Chapter

Relevance of Shari’ah Governance in Driving Performance of Islamic Banks during the Financial Crisis: International Evidence

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Abstract

This study aims to examine the impact of Shari’ah governance mechanism on the performance of Islamic banks (IBs) during the financial crisis of 2008. Data were collected from 66 IBs over 18 countries covering the period of 2007–2015 and analyzed using the System-GMM estimator. The findings indicate that an increase in SSB effectiveness increases IBs’ performance even during the crisis periods. A possible justification for this positive effect is related to the SG structure of IBs that allows them to undertake higher risks to achieve a high efficiency level. For this, the IBs, policymakers and practitioners should consider these findings when aiming to improve SG practices in the Islamic banking industry, which in turn may help in protecting IBs during crisis and non-crisis periods. More specifically, they should give due importance to SSB (size, cross-membership, educational qualification, reputation and expertise) in enhancing the performance of IBs during the crisis and non-crisis periods. This study provides additional evidence on how IBs can sustain their performance during either crisis or non-crisis periods through adopting appropriate SG structure. However, the study only focuses on a small sample of 66 IBs due to lack of the data.

Keywords: Shari’ah governance, Islamic banking, performance, global financial crisis of 2008

1. Introduction

In the current practice, Islamic banks (IBs) are subject to two internal mechanisms of CG: The Board of Directors (BoD) and the Shari’ah supervisory boards (SSBs). This extra layer of governance in the IBs, as represented by SSB, modifies their governance structure from a “single-layer” as in the conventional banks (CBs) into a “multi-layer” governance [1, 2]. AbdelSalam et al. [3] argue that this dual board structure strengthens both moral and legal accountabilities of IB management, and then, it may reduce these banks’ risk. Therefore, the establishment of an SSB for IBs is essential [4]. For the IBs, in order to enhance their customers’ trust, they must guarantee that all their products and operations are in compliance with the Shari’ah rules [5]. Shari’ah noncompliance can be a reason for reputational risk that can make the Islamic finance sector susceptible to instability and can trigger
bank failure as most of the customers prefer the IBs for religious reasons [6]. These risks also include higher costs, financial losses, liquidity problems, bank runs, bank failure, industry smearing and financial instability [6, 7].

Providing an efficient Shari’ah supervision is crucial to the IBs for failing to do so may give negative impact on the Islamic finance industry as a whole; hence, the SSB has high responsibility and accountability in its role with regard to Shari’ah supervision. If IBs fail to ensure compliance with the Shari’ah rules, their position in the market will be negatively affected due to lack of customers’ confidence [8, 9]. It is argued that one of the duties of SSB is to approve any new products before they go for full scale development, which in turn would decrease the risks of Shari’ah compatibility before developing the product [6]. New products will not be introduced to the customers before they are approved by the SSB [10]. Risks can arise when the product fails to meet market and customers’ needs. Given the importance of SSBs for IBs, [11] claim that although some may compare SSB to BoD or to an investment committee, SSBs have more powers and rights. Thus, the roles and duties of SSB have no true equivalent in the West [11]. As such, [10] considers the SSBs as the substitute for the conventional BoD. Furthermore, the SSB is expected to advise the board, the management including the bank’s subsidiaries and provide input to the bank on Shari’ah matters in order for the bank to comply with Shari’ah principles at all times [12].

The SSB plays an important role in determining the performance of IBs [4] and is responsible and accountable for all Shari’ah decisions, opinions and views provided by them to the IBs [12]. Given that SSB supervises bank investment, banks cannot invest beyond the SSB-approved investments even if they can earn a higher rate of returns [13]. The duties of the SSB include ensuring that the operations of the banks do not involve any dealings in prohibited industries [14]. Furthermore, the SSB has super authority to prevent the BoDs from charging interest (riba) payments and avoiding doubtful (gharar) investments in their products [15]. According to [6], the use of products that breach the Shari’ah principles is costly to the IBs in both the short run and the long run. In the short run, any revenue from the transactions that are not Shari’ah compliant is excluded from the income of the bank and donated to some charitable causes. Thus, Shari’ah noncompliance can affect the income and profitability of IBs adversely. In the long run, the dilution of Shari’ah principles can negatively affect the perception of stakeholders on the Islamic financial practice causing a serious loss of trust and credibility [6]. The nature of the SSBs’ decision may influence the acceptance of one product over another; hence, the SSB approval could increase or decrease the volume of banking business [4], which may affect the bank’s profitability [16]. The decision-making of the management in the IBs is indeed constrained by an SSB that rejects any proposals in light of Shari’ah principles [10].

The chapter is organized into four sections. The first section deals with the related literature and the hypotheses development. The second presents the data and methodology, while the third discusses the empirical result. The last section concludes the whole study.

1.1 Internal corporate governance mechanisms and financial crisis of 2008

In the current practices, CBs are not operating alone in the market as IBs have become their most competitive rival [17]. Many observers and industry players have shifted their interests toward the Islamic financial system as a viable alternative to the conventional one after the series of failures of several conventional financial institutions due to the crisis of 2008 [18]. Parallel with that attention, the importance of CG implementations has increased in the business environment
especially after the financial crises, the Asian financial crisis of 1997 and the global financial crisis of 2008. According to [18], as the financial transactions in the Islamic system are trade and asset based, it is assumed that this system will be more resilient to the financial shocks. Despite this, there are many examples of Islamic financial institutions (IFIs) that suffer from poor CG especially during crisis periods. The fall of Ihlas Finance House of Turkey in 2001, South Africa’s IB in 1997 and the Dubai Islamic IB’s losses between 2004 and 2007 are the clearest evidences of the IFI’s poor governance [9, 19]. Many scholars argue that poor CG of financial institutions is one of the main causes of the financial crisis of 2008 [20]. It is now widely acknowledged that shortcomings in bank CG may have had a central role in the development of the crisis [21].

The CG weaknesses and strengths are determined by many factors especially the CG mechanisms. Therefore, companies that have strong CG mechanisms tend to be more successful as compared to those companies having weak corporate mechanisms [22]. Accordingly, companies that have effective corporate boards during crisis periods are more likely to introduce turnaround plans [23]. As Abatecola et al. [24] assert, most of the empirical studies confirm that corporate board characteristics increase the survival probabilities of companies during crisis periods.

Kowalewski [23] provides empirical evidence on how CG mechanisms operate differently in crisis and non-crisis periods. Adding to that, Srivastava [25] finds that BoD affects the company’s performance, particularly during the period of financial crisis.

Being considered that IBs are subject to two internal mechanisms of CG, the BoD and the SSB, it is paramount to provide insights on how SSB influences the IBs’ performance during crisis periods. In general, most of the empirical studies in the literature have given attention to the BoD, while there is a lack of studies in the SSB context. As Nomran and Haron [26] argue, there is a need for more empirical studies to examine whether the effect of SSB on IB’s performance differs during crisis periods, especially the financial crisis of 2008. They add that this would help IBs in developing their strategies to adopt an appropriate SSB structure that will sustain their performance.

Few studies, however, have so far been focused on CG structure of IBs and link it to their performance during crisis such as the study of [15]. In this study, Mollah et al. [15] investigate whether the CG structure of IBs can help them in reducing the impact of the crisis of 2008. To do so, they examined the impact of the CG1 on performance of the IBs vs. CBs and found that the SSB size influences the IBs’ performance positively during the crisis period. They argue that the SG diminishes the negative impact of excessive risk taking and then improves the IBs’ performance [15]. However, Nomran and Haron [27] claim that the study of [15] suffers from some limitations such as it used the SSB size as a single proxy of SSB governance and neglected many important SSB characteristics that may affect the board performances. Thus, Nomran and Haron [27] overcome this limitation by using an SSB score that takes into consideration the impact of other important SSB characteristics. Similarly, the current study also uses this SSB score to measure SSB supervision as it will be shown in the methodology.

Basically, IBs have unique framework against the backdrop of Shari’ah ruling that plays an important role in their resilience. The CG structure of IBs, which includes the SG, helps them undertake higher risks and decrease the effect of the crisis on their profitability [15]. Alman [28] asserts that taking the crisis period into

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1 BoD structure (board size and independence), CEO power (chair duality and internally recruited) and SSB size.
account while studying the impact of SSB is important. Thus, there is an open empirical research question as to whether the SSB supervision, as measured by an SSB score that takes into consideration the impact of the important SSB characteristics², contributes to better performance of IBs during crisis periods.

2. Hypotheses development

Literature reveals that comparing the impact of the SSB on IBs’ performance during crisis periods has not been fully investigated in previous studies. Responding to what has been discussed above, this chapter aims to extend the investigation of [15] by examining the impact of SSB supervision on IBs’ performance during crisis periods by focusing on the financial crisis of 2008.

2.1 Shari’ah supervision and bank performance

The SSB has a supra authority to prevent the BoDs from charging interest (riba) payments and to avoid doubtful (gharar) investments in their products [15]. Although economic calculation and the profit concerns of the IBs are allocated to the BoD, the appreciation of the licit character of this profit is allocated to the SSB [10]. Thus, SSBs play an important role in mitigating agency problems by acting as an additional monitoring mechanism [3, 33, 34]. SSBs offer an extra possible reduction in agency costs for IBs through organizational moral accountability constraints and shaping managerial behavior [3, 34]. As Mohammed and Muhammed [4] state, SSB is one of the four key stakeholders affecting the financial performance of IBs, besides the management, the ownership and the external auditor.

As mentioned above, SSB characteristics, for example, SSB size, cross-membership, doctoral qualification, reputation and expertise, may determine how effective the SSB is in performing its task [19, 32, 35]. Basically, SSBs’ total effect should be measured using an SSB measurement that can reflect the total effect of SSB based on the most important characteristics that affect SSBs’ performance [26]. Based on that, many studies used SSB score that captures the total impact of these SSB characteristics to measure SSB supervision, for examples [19, 27]. Recently, Nomran and Haron [27] find that SSBs positively affect Southeast Asia IBs’ performance. That is to say that, SSB score provides the basis for the following hypotheses:

\( H_1: \) Effective SSB, as represented by the SSB score, will be positively associated with IBs’ performance.

\( H_2: \) Effective SSB, as represented by the SSB score, will be positively associated with IBs’ performance even for the period during the financial crisis of 2008.

3. Data and methodology

3.1 Sample

This chapter uses an unbalanced panel data of 66 IBs over 18 countries over the period 2007–2015 after eliminating banks with insufficient data on Shari’ah governance and performance. We choose the sample’s starting period of 2007 in order to

² Several variables relating to the SSB characteristics may determine how effective the SSB is in conducting its task, namely, SSB size, doctoral qualification, reputation, cross-membership and expertise [19, 29–32].
capture the effect of the financial crisis of 2008; therefore, the study covers the period from 2007 to 2015, including crisis period (2007–2009) following the previous studies such as [36]. The data are merged from BankScope and World Bank country-level macroeconomic data with hand-collected data on SSB characteristics from annual reports of IBs for the sample period. The sample distribution is presented in Table 1.

### 3.2 Measures of variables

In this study, the dependent variable, which is the performance of IBs, is measured by ROA and ROE following the previous studies [15, 32].

The explanatory variables used are measured as the following. Shari’ah supervision is measured using SSB score [27]. The bank characteristics (size and age) and country-specific variables (GDP and inflation rate) that may affect performance are employed as control variables following previous research [15, 27]. Table 2 provides a summary of the measurements of the dependent, control and explanatory variables used in this study.

### 3.3 Estimation method and model

This chapter employs the two-step system generalized method of moments (GMM). Studies on the relationships between CG and performance should control

| Country       | No of Islamic banks |
|---------------|---------------------|
| Algeria       | 1                   |
| Bahrain       | 9                   |
| Bangladesh    | 6                   |
| Bosnia        | 1                   |
| Brunei Darussalam | 1               |
| Indonesia     | 2                   |
| Jordan        | 3                   |
| Kuwait        | 2                   |
| Malaysia      | 11                  |
| Maldives      | 1                   |
| Oman          | 4                   |
| Pakistan      | 9                   |
| Qatar         | 3                   |
| Sudan         | 6                   |
| Syria         | 2                   |
| Thailand      | 1                   |
| United Kingdom| 3                   |
| Yemen         | 1                   |
| **Total**     | **66**              |

*Three of the four IBs in Oman are windows, but they have separate financial statements (Sohar Islamic, Muzn Islamic & Meethaq Islamic).*

Table 1.
Sample of the study.
for endogeneity, and thereby GMM can be used to control for this issue [37, 38]. To test the hypotheses, the following regression model is employed:

\[ \text{PERFORM}_i = \beta_0 \text{PERFORM}_{i(-1)} + \beta_1 \text{SSB-Score}_i + \beta_2 \text{BSIZE}_i + \beta_3 \text{BAGE}_i + \beta_4 \text{GDP}_i + \beta_5 \text{INFLATION}_i + \varepsilon_i \]

\[ \text{PERFORM}_i = \beta_0 \text{PERFORM}_{i(-1)} + \beta_1 \text{SSB-Score}_i + \beta_2 \text{BSIZE}_i + \beta_3 \text{BAGE}_i + \beta_4 \text{GDP}_i + \beta_5 \text{INFLATION}_i + \beta_6 \text{CRISIS}_i + \varepsilon_i \]

where \( i \) indicates the IBs (\( i = 1, ..., 66 \)) and \( t \) indicates the annual time period (\( t = 2007, ..., 2015 \)), \( \text{PERFORM} \) = performance of IBs, \( \text{SSB-Score} \) = \text{Shari‘ah} supervision score, \( \text{BSIZE} \) = bank size, \( \text{BAGE} \) = bank age, \( \text{GDP} \) = gross domestic product, \( \text{INFLATION} \) = inflation rate, \( \text{CRISIS} \) = a dummy variable: “1” for the period 2007–2009, “0” otherwise \(^4\) and \( \varepsilon \) = error term.

Table 2.
Measurement of variables.

| Variables       | Definitions and coding                  | Measurement                                                                 |
|-----------------|-----------------------------------------|-----------------------------------------------------------------------------|
| Dependent variables (bank performance) |                                         |                                                                             |
| ROA             | Return on assets                        | Net income divided by average total assets                                  |
| ROE             | Return on equity                        | Net income divided by average total equity                                  |
| Explanatory and control variables |                                         |                                                                             |
| SSB-Score       | \text{Shari‘ah} supervision score       | \text{SSB-SIZE} + \text{SSB-CRM} + \text{SSB-DQ} + \text{SSB-REP} + \text{SSB-EXPER} \(^3\)  |
| SSB-Score \times CRISIS | Interaction term between SSB score and financial crisis | SSB score multiplied by dummy variable: “1” for the period 2007–2009, “0” otherwise |
| BSIZE           | Bank size                               | Log of total assets                                                        |
| BAGE            | Bank age                                | Log of years since the bank was established                                 |
| GDP             | Gross domestic product                  | Log of GDP per capita                                                      |
| INFLATION       | Inflation                               | Inflation rate                                                             |
| CRISIS          | Financial crisis                        | A dummy variable: “1” for the period 2007–2009, “0” otherwise \(^4\)         |

\(^3\) The SSB score sums the value of the dichotomous characteristics of the SSB, which takes a score bounded by 0–1, namely (SSB size: “1” for banks with 5 or more members & “0” otherwise), (SSB cross-membership: “1” if at least one SSB scholar with cross-membership & “0” otherwise), (SSB educational qualification: “1” if at least one SSB scholar with PhD & “0” otherwise), (SSB reputation: “1” if at least one SSB scholar sits on the SSB of AAOIFI and at least two \text{Shari‘ah} board memberships & “0” otherwise) and (SSB expertise: “1” if at least one SSB scholar with experience and knowledge in the field of accounting/economics/finance & “0” otherwise). SSB-SIZE = SSB size; SSB-CRM = SSB cross-membership; SSB-DQ = SSB educational qualification; SSB-REP = SSB reputation; SSB-EXPER = SSB expertise.

\(^4\) Dummy interaction is employed following literature [39].

To capture the crisis impact, dummy interaction is employed following literature, in which: “1” for the period 2007–2009, otherwise “0” [31].
4. Analysis and findings

4.1 Descriptive statistics

The results of descriptive statistics for the variables are presented in Table 3. Table 3 shows that the mean of dependent variables (ROA and ROE) are 0.358 and 8.776, respectively. Table 3 depicts that the mean of the SSB-SCORE is 3.399, ranges from 0 to 5. This is in line with the findings of [27] who report that the mean value of SSB-SCORE for GCC and Southeast Asia IBs is 3.500. Turning to the bank and country variables (bank size, bank age, GDP and inflation rate), Table 3 shows that the mean of these variables are 5.977, 0.983, 4.062 and 5.591, respectively.

4.2 Correlation

Table 4 denotes the Pearson correlation coefficients between the explanatory variables. Based on Table 4, the highest correlation is found between INFLATION and SSB-SCORE ($r = 0.39$). Table 4 also presents that all the correlation coefficients are less than 0.95; hence, the collinearity between the variables is not a concern, as suggested by [40]. According to Table 4, SSB-SCORE shows a significant correlation with BAGE and INFLATION ($p = 0.01$). Further, INFLATION has a significant

| Variables  | Mean | Std. dev. | Min   | Max   |
|------------|------|-----------|-------|-------|
| ROA        | 0.358| 6.372     | −45.311| 31.953|
| ROE        | 8.776| 21.819    | −73.311| 276.738|
| SSB-SCORE  | 3.399| 1.020     | 0.000  | 5.000 |
| BSIZE      | 5.977| 0.668     | 3.335  | 7.591 |
| BAGE       | 0.983| 0.422     | −0.301 | 1.869 |
| GDP        | 4.062| 2.744     | −7.080 | 12.670|
| INFLATION  | 5.591| 4.996     | −4.900 | 30.030|

Number of IBs = 66; Number of observations = 381. ROA = return on asset; ROE = return on equity; SSB-SCORE = Shari'ah supervision score, BSIZE = bank size, BAGE = bank age, GDP = gross domestic product, INFLATION = inflation rate.

Table 3. Descriptive statistics.

| Variables  | SSB-SCORE | BSIZE | BAGE | GDP  | INFLATION |
|------------|-----------|-------|------|------|-----------|
| SSB-SCORE  | 1         |       |      |      |           |
| BSIZE      | 0.016     |       |      |      |           |
| BAGE       | −0.144*** | 0.062 |      |      |           |
| GDP        | 0.051     | 0.056 | 0.029|      | 1         |
| INFLATION  | −0.395*** | −0.178*** | 0.187*** | −0.041 | 1         |

***Correlation is significant at 1%.

Table 4. Pearson correlations.
correlation with BSIZE and BAGE \((p = 0.01)\). Nomran and Haron [27] found similar correlations for SSB-SCORE with the BAGE and INFLATION and for INFLATION with the BSIZE and BAGE.

### 4.3 Diagnostic test

To check the existence of the multicollinearity issue, variance inflation factor (VIF), as an indicator of multicollinearity, is used. Multicollinearity test in the data set is performed and no multicollinearity problem is found in the data, as the VIF of variables is less than 10 (refer Table 5). Based on this, there is no concern of multicollinearity among the set of explanatory variables.

### 4.4 Hypotheses test

Table 5 presents the regression results examining the study hypotheses based on the two-step system-GMM. Based on Table 5, the diagnostic tests show that the two models (1 & 2) are well fitted as AR(1) and AR(2) satisfy the conditions that there is first-order autocorrelation but no second-order, as suggested by the literature [32]. Table 5 also depicts that the models (1 & 2) are well fitted with statistically significant test statistics for the Wald test, indicating that the instruments are valid in the GMM estimation for the measurements (ROA, ROE) (Model 1: \(p = 0.00, 0.00\); Model 2: \(p = 0.00, 0.00\)).

Additionally, the Hansen \(J\)-statistic test does not reject the null hypothesis at any conventional level of significance for the two measurements (ROA, ROE) (Model 1: \(p = 0.59, 0.59\); Model 2: \(p = 0.70, 0.35\)), indicating that all the models have valid instrumentation. Finally, in line with the rule of thumb [41], the number of instruments does not outnumber the number of groups in all the models.

As expected in the first hypothesis (H1), SSB score is reported to relate positively to performance as measured by ROA and ROE (Model 1: at \(p = 0.05, 0.01\)); thus, the first hypothesis is supported. This result is in support of literature such as Nomran and Haron [27] who found a positive impact for the SSB score on the performance of Southeast Asia IBs.

For the second hypothesis (H2), a positive relationship is found between the SSB score and performance in the presence of the financial crisis for all the measurements (ROA, ROE) (all at \(p = 0.05\)); the second hypothesis is, thus, supported but not at 1% level of significance. This result is consistent with the findings of [15], who found a positive and significant impact for SSB supervision on the IBs’ performance during the financial crisis. The results indicate that SSBs slightly enhance IBs’ performance during the financial crisis period. According to Mollah et al. [15], a possible justification for this positive effect is related to the SG structure of IBs that helps them undertake higher risks and decrease the effect of the crisis on their profitability. Ben Zeineb and Mensi [42] also found that the governance structure of IBs allows them to take higher risks to achieve a high efficiency level. Abedifar et al. [43] believe that components of IBs’ governance systems may protect them from the problems faced by CBs.

The findings, therefore, suggest that an increase in SSB effectiveness increases IBs’ performance even during the crisis periods. For this, the IBs, policymakers and practitioners should consider these findings when aiming to improve SG practices in the Islamic banking industry, which in turn may help in protecting IBs during crisis and non-crisis periods. They should give due importance to SSB characteristics (size, cross-membership, educational qualification, reputation and expertise) in
enhancing the performance of IBs. Regarding the appropriate SG structure, some empirical studies have been conducted in this context. Nomran and Haron [2] suggested that SSB size of IBs should neither be lesser than three nor greater than six. Further, Nomran and Haron [27] confirmed that IBs should balance the number of SSB scholars with experience in Shari‘ah, as well as in law, accounting and finance. They also indicated that scholars with PhD in Shari‘ah and law are more associated to enhance IBs’ performance. Finally, they indicated that IBs should restrict the scholars’ memberships across SSBs.

Table 5.
SSB and IBs’ performance in the presence of the financial crisis: two-step system-GMM estimation.

The GMM model includes one lag of the dependent variables. Standard coefficients are presented (p-values in parentheses). 
***, ** and * are the p-values significant at 1, 5, and 10%, respectively.
ROA = return on assets; ROE = return on equity; SSB-SCORE = Shari‘ah supervision score, BSIZE = bank size, BAGE = bank age, GDP = gross domestic product, INFLATION = inflation rate. Model (1): Shows Eq. (1); Model (2): Shows Eq. (2). Stata software was used for analyzing hypothesis test based on System-GMM.
5. Conclusion

The importance of CG implementations has increased in the business environment especially after the financial crises: The Asian financial crisis of 1997 and the global financial crisis of 2008. Poor CG of financial institutions is considered to be one of the main causes of the financial crisis of 2008, and this CG weakness was not limited to the CBs, but IBs also suffered from this problem because their implementation of CG practices is still weak. Indeed, CG structure of IBs differs from its conventional counterparts as it follows Shari'ah-compliant characteristics and is closely guided by the SSBs. This extra layer of governance in the IBs modifies their governance structure from “single-layer” as in the conventional ones into “multi-layer” governance. This makes the establishment of an SSB essential for the IBs. Providing an efficient Shari'ah supervision is crucial to the IBs as failing to do so may give negative impact on the Islamic finance industry as a whole.

However, studies investigating the impact of the financial crisis of 2008 in the SSB context are very little, and hence, this chapter aims to examine SSBs’ supervision effect on IBs’ performance during the financial crisis of 2008. Based on the GMM estimation, the findings indicate that IBs with strong SSB supervision are likely to improve IBs’ performance during the crisis and non-crisis periods.

It is expected that providing empirical evidence on this issue would help the IBs in developing their strategies to adopt appropriate SG structure that can enhance their performance during crisis and non-crisis periods. Therefore, the IBs, policymakers and practitioners should consider the strong SSB supervision when aiming to improve SG practices in the Islamic banking industry. More specifically, the IBs, policymakers and practitioners should give due importance to SSB (size, cross-membership, educational qualification, reputation and expertise) in enhancing the performance of IBs during the crisis and non-crisis periods. However, the main limitation of the study is that it only focuses on a sample of 66 IBs over 18 countries due to lack of data.

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