion

Competition can encourage Islamic banks to improve their operational efficiency. Islamic banks will strive to reduce operational costs and increase productivity to compete effectively. Efforts to achieve better operational efficiency can include the use of more advanced information technology, better risk management, and the use of more effective business practices. By improving operational efficiency, Islamic banks can improve their financial performance and increase their resilience to possible economic shocks. This research is in line with Moudud-Ul-Huq dkk. (2021) who have found similar things, but in middle eastern countries.

Smaller Islamic banks, although they have a more limited scale, can have more efficient operational structures and lower costs compared to larger Islamic banks. They can avoid complex bureaucracy and more easily adapt to changing dynamic business environments. On the other hand, because they tend to cater to more specific market segments, the concentration risk faced by smaller Islamic banks can also be more controllable. Improved operational efficiency and better risk management give smaller Islamic banks a significant competitive advantage, which in turn can strengthen their stability in the face of economic and industrial challenges.

Nevertheless, it is important to remember that a high level of competition can also put pressure on a bank's profitability, requiring them to look for innovative ways of earning revenue and maintaining profits. Therefore, banks need to maintain a balance between fair competition and the sustainability of their financial stability, as well as ensure adherence to sharia principles is not compromised to improve competitiveness. Thus, positive competition can be a catalyst for the growth and stability of Islamic banks if risk management and adherence to Islamic principles remain the focus.

4.6. Implication

Implications that can be applied to the Islamic banking industry:

1) Considerations in Business Strategy: Islamic banks, especially larger ones, need to reconsider their business strategies. They can learn from smaller Islamic banks in adopting more efficient operational structures and avoiding bureaucracy that slows down

decision-making. An emphasis on implementing the latest information technology, more effective business practices, and flexibility in dealing with business changes will help major Islamic banks maintain their competitiveness.

2) More Precise Market Segmentation: Islamic banks can focus more on more specific market segmentation, taking lessons from smaller Islamic banks. By better understanding customer needs and preferences, Islamic banks can develop products and services that better suit specific market segments, which in turn can increase customer loyalty and reduce concentration risk.
3) Technology Innovation and Business Practices: These findings demonstrate the importance of more advanced information technology adoption and more effective business practices. Islamic banks must invest in technological innovation to accelerate business processes and improve operational efficiency. The application of technologies such as artificial intelligence, data analytics, and digital banking services can help Islamic banks in providing added value to customers and reducing operational costs.
4) Better Risk Management: Better operational efficiency and risk management should be the focus for all Islamic banks. Islamic banks should consider more proactive and careful risk management strategies to mitigate potential losses. The competitive advantage gained from better risk management can help Islamic banks overcome various economic and industry challenges.
5) Collaboration with Smaller Islamic Banks: Larger Islamic banks can collaborate with smaller Islamic banks to exchange experience and knowledge. This can assist larger Islamic banks in adopting best practices from more efficient banks, while smaller Islamic banks can benefit from greater resources and scale.
6) Supportive Regulatory Policies: Regulators and governments need to consider policies that support the development of smaller Islamic banks. This can involve incentives for innovation, training, and mentoring in implementing more efficient technologies and business practices. Policies that encourage cooperation between Islamic banks of all sizes can also help improve the stability of the Islamic banking industry.

By applying these implications, the Islamic banking industry in Indonesia can harness its potential to increase efficiency, mitigate risk, and strengthen stability in the face of diverse economic and industrial challenges.

5. Conclusion

This research succeeded in proving that Islamic bank competition can have a significant influence on the financial stability of Islamic banks. Likewise, the effect of the size of Islamic banks can moderate the influence of Islamic bank competition on the financial stability of Islamic banks. Competition encourages Islamic banks to improve operational efficiency by reducing costs, increasing productivity, and adopting advanced information technology and effective business practices. With better efficiency, Islamic banks can strengthen financial performance and resilience to economic shocks. Smaller Islamic banks have efficient operational structures and low costs, avoid bureaucracy, and adapt more easily to business changes. They serve a specific market segment, reducing concentration risks. Better efficiency and risk management give small Islamic banks a competitive advantage, strengthening stability amid eco-challenges.

Acknowledgments

Thank you to the Research and Community Service Unit (UPPM) of the Bandung State

Polytechnic for providing funding for Independent Research sourced from DIPA POLBAN 2023 funds.

References

Adusei, M. (2015). The impact of bank size and funding risk on bank stability. *Cogent Economics & Finance*, *3*(1), 1111489. https://doi.org/10.1080/23322039.2015.1111489

Ak Kocabay, S. (2009). *Bank competition and banking system stability: Evidence from Turkey* [Master's Thesis]. Middle East Technical University.

Al Arif, M. N. R., Mufraini, M. A., & Prabowo, M. A. (2020). Market Structure, Spin-Off, and Efficiency: Evidence from Indonesian Islamic Banking Industry. *Emerging Markets Finance and Trade*, *56*(2), 329–337. https://doi.org/10.1080/1540496X.2018.1553162

Arif, M. N. R. A., & Awwaliyah, T. B. (2019). Market Share, Concentration Ratio and Profitability: Evidence from Indonesian Islamic Banking Industry. *Journal of Central Banking Theory and Practice*, *8*(2), 189–201. https://doi.org/10.2478/jcbtp-2019-0020

Beck, T. (2008). Bank competition and financial stability: Friends or foes? *World Bank Policy Research Working Paper*, *4656*.

Berger, A. N., Klapper, L. F., & Turk-Ariss, R. (2017). Bank competition and financial stability. In *Handbook of competition in banking and finance*. Edward Elgar Publishing.

BeritaSatu.com. (2023). *Pangsa Pasar Keuangan Syariah Indonesia Capai 10,69 Persen*. beritasatu.com. https://www.beritasatu.com/ekonomi/1025839/pangsa-pasar-keuangan-syariah-indonesia-capai-1069-persen

Boyd, J. H., & De Nicolo, G. (2005). The theory of bank risk taking and competition revisited. *The Journal of Finance*, *60*(3), 1329–1343.

Claessens, S., & Laeven, L. (2005). Financial dependence, banking sector competition, and economic growth. *Journal of the European Economic Association*, *3*(1), 179–207.

Coccorese, P., & Santucci, L. (2020). Banking Competition and Bank Size: Some Evidence from Italy. *Journal of Economics and Finance*, *44*(2), 278–299. https://doi.org/10.1007/s12197-019-09488-2

Fiordelisi, F., & Mare, D. S. (2014). Competition and financial stability in European cooperative banks. *Journal of International Money and Finance*, *45*, 1–16.

Hope, C. J., Gwatidzo, T., & Ntuli, M. (2013). Investigating the effect of bank competition on financial stability in ten African countries. *International Business & Economics Research Journal (IBER)*, *12*(7), 755–768.

Mishkin, F. S. (1999). Financial consolidation: Dangers and opportunities. *Journal of Banking & Finance*, *23*(2–4), 675–691.

Moudud-Ul-Huq, S., Biswas, T., Halim, M. A., Mateev, M., Yousaf, I., & Abedin, M. Z. (2021). The effects of bank competition, financial stability and ownership structure: Evidence from the Middle East and North African (MENA) countries. *International Journal of Islamic and Middle Eastern Finance and Management*.

Simatele, M. (2015). Market Structure and competition in the South African banking sector. *Procedia Economics and Finance*, *30*, 825–835.

Sinha, P., & Sharma, S. (2016). *Relationship of financial stability and risk with market structure and competition: Evidence from Indian banking sector*.

Stern, G. H., & Feldman, R. J. (2004). *Too big to fail: The hazards of bank bailouts*. Brookings Institution Press.

Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American Economic Review*, *71*(3), 393–410.