“The relationship between risk-taking and maqasid shariah-based performance in Islamic banks: Does shariah governance matter?”

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THE RELATIONSHIP BETWEEN RISK-TAKING AND MAQASID SHARIAH-BASED PERFORMANCE IN ISLAMIC BANKS: DOES SHARIAH GOVERNANCE MATTER?

Abstract

A dearth of studies linking risk-taking with maqasid shariah-based performance has been the motivation for analyzing this relationship. This study also examines the moderating effect of shariah governance. The study uses time-series data with the dynamic panel technique to examine the relationship between variables. The number of samples in this study was 75 Islamic banks operating non-window banking from 19 countries. Results prove that risk-taking has a significant adverse effect on the performance of Islamic banks. Lower risk-taking indicates a bank is more efficient, resulting in higher maqashid shariah-based performance. The governance has a positive moderating effect on the relationship between risk-taking and the performance of Islamic banks. Increasingly quality SSB strengthens the risk-taking relationship with maqashid shariah-based performance. This study implies that Islamic banks with quality SSB will be more efficient in managing risk to increase performance that complies with maqashid shariah criteria in the long term. This study concludes that managers must improve risk management in the distribution of funds so that Islamic banks are more efficient. Furthermore, policy-making authorities in each country must support the policy on the existence of SSB and the composition of the background so that it is of higher quality.

Keywords cross country, shariah supervisory board, investment account holder, stability inefficiency, panel data

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INTRODUCTION

Good governance, risk-taking, and performance are still a subject of debate in the literature. The research results were not consistent, which makes the topic still attractive for academics to examine further. The trend is not only in developing the conventional finance literature but also in the literature on Islamic finance. Implementing good shariah governance for the continuity of IB is crucial. One of the characteristics typical of shariah governance is the presence of an SSB (Ajili & Bouri, 2018). Governance rules, failure to comply with which can be fatal, can even lead to the bankruptcy of an entity. IB is also not separated from the problem of shariah governance failure, leading to the failure and difficulty in finance (Muhamad & Sulong, 2019). The practice of governance is necessary to ensure the sustainability of IB in achieving maqasid shariah to improve the welfare of the people (Asutay, 2012).

IB must apply more prudent risk management, considering that IB products are more complex than conventional banking products because mitigating risks is more stringent to avoid operational, insol-

vency, reputation and other risks. Characteristics of unique IB present the components of system governance that are different from the existing system management, namely the presence of SSB. Through a better shariah governance mechanism, it will increase risk mitigation. IB is not going to take excessive risk so that the stability of IB is still awake.

1. LITERATURE REVIEW AND HYPOTHESES

Objective performance measurement aims to provide accurate information to users. Accurate information related to performance at the right time will be helpful in decision-making (Harbour, 2009). Several frameworks describe constructs about performance measurement. Parida et al. (2015) divide the performance measurement framework into five frameworks based on:

1) traditional accounting;
2) multi-criteria;
3) multi-criteria hierarchy;
4) specific functions; and
5) specific businesses.

Elements of maqashid shariah have been adopted for performance measurement by previous researchers, namely Ascarya and Sukmana (2016), Julia and Kassim (2019), Mohammed and Taib (2015), and Rusydiana and Sanrego (2018).

Agency theory in conventional governance is more oriented towards maximizing shareholder value. Shariah governance presents an additional tool, namely the presence of SSB as a shariah compliance supervisor. A conflicting interest arises between SSB, which serves all stakeholders, and the board of directors, which serves the interests of shareholders. The role of SSB is vital to ensure compliance with shariah principles. They can reject products/contracts that are not under shariah principles even though the product/contract is profitable for shareholders (Farag et al., 2018). Mudharabah contracts, especially unrestricted Mudaraba contracts, IB shares profits with the owner of the Investment Account Holder (IAH), but the risk is borne by IAH, and IAH is not allowed to be involved in managing the funds. Therefore, it is a risk of opportunism for IB managers to take personal gain at the sacrifice of IAH's importance (Archer & Karim, 2006).

On the one hand, IB faces a conflict of interest between the manager and the owner. On the other hand, there is a potential conflict between the owner and the IAH. The agency relationship in this unique Islamic bank can lead to conflict between the owner and IAH (Archer et al., 1998). This agency conflict has resulted in the IB manager having to protect the interests of the owner and IAH (Farag et al., 2018; Grais & Pellegrini, 2006).

1.1. Maqasid shariah-based performance in an Islamic bank

Rahman et al. (2017, p. 4) and Aziz et al. (2013, pp. 5-6) define maqasid, which means goals, principles, goals, or objectives combined with the term shariah. The concept of maqasid shariah has been used as a performance measurement of Islamic banks. This measurement is applied in the maqasid shariah index by Antonio et al. (2012), Mohammed and Taib (2015), Ascarya and Sukmana (2016), and Julia and Kassim (2019). In the concept of Islamic economics, the fulfilment of human needs without ignoring the rights of others (maslahah), maqasid shariah is a guide to achieving this (Johnston, 2007). Maslahah in fulfilling human needs can be done through productive, dynamic, and flexible thinking (Al-mubarak & Osmani, 2010).

Islamic banks have different features from conventional banks. Their performance measurement should also be different (Nomran et al., 2018). According to Haron and Ibrahim (2016), Islamic banks and customers must have a relationship as partners, investors, not debtors and creditors. Beck et al. (2013) said shariah principles prohibit business activities using interest instruments because of usury, speculative transactions (*gharar*), and other illicit financing activities. Many researchers are not satisfied with the performance of Islamic banks. They claim that Islamic banks are not in line with Islamic economics and Islamic maqasid (Choudhury, 2006; Dusuki & Abozaid, 2007; Naceur & Omran, 2011). The reason is that Islamic banks use the same benchmarks as commercial

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banks in measuring performance. Therefore, implementing Islamic maqasid as a performance measurement of Islamic banks is a solution to answer these criticisms (Mohammed et al., 2015; Syarifah et al., 2021; Tarique et al., 2020).

1.2. Risk-taking and performance

Previous research provides evidence that bank efficiency is related to profitability. Tan and Floros (2014) investigated the relationship between risk and profitability. The result was that there was no significant impact between risk and profitability. Tan (2016) used a different sample to test the impact of risk and profitability; the result is that there is no impact of risk on profitability. García-Herrero et al. (2009) explained that banks with higher levels of efficiency have higher profitability. Inefficient banks tend to reduce profitability (García-Alcober et al., 2019). Fang et al. (2019) provide empirical evidence that risk-taking significantly negatively affects profitability.

IBS has a variety of products. On the one hand, this will reduce the risk of financing, and the religiosity of debtors will encourage loyalty and prevent defaults. Meanwhile, on the other hand, IBs will face more significant risks because the complexity of contracts in IB financing, such as profit-loss sharing (PLS) contracts, will cause a moral hazard (Abedifar et al., 2013). Risk-taking in this study is proxied by stability inefficiency. The higher stability inefficiency of IBs implies high risk-taking, while the lower stability inefficiency means lower risk-taking (Fang et al., 2019).

Stability inefficiency considers the cost of funds and the cost of capital, and the total funds raised. The cost of funds and the cost of capital are assumed to contain costs and other factors that can be controlled by management and cannot be controlled by management. The higher cost of funds and capital will affect a high stability inefficiency score, which can reduce the performance of Islamic banks.

1.3. Risk-taking, SSB, and performance

Alman (2012) found that improving the quality of SSB increases the risk-taking of IBs. Improving the quality of SSB has been proven to reduce the risk of IB insolvency and operational risk (Safiullah & Shamsuddin, 2017). Saeed and Izzeldin (2014) say that bank managers seek to improve cost efficiency, which is positively correlated with risk. In the case of IBs, increasing efficiency will reduce the risk of default, and risk reduction practices improve performance. Therefore, IBs must target efficiency improvements to reduce defaults and improve financial stability (Bukhari et al., 2013).

Ajili and Bouri (2018) found that SSB quality negatively moderates the relationship between accounting performance. Tan and Floros (2012a, 2012b) report that credit risk has no significant effect on profitability. Furthermore, Singh et al. (2018) found evidence that governance negatively moderates the relationship between independent boards and performance. IBs have more banking product features than products offered by conventional banks, so more risk mitigation is needed in each product distribution (Bouheni & Ammi, 2015). The courage of IBs in taking risks in product distribution must be supported by good governance to control excessive risk-taking. The quality of SSB, which consists of existence, size, expertise, and doctoral qualification, is expected to increase the effectiveness in supervising management behaviour to control risk-taking.

The literature on risk-taking, shariah governance, and performance is currently still debating their relationship. This study tries to test the relationship by measuring risk-taking and performance different from previous researchers. The research questions posed are as follows:

1. Does risk-taking affect the performance of Islamic banks?

2. Does shariah governance play a moderating role in the relationship between risk-taking and Islamic bank performance?

Based on the discussion and exposure to the literature above, the following research hypotheses are proposed:

H1: Higher risk-taking will reduce the performance of IB.

H2: There is an interaction between shariah governance and risk-taking that affects its performance. For higher quality shariah governance, greater risk-taking will improve its performance. For low-quality shariah governance, greater risk-taking will reduce the performance of IBs.

This study aims to examine the effect of risk-taking on the performance of Islamic banks and its moderating effect on this relationship. This study is essential to support the growth of Islamic banks that are more efficient to maintain long-term performance.

2. METHODOLOGY

2.1. Data

The study uses secondary data with a bank-level and cross-country analysis unit. The primary source to take the data is a database Bankscope provided by Berau Van Dijk Company, and GDP per capita is obtained from data from the World Bank. Non-financial data will be collected from yearly reports from each shariah bank. The study uses the information the companies disclosed in the reports annually published from 2014 to 2018. The number of IBs with complete financial data required is 75 banks from 19 countries with a five-year study period. The sample distribution by country is presented in Table 1; the details of the sample of Islamic banks are in Table A1 of Appendix A.

2.2. Measurement variable

As a proxy for the Islamic bank's performance variable, MSI is the dependent variable in this study. In the study, MSI uses the Maqasid Shariah Performance Evaluation Model (MPM) methods. The steps for calculating the MPM are shown in Table 2. This MPM concept was adopted from previous studies (Antonio et al., 2012; Julia & Kassim, 2019; Mohammed & Taib, 2015).

The independent variable in this study is the quality of SSB as a proxy for shariah governance (SG) and risk-taking. According to Neifar et al. (2020), the quality of SSB can be reflected in four attributes, namely, the presence, number, expertise, and doctoral qualifications of SSB members. The calculation of the SSB index is taken from these four indicators. Risk-taking uses translog specification measurement to estimate inefficiency (Fang et al., 2019; Tabak et al., 2012). Control variables consist of size, leverage, and GDP growth per capita (Dalwai & Mohammadi, 2020; Louhichi et al., 2019; Safiullah & Shamsuddin, 2017). The measurements of each variable are shown in Table 3.

Table 1. Distribution of sample

No	Country	Islamic Banks	Percentage (%)
1	Bahrain	9	12.00%
2	Jordan	1	1.33%
3	Kuwait	6	8.00%
4	Oman	2	2.67%
5	Qatar	2	2.67%
6	Saudi Arabia	4	5.33%
7	Turkey	1	1.33%
8	United Arab Emirates	7	9.33%
9	The Syrian Arab Republic	1	1.33%
10	Brunei Darussalam	1	1.33%
11	Malaysia	14	18.67%
12	Philippines	1	1.33%
13	Singapore	1	1.33%
14	Bangladesh	5	6.67%
15	Maldives	2	2.67%
16	Nigeria	1	1.33%
17	Pakistan	8	10.67%
18	United Kingdom	4	5.33%
19	Indonesia	5	6.67%
Total		75	100.00%

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Table 2. Maqasid shariah index calculation

Dimensions	Weight	Average (%)	Element	Average (%)	Ratio	Average (%)
D1: Preservation of Faith	W1	20	E1: Freedom of belief	–100	R1: mudarabah investment and musharakah / total investment	–50
					R2: total income –non-halal funds / total income	–50
Preservation of Life	W2	20	E2: Maintain human dignity	–50	R3: CSR expenses / total costs	–50
			E3: Upholding high right fundamental human	–50	R4: distribution of zakat / net assets	–50
Preservation of Intellect	W3	20	E4: Initiating scientific thinking	–50	R5: Technology investment / total assets	–50
			E5: Prevent a lack of knowledge	–50	R6: employees resign / number of employees	–50
Preservation of Progeny	W4	20	E6: Paying attention to all parties, including stakeholders	–100	R7: net income/shareholder equity	–16.67
					R8: research costs / total costs	–16.67
					R9: the cost of training and development / total costs	–16.67
					R10: net income / total assets	–16.67
					R11: NPF	–16.67
					R12: Tax paid / profit before tax	–16.67
Preservation of Wealth	W5	20	E7: Community welfare	–50	R13: investment for real sector / all investment	–33.33
					R14: Investment for SMEs / all investment	–33.33
			E8: Minimizing economic inequality	–50	R15: Investment for agriculture / all investment	–33.33

Table 3. Measurement of independent variables

No.	Variable	Definition	Measurement
1	SSB Quality	The quality of the DPS consists of 4 indicators an Islamic bank has an SSB score of 1, does not have a score of 0, has a minimum of three SSB members with a score of 1, less than three scores of 0, has an SSB member with a doctoral degree, a score of 1, does not have a score of 0, and has an SSB member with a background financial background or have experience in Islamic financial institutions are given a score of 1 and 0 if they do not have	Total DPS quality score divided by four
2	Risk-Taking	Zscore by combining three risk liquidity, risk of credit, and risk capital	Input price: the ratio of profit sharing/total deposits and the ratio of non-profit sharing / fixed assets Output: total financing, deposits, securities, and non-profit sharing income
3	Bank Size	Total Asset	Ln Total Asset
4	Leverage	Debt to total assets ratio	Total debt / total assets
5	GDP growth rate of per capita	The annual growth rate of per capita GDP in percentage	The annual rate of per capita GDP in percentage on a year- to tt_{-1}

2.3. Empirical model

This study analyzes the effect of risk-taking on performance and examines the effect of shariah governance in this relationship. The statistical model to test the relationship is as follows:

$$msi_{it} = b_0 + b_1 risk\_taking_{it} + \\ + b_2 size_{it} + b_3 lev_{it} + \\ + b_4 gdp\_growthpercap + e_{it}, \quad (1)$$

$$msi_{it} = b_0 + b_1 risk\_taking_{it} \cdot ssb\_quality_{it} + \\ + b_2 size_{it} + b_3 lev_{it} + b_4 gdp\_growthpercap + e_{it}, \quad (2)$$

where, MSI = maqasid shariah index; *ssb_quality* = SSB index; *size* = all assets in the natural log; *lev* = total debt divided by all assets; *gdp_growthpercap* = percentage growth of GDP per capita.

The risk-taking model is adopted from Fang et al. (2019) with the model as follows:

$$Ln\left(\frac{Z-score}{W_2}\right)_{it} = \delta_0 + \sum_j \delta_j LnY_{jit} + \\ + \frac{1}{2}\sum_j \sum_k \delta_{jk} LnY_{jit} LnY_{kit} + \\ + \beta_1 Ln\left(\frac{W_1}{W_2}\right)_{it} + \frac{1}{2}\beta_2 Ln\left(\frac{W_1}{W_2}\right)_{it} + \\ + \sum_j \theta_j LnY_{jit} Ln\left(\frac{W_1}{W_2}\right)_{it} + \nu_{it} - \upsilon_{it}, \quad (3)$$

where W represents the input price, which includes the price of funds (the ratio of the distribution of profit sharing to the total deposit) and the price of capital (the ratio of non-profit sharing expenses to fixed assets). Y represents four outputs: total financing, total deposits, securities, and non-profit sharing income). The i and t sub-indices show IBs operating at time t, while j and k represent different outputs. The error term ε_{it} equals $\nu_{it} - \upsilon_{it}$. The first term, ν_{it} captures the random disturbance, which is assumed to be normally distributed; it represents the measurement errors and other uncontrolled factors, i.e., $\nu_{it} \sim N(0, \sigma_\nu^2)$. The second term υ_{it} captures the technical and allocative inefficiency, both under managerial control, and it is assumed to be half-normally distributed, i. e. $\upsilon_{it} \sim N + (\mu_{it}, \sigma_\upsilon^2)$. The higher score of Inefficiency stability indicates high risk-taking; the opposite low scores indicate low risk-taking.

The data were tested to prove the hypothesis of this study using the dynamic panel regression estimation technique with the generalized two-step method of moments (GMM). This method was chosen to avoid endogeneity problems (Daher et al., 2015).

3. RESULTS

Descriptive analysis for each of the variables studied is presented in Table 4. Maqasid shariah-based performance shows a positive performance with an average score of 0.29108. This score means that during the observation period, IBs can achieve performance by generating profits and can meet the criteria of maqasid shariah.

Table 4. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
MSI	365	0.29108	0.19946	0.00009	0.92932
rt	351	–0.00643	1.25157	–5.11240	4.51582
SSB	365	0.56918	0.312033	0	1.00000
size	365	7.65885	2.15731	0.82378	11.48591
lev	365	0.799874	0.22434	0.00685	0.95553
gdppcap	360	1.68099	2.79568	–7.04313	6.73702

The shariah governance variable is proxied by the quality of the SSB; it can be seen that the minimum value is zero because several countries in the MENA region do not require IBs to raise their SSB. The average SSB quality score is 0.56918, and most of the IBs observed in this study already have an SSB. According to the AAOIFI governance standards, IBs have at least three SSB members (Ajili & Bouri, 2018; Farook et al., 2011). In this study, most IBs have met the standard requirements set by AAOIFI. Another criterion in measuring the quality of SSB is expertise, as seen from the background of SSB members having accounting or finance education and SSB with doctoral qualifications. The expertise criterion is still a minority in the SSB quality calculation score because most of it does not have an SSB with an accounting or financial education background. While the doctoral qualifications for SSB, these criteria are mostly met because most IBs have doctoral qualifications. Observations from the annual report and website show that many SSB members come from academics and international practitioners who have a doctoral level of education in the field of shariah. In addition, most SSB members from the MENA Region are AAOIFI members, and they become DDB for more than one institution at the same time.

The average risk-taking value is –0.00643; this figure is lower than in previous studies of 0.22 (Fang et al., 2019) and 0.35 (Ahmad & Azhari, 2021). These results indicate that the risk-taking of IBs during the

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Table 5. Matrix correlation

Variable	ms	risk_taking	ssb_quality	size	lev	gdp_percap
ms	1.0000	–	–	–	–	–
risk_taking	0.0968	1.0000	–	–	–	–
ssb_quality	0.0160	–0.0450	1.0000	–	–	–
size	0.4674*	0.02617	0.2617*	1.0000	–	–
lev	0.0912	0.2146	0.2146*	0.5100*	1.0000	–
gdp_percap	–0.1178*	0.1180*	0.1180*	–0.0652	0.1329*	1.0000

observation is still low. The control variables of this study consisted of leverage, size, and GDP per capita. Table 4 shows that IBs have an average leverage ratio of 79.98735 per cent. The size of IBs uses the size of total assets with an average value of 7.65885. Based on these data, it can be seen that there is a large gap between the maximum total assets and the minimum total assets of IBs. GDP per capita, on average, experienced positive growth of 1.68099.

Pairwise correlation analysis was conducted to check the correlation of variables in the model. Hakimi et al. (2018) argue that the correlation coefficient test results of more than 60% indicate a multicollinearity problem. Table 4 displays the correlation matrix between the variables used in this study. Based on observations (see Table 5), all research variables in the correlation matrix above and the coefficients of all variables are below 60%. It can be concluded that all variables in this study are free from multicollinearity problems.

The feasibility of the GMM model specifications can be tested in two ways. First, the AR(2) test for each model shows results that are not statistically significant so that the residuals are not serially correlated in the second order for the first difference equation. Second, the Sargan test results show that the set of instruments used is valid because the probability value of each is more significant than 0.05, which means it is not statistically significant, so it can be concluded that the instrument used is valid.

4. DISCUSSION

Test results show that the risk-taking hypothesis is significant in a negative direction, so the results

Table 6. Baseline full sample (2-step system GMM)

Variable	Model 1	Model 2
L.msi	0.635***	0.654***
	(41.423)	(41.380)
risk_taking	0.000	–0.006***
	(0.383)	(–10.728)
risk_taking*ssb_qty	–	0.011***
	–	(6.497)
size	0.010***	0.009***
	(11.026)	(6.260)
lev	–0.065***	–0.081***
	(–14.484)	(–9.950)
gdpgrowthpercap	0.008***	0.009***
	(12.945)	(11.528)
gcc	0.050***	0.055***
	(12.250)	(11.313)
_cons	0.058***	0.057***
	(11.457)	(12.796)
Obs.	232.000	232.000
Bank	64.000	64.000
AR2 Stat.	0.758	0.758
AR2 P-Val	0.448	0.448
Sargan Stat.	74.447	79.404
Sargan P-Val	0.223	0.434

Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$; *t* statistics in parentheses.

of this study are under the first hypothesis. The higher risk-taking by IBs can reduce performance. This study rejects the results of Fang et al. (2019), Tan (2016), and Tan and Floros (2012a) that a high level of risk is unable to raise its performance. The evidence of this study espouses the previous results of Das and Ghosh (2009) that an increase in credit risk and portfolio risk will reduce profits. Fiordelisi et al. (2011) say that an increase in bank risk can be caused by weak credit monitoring, and weak control over operational costs can decrease performance. Therefore, the results of this study found an inverse relationship between risk-taking and performance. Manlagñit (2011) found the same evidence that risk-taking is inversely proportional to performance.

These empirical findings do not support agency theory. Agency theory in the previous literature was used to explain the relationship of risk-taking with performance. The argument that was built earlier says that bank managers will behave in a higher risk-taking to pursue profit to impact high bonuses. The study results show that high risk-taking reduces its performance.

Competition in banking services with competitors (commercial banks) triggers an increase in the cost of funds and capital costs so that it can erode the profit of IBs. These results support Beck et al. (2013) that IBs are less cost-efficient than commercial banks. In addition, the complexity of the scheme (contract) in IB products can lead to an increase in monitoring costs. Islamic banks must comply with shariah rules, increasing administrative costs for these activities. In addition, mudharabah financing can increase credit risk because banks cannot ask for collateral (Mollah et al., 2016).

Empirical evidence shows that the shariah governance hypothesis has a statistically significant moderating effect on risk-taking and performance, following the second hypothesis. This finding aligns with Ajili and Bouri (2018) and Nawaz (2019). SSB moderates risk-taking with performance. A larger SSB size, consisting of various backgrounds such as Islamic law, accounting or finance, and a doctoral education level, will provide banks with more knowledge and expertise (Nomran et al., 2018). According to Quttainah and Almutairi (2017), the mission of the SSB is similar to the audit committee, namely, carrying out contract audit tasks that contain financial elements and ensuring shariah compliance. SSB with an accounting or finance background minimizes financial errors in this context.

According to Safiullah and Shamsuddin (2017), a large SSB can control excessive risk-taking in Islamic banks, which tend to behave in risk-taking to maximize profits. Grassa (2013) argues that an efficient shariah supervision system can increase compliance with shariah principles and improve performance. The increasing quality of SSB can lead to better supervision so that risk-taking tends to decrease and, in the end, can increase its performance.

Governance for Islamic banks performs a dual function, namely as a supervisor of bank activities in general and monitoring shariah compliance in bank operational activities. Owners of funds with the mudharabah scheme have risks to investments channelled by banks, so banks must improve governance to be more efficient and provide optimal profit sharing (Bourakba & Zerargui, 2015).

CONCLUSION

Risk-taking in Islamic banks is crucial to achieving efficiency. Shariah governance controls risk-taking so that Islamic banks operate within the corridors of shariah principles. Data analysis involved a sample of 75 IBs from 19 countries. This study indicates that risk-taking significantly negatively affects the maqasid shariah-based performance. The results showed that risk-taking had a significant adverse effect on performance based on shariah maqasid. Islamic banks must improve risk management, especially controlling non-performing financing, to maintain efficiency and financial stability based on these results. Islamic banks can adopt maqasid shariah-based performance measurement because the more this concept is applied, the more dimensions it can create to develop a better concept.

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Shariah governance is proven to moderate a positive relationship between risk-taking and performance. These results prove that the SSB has performed its function well, an additional layer in shariah governance. This finding implies that Islamic banks must meet AAOIFI's requirements. Namely, the SSB must consist of at least three members. In addition, attention must be paid to the composition of SBB so that it is of higher quality.

The study is not without limitations; the data is limited to Islamic banks only, so these results cannot be generalized to other industries. These limitations open up opportunities for further research to further explore the non-banking shariah industry.

AUTHOR CONTRIBUTIONS

Conceptualization: Prasojo, Winwin Yadiati, Tettet Fitrijanti, Memed Sueb.
Data curation: Prasojo, Winwin Yadiati, Tettet Fitrijanti, Memed Sueb.
Formal analysis: Prasojo, Winwin Yadiati, Tettet Fitrijanti, Memed Sueb.
Funding acquisition: Prasojo, Winwin Yadiati, Tettet Fitrijanti, Memed Sueb.
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Methodology: Prasojo, Winwin Yadiati, Tettet Fitrijanti, Memed Sueb.
Project administration: Prasojo, Winwin Yadiati, Tettet Fitrijanti, Memed Sueb.
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REFERENCES

1. Abedifar, P., Molyneux, P., & Tarazi, A. (2013). Risk in Islamic banking. *Review of Finance, 17*(6), 2035-2096. https://doi.org/10.1093/rof/rfs041
2. Ahmad, H. H., & Azhari, A. (2021). The performance and corporate risk-taking of firms: evidence from Malaysian agricultural firms. *Journal of Agribusiness in Developing and Emerging Economies.* https://doi.org/10.1108/JADEE-11-2020-0267
3. Ajili, H., & Bouri, A. (2018). Assessing the moderating effect of Shariah Board on the relationship between financial performance and accounting disclosure. *Managerial Finance, 44*(5), 570-589. https://doi.org/10.1108/MF-05-2017-0192
4. Alman, M. (2012). *Shari'ah Supervisory Board Composition Effects on Islamic Banks' Risk-Taking Behavior.* European Financial Management Association. https://doi.org/10.2139/ssrn.2140042
5. Al-Mubarak, T., & Osmani, N. M. (2010). *Applications of Maqasid al-Shari ' ah and Maslahah in Islamic Banking practices : An analysis*. International Seminar on Islamic Finance in India. Retrieved from http://irep.iium.edu.my/4251/1/Applications_of_Maqasid_Shari%60ah.pdf
6. Antonio, M. S., Sanrego, Y. D., & Taufiq, M. (2012). An Analysis of Islamic Banking Performance: Maqashid Index Implementation in Indonesia and Jordania. *Journal of Islamic Finance, 1*(1), 12-29. Retrieved from https://journals.iium.edu.my/iiibf-journal/index.php/jif/article/view/2
7. Archer, S., & Karim, R. A. A. (2006). On the capital structure, risk-sharing, and capital adequacy in Islamic banks. *International Journal of Theoretical and Applied Finance, 9*(3), 269-280. https://doi.org/10.1142/S0219024906003627
8. Archer, S., Karim, R. A. A., & Al-Deehani, T. (1998). Financial contracting, governance structures and the accounting regulation of Islamic banks: An analysis of agency theory and transaction cost economics. *Journal of Management and Governance, 2*(2), 149-170. https://doi.org/10.1023/A:1009985419353
9. Ascarya, S. R., & Sukmana, R. (2016). Measuring the Islamicity of Islamic Bank in Indonesia and Other Countries Based on Shari'ah Objectives. *Proceeding of the 11th International Conference on Islamic Economics and Finance* (pp. 1-38).
10. Asutay, M. (2012). Conceptualizing and Locating the Social Failure of Islamic Finance: Aspirations of Islamic Moral Economy vs the Realities of Islamic Finance. *Asian and African Area Studies, 11*(2), 93-113. https://doi.org/10.14956/asafas.11.93

11. Aziz, A., Faizal, A., & Mohamad, S. (2013). *Fulfilment of Maqasid al-Shariah via Takaful* (Munich Personal RePEc Archive Paper No. 47776). Retrieved from https://mpra.ub.uni-muenchen.de/47776/

12. Beck, T., Demirgüç-Kunt, A., & Merrouche, O. (2013). Islamic vs conventional banking: Business model, efficiency and stability. *Journal of Banking and Finance, 37*(2), 1-42. https://doi.org/10.1016/j.jbankfin.2012.09.016

13. Bouheni, F. B., & Ammi, C. (2015). Banking Governance: What's Special About Islamic Banks? *The Journal of Applied Business Research, 31*(4), 1621-1630. https://doi.org/10.19030/jabr.v31i4.9341

14. Bourakba, C., & Zerargui, H. (2015). The Relationship between Credit Risk and Corporate Governance in Islamic Banking: An Empirical Study. *Issues in Business Management and Economics, 3*(4), 67-73. http://dx.doi.org/10.15739/IBME.2014.016

15. Bukhari, K. S., Awan, H. M., & Ahmed, F. (2013). An evaluation of corporate governance practices of Islamic banks versus Islamic bank windows of conventional banks. *Management Research Review, 36*(4), 400-416. https://doi.org/10.1108/01409171311315003

16. Choudhury, M. A. (2006). What Is the Scope of Islamic Economics and Finance? *Journal of Islamic Economics, Banking, and Finance, 2*(1), 1-14. Retrieved from http://ibtra.com/pdf/journal/v2_n1_article2.pdf

17. Daher, H., Masih, M., & Ibrahim, M. (2015). The unique risk exposures of Islamic banks' capital buffers: A dynamic panel data analysis. *Journal of International Financial Markets, Institutions, and Money, 36,* 36-52. https://doi.org/10.1016/j.intfin.2015.02.012

18. Dalwai, T., & Mohammadi, S. S. (2020). Intellectual capital and corporate governance: an evaluation of Oman's financial sector companies. *Journal of Intellectual Capital, 21*(6), 1125-1152. https://doi.org/10.1108/jic-09-2018-0151

19. Das, A., & Ghosh, S. (2009). Financial deregulation and profit efficiency: A nonparametric analysis of Indian banks. *Journal of Economics and Business, 61*(6), 509-528. https://doi.org/10.1016/j.jeconbus.2009.07.003

20. Dusuki, A. W., & Abozaid, A. (2007). A Critical Appraisal on the Challenges of Realizing Maqasid Al-Shariah in Islamic Banking and Finance. *IIUM Journal of Economics and Management, 15*(2), 143-165. Retrieved from https://journals.iium.edu.my/enmjournal/index.php/enmj/article/view/133

21. Fang, J., Lau, C. K. M., Lu, Z., Tian, Y., & Zhang, H. (2019). Bank performance in China: A Perspective from Bank efficiency, risk-taking, and market competition. *Pacific-Basin Finance Journal, 56,* 290-309. https://doi.org/10.1016/j.pacfin.2019.06.011

22. Farag, H., Mallin, C., & Ow-Yong, K. (2018). Corporate governance in Islamic banks: New insights for dual board structure and agency relationships. *Journal of International Financial Markets, Institutions, and Money, 54,* 59-77. https://doi.org/10.1016/j.intfin.2017.08.002

23. Farook, S., Kabir Hassan, M., & Lanis, R. (2011). Determinants of corporate social responsibility disclosure: the case of Islamic banks. *Journal of Islamic Accounting and Business Research, 2*(2), 114-141. https://doi.org/10.1108/17590811111170539

24. Fiordelisi, F., Marques-Ibanez, D., & Molyneux, P. (2011). Efficiency and risk in European banking. *Journal of Banking and Finance, 35*(5), 1315-1326. https://doi.org/10.1016/j.jbankfin.2010.10.005

25. García-Alcober, M. P., Prior, D., Tortosa-Ausina, E., & Illueca, M. (2019). Risk-taking behaviour, earnings quality, and bank performance: A profit frontier approach. *BRQ Business Research Quarterly, 23*(4), 285-304. https://doi.org/10.1177%2F2340944420966870

26. García-Herrero, A., Gavilá, S., & Santabárbara, D. (2009). What explains the low profitability of Chinese banks? *Journal of Banking and Finance, 33*(11), 2080-2092. https://doi.org/10.1016/j.jbankfin.2009.05.005

27. Grais, W., & Pellegrini, M. (2006). *Corporate Governance and Shariah Compliance in Institutions Offering Islamic Financial Services* (World Bank Policy Research Working Paper No. 4054). Retrieved from http://hdl.handle.net/10986/8901

28. Grassa, R. (2013). Shariah supervisory system in Islamic financial institutions: New issues and challenges: a comparative analysis between Southeast Asia models and GCC models. *Humanomics, 29*(4), 333-348. https://doi.org/10.1108/H-01-2013-0001

29. Hakimi, A., Rachdi, H., Mokni, R. B. S., & Hssin, H. (2018). Do board characteristics affect bank performance? Evidence from the Bahrain Islamic banks. *Journal of Islamic Accounting and Business Research, 9*(2), 251-272. https://doi.org/10.1108/JIABR-06-2015-0029

30. Harbour, J. L. (2009). *The Basic of Performance Measurement* (2nd ed.). CRC Press, Taylor & Francis Group.

31. Haron, R., & Ibrahim, K. (2016). Islamic financing in mitigating access to financing problems of SMEs in Malaysia: A survey analysis. *Intellectual Discourse, 24,* 387-408. Retrieved from https://journals.iium.edu.my/intdiscourse/index.php/id/article/view/926

32. Johnston, D. L. (2007). Maqasid Al-Shari'a: Epistemology and Hermeneutics of Muslim Theologies of Huma Rights. In *Die Welt des Islams* (pp. 149-187). https://doi.org/10.1163/157006007781569936

33. Julia, T., & Kassim, S. (2019). Exploring green banking performance of Islamic banks vs conventional banks in Bangladesh based on Maqasid Shariah framework. *Journal of Islamic Marketing, 11*(3), 729-744. https://doi.org/10.1108/JIMA-10-2017-0105

34. Louhichi, A., Louati, S., & Boujelbene, Y. (2019). Market-power, stability, and risk-taking: an analysis is surrounding the riba-free banking. *Review of Accounting and*

http://dx.doi.org/10.21511/bbs.17(1).2022.12

Finance, 18(1), 2-24. https://doi.org/10.1108/RAF-07-2016-0114

35. Manlagñit, M. C. V. (2011). Cost efficiency, determinants, and risk preferences in banking: A case of stochastic frontier analysis in the Philippines. *Journal of Asian Economics, 22*(1), 23-35. https://doi.org/10.1016/j.asieco.2010.10.001

36. Mohammed, M. O., & Taib, F. M. (2015). Developing Islamic Banking Performance based on Maqasid Syariah Framework: Cases of 24 Selected Banks. *Journal of Islamic Monetary Economics and Finance, 1*(1), 55-78. https://doi.org/10.21098/jimf.v1i1.483

37. Mohammed, M. O., Tarique, K. M., & Islam, R. (2015). Measuring the performance of Islamic banks using the maqasid based model. *Intellectual Discourse, 23,* 401-424. Retrieved from https://journals.iium.edu.my/intdiscourse/index.php/id/article/view/692

38. Mollah, S., Hassan, M. K., Al Farooque, O., & Mobarek, A. (2016). The governance, risk-taking, and performance of Islamic banks. *Journal of Financial Services Research, 51*(2), 195-219. https://doi.org/10.1007/s10693-016-0245-2

39. Muhamad, S. F., & Sulong, Z. (2019). A review of the characteristics of corporate and shariah governance mechanisms and earnings quality. *International Journal of Critical Accounting, 10*(6), 447-461. https://doi.org/10.1504/IJCA.2018.098266

40. Naceur, S. B., & Omran, M. (2011). The effects of bank regulations, competition, and financial reforms on banks' performance. *Emerging Markets Review, 12*(1), 1-20. https://doi.org/10.1016/j.ememar.2010.08.002

41. Nawaz, T. (2019). Exploring the Nexus Between Human Capital, Corporate Governance and Performance: Evidence from Islamic Banks. *Journal of Business Ethics, 157*(2), 1-21. https://doi.org/10.1007/s10551-017-3694-0

42. Neifar, S., Salhi, B., & Jarboui, A. (2020). The moderating role of the Shariah supervisory board on the relationship between board effectiveness, operational risk transparency, and bank performance. *International Journal of Ethics and Systems, 36*(3), 325-349. https://doi.org/10.1108/IJOES-09-2019-0155

43. Nomran, N. M., Haron, R., & Hassan, R. (2018). Shari'ah Supervisory Board Characteristics Effects On Islamic Banks' Performance: Evidence from Malaysia. *International Journal of Bank Marketing, 36*(2), 290-304. https://doi.org/10.1108/IJBM-12-2016-0197

44. Parida, A., Kumar, U., Galar, D., & Stenström, C. (2015). Performance measurement and management for maintenance: a literature review. *Journal of Quality in Maintenance Engineering, 21*(1), 2-33. https://doi.org/10.1108/JQME-10-2013-0067

45. Quttainah, M. A., & Almutairi, A. R. (2017). Corporate governance: Evidence from Islamic banks. *Social Responsibility Journal, 13*(3), 601-624. https://doi.org/10.5465/ambpp.2016.53

46. Rahman, F. K. K., Tareq, M. A., Yunanda, R. A., & Mahdzir, A. (2017). Maqasid Al-Shari'ah-based performance measurement for Halal industry. *Humanomics, 33*(3), 357-370. https://doi.org/10.1108/H-03-2017-0054

47. Rusydiana, A., & Sanrego, Y. D. (2018). Measuring the Performance of Islamic Banking in Indonesia: An Application of Maslahah-Efficiency Quadrant (MEQ). *Journal of Islamic Monetary Economics and Finance, 3,* 103-130. https://doi.org/10.21098/jimf.v3i0.909

48. Saeed, M., & Izzeldin, M. (2014). Examining the relationship between default risk and efficiency in Islamic and conventional banks. *Journal of Economic Behavior and Organization, 132,* 127-154. https://doi.org/10.1016/j.jebo.2014.02.014

49. Safiullah, M., & Shamsuddin, A. (2017). Risk in Islamic banking and corporate governance. *Pacific-Basin Finance Journal, 47,* 129-149. https://doi.org/10.1016/j.pacfin.2017.12.008

50. Singh, S., Tabassum, N., Darwish, T. K., & Batsakis, G. (2018). Corporate Governance and Tobin's Q as a Measure of Organizational Performance. *British Journal of Management, 29*(1), 171-190. https://doi.org/10.1111/1467-8551.12237

51. Syarifah, L., Muhfiatun, Fitrijanti, T., & Prasojo. (2021). Maqasid shariah and Islamic bank performance: a systematic review. *I-ECONOMICS: A Research Journal on Islamic Economics, 7*(2), 1-17. https://doi.org/10.19109/ieconomics.v7i2.9167

52. Tabak, B. M., Fazio, D. M., & Cajueiro, D. O. (2012). The relationship between banking market competition and risk-taking: Do size and capitalization matter? *Journal of Banking and Finance, 36*(12), 3366-3381. https://doi.org/10.1016/j.jbankfin.2012.07.022

53. Tan, Y. (2016). The impacts of risk and competition on bank profitability in China. *Journal of International Financial Markets, Institutions, and Money, 40,* 85-110. https://doi.org/10.1016/j.intfin.2015.09.003

54. Tan, Y., & Floros, C. (2011). Bank profitability and inflation: The case of China. *Journal of Economic Studies, 39*(6), 675-696. https://doi.org/10.1108/01443581211274610

55. Tan, Y., & Floros, C. (2012a) Bank profitability and GDP growth in China: A note. *Journal of Chinese Economic and Business Studies, 10*(3), 267-273. https://doi.org/10.1080/14765284.2012.703541

56. Tan, Y., & Floros, C. (2012b). Stock market volatility and bank performance in China. *Studies in Economics and Finance, 29*(3), 211-228. https://doi.org/10.1108/10867371211246885

57. Tarique, K. M., Islam, R., & Mohammed, M. O. (2020). Developing and validating the components of the Maqasid al-Shari'ah-based performance measurement model for Islamic banks. *International Journal of Islamic and Middle Eastern Finance and Management, 14*(2), 366-390. https://doi.org/10.1108/IMEFM-12-2018-0432

APPENDIX A

Table A1. List of sample Islamic banks

No.	Islamic Bank	Country
1	ABC Islamic Bank (EC.)	Bahrain
2	Al Baraka Banking Group B.S.C.	Bahrain
3	Al Baraka Islamic Bank B.S.C. (c)	Bahrain
4	Bahrain Islamic Bank BSC.	Bahrain
5	Citi Islamic Investment Bank	Bahrain
6	Global Banking Corporation BSC.	Bahrain
7	Kuwait Finance House BSC.	Bahrain
8	Liquidity Management Center BSC	Bahrain
9	Venture Capital Bank BSC (c)	Bahrain
10	Al-Arafah Islami Bank Ltd.	Bangladesh
11	ICB Islamic Bank Limited	Bangladesh
12	Islami Bank Bangladesh	Bangladesh
13	Shahjalal Islami Bank Limited	Bangladesh
14	Social Islami Bank Ltd	Bangladesh
15	Bank Islam Brunei Darussalam Berhad	Brunei Darussalam
16	PT Bank BCA Syariah	Indonesia
17	PT Bank BNI Syariah	Indonesia
18	PT Bank BRI Syariah Tbk	Indonesia
19	PT Bank Mega Syariah	Indonesia
20	PT Bank Syariah Mandiri	Indonesia
21	Islamic International Arab Bank	Jordan
22	Ahli United Bank (Kuwait)	Kuwait
23	Boubyan Bank KSCP.	Kuwait
24	Gulf Investment House KSCP.	Kuwait
25	Kuwait Finance House (KSCP.)	Kuwait
26	Kuwait International Bank KSCP.	Kuwait
27	Warba Bank KSCP.	Kuwait
28	Affin Islamic Bank Berhad	Malaysia
29	Al Rajhi Banking & Investment Corporation (Malaysia)	Malaysia
30	Alliance Islamic Bank Berhad	Malaysia
31	AmBank Islamic Berhad	Malaysia
32	Bank Islam Malaysia Berhad	Malaysia
33	Bank Muamalat Malaysia Berhad	Malaysia
34	CIMB Islamic Bank Berhad	Malaysia
35	Hong Leong Islamic Bank Berhad	Malaysia
36	HSBC Amanah Malaysia Berhad	Malaysia
37	Maybank Islamic Berhad	Malaysia
38	OCBC Al-Amin Bank Berhad	Malaysia
39	Public Islamic Bank Berhad	Malaysia
40	RHB Islamic Bank Berhad	Malaysia
41	Standard Chartered Saadiq Berhad	Malaysia
42	Housing Development Finance Corporation PLC	Maldives
43	Maldives Islamic Bank Private Limited	Maldives
44	Jaiz Bank PLC	Nigeria
45	Alizz Islamic Bank S.A.O.G.	Oman
46	Bank Nizwa SAOG	Oman
47	Albaraka Bank (Pakistan) Ltd	Pakistan
48	Bank Islami Pakistan Limited	Pakistan
49	Dubai Islamic Bank Pakistan Limited	Pakistan
50	First Habib Modaraba	Pakistan
51	First National Bank Modaraba	Pakistan
52	Meezan Bank Ltd.	Pakistan

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Table A1 (cont.). List of sample Islamic banks

No.	Islamic Bank	Country
53	ORIX Modaraba	Pakistan
54	Pak-Gulf Leasing Company	Pakistan
55	Al-Amanah Islamic Investment Bank of the Philippines	Philippines
56	Qatar Islamic Bank (QPSC)	Qatar
57	QInvest LLC	Qatar
58	Al Rajhi Banking and Investment Corporation	Saudi Arabia
59	Alinma Bank	Saudi Arabia
60	Bank Albilad	Saudi Arabia
61	Bank Aljazira	Saudi Arabia
62	The Islamic Bank of Asia Limited	Singapore
63	Syria International Islamic Bank	The Syrian Arab Republic
64	Turkiye Finans Katilim Bankasi A.S.	Turkey
65	Abu Dhabi Islamic Bank PJSC	United Arab Emirates
66	Ajman Bank PJSC	United Arab Emirates
67	Al Hilal Bank PJSC	United Arab Emirates
68	Dubai Islamic Bank (Public Joint Stock Company)	United Arab Emirates
69	Emirates Islamic Bank PJSC	United Arab Emirates
70	Noor Bank PJSC	United Arab Emirates
71	Sharjah Islamic Bank PJSC	United Arab Emirates
72	Al Rayan Bank Plc	United Kingdom
73	Bank of London and The Middle East plc	United Kingdom
74	Gatehouse Bank Plc	United Kingdom
75	Rasmala UK Ltd.	United Kingdom