“The effect of shariah board characteristics, risk-taking, and maqasid shariah on an Islamic bank’s performance”

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ARTICLE INFO	Memed Sueb, Prasojo, Muhfiatun, Lailatis Syarifah and Rosyid Nur Anggara Putra (2022). The effect of shariah board characteristics, risk-taking, and maqasid shariah on an Islamic bank’s performance. *Banks and Bank Systems*, *17*(3), 89-101. doi:10.21511/bbs.17(3).2022.08
DOI	http://dx.doi.org/10.21511/bbs.17(3).2022.08
RELEASED ON	Monday, 12 September 2022
RECEIVED ON	Friday, 08 July 2022
ACCEPTED ON	Thursday, 25 August 2022

JOURNAL	"Banks and Bank Systems"
ISSN PRINT	1816-7403
ISSN ONLINE	1991-7074
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”

NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
60	0	5

BUSINESS PERSPECTIVES

LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine

www.businessperspectives.org

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THE EFFECT OF SHARIAH BOARD CHARACTERISTICS, RISK-TAKING, AND MAQASID SHARIAH ON AN ISLAMIC BANK'S PERFORMANCE

Abstract

Shariah supervisory boards are a key feature of shariah governance (SG), providing additional monitoring and oversight. A suitable SG mechanism enhances risk mitigation and improves Islamic bank (IB) performance without violating shariah principles. This study examines the impact of the shariah supervisory board (SSB), maqasid shariah, and risk-taking on Islamic bank performance globally. Quantitative research design with a Dynamic panel regression approach is used with a two-step generalized method of moments (GMM) with data from the Bankscope database for 2014–2018. The findings of this study show that characteristics of SSB and risk-taking have a significant impact on IB performance. This study proves that higher SSB characteristics in terms of size, expertise, level of education, cross-membership and reputation encourage the better performance of Islamic banks. Higher risk-taking illustrates that Islamic banks are more efficient, resulting in better financial performance. Compliance with maqasid sharia indicates that sharia banks comply with Islamic laws so that the resulting performance meets financial aspects and sharia principles. SSB functions as a monitor for Islamic banks so that they operate according to sharia principles, which are reflected in the maqasid sharia elements. Therefore, a higher quality SSB and a higher maqasid shariah index score positively affect the financial performance of IBs.

Keywords corporate governance, financial risk, cross country, financial performance, GCC countries

JEL Classification G21, G38, M12

Received on: 8th of July, 2022
Accepted on: 25th of August, 2022
Published on: 12th of September, 2022

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Conflict of interest statement:
Author(s) reported no conflict of interest

INTRODUCTION

Islamic banks (IBs) operate on shariah principles, avoiding interest (*riba*), uncertainty (*gharar*), and gambling (*maysir).* Customers consider religion, reputation, and performance when choosing a bank (Dusuki & Abozaid, 2007). Trust is an essential element for banking-service providers and is assured by shariah compliance (Ashraf et al., 2015; Ullah & Lee, 2012). Satisfying customers increases loyalty, market share, and profitability (Kashif et al., 2014). Customer expectations are met, and IBs maintain shariah compliance (Ullah & Lee, 2012). A shariah supervisory board (SSB) is thus an essential factor in increasing profitability (Amin et al., 2013). They ensure contracts comply with shariah provisions, exercise due diligence to mitigate the risks of non-compliance, conduct shariah audits, and issue fatwas to create stakeholder confidence in shariah compliance (Nawaz, 2019). Risk-taking behavior may sustain long-term performance (Faccio et al., 2011). However, excessive risk-taking can harm performance (Chong et al., 2018; Fiordelisi et al., 2011). Therefore, IBs must improve monitoring through SSBs. IBs face operational risks and non-compliance with shariah principles (Hazizi & Kassim, 2019). SSBs in SG can

reduce this risk (Grassa, 2013). The literature addresses the relationship between SSBs and risk-taking (Alman, 2012; Hassan & Mollah, 2014; Mollah et al., 2017; Ramly & Nordin, 2018) and SSBs and performance (Al-Malkawi & Pillai, 2018; Buallay, 2019; Hakimi et al., 2018; Haniffa & Hudaib, 2006; Mezzi, 2018; Mollah & Zaman, 2015; Neifar et al., 2020; Quttainah & Almutairi, 2017).

A sharia board with a combination of expertise, level of education, cross membership, and reputation enhances oversight of shariah principles. Discussions between sharia boards resulted in higher quality decisions. In the end, the risk of Islamic banks can be appropriately managed to produce higher performance. The fulfilment of the maqashid sharia component makes Islamic banks achieve better financial performance that complies with sharia principles.

1. LITERATURE REVIEW AND HYPOTHESES

Previous analysis of the impact of SSBs on IB performance shows mixed results. SSB characteristics such as size, reputation, and cross-membership positively correlate with performance (Baklouti, 2022). Meanwhile, Nawaz (2019) and Syafa and Haron (2019) find that SSB expertise and reputation harm performance. Other studies do not provide evidence of this impact (Baklouti, 2022). The evidence on risk-taking and performance remains inconsistent. Shahzad et al. (2019) provide evidence that corporate risk-taking harms the performance of listed companies in Shanghai. Fang et al. (2019) and Gontarek and Belghitar (2018) find a positive relationship between risk-taking and performance in US-bank holding companies.

There are many financial performance measures: accounting-based (Bukair & Rahman, 2015; Isa & Lee, 2020; Musibah & Alfattani, 2014; Nawaz & Roszaini, 2017), market-based (Buallay, 2019; Hamdan, 2018; Nawaz, 2019; Nawaz & Roszaini, 2017), and maqasid-shariah-based performance (Antonio et al., 2012; Mohammed et al., 2015; Prasojo et al., 2022b; Rusydiana & Sanrego, 2018; Syafa & Haron, 2019). The literature primarily discusses IB performance using proxies for the return on assets (ROA) and return on equity (ROE) (Hudaefi & Noordin, 2019). ROA describes the efficiency of assets in generating income (Nawaz & Haniffa, 2017), and ROE measures the efficiency of net assets in generating profits. Accounting-based performance measures have been criticised for not explaining the underlying causes of extreme company performance (Bontis, 1998). Traditional performance measures for IBs do not consider shariah compliance (Mohammed & Taib, 2015). ROA is the most appropriate indicator because it measures management efficiency in generating profits (Alsartawi, 2019). Musibah and Alfattani (2014) argue that ROE is a substantial financial indicator for investors because it describes the return to shareholders. This study similarly uses ROA and ROE as measures of IB performance.

IB performance is a crucial indicator of prospects and is impacted by many factors, including governance structures and risk-taking. There are mixed results in the literature analysing the impact of SG on IB performance (Mollah et al., 2016; Neifar et al., 2020; Prasojo et al., 2022a). Mansour and Bhatti (2018) find that SG structures are the same as traditional corporate governance. This study uses the resource dependence theory (RDT) to explain the impact of SSBs on IB performance. Modern portfolio theory (MPT) explains the relationship between risk-taking and performance, which assumes a relationship between risk-taking and expected returns (Haque & Shahid, 2016).

Several studies investigate the relationship between SSBs and performance but are limited to considering SSB size, cross-membership, level of education, reputation, and expertise (Buallay, 2019; Prasojo et al., 2022a; Syafa & Haron, 2019). This study adds the variable SSB higher education in shariah. Following RDT theory, SSBs provide an essential resource for IBs (Hillman & Dalziel, 2003). Large SSBs with members with various skills and experiences see improved performance (Hamza, 2016). The evidence of the positive impact of SSBs on IB performance remains debatable (Buallay, 2019; Hakimi et al., 2018; Syafa & Haron, 2019). Others find SSB size is negatively related to IB performance (Ajili & Bouri, 2018; Nawaz & Haniffa, 2017). Prasojo et al. (2022) say a larger board size improves the quality of decision-making due to much discussion among

http://dx.doi.org/10.21511/bbs.17(3).2022.08

members. Islamic bank in the international sphere, the composition of SSB consists of various backgrounds consisting of Islamic law experts, finance backgrounds, and doctoral degrees. A larger SSB will encourage more discussion among members so that the resulting decisions are of higher quality.

SSB expertise is helpful for supervision (Bukair & Rahman, 2015) and examining financial agreements (Syafa & Haron, 2019). Quttainah and Almutairi (2017) find that the experience and knowledge of SSBs in this field will improve their supervisory function and IB performance. Studies show a positive relationship between SSB expertise and performance (Grassa, 2013). Others find SSB expertise is negatively related to performance (Nomran et al., 2017), and Syafa and Haron (2019) find no relationship between these. The experiment of SSB members in this research is related to their knowledge and educational background in finance, which is expected to contribute significantly to the supervisory process. SSB with an educational background and experience in finance or accounting will support SSB's reputation. Knowledge in finance or accounting is expected to understand industry operations better and focus more on risk management to improve Islamic banks' performance.

IBs require supervision by SSB members with a formal degree in shariah (Bukair & Abdul Rahman, 2015); their analysis will help overcome complexities (Chen, 2014). Safiullah and Shamsuddin (2017) confirm that such members will improve the SSB review of shariah principles, and there is evidence of their positive effect on IB performance (Nomran et al., 2017; Syafa & Haron, 2019). SSB members with higher education in shariah are expected to perform their supervisory functions better to increase the performance of Islamic banks. Qualified higher education has higher cognitive abilities to provide a comprehensive analysis in evaluating the risk of sharia compliance and bank operational risk.

Prasojo et al. (2022) argue that SSB cross-membership provides opportunities for discussion and more significant insights into their supervisory functions and is positively related to performance (Quttainah & Almutairi, 2017; Syafa & Haron, 2019). Nomran et al. (2017) find the opposite effect. The more the percentage of the number of members with SSB cross membership, the more interaction between SSB members from other banks will increase. Cross-membership has the opportunity to exchange information and ideas while adhering to business ethics. This information exchange is expected to provide good input to improve supervision. Each cross-membership member maintains harmony and conflicts of interest to create a healthy climate of competition between Islamic banks.

Norman et al. (2016) confirm that SSBs have a reputation for representing IB knowledge of sharia. There is evidence that SSB reputation positively affects performance (Nomran et al., 2017). Syafa and Haron (2019) find a negative relationship to IB performance. Baklouti (2020) shows that SSB reputation is not related to performance. A reputable SSB implies that they have historically proven experience and expertise. Reputation can impact better IB performance in the future because SSB works more professionally.

Modern Portfolio Theory (MPT) is relevant in IB, where banks make riskier investments to pursue returns (Haque & Shahid, 2016). IBs face liquidity, credit, market, operations, business, and shariah risk (Bouheni et al., 2016). Several studies discuss the relationship between risk-taking and performance. For example, credit risk is positively related to profitability (Tan & Floros, 2014). Consistent results show that profitability in banks increases with higher risk (Fang et al., 2019). However, Manlagñit (2011) finds that weak monitoring of credit and operational costs combined with reputational problems increase risk and costs and potentially cause a performance decline. IBs have various products; on the one hand, this will reduce credit risk, while the religiosity of the debtors will encourage loyalty and prevent default. Meanwhile, on the other hand, IB will face a greater risk because of the complexity of the contract in IB financing; for example, PLS will create a moral hazard. Islamic banking with stable finances will be able to generate financial profits and a better understanding of religiosity from the side of the bank and the debtor so that it can avoid moral hazard behaviour that IBs can achieve performance.

Maqasid shariah covers five components of protection: religion, life, intelligence, posterity, and wealth. All stakeholders prosper in an IB meeting the maqasid shariah criteria (Dusuki, 2009). IBs

can satisfy customers and increase their loyalty through social activities, protecting employee rights and the environment, and providing shariah-compliant products. Applying maqasid shariah will help IBs achieve social and commercial goals and a positive image. Maqasid shariah will attract more customers and, in turn, increase their income (Tarique et al., 2020). IBs obtain income benefits if stakeholders are satisfied (Kabir & Thai, 2017). Thus, pursuing maqasid shariah oriented to stakeholder satisfaction will generate more revenue, improving IB performance.

This paper aims to analyze the impact of sharia board characteristics, risk-taking, and sharia maqasid on the financial performance of Islamic banks. The results of this study are expected to impact Islamic banks in achieving financial performance significantly. Based on these arguments and the discussion above, the following hypotheses are proposed:

H1: *SSB size has a positive effect on performance.*

H2: *SSB expertise has a positive effect on performance.*

H3: *SSB higher education in shariah positively affects performance.*

H4: *SSB cross membership has a positive effect on performance.*

H5: *SSB reputation has a positive effect on performance.*

H6: *Risk-taking has a positive effect on performance.*

H7: *Maqasid shariah has a positive effect on performance.*

2. METHODS

2.1. Data

This study covers 2014–2018 and uses secondary data from the Bankscope database (Berau Van Dijk Company), per capita GDP data from the World Bank, and information on the characteristics of SSBs collected manually from annual reports and websites. Data unavailability reduced the 96 IBs in the database to a sample of 70 IBs from 18 countries.

2.2. Measurement variable

As in previous research, ROA and ROE are the dependent variables (Buallay, 2019; El Mosaid & Boutti, 2012; Elamer et al., 2019; Musleh Alsartawi, 2019; Ousama et al., 2019). ROA is net income divided by total assets, while ROE is net income divided by total equity (Musibah & Alfattani, 2014; Nomran et al., 2017). According to Laeven and Levine (2009), using different proxies will confirm these findings.

The independent variables are

a) *SSB Size* as the total number of SSB members at the end of each year;

b) *SSB Expertise* as a percentage of SSB members with financial or accounting knowledge (Nomran et al., 2017; Syafa & Haron, 2019);

c) *SSB Higher Education in Shariah* as the percentage of SSB members with academic degrees relevant to sharia;

d) *SSB cross-membership* as a percentage of members with cross membership in SSBs and other entities;

e) *SSB reputation* measured by SSB members who sit on the board of the AAOIFI; and

f) *Risk-taking* using the translog specification to estimate inefficiency (Fang et al., 2019) with the following model:

$$Ln\left(\frac{Z-score}{W2}\right)=\delta_0+\sum_j\delta_j\,LnY_{jit}+$$
$$+\frac{1}{2}\sum_j\sum_k\delta_{jk}LnY_{jit}LnY_{kit}+\beta_1Ln\left(\frac{W1}{W2}\right)it+ \quad (1)$$
$$+\frac{1}{2}\beta_2Ln\left(\frac{W1}{W2}\right)it+\sum_j\theta_jLnY_{jit}Ln\left(\frac{W1}{W2}\right)it+$$
$$+\nu_{it}-\upsilon_{it},$$

http://dx.doi.org/10.21511/bbs.17(3).2022.08

where *W*1 represents the input price, including the price of funds (ratio of interest expenses to total deposit), and *W*2 is the price of capital (ratio of non-interest expenses to fixed assets). *Y* represents four outputs: total financing, deposits, securities and non-profit sharing income. Sub-indices *i* and *t* show bank *i* operating at time *t*, while *j* and *k* represent different outputs. The error term ε_{it} equals $\nu_{it} - \upsilon_{it}$.

The logarithm of total assets measures the variable control *size* at the end of the year, *leverage* is measured by the ratio of total liabilities to total assets (Musibah & Alfattani, 2014), per capita *GDP growth* (Prasojo et al., 2022b; Safiullah & Shamsuddin, 2017), and *FDR* is the financing to deposits ratio. *MSI* as a variable calculated using the simple additive weighting method: adding up the contribution of each attribute (Mohammed & Taib, 2015; Prasojo et al., 2022; Syafa & Haron, 2019). In this study, the attributes of maqasid shariah consist of five dimensions (preservation of faith, life, intellect, progeny and wealth) with proportional weights (Bedoui, 2012). The MSI calculation model is set out below:

$$MSI = PI(D1) + PI(D2) + PI(D3) + \\ + PI(D4) + PI(D5), \quad (2)$$

where *MSI* = maqasid shariah index; *PI* = performance indicator; *D*1 = first dimension preservation of faith; *D*2 = second dimension preservation of life; *D*3 = first dimension preservation of intellect; *D*4 = first dimension preservation of progeny; and *D*5 = first dimension preservation of wealth.

This study uses dynamic panel regression with the two-step GMM to test the hypothesis. GMM avoids endogeneity problems (Daher et al., 2015). A feasibility test of the model specifications was carried out to test the consistency of the estimate and the validity of the instrument following the GMM procedure using the following estimation models:

(Model 1)

$$ROA_{it} = b_0 + b_1 ssb\_size_{it} + \\ + b_2 ssb\_\exp ertise_{it} + b_3 ssb\_high_{it} + \\ + b_4 ssb\_crossmember_{it} + \\ + b_5 ssb\_reputation_{it} + b_6 risk\_taking_{it} + \\ + b_7 msi + b_8 size_{it} + b_9 lev_{it} + \\ + b_{10} gdp\_growthpercap_{it} + b_{11} gcc + \\ + b_{12} fdr_{it} + \varepsilon_{it}. \quad (3)$$

(Model 2)

$$ROE_{it} = b_0 + b_1 ssb\_size_{it} + \\ + b_2 ssb\_\exp ertise_{it} + b_3 ssb\_high_{it} + \\ + b_4 ssb\_crossmember_{it} + \\ b_5 ssb\_reputation_{it} + b_6 risk\_taking_{it} + \\ + b_7 msi + b_8 size_{it} + b_9 lev_{it} + \\ + b_{10} gdp\_growthpercap_{it} + b_{11} gcc + \\ + b_{12} fdr_{it} + \varepsilon_{it}. \quad (4)$$

3. RESULTS AND DISCUSSION

3.1. Findings

The results show that IBs generate profits with a mean ROA of 0.6640 and ROE of 7.1646, and support previous findings (Nawaz & Roszaini, 2017) of a mean ROA for IFIs of 0.67 and (Nomran et al., 2017) and IBs of 9.13. On average, IBs have SSBs as their SG mechanism, although some do not show SSB data. The risk-taking mean is 0.0154. The MSI mean of 0.3037 is consistent with the finding of a mean MSI at IBs of 0.206 (Rusydiana & Sanrego, 2018). Company-specific control variables report means for *size* (7.7199), *FDR* (0.7682), *leverage* (0.7951), *GDP growth per capita* (1.4905), and *GCC* (0.4461).

Collinearity problems can be detected using the correlation matrix (Table 2). Kennedy (2008) argues that multicollinearity occurs if the correlation result is >0.80. The results generally show no collinearity or bias; the explanatory variables do not evidence multicollinearity problems.

Table 3 reports the GMM estimation results for ROA and ROE (Models 1 and 2, respectively). The AR(2) shows insignificant results for all models; the probability value is >0.05, and the residuals are not serially correlated in the second order for the first difference equation. The Hansen-test results show that the instrument used is valid – the probability value is not statistically significant. The AR(2) test and Hansen's test results indicate that the estimation results from the GMM estimator are consistent and valid.

SSB size positively affects ROA (1.161) and ROE (2.391). SSB expertise negatively affects ROE

Table 1. Descriptive statistics

Variable	Obs	Mean	Std. dev.	Min	Max
ROA	334	0.6640	3.4132	–16.1400	30.3900
ROE	334	7.1646	13.8467	–89.2400	97.0400
SSB_size	334	0.3545	1.9749	0	12.00
SSB_expertise	334	0.6048	0.8380	0	4.00
SSB_highshariah	334	3.1048	1.8513	0	12.00
SSB_crossmember	332	1.9879	1.3122	0	5.00
SSB_reputation	334	0.7365	0.9536	0	3.00
Risk_taking	322	0.0154	1.0473	-3.0888	3.2102
MSI	334	0.3037	0.2044	0.0000	0.9293
Size	334	7.7199	1.8721	1.8721	11.4859
FDR	333	0.7682	0.0212	0.0212	5.8673
Leverage	334	0.7951	0.0068	0.0068	0.9555
GDP Growth Percapita	329	1.4905	2.8465	2.8465	6.7370
GCC	334	0.4461	0.4978	0	1.00

Table 2. Pairwise matrix correlation

Variable	ROA	ROE	Risk-Taking	MSI	SSB Size	SSB Expertise	SSB Cross Member	SSB Higher Education in Shariah	SSB Reputation	Size	FDR	Leverage	GDP growth per capita	GCC
ROA	1	–	–	–	–	–	–	–	–	–	–	–	–	–
ROE	0.7842*	1	–	–	–	–	–	–	–	–	–	–	–	–
Risk_taking	0.1805*	0.1858*	1	–	–	–	–	–	–	–	–	–	–	–
MSI	0.1759*	0.2960*	0.0009	1	–	–	–	–	–	–	–	–	–	–
SSB_size	0.0640	0.1820*	0.0323	0.0812	1	–	–	–	–	–	–	–	–	–
SSB_expertise	0.0685	0.0845	0.0219	–0.0011	0.3011*	1	–	–	–	–	–	–	–	–
SSB_crossmember	0.0152	0.0706	–0.0290	0.0941	0.2785*	0.1493*	1	–	–	–	–	–	–	–
SSB_highshariah	0.0340	0.1380*	0.0137	0.1021	0.9387*	0.0907	0.3120*	1	–	–	–	–	–	–
SSB_reputation	–0.0317	0.0101	–0.0825	0.1293*	0.0063	0.0008	0.4291*	0.0004	1	–	–	–	–	–
Size	0.1666*	0.4416*	0.0114	0.5064*	0.3754*	0.1687*	0.2735*	0.3327*	0.1214*	1	–	–	–	–
FDR	0.1705*	0.0307	–0.0012	–0.0701	–0.1596*	–0.1622*	–0.0412	–0.1456*	–0.0693	–0.3298*	1	–	–	–
Leverage	0.0165	0.1722*	–0.0344	0.1729*	0.3598*	0.2257*	0.1110*	0.3171*	–0.1308*	0.6293*	–0.2637*	1	–	–
GDP growth per capita	0.0279	0.0816	0.0072	–0.0463	0.1759*	0.1910*	–0.1330*	0.1364*	–0.2425*	–0.0357	–0.0403	0.1835*	1	–
GCC	0.0023	0.0040	–0.0082	0.2450*	–0.1411*	–0.1376*	0.2025*	–0.1551*	0.3748*	0.2541*	–0.0419	–0.1474*	–0.6097*	1

Note: This correlation matrix is based on the entire sample of 334 observations. * indicate statistical significance at 5 levels.

http://dx.doi.org/10.21511/bbs.17(3).2022.08

(–0.636) and does not significantly affect ROA (0.119). SSB *higher education in shariah* significantly negatively affects ROA (–1.216) and ROE (–2.464). The relationship between SSB *cross-membership* and ROE is positive and significant (0.690), and between cross-membership and ROA (0.106). SSB *reputation* is positively related to ROA (0.649) and ROE (0.886). Risk-taking has a significant positive effect on both ROA (0.282) and ROE (1.001). The MSI is positively correlated with ROA (3.800) and not significantly correlated with ROE (–0.595).

The control variables *size* and *FDR* were significantly positively related to ROA, while the relationship with *leverage* was significantly positive for ROA and negative for ROE. *GDP growth* is only significant on ROE, and *GCC* has a consistently significant and negative relationship to ROA and ROE. IB size is proxied by total assets; IBs with higher total assets will contribute to improved performance. An increase in GDP will trigger third-party funding growth and contribute to profits through profitable project investment. Leverage reduces IB performance; the higher the leverage ratio, the lower the performance.

Table 3. Baseline full sample

Variable	Predicted sign	Model 1	Model 1
		ROA	ROE
L.roa	–	–0.488***	–
		(–27.854)	–
L.roe	–	–	0.232***
		–	(10.029)
ssb_size	"+"	1.161***	2.391***
		(6.140)	(5.509)
ssb_expertise	"+"	0.119	–0.636*
		(0.491)	(–1.709)
ssb_highshariah	"+"	–1.216***	–2.464***
		(–6.051)	(–4.962)
ssb_crossmember	"+"	0.106	0.690***
		(1.244)	(3.254)
ssb_reputation	"+"	0.649***	0.886**
		(3.920)	(2.198)
risk_taking	"+"	0.282***	1.001***
		(5.657)	(6.748)
MSI	"+"	3.800***	–0.595
		(4.905)	(–0.325)
size	"+"	0.272***	3.102***
		(2.720)	(14.211)
fdr	"±"	3.159***	5.029***
		(15.521)	(13.810)
lev	"–"	1.204*	–5.078***
		(1.697)	(–3.675)
gdpgrowthpercap	"+"	0.029	0.132*
		(1.399)	(1.906)
GCC	"±"	–1.002***	–4.173***
		(–3.233)	(–4.960)
_cons	–	–6.202***	–18.801***
		(–14.567)	(–15.986)
Obs.	–	258.000	258.000
Bank	–	67.000	67.000
AR2 stat	–	–0.043	0.321
AR2 p-stat	–	0.966	0.748
Hansen stat	–	38.234	49.744
Hansen p-val	–	0.958	0.974

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

Table 4 presents the GCC sample statistical output. The diagnostic test with the AR(2) test shows that the residuals were not serially correlated in the second-order ($p > 0.05$), and the Hansen test was not significant; the instrument was thus valid. Models 1 and 2 show that only risk-taking positively relates to ROA and ROE. All control variables in Models 1 and 2 show significant interactions. The GCC sample only includes significant risk-taking, while the SSB characteristics and MSI variable do not significantly affect performance.

Table 4. Robustness check for the GCC sample

Variables	Predicted sign	Model 1	Model 2
		ROA	ROE
L.roa	–	–0.319***	–
		(–7.725)	–
L.roe	–	–	0.001
		–	(0.009)
ssb_size	"+"	–0.372	1.746
		(–0.669)	(0.521)
ssb_expertise	"+"	0.098	–0.258
		(0.221)	(–0.075)
ssb_highshariah	"+"	0.459	0.780
		(0.993)	(0.338)
ssb_crossmember	"+"	0.262	–1.756
		(0.994)	(–0.602)

Table 4 (cont.). Robustness check for the GCC sample

Variables	Predicted sign	Model 1	Model 2
		ROA	ROE
ssb_reputation	"+"	−0.068	−1.474
		(−0.164)	(−0.664)
risk_taking	"+"	0.330*	0.983**
		(1.931)	(2.196)
MSI	"+"	−1.231	−4.999
		(−0.819)	(−0.622)
size	"+"	1.353***	5.459***
		(7.447)	(4.800)
FDR	"±"	1.664***	3.819***
		(6.424)	(3.110)
LEV	"−"	−4.628***	−18.184**
		(−4.007)	(−2.435)
gdpgrowthpercap	"+"	0.096***	0.477***
		(3.539)	(3.037)
_cons	–	−8.408***	−27.915***
		(−12.195)	(−8.236)
Obs.	–	118.000	118.000
Bank	–	30.000	30.000
AR2 stat	–	0.352	0.970
AR2 p-stat	–	0.725	0.332
Hansen stat	–	16.129	19.574
Hansen p-val	–	0.950	0.848

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

Table 5 reports the non-GCC sample output. The feasibility test shows that the GMM estimator met the consistency and validity criteria. The results of the Models show a positive relationship between SSB *size* with ROA and ROE. SSB *expertise* has a significant negative relationship with ROE. SSB *higher education in shariah* has a significant negative effect on ROA and ROE, and *cross-membership* has a significant negative effect on ROA. Only SSB's *reputation* has a positive relationship with ROA. Risk-taking has a significant positive relationship with ROA and ROE. MSI is positively correlated with ROE. The control variables in all Models are insignificant other than *size*.

Table 5. Robustness check for the non-GCC sample

Variables	Predicted sign	Model 1	Model 2
		ROA	ROE
L.roa	–	−0.322***	–
		(−20.009)	–
L.roe	–	–	0.704***
		–	(16.052)
ssb_size	"+"	1.468***	4.311***
		(3.607)	(3.565)
ssb_expertise	"+"	−0.417	−2.652***
		(−1.207)	(−3.122)
ssb_highshariah	"+"	−1.614***	−4.561***
		(−3.443)	(−3.640)
ssb_crossmember	"+"	−0.502*	−0.298
		(−1.871)	(−0.314)
ssb_reputation	"+"	0.759**	0.843
		(2.172)	(0.612)
risk_taking	"+"	0.264***	1.002***
		(3.895)	(3.170)
MSI	"+"	0.662	7.640**
		(0.759)	(2.514)
size	"+"	0.606***	0.784
		(5.849)	(1.479)
FDR	"±"	2.169***	1.494
		(7.641)	(1.010)
LEV	"−"	0.158	3.968
		(0.196)	(1.650)
gdpgrowthpercap	"+"	0.004	−0.160
		(0.063)	(−0.881)
_cons	–	−4.660***	−8.111**
		(−6.546)	(−2.153)
Obs.	–	140.000	140.000
Bank	–	37.000	37.000
AR2 stat	–	−1.368	−0.862
AR2 p-stat	–	0.171	0.389
Hansen stat	–	23.848	19.665
Hansen p-val	–	1.000	1.000

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

4. DISCUSSION

IBs need a large SSB to address their business complexity, which requires financial and shariah experts. IBs with large SSBs perform better (Baklouti, 2020; Hakimi et al., 2018; Mollah & Zaman, 2015; Nomran et al., 2017; Syafa & Haron, 2019). This evidence supports the RDT assumption that large boards reduce dependence on external resources. Larger SSBs can provide strategic information through a network of formal or informal relationships with other IBs. The composition of SSBs to include specialists with varied expertise and experience can strengthen credibility with stakeholders and grow customer trust (Hamza, 2013).

SSB expertise ensures a better financial understanding of Islamic banking for increased prudence. However, many SSBs only act as advisers and are not directly involved in financial auditing contracts. SSB expertise does not optimally contribute to IB performance, and the RDT assump-

http://dx.doi.org/10.21511/bbs.17(3).2022.08

tion must be rejected. This aligns with Baklouti (2020) but contradicts other studies (Quttainah & Almutairi, 2017; Syafa & Haron, 2019).

The results of this study indicate that academic shariah qualifications will increase the strictness of shariah supervision, and IB decision-making will be less flexible. This RDT assumption that shariah education does not play a role in the increased competitiveness of IBs must be rejected. For a deeper analysis of the impact of SSB-member educational qualifications and IB performance, it is helpful to consider degrees in various fields (see Nomran et al., 2017). Other studies find a positive impact (Syafa & Haron, 2019).

Knowledge and experience will improve the quality of IB decisions and products and potentially improve performance. This finding supports the RDT assumption that SSBs are an essential resource, liaising and exchanging information between companies and external parties (Hillman & Dalziel, 2003). SSB cross-membership facilitates information exchange between IBs; experience and knowledge of Islamic law are increased through SSB-member discussions across IBs. Cross-membership can be an essential source of information about activities and policies of other companies and inform future strategies in agreement with previous studies (Nomran et al., 2017).

The RDT perspective, reputation can improve performance (and customer satisfaction) through increased shariah compliance in IB products and services. SSBs with a good reputation can attract customers and depositors, reduce liquidation risk and improve performance. This is consistent with Nomran et al. (2017) but does not support the findings of Baklouti (2020) and Syafa and Haron (2019).

The MPT assumes that high-risk IBs perform better than those without that risk. The high risk of IBs is due to the complexity of their products. Their more incredible product diversity results in higher income. Most of the distribution of IB financing is to project-based real sectors. Project-based financing can reduce the risk of failure because each project will be monitored to completion, and revenue can be generated alongside a reduced risk of default. IBs with stable finances can generate profits, and an understanding of religiosity from both the bank and debtor's point of view will avoid moral hazards and allow IBs to perform better; this is consistent with various studies (Fang et al., 2019; García-Alcober et al., 2019; García-Herrero et al., 2009; Sufian & Habibullah, 2009).

The stakeholder theory perspective is that IB activities that fulfil maqasid shariah elements increase ROA accounting performance by meeting stakeholder expectations. ROA represents stakeholder value, and ROE reflects shareholder value (Kusi et al., 2018). The results support the view of proponents of stakeholder theory that IBs focus on meeting stakeholder expectations, thus evenly distributing wealth and equity value. Maqasid shariah, as the spirit of IBs, encourages investment according to Islamic ethics so that in every investment decision, attention is given to the maqasid element. The application of maqasid can be expanded by investing in the micro, small and medium enterprises (MSMEs) sector, saving the lower-class economy so that growth can be distributed. In addition, IBs can impact by carrying out social functions through the distribution of *zakat* and *infaq*. Stakeholder satisfaction can trigger stakeholder commitment, which ultimately improves IB performance.

This signals that the characteristics of SSBs in GCCs do not contribute significantly to improving IB performance; the shariah practices in GCC countries are better than in non-GCC countries. Shariah impacts IB practices through the role of the SSB. For the non-GCC risk-taking sample, SSB *size* and *reputation* findings align with those for the total sample baseline. SSB *cross-membership* and *reputation* negatively impact ROA. This contradicts previous research (Quttainah & Almutairi, 2017; Syafa & Haron, 2019). The results align with the view that cross-membership is an inefficient allocation of time and resources and involves conflicts of interest that can reduce analytical and supervisory capabilities (Nomran et al., 2017). SSB *higher education in shariah* is insignificant (cf. Musibah & Alfattani, 2014; Nomran et al., 2017). MSI is positively correlated with ROE in the non-GCC sub-sample. For the control variables, GDP is not significant in the non-GCC sub-sample, and in the GCC sub-sample, all control variables are significant.

CONCLUSION

The SSB's role is to ensure that IB activities conform to Islamic law. This study examines the impact of SSB characteristics, risk-taking, and maqasid shariah on performance. The results of the study reveal that the larger the size of the SSB and the higher the reputation of the SSB members, the better the financial performance (ROA and ROE) of Islamic banks. The greater the cross-membership of SSB members, the higher the ROE of Islamic banks. Higher shariah SSB members can reduce ROA and ROE, while more SSB members with expertise will result in lower ROE. Islamic banks that carry out higher risk-taking are proven to improve all financial performance proxies. Better implementation of maqasid shariah in Islamic banks has proven to improve the performance of Islamic banks as proxied by ROA.

This study has several theoretical and practical implications. First, it supports RDT. An SSB is a company resource that can increase performance, customer legitimacy, and trust in IB products. Second, it supports MPT: higher IB risk-taking supports better performance. Third, governance structures and the absence of an international SG framework may significantly affect performance. These results can inform the development of an SG framework by international authorities on Islamic finance, such as the AAOIFI.

This study has several limitations. It employed a limited sample and required a more extended study duration. Furthermore, only SSB characteristics are included. Other governance mechanisms may better explain performance, such as ownership concentration, diversity of the board of directors, an audit committee, and shariah review. Finally, IB performance can be controlled using the income structure.

AUTHOR CONTRIBUTIONS

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