




Strengthening governance mechanisms and corporate social responsibility disclosure: Drivers of performance in Islamic banks




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ABSTRACT

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Keywords

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This research examines the factors influencing the performance of Islamic banks in Southeast Asia (SEA) and the Gulf Cooperation Council (GCC) regions. It focuses on three key areas: corporate governance (CG), *Shari'ah* supervisory board (SSB) mechanisms, and corporate social responsibility (CSR) disclosure. This research employed rigorous panel data regression analysis, covering data from 79 Islamic banks spanning the years 2012 to 2021. This analytical approach revealed intricate connections between CG practices, SSB mechanisms, CSR disclosure, and bank performance. Strong CG and SSB mechanisms, in conjunction with robust CSR disclosure, positively impacted Islamic bank performance. These factors facilitated value creation, accountability, and stability, even during the COVID-19 pandemic. This underscores the significance of enhancing CG, SSB mechanisms, and CSR disclosure to bolster transparency and trust within the Islamic banking sector. Collaborative efforts among regulators, investors, and creditors are imperative for enforcing regulations, formulating CSR guidelines, and strengthening governance. This research contributes to a deeper understanding of CG practices, their impact, and the role of CSR disclosure in Islamic banks. It offers valuable insights for stakeholders and enhances comprehension of these mechanisms within the context of the SEA and GCC regions.

Contribution/Originality: This study contributes to the literature by offering a holistic examination of Islamic banks, focusing on key factors, employing rigorous methodology, and providing insights amidst global challenges. It offers practical implications for stakeholders and contributes to the advancement of knowledge in Islamic finance.

1. INTRODUCTION

Islamic banking has become an important sector in many countries, contributing to economic wealth and development. The recent global financial crisis in the years 2007-2008 has received significant attention from academics and practitioners [1]. They argue that the Corporate Governance (CG) mechanisms have resolved the conflict among stakeholders and management of the company, and the CG mechanisms aim to function appropriately to preserve stakeholders' interests. CG is about accountability, responsibility, systems, methodologies,

conveyance, and control of the power by which companies guarantee and keep up the parity of connections between various classes of investors as well as between other premium gatherings and related partners. It is apprehensive about the arrangement of the interests of the societies that involve the administration and the investors of companies [2].

The structure of CG differs between Islamic banks and conventional banks. The governments of different countries where Islamic banking is practiced have put in place certain legal and regulatory frameworks that control its activities. Different Islamic banking governance structures naturally have different philosophical bases, bank goals, types of contracts, key player in CG practices, and how these stakeholders interact with each other [3]. *Shari'ah* governance constitutes an indispensable layer of oversight in Islamic banks, ensuring alignment with *Shari'ah* rules and principles. The components of *Shari'ah* governance, both internal and external, bear responsibility for supervising and monitoring Islamic banks. The primary mechanism of *Shari'ah* governance is the *Shari'ah* Supervisory Board (SSB), tasked with ensuring that Islamic Financial Institutions (IFIs) adhere to *Shari'ah* principles [4]. This adherence ensures compliance and enhances the institution's reputation among clients, shareholders, and stakeholders [5].

There are two main factors driving this study. Firstly, previous studies on the Islamic banking governance system mostly either focus on the CG or *Shari'ah* governance [6-9] or previous studies that provide empirical evidence on the corporate and *Shari'ah* governance mechanisms in relation to the Islamic banks' performance [10-14] have used the only SSB characteristics as a proxy or measurement for *Shari'ah* governance. Based on the study by Mollah and Zaman [11], these studies used other components of corporate and SSB mechanisms, such as board diligence, audit diligence, SSB cross membership, SSB expertise, and a combination of the CG and SSB strengths as a variable for interpreting the performance of Islamic banks. A higher score for the SSB would suggest that the SSB is more analytical, knowledgeable, and reliable. With a higher SSB ranking, the Islamic banks will better monitor and control the bank's operations and thus increase their financial efficiency. This study used strength to capture the strengthened CG and SSB, as suggested by Wan Abdullah, et al. [15]; Mohd Zain, et al. [16], and Ajili and Bouri [17]. Secondly, the general limitation of the previous studies on the Islamic banks is that they were mostly conducted in a relatively specific country or region, making the sample small and lacking in richness of data. Therefore, an investigation of corporate and SSB practices across regions lacking empirical evidence is crucial to understanding the impact of corporate and SSB mechanisms and practices on performance.

2. REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

2.1. Performance of Islamic Banks

Recent studies conclude that Islamic banks performed better than their conventional counterparts during the 2007-2008 global financial crisis [13]. According to Sahyouni and Wang [18], Islamic banks have higher liquidity creation compared with conventional banks. Parashar [19] found that the profitability of Islamic banks decreased during the crisis. However, it is still higher compared to conventional banks. Ajili and Bouri [17] measured the performance of Islamic banks operating in GCC countries in light of CG quality. Their findings showed that the compliance and conformity of Islamic banks to CG practices are not oriented towards maximising shareholders' performance. On the contrary, Kusuma and Ayumardani [20] found that a well-governed CG structure is more efficient and serves as a distinctive feature that distinguishes performing and non-performing banks.

2.2. Corporate Governance Strength and Performance

2.2.1. Board Size and Performance

One of the essential elements of internal control for CG is board size. Prior studies have argued that banks with larger boards tend to perform well. Additional directors on the board cultivate a more vigorous decision-making process, boosting banks' performance [21]. Larger boards are assumed to be weak due to the dominance of chief

executive officer (CEO) power on the board [22]. A smaller board makes banks perform better, and the additional number of directors deteriorates bank performance [23, 24]. Because of free-riding directors, a large board is thought to be unhelpful because it would eventually reduce the board's ability to make decisions [11]. More directors on the board create issues of inefficiency, free-riding problems, and ineffective communication [25].

2.2.2. Board Independence and Performance

The Board of Directors (BOD) is recognised as the entity responsible for upholding the interests of all stakeholders involved. To acquire and enhance stakeholders' trust, it's crucial to have a mix of both executive and non-executive members on the board. Nevertheless, there's contention that non-executive directors must fulfill their roles effectively, especially when functioning as independent board members. Failure to do so could hinder their ability to make impartial and fair decisions. Previous research has yielded mixed results regarding the relationship between board independence and bank performance. While Al Manaseer, et al. [26]; Liu, et al. [27]; Shaukat, et al. [28] and Fuzi, et al. [29] have reported a positive impact of independent boards on performance. Al-Saidi and Al-Shammari [30] found a negative effect. Al-Saidi and Al-Shammari [30], argue that true independence and business knowledge are lacking, as major shareholders have exclusive control over appointing independent board members, even within banks. This study aligns with the findings of Al Manaseer, et al. [26]; Shaukat, et al. [28] and Fuzi, et al. [29] in supporting a positive correlation between board independence and the performance of Islamic banks.

2.2.3. Board Diligence and Performance

The frequency of board meetings is considered crucial to enhancing the board's effectiveness [31-33]. Previous research suggests that board meetings and active participation therein serve as essential avenues through which managers gain access to firm-specific knowledge and fulfill their monitoring duties. Lin, et al. [33] conducted a study indicating that companies with inadequate board meeting performance experience more severe enforcement issues compared to those with strong attendance during financial crises. Aryani, et al. [32] demonstrated a connection between frequent board meetings and improved performance, possibly because more frequent meetings are convened to address subpar performance. Similarly, Liang, et al. [34]; Lin, et al. [33]; Andres and Vallelado [35] and Aryani, et al. [32] have all found that the frequency of board meetings has a positive and significant impact on performance.

2.2.4. Audit Committee Size and Performance

The audit committee (AC) is the most integral component of the governance mechanism, which is responsible for ensuring transparency in the disclosure of financial reporting. Large ACs size are argued to contribute better to performance due to the diversity of skills and knowledge that do not exist in smaller ACs [36, 37]. AC is responsible for ensuring transparency in the bank, such as providing credible and right information to their shareholders and stakeholders. Furthermore, it is also responsible for preserving and protecting shareholders' equity and interest, both internally and externally. Previous studies found a positive association between the size of AC and firms' performance [38-41]. This study uses the same argument as the studies mentioned above: when the company has more representatives on AC, the committee uses more varied skills and knowledge to improve oversight and potentially positively impact performance.

2.2.5. Audit Committee Independence and Performance

An AC is independent if it is mostly and legally made up of non-executive auditors whose job it is to find bad financial management practices and keep an eye on internal control and regulatory compliance in order to lower the risk of fraud and false financial information in order to get good results. ACs with a majority of non-executive

auditors are considered to be less independent than those with more executive auditors. They are less exposed to financial fraud. There are various empirical results of the association between AC independence and firm performance of the company. Several studies [42-46] found that independence positively influences the company's firm performance. However, in their study, Klein [47] and Dar, et al. [48] state that AC independence negatively impacts performance.

2.2.6. Audit Committee Financial Expertise and Performance

According to Salloum, et al. [49], financial literacy is defined by accounting, finance, and audit expertise and skills, including appropriate years of experience in these areas. The presence of this expertise on the audit committee would assist the board of directors in improving the internal control and monitoring role and enhancing the audit committee's effectiveness in performing its functions [50]. Their expertise and experience are crucial in assessing different issues, the quality of the company's operations and finances, and engaging in the scheduling and preparation of audit tasks that will allow them to promote and validate external auditors' concerns at board meetings [51]. Their technical knowledge enables them to evaluate and reduce inappropriate risks-taking that may jeopardise banks' stability [52].

2.2.7. Audit Committee Diligence and Performance

There have been studies that looked at how useful the number of AC meetings was for different institutional variables. The results depended on the type of variable being studied and how it interacted with other variables, such as the category (economic, financial, accounting, and governance variables) the number (one or many variables), the class (quantitative or qualitative variables), and the measurement (number, ratio, and binary variable). The number of meetings as a determinant of the AC diligence showed that it was the best indicator of the effectiveness of this governance body. Previous studies depended predictably on the total number of AC meetings as a metric for AC diligence because other diligence measures are not publicly observable [53, 54]. In general, previous studies found that more frequent AC meetings decreased the probability of problems in financial reporting [53, 55-58]. The relationship between AC meetings and firms' performance has been extensively discussed among scholars. However, the reported results are still inconclusive. Many researchers declared these two variables positively related (e.g., [38, 59]). The overall CG score is calculated for the Islamic banking sector (the score will be indicated later as CG strength). So, the following hypothesis:

H: There is a significant and positive relationship between CG strength (board size, board independence, board diligence, audit committee (AC) size, AC independent, AC financial expertise, and AC diligence) and Islamic bank performance.

2.3. SSB Strength and Performance

2.3.1. SSB Size and Performance

Mollah and Zaman [11] found that SSB significantly influences Islamic banks' performance. According to Hamdi and Zarai [3], larger Islamic banks are more likely to employ larger SSB sizes, as large Islamic banks' enormous numbers of transactions require more monitoring and certifying work from SSB members. Nomran, et al. [60] showed that the impacts of SSB characteristics are significant in large Islamic banks, as *Shari'ah* governance practices are more prevalent in large Islamic banks. According to Mollah and Zaman [11], large SSBs influences the performance of Islamic banks positively when the SSB has a supervisory role. A larger SSB is more efficient in dealing with different monitoring and advisory roles compared to a small SSB. It also improves monitoring and advisory functions in the bank, thus instigating better management behaviour and lowering organisational risk [61].

2.3.2. SSB Cross-Membership and Performance

A cross-membership SSB allows them to establish interaction and broader connections with other Islamic banks and create more efficient resource allocation that, in turn, would enhance Islamic bank performance Almutairi and Quttainah [61]. Almutairi and Quttainah [61]; Nomran, et al. [60], and Rahman and Haron [62] found that SSB cross-membership has a positive and significant impact on Islamic banks performance. SSB cross-membership triggers good connections among the Islamic banks, equalises resource distribution, and raises the performance of the Islamic banks Rahman and Haron [62]. Cross-membership SSBs get chances to increase their experience and knowledge and strengthen their reputation [62, 63], which will eventually also enhance their knowledge as they are exposed to more discussions about the application of Islamic law in banking [64]. Proponents of resource dependency theory suggest that cross-membership *Shari'ah* scholars are exposed to several *Shari'ah* discussions and have access to many transactions. This situation enhances the *Shari'ah* scholars' knowledge and improves their experience, which promotes the high innovation and development of new products in Islamic banks.

2.3.3. SSB Financial Expertise and Performance

Regarding SSB members in Islamic banks, scholars with more experience in financial knowledge are more efficient in their performance as SSB members than scholars with no such skills [65]. Indeed, a large percentage of SSB representatives in Islamic banks are Islamic scholars, with only a few possessing experience in accounting, banking, economic, and financial matters [66]. For this reason, most SSB scholars lack the banking services that affect their ability to execute well-informed decisions on financial products and activities [67]. SSB scholars with skills in finance and accounting could positively and significantly impact the performance of Islamic banks, as expertise in *Shari'ah law*, apart from market, accounting, and finance experience, will help them improve the quality of performance of Islamic banks [68, 69]. Therefore, the following hypothesis is tested:

H₂: There is a significant and positive relationship between SSB strength (SSB size, SSB expertise, and SSB cross-memberships) and Islamic bank performance.

2.4. Mediating Variable

CSR disclosures play a significant role in business by improving corporate transparency, enhancing corporate image, and providing valuable information for investment decision-making [70-73]. There are several studies conducted on the relationship between CG mechanisms and CSR disclosures [7, 74-77]. While an excessive amount of research attempts to examine the association between CSR disclosures and the performance of companies and conventional financial institutions, the study of the associations between disclosures of CSR and the performance of IFIs remains scarce [78-80]. The following hypothesis is based on the above argument: it wants to look into the connection between CSR disclosures as a variable that acts as a bridge between CG mechanisms (CG strength) and the performance of Islamic banks. This leads to the following hypothesis:

H₃: CSR disclosures of the Islamic bank mediate the relationship between CG strength as well as SSB strength and the Islamic banks' performance.

3. RESEARCH METHOD

3.1. Sample and Data Collection

This research investigates the effectiveness of CG and the SSB in relation to the performance of Islamic banks from 2012 to 2021. In recent years, the Islamic finance sector has gained increasing attention from policymakers, central banks, investors, and scholars as a more viable alternative to Western financial systems [81]. Notably, since it began in the middle of the 1970s, Islamic banking has grown significantly, forming an important part of the Islamic financial industry [79]. The choices of Islamic banks in the SEA and GCC regions have been motivated by the past three decades of growth in the banking sector. Data collection for this study concluded in the fiscal year

2021, as it marked the latest available data when data collection commenced online. Our research sample comprises 79 Islamic banks operating across 12 countries in the SEA and the GCC region, based on the selection criteria established in prior studies by Wan Abdullah, et al. [66] and Wan Abdullah, et al. [15]. To conduct this research, secondary data from various archival sources was utilised. Financial data, encompassing metrics like Return on Average Assets (ROAA), Return on Average Equity (ROAE), and Tobin's Q, were extracted from annual reports and financial databases aggregating financial information from banks' financial statements. CG and SSB data were acquired from each bank's annual reports and CG reports.

3.2. Variable Measurement

These studies use accounting and market-based measures to test the CG and SSB against bank performance. Consistent with prior literature, these studies include accounting-based variables, the return on average assets (ROAA), the return on average equity (ROAE), and the market-based variable of Tobin's Q [11, 80]. The CG strength and SSB strength are measures based on the studies by Al-Malkawi, et al. [82]; Wan Abdullah, et al. [15]; Ajili and Bouri [17] and Mohd Zain, et al. [83]. These studies have tested factor analysis for CG and SSB mechanisms as strengths. The result of KMO shows that CG strength (board size, board independence, board diligence, AC size, AC independence, AC financial expert, and AC diligence) is 0.711, and the *Bartlett test of sphericity* is $p=0.000$. Meanwhile, KMO for the SSB strength (SSB size, cross-membership, and financial expertise) is 0.63, and the *Bartlett test of sphericity* is $p=0.000$. The Cronbach's alpha of CG strength and SSB strength is 0.903, and 0.905 means that the index has been developed to be reliable or internally consistent. The measurements of the items in this study are shown in Appendix 1.

3.2.1. Corporate Social Responsibility Disclosure Index

Based on the previous studies by Haniffa and Hudaib [84] and Platonova, et al. [80], this study identifies dimensions and sub-dimensions for CSR disclosure in Islamic banks. Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and previous research on CSR disclosure [85-89] serve as the basis for developing CSR disclosure categories and items from the *Shari'ah* perspective. As a result, six key areas of CSR disclosure for the Islamic banks have been established, which are "mission and vision statement", "products and services", "zakat, charity, and benevolent fund", "commitment towards employees", "commitment towards debtors", and "commitment towards the community". The key indicators of CSR disclosure are shown in Appendix 2.

3.3. Model Specification and Estimation Method

These studies use seemingly unrelated regression to estimate the relationship between CG, SSB, and performance. Seemingly unrelated regressions are a generalisation of a linear regression model consisting of multiple regression equations, each having its own dependent variable and possibly different sets of exogenous explanatory variables [90, 91]. The F-statistics for the POLS are not significant at 1 percent level of significance. The Hausman test determines whether a fixed-effect or random-effect method is more appropriate for this study. Based on the Hausman test result, after the rejection of the Breusch-Pagan test, this study employs the random effect for market-based measurement and the fixed-effects (FE) method for accounting-based measurement [92].

To test the hypotheses, the following model is employed:

$$\begin{aligned} Performance_{it} = & \alpha + \beta_1 CGStrength_{it} + \beta_2 SSBStrength_{it} + \beta_3 Size_{it} + \beta_4 Lev_{it} + \beta_5 GDP_{it} \\ & + \beta_6 PRCL_{it} + \beta_7 Legal_{it} + \beta_7 MuslimPop_{it} + \varepsilon_{it} \end{aligned}$$

Where:

Performance = Performance (ROAA, ROAE or Tobin's Q).

CGStrength = Corporate governance strength.

SSB Strength = *Shari'ah* Supervisory Board strength.

Size = Size of the Islamic banks.

Lev = Leverage of Islamic banks.

GDP = Gross domestic product.

PRCL = Political right and civil liberties.

Legal = Legal system.

MuslimPop = Muslim population.

i = Bank.

t = Time.

α = Intercept.

$\beta_1 \dots \beta_n$ = regression coefficient.

ε = Error term.

The Equation of the Mediator Model:

$$Performance_{it} = \alpha + \beta_1 CGStrength_{it} + \beta_2 SSBStrength_{it} + \beta_3 CSRDisclosure_{it} + \beta_6 Size_{it} + \beta_7 Lev_{it} + \beta_8 GDP_{it} + \beta_9 PRCL_{it} + \beta_{10} Legal_{it} + \beta_{11} MuslimPop_{it} + \varepsilon_{it}$$

Where:

Performance = Performance (ROAA, ROAE or Tobin's Q).

CGStrength = Corporate governance strength.

SSB Strength = *Shari'ah* Supervisory Board strength.

CSRDisclosure = Corporate social responsibility disclosure.

Size = Size of the Islamic banks.

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i = Bank.

t = Time.

α = Intercept.

$\beta_1 \dots \beta_n$ = Regression coefficient.

ε = Error term.

Table 1. Descriptive statistics.

Variable	Full sample							SEA sample mean	GCC sample mean	Two sample T-test
	Obs.	Mean	Std. dev.	Min.	Max.	Skewness	Kurtosis			
ROAA	790	0.978	1.795	-3.92	8.92	0.595	0.311	0.582	1.262	4.136***
ROAE	790	5.495	5.840	-6.92	18.62	-0.167	-0.226	5.398	5.564	0.303
Tobin's Q	790	0.457	0.262	0.057	1.281	0.633	-0.092	0.391	0.505	4.770***
CSR disc	790	0.811	0.082	0.593	0.907	-0.365	-1.187	0.779	0.834	7.565***
CG strength	790	3.966	2.793	0	7	-0.132	-1.768	3.035	4.634	6.401***
SSB strength	790	1.736	1.225	0	3	-0.206	-1.59	1.313	2.040	6.654***
Size	790	7.981	1.514	4.576	10.941	-0.342	-0.502	7.911	8.031	0.848
PRCL	790	9.960	1.946	5	14	-0.248	-0.443	10.258	9.746	-2.842***
Leverage	790	0.669	0.470	0.017	2.08	0.547	-0.752	0.561	0.746	4.317***
GDP	790	4.072	1.723	-0.93	7.24	-1.168	1.044	5.015	3.396	-11.384***
Muslim pop	790	0.778	0.132	0.43	0.952	-0.306	-1.134	0.794	0.766	-2.253**

Note: ROAA= Return on average assets; ROAE= Return on average equity; Tobin's Q= Tobin's Q; CSR Disc= CSR Disclosure; CG Strength= Index of CG mechanisms (BOD size, BOD independence, BOD diligence, AC size, AC independence, AC financial expert and AC diligence); SSB Strength= Index of SSB mechanisms (SSB size, SSB cross membership and SSB financial expertise; SIZE= Log total asset; PRCL= Political right and civil liberties; Lev= Leverage of Islamic bank; GDP= Gross domestic product; Muslim Pop= Muslim population
***Significant at 1 %-level; **Significant at 5 %-level; *Significant at 10 %-level.

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistics

Table 1 presents summary statistics of descriptive analysis for dependent variables and independent variables, which are performance, CG, and SSB strength. Besides that, six control variables have been included in this study. Another essential point is that Table 1 shows the result of the Skewness and Kurtosis for the main variable in this study. Skewness refers to the symmetry of the distribution, and Kurtosis indicates the distribution's peak [93]. Furthermore, Hair Jr, et al. [94] and Hair, et al. [95] recommended that Skewness and Kurtosis's acceptable values range between -1 and 1. However, several authors claimed that the acceptable limit between -2 and 2 was deliberated adequately to verify a normal univariate distribution [96, 97]. Henceforth, Skewness, and Kurtosis's absolute values for the entire main item in the study are within the acceptable range of -2 to 2, respectively. Skewness is within the range of -1.168 to 0.633, while Kurtosis is within the range of -1.768 to 1.044.

4.2. Panel Data Analysis

Based on the statistical analysis shown in Table 2, the results show that CG strength and SSB strength are positive and significant for the performance of accounting-based and market-based measurements, supporting hypotheses 1 and 2 of these studies. The result is consistent with the studies on board size [98-101], board independence [26, 27, 29, 102], and board diligence [31-34]. These results indicate that companies need a greater pool of knowledge and skills, which leads to appointing more directors to the board. Similar to Mak and Li [98]; Adams and Mehran [99]; Coles, et al. [100] and Chen [101], this study suggests that a large board could provide more experience, expertise, specialised skills, and communication opportunities, which eventually leads to better performance of Islamic banks. Liang, et al. [34]; Lin, et al. [33]; Andres and Vallelado [35] and Aryani, et al. [32] argued that board meetings and participation in meetings are considered to be important channels through which directors receive firm-specific details and can fulfil their monitoring role.

In the same way, the result is consistent with the study on AC size [38-41], AC independence [42-46], AC expertise [36, 37, 42, 103-105], and AC diligence [38, 53, 59]. This study argues that when the company has more representatives on AC, the committee employs more diverse skills and knowledge to improve supervision and eventually positively affect performance.

SSB strength in this research is significant in accounting-based and market-based measurements, supporting hypothesis 2. The SSB system had three main roles: advising, monitoring, and maintaining the *Shari'ah* rule of the Islamic banks [106]. The first task included the certification of the approved financial instruments and a description of how the *Zakat* should be measured [107]. Besides, the SSB played an important role as an internal control mechanism to evaluate and manage the operations of the Islamic bank [72]. Having regard to this brief review, it can be concluded that the SSB is one of the keys to CG mechanisms that enhance stability and, ultimately, the profitability of the IFIs. Mollah and Zaman [11] found that SSB positively affected Islamic banks' performance when they played the supervisory role, while their impact was negligible when they played an advisory role. Based on this finding, these studies can conclude that the SSB in these studies played more of a supervisory role than an advisory role, as in the Mollah and Zaman [11] study. Large SSB size leads to different perspectives and skills from different *fiqh* schools, leading to a better understanding of products and operations and, hence, better results. Meanwhile, cross-memberships of SSB can enhance scholars' knowledge and experience, and financial expertise exposes scholars to more Islamic banking-related debates and thus enhances Islamic bank efficiency [14]. These statements can instill trust in stakeholders regarding Islamic banking products.

Besides that, Farook, et al. [64] reported that scholars have better informed Islam's current implications for IFIs with a doctorate in accounting, business, and economics. Hence, this study combined the three SSB characteristics (SSB size, cross-membership of SSB, and expertise of SSB members) into an index to measure its effectiveness. A higher SSB score indicates that SSB is more intellectually honest, knowledgeable, and efficient [108,

109]. Thus, an Islamic bank with a higher SSB score would lead to more monitoring and control of the banks' activities and thus improve performance.

The result concerning the legal system provides evidence that Islamic banks in common-law countries tend to provide more disclosures and better performance than those in code-law countries. The result shows that the legal system has a statistically significant and negative relationship with accounting and market-based measurement performance. This result is consistent with the La Porta, et al. [110] study. According to La Porta, et al. [110], empirical research is significantly influenced by variations in accounting standards, and practices across nations. These studies illustrate that countries with English common law systems tend to have better economic development, healthier capital markets, higher accounting standards and better enforcement compared to countries with code law systems. Complementary to this, the size and Muslim population results are significant at 5 and 10 percent on the market-based measurement performance only. These results show the different significance of the variable because market-based performance uses random effects, whereas accounting-based performances are based on fixed-effect testing.

Table 2. Result of regression analysis between CG strength, SSB strength and ROAA.

Variable	ROAA	ROAE	Tobin's Q
	Fixed effect robust	Fixed effect robust	Random effect
Constants	-0.047	0.014	-0.041
CG strength	0.313*** (0.000)	0.346*** (0.000)	0.322*** (0.000)
SSB strength	0.387*** (0.000)	0.328*** (0.000)	0.396*** (0.000)
Size	-0.194 (0.285)	0.025 (0.881)	0.080** (0.043)
PRCL	0.117 (0.377)	-0.086 (0.428)	-0.049 (0.320)
Legal	-0.364*** (0.000)	-0.271*** (0.014)	-0.194*** (0.002)
Lev	0.053 (0.190)	0.001 (0.980)	0.020 (0.581)
GDP	0.026 (0.596)	-0.011 (0.815)	0.013 (0.771)
Muslim pop	0.002 (0.981)	-0.105 (0.132)	0.083* (0.059)
Observation (N)	790	790	790
R-squared	0.454	0.488	0.508
Adjusted R-squared	Na	Na	Na
F-Stat / Wald chi2	14.78***	21.29***	415.18***
Breusch Pagan test	177.31*** (0.000)	167.50*** (0.000)	4.50 (0.017)**
Hausmantest	32.35*** (0.000)	17.14** (0.029)	14.27* (0.075)
Multicollinearity (Vif)	1.72	1.72	-
Heteroskedasticity	31366.94*** (0.000)	3411.35*** (0.000)	-
Serial correlation	0.400 (0.529)	2.028 (0.158)	-

Note: ROAA= Return on average assets; ROAE= Return on average equity; Tobin's Q= Tobin's Q; CG Strength= Index of CG mechanisms (BOD size, BOD independence, BOD diligence, AC size, AC independence, AC financial expert and AC diligence); SSB Strength= Index of SSB mechanisms (SSB size, SSB cross-membership and SSB financial expertise); SIZE= Log total asset; PRCL= Political right and civil liberties; Legal= legal systems of countries; Lev= Leverage of Islamic bank, GDP= Gross domestic product; Muslim Pop= Muslim population
1. *** Significant at 1% level; ** Significant at 5% level; and * Significant at 10% level.
2. The sample of Islamic banks panel data runs from 2012 to 2021 (strongly balanced).

4.3. Result of Mediating Analysis

In Table 3, you can see the outcome of comparing the CSR disclosure of CG and SSB, as well as the performance and strength of Islamic banks. This study applied the Parashar [19] method of bootstrapping the indirect effect to determine the presence of the mediation effect. The results for CSR disclosure mediating effects on the relationships between CG strength, SSB strength, and Islamic bank performance have been shown in Table 3. The result shows that CSR disclosure partially mediates the relationship between CG strength and Islamic banks' performance in accounting-based and market-based measurements. The results support Hypothesis 3 of the study. CSR disclosures play a significant role in business by improving corporate transparency, enhancing corporate image, providing valuable information for investment decision-making, and leading to better performance for the company [70-73]. The legitimacy theory argues for the role of corporations in the eyes of society. It delineates an implied contract between corporate societies to meet the expectations of society and legitimise their existence. Islamic banks with a higher expectation of social development and well-being need to disclose more in the domain of CSR [111]. Then, a higher level of CSR disclosure can positively influence Islamic banks' performance based on the premise that it has improved communication.

Table 3. The mediation effect of CSR disclosure on the relationship between CG and SSB strength on performance.

Variable		Total effect	Direct effect	Indirect P-value (Bootstrap)	Effect percentile bootstrap 95 per cent confidence interval		Mediation effect
Dependence	Independents				Lower	Upper	
ROAA	CG strength	0.369*** (0.000)	0.246*** (0.000)	0.246*** (0.000)	0.145	0.347	Partial mediation
	SSB strength	0.353*** (0.000)	0.234*** (0.000)	0.234*** (0.000)	0.112	0.355	Partial mediation
ROAE	CG strength	0.413*** (0.000)	0.301*** (0.000)	0.301*** (0.000)	0.184	0.418	Partial mediation
	SSB strength	0.344*** (0.000)	0.237*** (0.000)	0.237*** (0.001)	0.102	0.371	Partial mediation
Tobin's Q	CG strength	0.342*** (0.000)	0.234*** (0.000)	0.234*** (0.000)	0.104	0.364	Partial mediation
	SSB strength	0.385*** (0.000)	0.281*** (0.000)	0.281*** (0.000)	0.143	0.419	Partial mediation

Note: ***Significant at 1 per cent level.

**Significant at 5 per cent level.

*Significant at 10 per cent level.

4.4. Robustness Test

These studies try to test the two-step system GMM using the approach by Arellano and Bover [112] and Blundell and Bond [113] using the commands "xtabond" and "xtdpdys" in Stata 14 software, and the result shows lagged dependence is not significant. The result of lagged dependent is not significant, showing that the data are not dynamic and considered either static (unchanging) or persistent, which is infrequently accessed data that is not likely to be modified.

5. CONCLUSION

Past literature has proven that sound CG mechanisms are the contributing factors that influence the performance of conventional and Islamic banks. Based on the previous study, this research examines the effect of the CG's strength and the SSB's strength on Islamic bank performance. The CG strength was measured based on the characteristics of the total CG and is the same as the measurement of the SSB resistance. These techniques are based on the studies of Al-Malkawi, et al. [82]; Wan Abdullah, et al. [15] and Ajili and Bouri [17]. Based on the previous literature examined and the results of this study, we can conclude that a better CG mechanism will lead to

better corporate performance at the Islamic bank. Beyond that, the revelation of the CG mechanism directly affects the Islamic bank's good performance. The implementation of a good CG will increase efficiency and stimulate economic growth. The presence of an effective CG will contribute to increasing the level of trust necessary for the proper functioning of the financial sector, particularly in the capital market and Islamic banking sectors.

Considering the unique challenges posed by the COVID-19 pandemic, effective governance mechanisms are crucial for the resilience of Islamic banks. Strengthened governance structures, coupled with robust CSR disclosure practices, not only promote transparency and accountability but also contribute to fraud prevention and financial system stability. Regulators, investors, and creditors should focus on implementing specific disclosure requirements and developing CSR disclosure guidelines tailored to Islamic banks. By doing so, they can enhance performance, minimise disparities in CSR disclosure practices, and attract more investors to the sector. Additionally, more research should be done to address the study's limitations and learn more about how governance structures affect CSR disclosure in IFIs. This will help us understand these dynamics better.

Recommendations for future studies include conducting comparative analyses across different regions to assess the effectiveness of governance mechanisms and CSR disclosure in Islamic banks. Moreover, exploring the impact of specific events or crises, similar to the COVID-19 pandemic, on the relationship between governance mechanisms, CSR disclosure, and bank performance would provide valuable insights. Additionally, further research could delve into the specific attributes and practices of SSBs and their impact on Islamic bank performance. Lastly, investigating the long-term effects of strengthened governance standards and disclosure practices on attracting investors and enhancing the reputation and credibility of Islamic banks would contribute to a more comprehensive understanding of the field.

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APPENDIX

Appendix 1. Measurement of variables.

Variable	Measurement
Performance	ROAA = Net income divided by total average asset
	ROAE = Net income divided by total average equity
	Tobin's Q = The total market value of the firm divided by the total asset value of the firm
CG strength	Board size + Board independence + Board diligence + AC size + AC independence + AC financial expertise + AC diligence
	Board Size = 1 for the number of directors on the board above the median of 8, 0 otherwise
	Board Independence = 1 for the number of independent directors on the board above the median of 0.667, 0 otherwise
	Board diligence = 1 for the number of the meeting held above the median of 5, 0 otherwise
	AC Size = 1 for the number of members in the AC above the median of 4, 0 otherwise
	AC independence = 1 for the number of Independence AC above the median of 0.667, 0 otherwise
	AC financial expertise = 1 for the number of AC financial expertise above the median of 0.750, 0 otherwise
	AC diligence = 1 for the number of the AC meeting held above the median of 4, 0 otherwise
SSB strength	SSB cross-memberships + Number of SSB members + Financial expertise of the SSB
	SSB size = 1 for the number of SSB members above the median of 4, 0 otherwise
	SSB cross-memberships = 1 for the average number of cross-memberships of the SSB members in institutions offering Islamic financial services above the median of 3.250, 0 otherwise
	SSB financial expertise = 1 for the number of SSB financial expertise above the median of 0.333, 0 otherwise
CSR disclosure	Disclosure's index incorporates items from AAOIFI [106], Governance Standards No 7 and previous study
SIZE	Total asset of the Islamic banks (Natural logarithm of total assets)
PRCL	Overall combined index scores of political rights and civil liberties based on the work of Gastil [114] and Freedom House [115] for the given nation: 1 (Freedom) to 14 (Repression)
Legal	1 if Common law, 0 otherwise
Leverage	Total debt divided by total asset
GDP	The annualised growth rate of GDP per capita
MuslimPop	Percentage of the Muslim population (Number of Muslim populations divided by total number of population)

Appendix 2. Summary of CSR disclosure checklist.

No	Categories	Number of items
1	Mission and vision statement	9
2	Product and services	8
3	Zakat, charity and benevolent finds bank	15
4	Commitment towards employees'	10
5	Commitment towards debtors	5
6	Commitment toward community	7
	Total	54

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