Shariah supervision and corporate governance effects on Islamic banks' performance: evidence from the GCC countries

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Abstract

Purpose – This study aims to analyze the impact of Shariah supervision and corporate governance (CG) variables on the performance of Islamic banks (IBs) in Gulf Cooperation Council (GCC) countries.

Design/methodology/approach – A dynamic panel regression model is used to analyze bank performance's persistence and the results are estimated using the generalized method of moments estimator. The sample includes 27 full-fledged IBs in 6 GCC countries from 2005 to 2020.

Findings – The results reveal that Shariah supervision and CG-related variables are significant in determining IBs' performance. Furthermore, the results show that bank size, capital adequacy ratio, economic growth and inflation are significant and positive determinants of IBs' financial performance.

Practical implications – This study is conducted to fill a gap in the literature regarding the effect of Shariah supervision on IBs' performance, recommending the implementation of CG guidelines in IBs to improve their current practices.

Originality/value – Despite existing studies on the relationship between Shariah governance and performance, this study contributes to the Shariah governance and Islamic banking literature in GCC, which is the most important region of the Islamic financial industry. In addition, it provides additional insight into the fundamental role of Shariah supervision in IBs.

Keywords Shariah supervisory board, Corporate governance, Financial performance, Islamic banks, GCC

Paper type Research paper

1. Introduction

Over the past few decades, economists and international organizations have primarily focused on the concept of corporate governance (CG), especially in the wake of the 1997 Asian financial crisis. The collapse of several multinational corporations as a result of the escalation of administrative corruption issues, such as the Enron crisis in 2001, the WorldCom scandal in 2002 and the global financial crisis in 2008, was a clear indication of the need for such a concept (Tashkandi, 2022) [1]. These corporate mismanagement-related scandals highlighted the importance of adopting a governance system that embraces a high level of transparency, accountability and oversight as improved measures to alleviate these problems.

Several studies concluded that poor governance, such as an ineffective and lax board of directors (BODs) in overseeing chief executive officers (CEOs) and the executives' lack of integrity, encourages higher risks in the financial sector (Mollah and Zaman, 2015; Hadriche, 2015; Erkens *et al.*, 2012; Sharfman, 2009). Governance in banks has grown in importance in comparison to other businesses, given the nature of the banking sector and its direct impact

on financial markets. Additionally, the banking industry now faces a higher level of risk as a result of the rapid developments in international financial markets triggered by the globalization of financial flows, technology and other factors [2].

Banks are also regarded as one of the most important components of the financial system and the main engine of economic growth, as they raise funds from individuals and institutions with a fiscal surplus and use them to meet both consumption and investment needs, thereby contributing to the acceleration of economic growth. Given the significant importance of banks and their multiple stakeholders, a good governance system is essential to boost investors' confidence in the banking system. Governance weaknesses in the banking sector could erode consumer trust in the banks' ability to properly manage assets and liabilities, including deposits. This could lead to a liquidity crisis or the simultaneous withdrawal of deposits from many banks' customers (known as a bank run). The Bank of Credit and Commerce International (BCCI) in 1991 and the Barings Bank in 1995 are two well-known examples of such outcomes. This would have an impact on the integrity of the financial system and the overall health of the economy (ISRA, 2014, pp. 71–177).

Over the past few decades, there has been a sharp increase in the number of Islamic banks (IBs) with an exponential spread throughout more than 75 countries around the globe. In fact, following the 2008 global financial crisis, several international financial institutions, including the World Bank (WB), have shown a greater interest in their financial services. These new financial institutions are viewed as an alternative to conventional banks (CBs) because of their specificities that provide a relatively high level of macroeconomic and financial stability (Al-Hashel, 2015, pp. 2–3). Modern Islamic banking and finance can be traced back approximately 45–50 years ago. This relatively new system has been very successful in comparison to conventional banking, and the demand for its services has expanded rapidly in the majority of Muslim countries as well as other countries in Asia and Europe. By the end of 2019, the global assets of the Islamic finance industry had surpassed USD 2.88tn (Thomson Reuters, 2020/2021, p. 61). IBs in the Gulf Cooperation Council (GCC) countries have taken on a prominent role and contributed significantly to the Islamic financial industry, particularly after reaching approximately USD 854bn, or 45.4% of the global Islamic banking sector's total assets in 2019 (IFSB, 2020, pp. 12–14). In terms of profitability performance in the GCC, IB's return on assets (ROA) and return on equity (ROE) averaged 1.48% and 11.8%, respectively, in 2019 [3]. The GCC region is the focus of this study for a variety of reasons, the most important of which is its unique environment in relation to the Islamic banking industry. Among the GCC countries, Saudi Arabia has the highest share of Islamic banking assets, reaching approximately 51.4% of the region's total banking assets (up from 45.3% in 2018), followed by the UAE with 18% (down from 22% in 2018), Kuwait with 13.1% (down from 14.2% in 2018), Qatar with 12.6% (down from 14%), Bahrain with 3.6% (up from 2.8% in 2918) and Oman with 1.4%. IBs and financial institutions account for at least 14% of all assets in the GCC countries, with Shariah-compliant assets representing a large portion of the total banking assets (IFSB, 2020, pp. 12–17) (IFSB, 2019, pp. 10–15).

Therefore, in addition to the globally accepted standards, it is now urgent to implement the governance principles for IBs. These principles specifically aim to reassure the shareholders that the BOD will effectively use their equity capital to maximize the corporation's value and that executive directors will perform their responsibilities in the interests of the shareholders to generate returns. Simultaneously, shareholders, investment account holders and various stakeholders will be guaranteed that all the banks' activities and transactions are complying with the Shariah rules through the omnipresent Shariah Supervision Board (SSB), which serves as an essential mechanism of internal governance and a legitimate control body for ensuring Shariah law compliance (Ahmed et al., 2013; Grais and Pellegrini, 2006, p. 5).

This study contributes to the Islamic finance literature in several ways. First, it differs from earlier studies, by empirically measuring the impact of SSB and CG on IBs' performance. Second, this study differs from previous ones in terms of its time horizon, which spans from 2005 to 2020. Moreover, it is distinguished by its use of a recent dataset, a large number of variables and a statistical model to ensure the stability and reliability of the findings.

2. Literature review

IBs, like their conventional counterparts, act as financial intermediaries by directing financial resources from those with financial surpluses to those with financial deficits in order to make a profit. However, IBs are required to adhere to Islamic principles such as Profit and Loss Sharing (PLS) and the prohibition of Riba (interest) to promote economic well-being and achieve economic and social justice. This study investigates the relationship between Shariah governance and the performance of IBs in the GCC region.

Abdallah (2021) aimed to investigate the impact of disclosure and Shariah governance on the financial performance of IBs in MENASHA (Middle East, North Africa and Southeast Asia). The study used the generalized least squares (GLS) regression models to examine the interdependence relationship between disclosure, Shariah governance and financial performance of 47 IBs from 10 MENASA countries from 2012 to 2019. The results revealed that good governance is associated with higher performance in MENASA IBs. Al-Sartawi (2019) investigated the relationship between the composition of the SSB (board independence and frequency of meetings) and the performance of IBs in the GCC countries, using a sample of 48 standalone IBs listed in the GCC countries from 2013 to 2017. The findings showed a statistically significant and negative relationship between SSB composition and IBs' performance. Meanwhile, Khan and Zahid (2020) examined the impact of Shariah and CG on the performance of IBs in Asia. The study relied on hand-collected data on Shariah and CG variables from 79 IBs in 19 Asian countries, from 2011 to 2016. According to the findings, Shariah's governance-related variables are more influential in determining IBs' financial performance. In addition, Al-Malkawi (2018) attempted to assess the impact of conventional CG mechanisms on IBs' financial performance. The feasible generalized least squares (FGLS) method was used to estimate the impact of five conventional internal CG mechanisms and three control variables on IBs' financial performance. Using a sample of 22 IBs operating in the GCC countries from 2005 to 2015, the results showed that internal CG mechanisms have a statistically significant relationship with financial performance. Moreover, the results revealed that large board size and a greater CSR engagement negatively influence financial performance. Chowdhury and Shah Rasid (2016) used panel data techniques, such as the fixed and random effects methods and the generalized method of moments (GMM) system, to identify the most important determinants of IBs' financial performance in the GCC countries. Using annual data from 29 IBs from 2005 to 2013, the results suggested that banks' size, stock financing and oil price have a positive impact on the profitability of IBs in the GCC, whereas changing operational efficiency and macroeconomic variables such as money supply and inflation have a negative impact on ROAs. Mollah and Zaman (2015) aimed to investigate the impact of SSB size, BOD structure and CEO power on the financial performance of 86 IBs and 86 CBs across 25 countries from 2005 to 2011, including the 2008 financial crisis. The study aimed to investigate if Shariah supervisory functions, as measured by SSB size, improve IBs' performance and, as a result, shareholders' value. Using GLS, GMM and the three-stage least square techniques, the findings showed that SSB size has a significant positive effect on financial performance, with a positive impact on IBs' performance during the crisis period. Additionally, Bourakba and Gherbi (2015) attempted to investigate the relationship between the CG variables (board size, number of board committees and SSB size) and the financial performance of IBs. Using ROAs

as a dependent variable, the study sample consisted of 12 IBs in the GCC countries from 2005 to 2012. The analysis discovered a strong relationship between governance and performance variables. The results indicated a positive relationship between the three variables and IBs' financial performance. Finally, Ramiz and Mangla (2010) compared the impact of CG variables on the performance of Islamic versus CBs in Pakistan, concluding that CG has a clear and statistically significant effect on the performance of Pakistan's banking sector, whether Islamic or conventional. Members of the Shariah board have an impact on IBs' financial performance as measured by ROE.

3. Hypotheses development

3.1 Shariah supervisory board size

SSB is an integral part of the governance structure in Islamic banking, and its presence represents the main distinction between CBs and IBs. Many authors found a positive association between the size of SSB and IBs' performance (Abdallah, 2021; Khan and Zahid, 2020; Chowdhury and Shah Rasid, 2016; Mollah and Zaman, 2015; Bourakba and Gherbi, 2015). These findings indicated that SSB has an impact on IBs' financial performance by safeguarding the interests of investment account holders and shareholders. Based on IFSB (2009), each IB should consider its size, in order to determine the impact of the number of Shariah members on effective decision-making. Additionally, it recommends that the SSB in IBs should consist of at least three members, possibly trained in different schools of jurisprudence. Moreover, governance standard number 1 in the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) (AAOIFI, 1999) recommends having at least three members. In most cases, IBs appoint between three and six members. The increasing number of Shariah scholars on the board coming from various schools of *fiqh* leads to a better interpretation of the banks' products and an improvement in the ability to control and review all transactions to ensure their operations are compliant with Islamic law. Therefore, we propose the following hypothesis:

H1. There is a positive relationship between the size of the SSB and the performance of IBs in the GCC.

3.2 Board of directors size

The BOD is a powerful internal governance mechanism that maximizes banks' profitability while protecting shareholders and assisting managers (Abdallah, 2021, p. 237). A properly sized BOD is critical for reducing agency costs in the banking industry because they are responsible for the bank's business strategy and financial soundness. BOD monitors and advises executive managers on how to maximize returns (Andres and Vallelado, 2008). BOD size is proxied by the number of BOD members. However, some research studies reached contradictory findings, claiming that smaller board sizes improved banks' performance (Nawaz, 2019; Darwanto and Chariri, 2019; Malik and Makhdoom, 2016). Additionally, it has been asserted that a larger board exacerbates conflicts of interest and free-rider issues. As suggested by Jensen (1993, p. 35) and Herman (1981, pp. 34–35), agency costs increase when the board size exceeds seven or eight, mainly due to differences of opinion, baseless arguments and a lack of coordination; as a result, the CEO has greater control over decisions. Thus, we can formulate our second hypothesis as follows:

H2. There is a negative relationship between the size of the BOD and the performance of IBs in the GCC.

3.3 Independent board of directors

The presence of independent directors or non-executive board members is one of the powerful factors that can reduce agency issues and information asymmetry. Their ability to represent

shareholders on board depends on their experience and skills. Moreover, their presence on the board helps to reduce and even resolve conflicts of interest among board members, which helps to gain and strengthen stakeholders' confidence. The CG code and other key regulators require financial institutions to have independent directors on their boards in order to ensure smooth and effective operation. Additionally, Andres and Vallelado (2008) reported that both board size and independent directors have a positive effect on banks' performance. Moreover, it is argued that non-executive directors should be able to effectively perform their assigned tasks as independent board members; otherwise, they will be unable to yield and impart unbiased decisions (Fuzi *et al.*, 2016). In contrast, Mollah and Zaman (2015) and Pathan and Faff (2013) argued that increasing the number of independent board members harms banks' performance. The third hypothesis is as follows:

H3. There is a positive/negative relationship between independent directors and the performance of IBs in the GCC.

3.4 Control variables
This section examined the factors affecting banks' performance. Al-Matari *et al.* (2012) and Shan and McIver (2011) argued that bank size is positively associated with performance because large banks may have higher financial resources and can achieve economies of scale. In addition, they attributed this to the ability of large banks to diversify their investment risks over the long term. Moreover, capital adequacy ratio, growth and inflation affect the profitability of IBs (Abu Wadi, 2017; Al-Hamd, 2013). While the Cooke ratio is used to measure a bank's solvency to thrust its obligations and oversee any future risks, economic growth is used as a macroeconomic variable and, therefore, could be an exogenous factor influencing bank capital decisions.

4. Data and methodology
To investigate the impact of Shariah governance and CG rules on the financial performance of IBs in GCC countries, the study adopts an experimental approach and employs econometric tools to analyze dynamic panel data using the GMM estimator. In this research, data are collected from 2005 to 2020 for 27 full-fledged IBs across all members of the Cooperation Council for the Arab States of the Gulf (Kingdom of Saudi Arabia, the United Arab Emirates, the State of Kuwait, the Kingdom of Bahrain, the State of Qatar and the Sultanate of Oman). The sample is chosen because of its important contribution to the global Islamic financial industry, which accounts for nearly 45.4% of Islamic financial assets, and the availability of governance and macroeconomic data for estimating the study variables. It should be noted that the focus is exclusively on Islamic commercial and investment banks. CBs with Islamic windows are excluded because the data on conventional and Islamic products are combined into the same financial statements. Data are collected from annual reports published by the IBs under study as well as publications issued by central banks and general statistical agencies of GCC countries that included macro and market-specific data. Table 1 describes the selected sample.

4.1 Variables
To analyze the impact of Shariah supervision on banks' performance, we use a dynamic panel GMM. Due to the dynamic dimension of the specific study, we employ an incremental methodology using the system GMM estimator, which provides a consistent and unbiased convergent estimation of the heterogeneous slope parameters. As a dependent variable, ROAs are used as a performance indicator to express the profitability of IBs. This ratio was widely and frequently used as an independent variable in earlier studies (Khan and Zahid,

2020; Chowdhury and Shah Rasid, 2016; Bourakba and Gherbi, 2015). This study uses governance, financial and macroeconomic variables to investigate the impact of Shariah supervision on banks' performance. The definitions and abbreviations for the independent variables are as follows:

(1) (SSB): The total number of Shariah board members.

(2) (BDS): The number of board members.

(3) (INDBD): The total number of independent board members.

(4) (SIZE): The natural logarithm of total assets as a proxy of bank size.

(5) (PSIA): The natural logarithm of total investment deposits as a measure of the size of investment accounts

(6) (CAR): The capital adequacy ratio measured as the regulatory capital divided by the volume of risk-weighted assets.

(7) (GDP): The total monetary or market value of all finished goods and services produced within a country's borders during a given period, known as gross domestic product.

(8) (INF): A broad indicator of price increases based on the average annual rate of change in the domestic consumer price index.

(9) (CRISIS): A dummy variable used to highlight the impact of the global financial crisis on IBs.

4.2 Model and estimation method
To investigate the impact of Shariah governance on IBs' performance, the pooled regression model is used to specify the relationship between profitability and different explanatory variables as follows:

$$\text{ROA}_{it} = \alpha_0 + \beta_1\text{ROA}_{it-1} + \beta_2\text{SSB}_{it} + \beta_3\text{BDS}_{it} + \beta_4\text{INDBD}_{it} + \beta_5\text{SIZE}_{it} + \beta_6\text{PSIA}_{it}$$
$$+ \beta_7\text{CAR}_{it} + \beta_8\text{GDS}_{it} + \beta_9\text{INF}_{it} + \beta_{10}\text{CRISIS}_{it} + +\varepsilon_{it}$$

Standard estimators (such as OLS, fixed effects or random effects models) produce inconsistent results due to the dynamic nature of the sample. As a result, we use dynamic panel data estimations that took individual heterogeneity into account, which are mainly based on autoregressive models. The autoregressive model relies on the use of the lagged dependent variable (dependent variables' previous values) as explanatory variables,

Countries	Number of Islamic banks
Saudi Arabia	4
United Arab Emirates	7
Kuwait	5
Bahrain	6
Qatar	3
Oman	2
Total 6	27

Note(s): Table 1 provides country-wise distribution of the 27 IBs. The period extends from 2005 to 2020

Table 1.
Sample description

generating a correlation between specific individual effects and explanatory variables. Thus, the model is estimated using the two-step system GMM estimator developed by Arellano and Bover (1995) and Blundell and Bond (1998).

The system GMM is widely regarded as the most effective method for controlling the bias of heterogeneous slope parameters. It can produce consistent results by combining a set of equations in which the variables in the first difference are instrumentalized by their own lagged values and expressed in levels, with the second set of equations in levels using the first differences as instruments (Hamza and Saadaoui, 2013). Furthermore, the use of auxiliary variables addresses the endogeneity problem between variables and random errors (Greene, 2003).

To examine the validity of these two assumptions, we conduct the following diagnostic tests. The first is the Hansen test, which is used to over-identify restrictions. Its null hypothesis should not be rejected if the instruments are valid. The second is the Arellano-Bond test for the absence of a second-order autocorrelation in the differenced residuals (AR (2) test). The null hypothesis of AR (2), as well as the over-identifying restrictions (Sargan test), should not be rejected if the error term is not auto-correlated.

5. Results and discussion

5.1 Multicollinearity

Before interpreting the estimation results, it is interesting to note that one of the common issues with multiple regression analysis is the possibility of a linear relationship or a strong correlation between the independent variables, which may lead to biased results. First, multicollinearity is detected using a correlation matrix. A correlation coefficient greater than 0.8 indicates the presence of a serious multicollinearity concern (Kennedy, 1992). Table 2 displays the correlation matrix, indicating that multicollinearity is not a serious concern since no coefficient exceeds the critical threshold of multicollinearity. Second, multicollinearity is again tested using the variation inflation factor (VIF) test, which is more reliable in detecting multicollinearity, by regressing each variable on all other explanatory variables. According to the literature, there is a multicollinearity problem between variables when the VIF value exceeds 10 for each variable and the mean VIF exceeds 6 (Montgomery *et al.*, 2011). According to Table 3, none of the variables has a VIF above 10. Additionally, the mean VIF of 1.99 proves the absence of a multicollinearity problem, supporting the results obtained in the correlation matrix.

5.2 Estimation results

Table 4 shows the study's empirical findings. The first model examines the impact of the Shariah governance variables, whereas the second and third models represent the interaction

	ROA	SSB	BDS	INDCAD	SIZE	PISA	CAR	GDP	INF	CRISIS
ROA	1									
SSB	0.0580	1								
BDS	0.0520	0.4758	1							
INDCAD	−0.1445	0.3900	0.3215	1						
SIZE	0.0020	0.2183	0.2406	−0.0977	1					
PISA	−0.0672	0.1172	0.0877	−0.2016	0.8343	1				
CAR	0.1690	−0.0707	−0.0277	0.1290	−0.4407	−0.548	1			
GDP	0.3807	−0.0074	0.0174	−0.1897	−0.1836	−0.133	0.1366	1		
INF	0.2031	0.1471	0.0355	0.0204	−0.0605	0.0049	−0.033	0.3366	1	
CRISIS	0.1390	−0.0658	0.0065	0.0256	−0.0754	−0.049	0.0179	0.1871	0.5229	1

Table 2.
Correlation matrix

Variable	VIF	1/VIF
PSIA	4.06	0.246168
SIZE	3.79	0.263619
INF	1.56	0.641052
SSB	1.50	0.665095
CAR	1.45	0.689107
BDS	1.44	0.696648
INDBD	1.42	0.702553
CRISIS	1.38	0.723645
GDP	1.27	0.786140
Mean VIF	*1.99*	

Table 3.
Variance inflation
factor

Dependent variable: ROA		Models specifications	
Independent variables	(1)	(2)	(3)
ROA_{t-1}	0.5496*** (0.000)	0.5466*** (0.000)	0.525*** (0.000)
SSB	0.0023** (0.017)	0.0020** (0.045)	0.0023** (0.031)
BDS	−0.00118** (0.055)	−0.00119** (0.047)	−0.00123** (0.048)
INDBD	−0.00116* (0.098)	−00012* (0.097)	−0.00125* (0.089)
SIZE	0.0081*** (0.003)	0.00791*** (0.004)	0.00592** (0.029)
PSIA	−0.00232** (0.043)	−0.0023* (0.061)	−0.00241* (0.063)
CAR	0.0515** (0.032)	0.0440* (0.096)	−0.0368 (0.701)
CARCASH		0.0547 (0.439)	0.534 (0.466)
CARSIZE			0.0118 (0.350)
GDP	0.0743*** (0.003)	0.0733*** (0.003)	0.0696*** (0.003)
INF	0.9045* (0.097)	0.0916* (0.092)	0.0983* (0.084)
CRISIS	−0.0062** (0.044)	−0.0060** (0.040)	−0.0058** (0.043)
Years	Yes	Yes	Yes
Countries	Yes	Yes	Yes
Constant	−0.0557*** (0.009)	−0.0517** (0.018)	−0.0383* (0.092)
Time fixed effect included	Yes	Yes	Yes
Observation	263	263	263
Arellano-Bond test AR(2)	(0.760)	(0.812)	(0.807)
p-value of Hansen test	1.000	1.000	1.000

Table 4.
Dynamic panel GMM
system regression
results

Note(s): *, ** and *** denote significance at 10%, 5% and 1%, respectively

variables used to evaluate the impact of the capital adequacy ratio in conjunction with bank size and liquidity. The purpose is to determine whether economies of scale and liquidity affect capital adequacy. The estimation of three models is done to ensure the robustness of the results.

5.2.1 Estimation results of the baseline model. The inclusion of the lagged ROA implies the existence of ROA adjustment costs. According to Table 4, as expected, the adjustment coefficient is statistically significant at the 1% level with a positive sign in all regressions, indicating the persistence in bank profitability.

Model 1 takes into consideration the entire study sample. The results of the path analysis reveal a positive relationship between SSB and ROA, which is statistically significant at 5%, demonstrating that a larger SSB is influential in enhancing the overall financial performance of IBs. This finding is consistent with Khan and Zahid (2020), Mollah and Zaman (2015) and Bourakba and Gherbi (2015), suggesting that large SSB have a diverse group of Shariah scholars associated with different schools of *fiqh*. Therefore, having more SSB members could be helpful in the Shariah audit and in reaching a consensus among Shariah members in

issuing fatwas on newly developed contracts and services, as well as in responding to the issues and queries raised by stakeholders and the general public, which improves performance. This leads us to accept the first hypothesis, H1.

Table 4 demonstrates that BDS has a significant and expectedly negative association with IBs' performance. This finding is in line with the literature by Nawaz (2019), Darwanto and Chariri (2019), Jensen (1993), and Herman (1981), implying that a large BOD is frequently regarded as ineffective as it leads to free-rider issues, higher agency costs, harmonized board members' opinions, thus, weakening the CG mechanisms over the CEO and lowering profits. Hence, we accept the second hypothesis, H2.

Table 4 also shows that INDBD has a significant and negative effect on ROA. Because independent directors are only selected based on compliance with regulatory requirements, a higher number of non-executive directors could result in biased decisions regarding financing agreements to achieve high profits at the expense of investment account holders and minority shareholders. Thus, this finding is confirmed by Mollah and Zaman (2015) and Pathan and Faff (2013). Accordingly, we accept the third hypothesis, H3.

Regarding the control variables, SIZE has a positive impact on ROA, significant at 1%. Thus, larger IBs typically have higher ROA than smaller IBs. Large banks can manage investment funds risks over the long term because they have more resources and can achieve economies of scale. Compared to small banks, they have a higher ability to access the capital market with a lower level of regulation, leading to higher returns. In addition, PSIA is statistically significant at 5% with a negative sign. This result implies that, under certain circumstances such as those involving asymmetric information, a higher PSIA share on the liabilities side is likely to increase the CEO's moral hazard and risk-taking. Moreover, there is a strong positive correlation between CAR and ROA. This result indicates that the Basel III capital target level was fully adjusted during the study period. Additionally, CAR would enhance the bank's capacity to handle potential shocks and absorb losses associated with the financing formulas, leading to better performance. GCC countries' growth rate has a positive coefficient, significant at 1%. The positive relationship between economic growth and ROA supports the theory that a higher growth rate increases investor confidence in the banking system, which attracts capital and thus improves IBs' profits. The findings of this study also indicate a positive relationship between inflation and ROA, suggesting that a high inflation rate improves the profitability of IBs. Finally, the dummy variable has a negative and significant impact on IBs' performance. This result indicates the negative impact of the global financial crisis on the GCC IBs. In fact, it is assumed that the global financial crisis negatively affected the entire world, by the end of 2008.

As robustness tests, we estimate the second and third models using the CAR interaction variable. The results shown in Table 4 are consistent with those of previous research. However, CARCASH and CARSIZE are not statistically significant.

6. Conclusion and recommendations
The purpose of this study is to examine the impact of Shariah supervision as a multi-layer of governance mechanism on the performance of IBs in the GCC, as well as its effects on different stakeholders. Although CG from an Islamic perspective is one of the most critical issues in the field of Islamic finance, the roles and responsibilities of the SSB remain unexplored. Besides, little is known about the modern and contemporary Islamic finance service industry. The inefficiency of the SSB may negatively affect the performance of IBs in GCC, which is the largest contributor to the Islamic financial industry. This idea motivated us to explore the potential effects of Shariah supervision and CG on IBs' performance. Additionally, although many studies on Shariah supervision in IBs have been conducted, most of them are theoretical aiming to investigate the role of SSB. Contrarily, empirical studies of Shariah supervision are scarce, especially in the GCC region. Thus, this study

estimates a dynamic panel of 27 IBs using the system GMM between 2005 and 2020. Results show that Shariah supervision and CG variables are significantly related to performance, indicating a relatively good level of governance in GCC countries. In addition, the presence of SSB overshadows the impact of a traditional corporate board on banks' performance. Thus, SSB is an important body that plays a significant role in IBs' performance.

The findings of this study have some policy implications for GCC regulatory bodies. Although IBs base their governance and accounting standards on international guidelines, regulations must be tailored to country-specific settings, particularly with respect to Sharia compliance and increase stakeholders' and shareholders' rights. Managers must guide participants in adopting a model that integrates Islamic values, business competitiveness and sound CG.

Nevertheless, the current study has some limitations. The main challenge is the limited access to information on IBs' financial statements for previous years. A comparative study of IBs in the GCC, MENA and Southeast Asia regions such as Malaysia is another topic for further studies.

Consequently, and in light of the findings, it is appropriate to suggest the following recommendations in order to improve the governance and prudential regulation of IBs. The first step should be for the authorities to establish a high Shariah board affiliated with the supervisory authorities in each country. This board should take the lead in issuing fatwas on financial products to unify the fatwa sources. The scholars forming this board must limit the number of bodies on which they can serve, i.e. they should not serve on more than two IBs at the same time, to avoid any type of conflicts of interest. Second, there is evidence from the literature that the size of banks is, at least in part, driven by too-big-to-fail, suggesting a preference for encouraging mergers between IBs. Hence, banks can reap the benefits of economies of scale in internal savings and diversify their assets to the extent of achieving an acceptable level of risk to attain satisfactory profits for stakeholders, especially depositors who are not represented on banks' boards. Third and finally, to limit excessive risk-taking by the PSIA, investment account holders must be involved in the governance plot through direct access to information and representation of their most beneficial interests on the bank's board of directors.

Notes

1. A previous version of this manuscript was presented at the CBF International Conference on Business and Technology, Manama, Bahrain, March 24, 2022.

2. Banks differ from other joint-stock companies in that their failure affects a wider circle of people and weakens the financial system, which has a negative impact on the overall economy.

3. Only full-fledged Islamic banking data are used in the computation of both ROA and ROE (IFSB, 2020, p. 57).

References

AAOIFI (1999), *Accounting and Auditing Organization for Islamic Financial Institutions, Governance Standard No. (1) Shari'a Supervisory Board- Appointment, Composition and Report*, Accounting and Auditing Organization for Islamic Financial Institutions, Bahrain.

Abdallah, M. (2021), "Disclosure, Shariah governance and financial performance in Islamic banks", *Asian Journal of Economics and Banking*, Emerald Publishing, Vol. 5 No. 3, pp. 234-254.

Abu Wadi, R.M. (2017), "Factors affecting the profitability of Jordanian Islamic banks", *Journal of Islamic Entrepreneurship*, Vol. 2 No. 2, pp. 22-32.

Ahmed, E.R., Islam, M.A. and Zuqibeh, A. (2013), "The role of Shariah board in reviewing and supervision on takaful (Islamic insurance)", *The 1st Insurance and Takaful*, Bangi.

Al-Hamd, A. (2013), "Internal determinants of the profitability of Islamic banks: an applied study of the Jordanian market", *Journal of the Gulf University: Department of Administrative and Financial Sciences*, Vol. 5, pp. 97-116.

Al-Hashel, M.Y. (2015), *Islamic Finance Meeting Global Aspirations*, IMF Publication, Kuwait, pp. 1-6.

Al-Malkawi, H.A. (2018), "Analyzing financial performance by integrating conventional governance mechanisms into the GCC Islamic banking framework", *Managerial Finance*, Emerald Publishing, Vol. 44 No. 5, pp. 604-623.

Al-Matari, Y.A., Al-Swidi, A.K., Bt Fadzil, F.H. and Al-Matari, E.M. (2012), "Board of directors, audit committee characteristics and performance of Saudi Arabia listed companies", *International Review of Management and Marketing*, Vol. 2 No. 4, pp. 241-251.

Alsartawi, A. (2019), "Performance of Islamic banks Do the frequency of Sharīʿah supervisory board meetings and independence matter?", *ISRA International Journal of Islamic Finance*, Vol. 11 No. 2, pp. 303-321.

Andres, P. and Vallelado, E. (2008), "Corporate governance in banking: the role of the board of directors", *Journal of Banking and Finance*, Vol. 32 No. 12, pp. 2570-2580.

Arellano, M. and Bover, O. (1995), "Another Look at the Instrumental-variable estimation of error components models", *Journal of Econometrics*, Vol. 68, pp. 29-52.

Bourakba, S. and Gherbi, A. (2015), "The impact of the application of corporate governance rules on the performance of Islamic banks: evidence from the GCC region", *King Abdul Aziz University Journal: Islamic Economics*, Vol. 28 No. 3, pp. 123-158.

Blundell, R. and Bond, S. (1998), "Initial Conditions and moment restrictions in dynamic panel data models", *Journal of Econometrics*, Vol. 87, pp. 115-143.

Chowdhury, M. and Shah Rasid, M. (2016), "Determinants of performance of Islamic banks in GCC countries: dynamic GMM approach", in Mutum, D.S., Butt, M.M. and Rashid, M. (Eds), *Advances in Islamic Finance, Marketing, and Management*, pp. 49-80.

Darwanto and Chariri (2019), "Corporate governance and financial performance in Islamic banks: the role of the Sharia supervisory board in multiple- layer management", *Banks and Bank Systems*, Vol. 14 No. 4, pp. 183-191.

Erkens, D., Hung, M. and Matos, P. (2012), "Corporate governance in the 2007-2008 financial crisis: evidence from financial institutions worldwide", *Journal of Corporate Finance*, Elsevier, Vol. 18, pp. 389-411.

Fuzi, F.S., Halim, S. and Julizaerma, M. (2016), "Board independence and firm performance", *Procedia Economics and Finance*, Vol. 37, pp. 460-465.

Grais, W. and Pellegrini, M. (2006), "Corporate governance and Shari'ah compliance in institutions offering Islamic financial services", World Bank Policy Research Working Paper No.4054.

Greene, W. (2003), *Econometric Analysis*, 5th ed., Pearson Education, New Jersey.

Hadriche, M. (2015), "Banks performance determinants: comparative analysis between conventional and Islamic banks from GCC countries", *International Journal of Economics and Finance*, Vol. 7 No. 9, pp. 169-177.

Hamza, H. and Saadaoui, Z. (2013), "Investment deposits, risk-taking and capital decisions in Islamic banks", *Studies in Economics and Finance*, Emerald Group Publishing, Vol. 30 No. 3, pp. 244-263.

Herman, E.S. (1981), *Corporate Control, Corporate Power. A Twentieth Century Fund Study*, Cambridge University Press, New York, Vol. 11 No. 4, pp. 34-35.

IFSB (2009), *Islamic Financial Services Board, Standard No. 10 the Guiding Principles on Sharî'ah Governance Systems for Institutions Offering Islamic Financial Services*, IFSB Published Standards, Kuala Lumpur.

IFSB (2019), *Islamic Financial Services Board, Islamic Financial Services Industry Stability Report*, Islamic Financial Services Board, Kuala Lumpur.

IFSB (2020), *Islamic Financial Services Board, Islamic Financial Services Industry Stability Report*, Islamic Financial Services Board, Kuala Lumpur.

ISRA (2014), *International Shari'ah Research Academy for Islamic Finance, Islamic Financial System - Principles and Operations*, Translation of SABIC Chair for Islamic Financial Market Studies, Imam Muhammad Bin Saud Islamic University, Riyadh.

Jensen, M. (1993), "The modern Industrial revolution, exit, and the failure of internal control systems", *Journal of Finance*, Vol. 48, pp. 831-880.

Kennedy, P. (1992), *A Guide to Econometrics*, MIT Press, Cambridge, MA.

Khan, I. and Zahid, S.N. (2020), "The impact of Shari'ah and corporate governance on Islamic banks performance: evidence from Asia", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 13 No. 3, pp. 483-501.

Malik and Makhdoom (2016), "Does corporate governance beget firm performance in fortune global 500 companies?", *The International Journal of Business in Society*, Vol. 16 No. 4, pp. 747-764.

Mollah, S. and Zaman, M. (2015), "Shari'ah supervision, corporate governance and performance: conventional vs Islamic banks", *Journal of Banking and Finance*, Vol. 58, pp. 418-435.

Montgomery, D., Peck, E. and Vining, G. (2011), *Introduction to Linear Regression Analysis*, 3rd ed., Wiley, New York.

Nawaz, T. (2019), "Exploring the nexus between human capital, corporate governance and performance: evidence from Islamic banks", *Journal of Business Ethics*, Vol. 157 No. 2, pp. 567-587.

Pathan, S. and Faff, R. (2013), "Does board structure in banks really affect their performance?", *Journal of Banking and Finance*, Vol. 37, pp. 1573-1589.

Ramiz, R. and Mangla, I. (2010), "Corporate governance and performance of financial institutions in Pakistan: a comparison between conventional and Islamic banks in Pakistan", *The Pakistan Development Review*, Vol. 49 No. 4 Part II, pp. 461-475.

Shan, Y. and McIver, R. (2011), "Corporate governance mechanisms and financial performance in China: panel data evidence on listed non-financial companies", *Asia Pacific Business Review*, Vol. 17 No. 3, pp. 301-324.

Sharfman, B. (2009), "Enhancing the efficiency of board decision making: lessons learned from the financial crisis of 2008", *Delaware Journal of Corporate Law*, Vol. 34, pp. 813-851.

Tashkandi, A. (2022), "Analyzing Sharia supervision effects on the performance of Islamic banks: evidence from the GCC countries", *Explore Business, Technology Opportunities and Challenges -After the Covid19 Pandemic*, Springer Nature, pp. 924-935.

Thomson Reuters (2020/2021), *State of the Global Islamic Economy Report*, Dinar Standard, Dubai.

Further reading

AAOIFI (2017), *Accounting and Auditing Organization for Islamic Financial Institutions, Shari'ah Standard No. 40, the Distribution of Profit in Mudarabah- Based Investment Accounts*, Accounting and Auditing Organization for Islamic Financial Institutions, Bahrain.

IFSB (2006), *Islamic Financial Services Board, Standard No. 3 the Guiding Principles on Corporate Governance for Institutions Offering Only Islamic Financial Services*, IFSB Published Standards, Kuala Lumpu.

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