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Impact of Islamic Bank Boards and Risk Management Committee (RMC) Attributes on Credit Ratings: An Evidence from Pakistan

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ABSTRACT

Shariah compliance is the most important feature distinguishing Islamic financial institutions from traditional ones. Shariah governance is the mechanism to monitor and imply compliance in Islamic banks. This study aims to investigate the Risk Management Committee, shariah governance and corporate governance attributes on credit ratings of Islamic banks in Pakistan. The investigation period from 2013 to 2020 develops the six paradigms of Islamic banks' governance with credit rating. Long-term and short-term credit rating scales were applied, and the Ordered Logistic Regression model implied a suitable technique for the ordinal dependent variable. Findings suggest that the Risk management committee's existence, size and independence improve Islamic banks' credit ratings. Islamic bank's board and Shariah board characteristics also significantly affect credit ratings. Shariah compliance can be enhanced if credit rating firms give Shariah governance traits more weight in the credit rating process. The presence of effective and independent risk management oversees the Islamic bank risks and evaluates the Islamic banks' risk-taking activities within the given framework. Further, high shariah compliance not only gains the confidence of investors and depositors, but Islamic banks can also access more funds at a low cost.

Keywords: Risk management committee; credit ratings; shariah governance; corporate governance; Pakistan; Islamic banks

Introduction

Amid the economic collapse of 2008, Islamic bank credit and assets performed surpassed traditional banks because the attributes of the Islamic business framework adopted by Islamic banks helped to control the losses. The financial crisis of 2008 occurred due to poor governance, especially the poor monitoring function that caused excessive risk-taking in the companies (Erkens et al. 2012; Kashyap et al. 2008; Moosa 2008). The primary cause of financial crises is linked to compensation with short-term objectives, which encourage managers or executives to make riskier investments to enable or qualify for short-term rewards (Kashyap et al. 2008). The Risk Management Committee (RMC) role is crucial because it sets the firm's risk capacity, administers the organizational risk framework, and evaluates its performance against the framework. Negligence, the egregious and substandard performance of RMC, is the key determinant of world Economic crises (Erkens et al. 2012). Hence, the organizations have RMC to monitor the risk component of the business to avoid losses.

Quality Governance practices are a competitive advantage that indicates management goals aligned with stakeholders and minimizes agency problems. The quality of corporate governance practices is highly alert and demanded in emerging and developing economies due to recent past financial scandals(Baydoun et al. 2013). Governance theories explain that board structure is a key element, including board independence, the board size, foreign directorship and the presence of gender diversity can make the board more effective (Alqatan et al. 2019). The effective board can more effectively arrange the resources, monitor the Islamic bank management and make the best decision.

Islamic banks can be differentiated based on Shariah compliance from conventional banks. Shariah compliance can be achieved through Shariah's advisory or supervisory board. Shariah's advisory role is limited to just advising the management, but the Shariah supervisory board role is broader and can enforce management to conduct the affairs according to Sharia rules. In explaining shariah governance, there exist two schools of thought, the narrow point of view and the broad point of view. The former explicates that the purpose of shariah scholars is to decide the goodwill and value creation for shareholders.

In contrast, the latter explains that the primary responsibility of the shariah board is to cushion the stakeholders' and owners' interests by the principles steered by Shariah-guided rules (Hassan et al. 2017). According to Shariah rules and regulations, the Shariah board is responsible for regulating all the activities in the Islamic financial organization. In the Pakistan Islamic banking industry, every Islamic bank must appoint a Shariah adviser per the State Bank of Pakistan guidelines. The Shariah advisor committee or board then gives a Shariah certificate to Islamic banking after satisfying that all operations and transactions are conducted according to Shariah rules. An effective Shariah board leads to higher Shariah compliance, which gains the confidence of stakeholders, and Islamic banks can access more funds.

Lewis Tappan (1841) introduced the word' credit rating' in New York. Robert Dun and John Bradstreet published the first credit rating guides in 1859 and 1857, respectively (Grinder & Cooper 2017). Their credit rating determines the riskiness of Islamic banks. The credit rating is the relative ranking that comes from the systematic procedure of SWOT analysis and debt or financial obligation of the organization by considering the firm current and expected future financial position. Two credit rating agencies Pakistan Credit Rating Agency (PACRA), Japan's premier rating agency, and Vital Information Services (JCR-VIS) organizations assess the Creditworthiness of Islamic financial organizations in Pakistan. JCR-VIS uses the same credit rating methodology for all commercial banks, regardless of whether Islamic or conventional (Jcr-vis's 2018). PACRA's rating methodology for Islamic and traditional commercial banks has not different (Pacra 2018). JCR-VIS also treats the Islamic and conventional banks dealing with uniform evaluation credit policy. Islamic banks can be discriminated from traditional banks based on Shariah. Although all Islamic banks are Shariah-based, their commitment to Shariah compliance differs (Radzi & Lonik 2016). A Shariah board's job is to ensure that all actions in Islamic banks comply with Shariah law (Howladar 2015). As a result, credit rating companies should preferably incorporate Shariah's governance characteristics while assigning credit ratings (Grassa 2016).

This research investigates the role of the corporate governance framework, shariah governance structure and RMC composition on long-term and short-term creditworthiness. This analysis evaluates Islamic banks' governance structure, shariah governance system and RMC composition. This research will determine whether or not having an effective shariah board, corporate board, and RMC in Islamic banks improves credit ratings. With an aspect of RMC and Shariah board perspective, the Study will recommend how credit rating organizations could adapt or improve their processes or techniques. Shariah governance with an equity holder perspective is discussed in the literature (Ben Slama Zouari & Boulila Taktak 2014; Grassa & Matoussi 2014; Quttainah et al. 2013). In contrast, the scarce literature available on Shariah governance from the Sukuk holder or debt holder perspective and specifically from the Pakistan context (Grassa 2016; Mansoor et al. 2020; Mansoor et al. 2019)

In literature (Ashbaugh-Skaife et al. 2006; Grassa & Matoussi 2014; Mansoor et al. 2020; Mansoor et al. 2019) discussed the Shariah governance, corporate governance attributes with Credit Rating but this study investigates these variables with Risk Management Committee attributes. The reason is that RMCs responsibility is to manage the risk and it is essential to consider the attributes of RMC to analyze Governance factors and Credit Ratings of Islamic banks. So, the presence of effective RMC sets the appropriate risk-taking standard and evaluates the Islamic banks' processes within the framework, which results in no losses and an Islamic bank's credit rating is enhanced. Further, the high commitment toward Shariah rules gives a competitive advantage over others regarding high stakeholder's improved confidence. As a result, the Islamic bank can access low-cost funding sources. The findings show credit rating evaluation firms that which shariah governance factors must be focused on to improve the policy or procedure of creditworthiness evaluation. Finally, the conclusion will also suggest that the RMC is essential to avoid losses and enhance credit ratings.

Literature Review

Islamic banks also have a normal Board of Directors (BOD) and RMC, similar to conventional banks. The corporate governance of Islamic banks is also influenced by the mainboard other than the Shariah board. While the BOD serves the for-profit motive of the bank, the Shariah board serves for compliance with the Shariah rules for products and services of Islamic banks.

Jia and Jia and Bradbury (2020) studied the risk committee compositions of Australian firms for the period 2007-2014. Panel regression results concluded that the Australian firms have RMC s profitability more than other firms. The Study also concluded that the firms with separate RMCs perform better than those with risk activities absorbed in other committees due to limited time and workload constraints. Kallamu (2015) investigated the Malaysian financial organization from 2007 to 2011. Multivariate Regression analysis results confirmed that the high ratio of Independent directors in the RMC enhanced the firm valuation of Malaysian financial organizations. Further, the Independent chairperson of RMC also positively affects the accounting returns of the firms. The presence of RMC in the organization signals that the firm is committed to improved governance mechanisms (Ghazieh & Chebana 2021). Buallay (2019) explored Islamic bank governance attributes and concluded that Shariah attributes significantly affect Islamic bank performance. Karim et al. (2020) found that board independence adversely affects the firm risk and board size is unrelated to the firm risk. Further explained that the Shariah board interlock and size are negatively associated with Islamic bank riskiness. The board size significantly improves the Credit rating of financial institutions.Grassa (2016) studied the association between Islamic banks' credit rating and governance attributes and concluded that the board's independence and women's presence on the board enhances the credit rating. s Alali et al. (2012) concluded that firms with strong corporate governance have good credit scores.

Tarigan and Fitriany (2017) focused on 168 Indonesian firms, and the results explained that a large board size could enhance the firm performance. Hamdan (2018) concluded that board interlock adversely affects corporate performance, but when foreign ownership is applied as a moderator, the relationship between board interlock and performance becomes positive. Dzingai and Fakoya (2017) concluded that board independence and small board size are key factors in enhancing the South African firm's performance. Qian (2016) described that Gender diversity is positively associated with firm performance. The Study further recommended that two or more females on a board are more effective than a single female present on the board. Bremholm (2015) determined that recruiting a foreign director on board enhances the firm performance. Masulis et al. (2012) recommended that the organization refrain from appointing foreign directors due to the issue of poor attendance.

Theory and Hypothesis Development

Islamic and conventional banks are naturally two different banks because Islamic banks are based on Shariah rules (Buallay 2019). Conventional banks and Islamic banks have the same corporate governance structure. However, Shariah governance is a unique governance characteristic found in Islamic banks. Shariah governance's primary function is to care for the interests of all stakeholders according to the Shariah rules and regulations. The Islamic bank performs better than conventional banks in the global crisis 2008 (Hasan & Dridi 2011). Due to high uncertain business environment, Shariah governance can enforce the management to conduct operations and Islamic bank affairs with Shariah compliance, resulting in default risk decreases and credit rating increases. The default risk may decrease in good corporate and Shariah governance practices.

The stakeholder theory concepts explain that any individual or corporate affected by the decision is called the stakeholder. Organizations must satisfy their stakeholders for long-term success (Parmar et al. 2010). Steward's theory explains that managers are highly motivated and honest with corporates and accomplish their tasks efficiently and effectively. Therefore many firms prefer to small board because the presence of a large board may cause monitoring the operations, increase the cost of a firm and decrease the organizational effectiveness (Kalsie & Shrivastav 2016) The large board creates more communication issues, and delays in decision-making can lead to an increase in debt and a drop in credit rating. As a result of the increased costs and liabilities, the large board harms the credit rating. The large Shariah board accommodates the different Fiqh Shariah scholars, allowing different knowledge-based Shariah scholars, but on the other side, causes delays in decision-making and increases costs. Therefore, prompt decisions are key indicators of an Islamic bank's success in a dynamic environment. Which results gain the confidence of potential customers or investors?

H_1 The existence of a large board negative impact on Islamic banks' credit ratings.

H_2 The existence of a large Shariah board has a negative impact on Islamic banks' credit ratings.

In Islamic banking, Shariah scholars provide their services to many Islamic financial organizations. It was observed that the Shariah board interlock system is much stronger in the gulf than in other regions. The top 20 shariah scholars in GULF hold 584 directorship positions, among which the highest are 85 positions held by Dr Abdul Sattar Guddah and Sheikh Nizam Yaquby. Out of which top highly reputed 5 Shariah scholars have 313 (54%) shariah directorship positions of total directorship (Rafay & Farid 2019; Unal & Ley 2009). Further, organizations prefer to appoint highly expert, knowledgeable and experienced shariah scholars or directors on the board to enhance goodwill (Boyle 1978). Therefore, the Study expects that Islamic banks must strengthen their goodwill in the competitive market by appointing reputed, knowledgeable and experienced shariah scholars. Further, the Scholars offering their services in different institutions can influence the governing authority's decisions. So due to the high uncertainty business environment, Islamic banks prefer board interlock to reduce uncertainty.

H_3 The credit ratings of Islamic banks improved as the number of reputed shariah scholars increased on the shariah board.

Accounting and finance expertise is essential when assessing or designing a financial product. Shariah scholars must be well-versed in Islamic law and have strong theoretical business backgrounds (Levy & Rezgui 2015). The shariah committees with high business qualification members significantly enhance Islamic financial firms' success (Nowroz 2018). As a result, we propose that Shariah scholars have good accounting and finance expertise to analyze financial difficulties in-depth and provide relevant Shariah-compliant judgments or remedies. The Islamic bank can achieve high Shariah compliance in this approach while lowering its default risk.

H_4 The presence of Shariah scholars with good accounting and financial knowledge improves the credit ratings of Islamic banks.

The foreign board members on the board positively impact the organizational performance (Bremholm 2015). Choi et al. (2012) concluded that independent foreign board directors could enhance the expertise and monitoring of management. Different theories of diversity discussed the pros and cons of firm diversity. The Cognitive diversity hypothesis argues that diversified firms concerning culture, race, gender and age are more creative and innovative than other firms (Miller et al. 1998). As a result, we believe that geographical variety among Board members and Shariah board members will provide a competitive edge because academics from various geographical areas will be able to contribute their unique experiences. The concluding remarks from the above discussion are that high business growth and low-risk default are the outcomes of increased knowledge, creative Shariah experts, and strong management oversight.

H_5 The credit ratings of Islamic banks improved as the number of foreign directors' increased on the corporate board.

H_6 The credit ratings of Islamic banks improved as the number of Shariah foreign Scholars increased on the shariah board.

In the Asia Pacific region, female board members have an education background in accounting and law, while male board members have an education background in science or engineering (Yi 2011). Despite all, Adams and Ferreira (2009) found that male directors have more attendance issues than women directors, and the boards with female members have high attendance ratio of board members. Further, in 2013, Pakistan had 1.5 percent female representation on organizational boards (Yi 2011).

As a result, we anticipate that improved credit rating due to enhanced monitoring can be obtained by appointing women directors. The result is increased accounting background expertise and low at tendance problems on the board.

$H_{7:}$ The credit ratings of Islamic banks improve as the number of female directors increases on the corporate board.

Wang et al. (2015) confirmed that the board of independent non-executive directors (INEDs, s) is one of the most important factors in determining the firm's success. Only a few research have looked into the importance of INED and its impact on credit ratings for Islamic financial institutions. The highly independent board enhances the firm credit rating (Grassa 2016). The agency theory supports board independence because the INEDs can be crucial in solving the agency issues between the principal and agent. The presence of an independent board improves the governance system and access to low-cost funds, which results in high credit ratings. The Study expects that the governance function can be enhanced in the presence of NEDs and INEDs because they act on behalf of all stakeholders instead of specific stakeholders. Its result might be transparent monitoring and financial statements, which leads to proper disclosure, limited funds misallocation and low-risk default.

H_8 The credit ratings of Islamic banks improve as the number of non-executive directors increases on the corporate board.

H_9 The credit ratings of Islamic banks improve as the number of Independent non-executive directors increases on the corporate board.

The Supervisory shariah board, Shariah Committee, and Advisory Board monitor Shariah compliance in Islamic banks. Because the Shariah advisory board and the Shariah committee's roles are confined to advise and suggestions, the Shariah supervisory board can achieve more efficient and effective Shariah compliance monitoring.

A supervisory shariah board can enforce management to carry on operational and investment activities according to Islamic rules and regulations; however, other shariah boards or committees can give advice or suggestions only (Grassa & Matoussi 2014). Further, literature found diversity in the role of the Shariah board. There is no relationship between the shariah supervisory board and firm success. The Islamic business operations and success were affected by the Shariah Supervisory board and shariah executives (Alam & Miah 2021). A positive and negative relationship exists between Shariah governance and Islamic bank's success, according to (Mansoor et al. 2019) and Grassa (2016).

As a result, we expect the supervisory board to achieve maximum Shariah compliance because the monitoring of Islamic bank management (from a Shariah perspective) can be improved.

H_{10} The presence of a supervisory Shariah board is favourably (positive) related to an Islamic bank's credit ratings.

The existence of RMC will improve business performance by checking, overseeing, and assessing risk management concepts, strategies, policies, and processes (Badriyah et al. 2015). Firms must have a risk management system because it creates value for the stakeholders and enforces the management to achieve their goals, which results in high performance. The presence of the risk management committee argued that firms are committed to the improvement of governance mechanisms (Ghazieh & Chebana 2021). Agency theory argues that the presence of RMC enhances the monitoring function and improves the governance mechanism. Further, the presence of large-size RMCs reduced the members' workload and improved the risk management function, leading to a low probability of default and enhanced credit ratings.

H_{11} The existence of RMC in Islamic banks positively affects Credit ratings.

H_{12} The presence of large-size RMC in Islamic banks enhances Credit ratings.

The frequency of board meetings is the key determinant of organizational operations activities (Vafeas 1999). The number of board meetings positively affects the firm performance in banks (Eluyela et al. 2018). The firms can enhance the governance mechanism through regular board or committee meetings, which results in improved communication and decision-making

(Correia & Lucena 2020; Elamer et al. 2018). The firm profitability and performance are also positively associated with the frequency of RMC meetings. The high numbers of board or committee meetings allow members to discuss the weakness and strengths of firms enhancing profitability (Nguyen et al. 2021).

H_{13} The frequency of RMC meetings is positively associated with the credit ratings of Islamic banks.

Agency theory explains that appointing Independent directors on the board or committees can improve the monitoring function. The independency of the RMC means the number of INEDs, (Independent Non-Executive Directors) in the RMC. Corporates are required to appoint INEDs, (Independent Non-Executive Directors) in RMC to enhance the transparency and effectiveness of the board committees (Rimin et al. 2021). The firms that are better performers than others have more INEDs, in the RMC during the economic recession(Yeh et al. 2011). The presence of INED as the RMC chairperson enhances the firm accounting returns (Kallamu 2015). The RMC independence is negatively associated with the firm's market value, and the RMC members must have risk management expertise, accounting and finance knowledge (Malik et al. 2021). The RMC members with accounting and finance knowledge have more understanding of the risk faced by the firms and can handle these risks effectively.

From the above discussion, the Study expects that the presence of INEDS and the INED Chairperson of RMC will enhance the transparency and monitoring of the management risk behaviors in the interest of shareholders and stakeholders. Further, the presence of the INED chairperson of RMC can effectively manage the agency's problems. We also expect that the RMC members with Accounting and finance knowledge are more capable of understanding the Islamic banks' risks and monitoring the Islamic banks' operations.

H_{14} The independence of RMC significantly enhances the Credit ratings of Islamic banks.

H_{15} The Independent Chairman of RMC significantly enhanced the Credit ratings of Islamic banks.

H_{16} The Financial literacy of RMC members is positively associated with the Credit ratings of Islamic banks

Methodology

SAMPLE AND DATA COLLECTION

All banks that are solely Islamic and operate Islamic windows are part of the study sample size. There are 21 Islamic financial Banks in Pakistan, with five entirely Islamic banks and others providing Islamic financial services through Islamic windows (Hassan et al. 2022). Five banks founded or started after 2013 could not be included in our sample. Furthermore, two banks were excluded from our sample due to a lack of needed variable data for the Study. As a result, our final sample includes 8 years of annual data from 13 Islamic banks (8x13=104 observations) from 2013 to 2020.

The Study collected the governance attributes and data from the Islamic banks' annual reports and official websites. The Credit rating agencies PACRA and JCR-VIS reports and websites were used to collect the credit ratings. The Shariah Scholars' characteristics include interlock, Accounting and Finance knowledge and nationality information collected from Islamic bank annual reports and websites, a Shariah scholar database Islamicmarket.com and Bloomberg.

Credit rating is the Study's dependent variable. Both Short-run and long-run Credit rankings perspectives were considered in this Study. An ordinal scale is applied to measure the creditworthiness of Islamic banks discussed and used by Ashbaugh-Skaife et al. (2006). Further, this research applied the short-run rating scale to the short-term creditworthiness used by Mansoor et al. (2021). Tables 1 & 2 present the credit rating scales:

TABLE 1. Credit rating classifications (Short Term)

Debt rating	Rating	Score Grade
A1+	07	Liq
A1/A-1	06	Liq
A2	05	Liq
A3	04	No liq
B	03	No liq
C	02	No Liq

Note: Table 1 shows the short-term credit scale for the evaluation of Islamic bank's credit ratings
Source: Mansoor et al. (2021)

TABLE 2. Credit rating classifications (Long Term)

Debt rating	Rating	Score Grade
Aaa	07	Investment
Aa+	06	Investment
Aa	06	Investment
Aa-	06	Investment
A+	05	Investment
A	05	Investment
A-	05	Investment
Baa+	04	Investment
Baa(BBB)	04	Investment
Baa-	04	Investment
Ba+	03	Speculative
Ba (BB)	03	Speculative
Ba-	03	Speculative
B+	02	Speculative
B	02	Speculative
B-	02	Speculative
Caa+	01	Speculative
Caa(CCC)	01	Speculative
C	01	Speculative

Note: Table 2 shows the long-term credit scale for the evaluation of Islamic bank's credit ratings
Source: Grassa (2016).

TABLE 3. RMC and Board Structure Variables (Description)

Corporate Board, Shariah Board & Risk Management Committee Attributes	
Board Attributes	
Board size	The number of directors on the board of directors
Board Independence	The proportion of independent directors on the board of directors (%)
Foreign director	The proportion of Foreign directors on the board of directors (%)
Women directors	The proportion of female directors on the board (%)
Shariah Board Attributes	
Shariah Board Size	The number of scholars on the Shariah board
Shariah Board Interlock	Percentage of Shariah board scholars who provide services to various Islamic financial institutions (Minimum 5 institutions)
Shariah board Members AFK	The proportion of scholars sitting on the Shariah board with Accounting/Finance Knowledge (%)
Shariah board Advisory or Supervisory	Dummy variable=1, if the Shariah board has a supervisory role, 0 if the Shariah board has an advisory role
Shariah Board Foreign Members	The percentage of Shariah board members who sit on the board
Risk Management Committee (RMC)	
Existence of RMC	Dummy Variable=1, If the board risk management committee exists, 0 if no RMC exist.
RMC Size	The total number of members in RMC
RMC Meetings	Number of meetings held in one financial year
RMC independence	The proportion of independent directors in the RMC.
RMC Independent Chairperson	Dummy Variable =1 if the chairperson of RMC is an Independent Director, 0 if the chairperson of RMC is not Independent.
RMC Financial Literacy	The proportion of RMC members held a Business or Economics relevant Degree

Table 3 explains the variables and descriptions of the variables

Methadology & Models

The Study used STATA software and applied the Ordered Logit Model as applied by Grassa (2016) and Ashbaugh-Skaife et al. (2006). The Order Logit model is the best option when the dependent variable is in Ordinal form (Grilli & Rampichini 2014).

$$LTC = \beta_0 + \beta_1 BSIZE + \beta_2 BIND + \beta_3 FDIR + \beta_4 BNED + \beta_5 WB + \beta_6 SBSIZE + \beta_7 SBI + \beta_8 SBAKF + \beta_9 SBSA + \beta_{10} SBFM + \in \quad (1)$$

$$LTC = \beta_0 + \beta_1 ERMC + \beta_2 SRMC + \beta_3 MRMC + \beta_4 IRMC + \beta_5 ICRMC + \beta_6 FLRMC + \in \quad (2)$$

$$LTC = \beta_0 + \beta_1 BSIZE + \beta_2 BIND + \beta_3 FDIR + \beta_4 BNED + \beta_5 WB + \beta_6 SBSIZE + \beta_7 SBI + \beta_8 SBAKF + \beta_9 SBSA + \beta_{10} SBFM + \beta_{11} ERMC + \beta_{12} SRMC + \beta_{13} MRMC + \beta_{14} IRMC + \beta_{15} ICRMC + \beta_{16} FLRMC + \in \quad (3)$$

$$STC = \beta_0 + \beta_1 BSIZE + \beta_2 BIND + \beta_3 FDIR + \beta_4 BNED + \beta_5 WB + \beta_6 SBSIZE + \beta_7 SBI + \beta_8 SBAKF + \beta_9 SBSA + \beta_{10} SBFM + \in \quad (4)$$

$$STC = \beta_0 + \beta_1 ERMC + \beta_2 SRMC + \beta_3 MRMC + \beta_4 IRMC + \beta_5 ICRMC + \beta_6 FLRMC + \in \quad (5)$$

$$STC = \beta_0 + \beta_1 BSIZE + \beta_2 BIND + \beta_3 FDIR + \beta_4 BNED + \beta_5 WB + \beta_6 SBSIZE + \beta_7 SBI + \beta_8 SBAKF + \beta_9 SBSA + \beta_{10} SBFM + \beta_{11} ERMC + \beta_{12} SRMC + \beta_{13} MRMC + \beta_{14} IRMC + \beta_{15} ICRMC + \beta_{16} FLRMC + \in \quad (6)$$

The above Regression Model 1 and 4 explains the relationship between the boards attributes and shariahboard's attributes with long term and Short term Credit ratings, respectively. Regression Equations 2 and 5 explore the relationship between the Risk Management Attributes with long term and Short term ratings respectively. Finally the Models 3 and 6 show the relationship between the boards attributes, shariah board attributes, risk management attributes with Long term and short term credit ratings.

Results

Table 4 shows the descriptive stats of governance attributes of Islamic banks, including the Risk Management Committee, organization board, shariah boards and creditworthiness. Data explains that the standard board size of Islamic banks in Pakistan is 8, and 32% of corporate board members are independent. The presentation of female directors on the board is quite low, 2.18%, but the foreign directors' percentage is 17% in the corporate board of Pakistani Islamic banks. The Shariah governing bodies in the banks have consisted of shariah scholars with an average size of 3 members, and standardly 14% of Shariah members have directorship in other Islamic banks of Pakistan. Results also explain that only 14% of Islamic shariah scholars in Pakistan have Accounting and Finance qualifications, and the overall short-term credit rating is stronger than the long-term credit ratings of Pakistan. The results show that the standard size of RMC is 3, and the frequency of RMC meetings annually is 4. Further, 20% of RMC members are independent, and Risk Committee members' financial literacy is 79% in Pakistan's Islamic Banks.

TABLE 4. Descriptive statistics

Governance attributes	Mean	Median	Mode	Standard Deviation	Range	Minimum	Maximum
BSI	8.72	8.00	8.00	1.49	6.00	6.00	12.00
END	33.11	33.00	33.00	0.12	0.71	0.00	71.00
NED	54.00	56.00	60.00	0.14	0.73	13.00	86.00
FD	17.00	0.00	0.00	0.24	0.67	0.00	67.00
WD	3.00	0.00	0.00	0.05	0.14	0.00	14.00
SBSI	2.66	3.00	3.00	0.88	3.00	1.00	4.00
SBIN	0.14	0.13	0.13	0.09	0.40	0.00	40.00
SBAFC	0.18	0.13	0.00	0.15	0.57	0.00	57.00
SBFM	4.00	0.00	0.00	0.11	0.50	0.00	50.00
SBS	0.23	0.00	0.00	0.42	1.00	0.00	1.00
NOC	4.02	4.00	3.00	1.39	7.00	1.00	8.00
ERMC	0.89	1.00	1.00	0.31	1.00	0.00	1.00
SRMC	3.18	3.00	3.00	1.35	6.00	0.00	6.00
MRMC	3.64	4.00	4.00	1.91	10.00	0.00	10.00
IRMC	20.00	0.00	0.00	0.25	1.00	0.00	100.00
ICRMC	12.00	0.00	0.00	0.32	1.00	0.00	100.00
FLRMC	79.00	100.00	100.00	0.33	1.00	0.00	100.00
STC	6.73	7.00	7.00	0.63	2.00	5.00	7.00
LTC	6.14	6.00	6.00	0.66	2.00	5.00	7.00

Table 5 shows the correlation between the variables and found no multicollinearity. Resource dependence theory argues that the board's primary function is to arrange the resource for an organization so that a large board can arrange more resources than a small board. As opposed, stewardship theory explains that the CEOs are trustworthy, so firms don't need to appoint a large board to monitor management which results in high costs. Table 6, Model 1, Model 3, Model 4 and Model 6 show that the large board size negatively affects long-term and short-term credit ratings. This Study supports Guest (2009) that a large board size causes poor governance due to delays in decision-making, poor communication and increased cost. Stewardship theory also explains that the CEOs, s are self-motivated, and a large governance board increases the cost. The relationship between board independence and the presence of non-executive board members is significant with both long-term and short-term ratings. In Model 3, findings show that board independence is positively associated with long-term creditworthiness.

Further Model 3 and Model 6 explained that the presence of Non-executive board members positively affects long-term and short-term credit ratings. Our results comply with agency theory, arguing that Islamic banks must have independent and non-executive board members to perform monitoring functions effectively. Table 5 Results explain that the foreign board director significantly negatively affects the long-term credit rating, which confirms Masulius (2011). Further findings of Model 1, Model 3, Model 4 and Model 6 represent that the gender diversity on the board has a significant positive relationship with both long-term and short-term credit ratings. This Study supported Grassa's (2016) assertion that women's presence can positively change the boardroom environment, improve the governance mechanism, and positively impact credit ratings.

Model 1 and Model 4 result suggests that shariah scholars having membership in other boards positively affects Credit ratings. The presence of cross-board shariah scholars increases the expertise and up-to-date knowledge about the dilemma of the Islamic financing industry. The resource dependence theory explains that board members with several directorships are reputable and influential market players, which can affect the government's policies. The significant positive relationship between shariah scholars' knowledge and long-run credit rating results confirmed that Ghayad (2008) study that the business background of shariah scholars can perform the monitoring and supervision functions. The Shariah supervisory results contradicted our hypothesis or theory, but the results confirmed Grassa (2016) That the Supervisory Shariah board negatively affects long-term and short-credit ratings. Model 6 findings include that national diversity in the shariah board is significantly positively associated with Islamic banks' short-term and long-run creditworthiness. The reason may be that the shariah scholars from countries with strong shariah financial systems can monitor or supervise the shariah board more effectively.

TABLE 5. Correlation matrix

	BSI	*INED*	*ED*	*NED*	*FD*	*WD*	*SBSI*	*SBIN*	*SBAFC*	*SBFM*	*SBS*	*NOC*	*ERMC*	*RMCME*	*RMCMT*	*RMCINED*	*RMCCIN*	*RMCFL*	*RMCED*	*STC*	*LTC*
BSI	0.00																				
INED	-0.13	1.00																			
ED	-0.35	0.07	1.00																		
NED	0.19	-0.81	-0.32	1.00																	
FD	0.07	-0.34	0.15	0.28	1.00																
WD	-0.10	0.07	0.07	-0.16	0.27	1.00															
SBSI	0.02	0.00	0.18	-0.02	0.33	0.32	1.00														
SBIN	0.06	-0.04	0.19	-0.02	0.31	0.34	0.66	1.00													
SBAFC	-0.44	0.18	0.33	-0.16	-.01	0.37	0.54	0.54	1.00												
SBFM	0.27	-0.20	0.25	0.00	0.55	0.35	0.39	0.65	0.18	1.00											
SBS	0.04	-0.04	0.19	0.16	0.23	0.00	0.16	0.43	0.15	0.39	1.00										
NOC	-0.08	-0.06	-0.18	0.11	0.11	0.18	0.25	0.04	0.01	-0.21	0.14	1.00									
ERMC	0.00	0.06	-0.11	0.05	0.00	-0.20	0.15	-0.04	-0.17	-0.08	0.19	0.52	1.00								
SRMC	0.08	-0.08	-0.26	0.18	0.01	-0.20	0.13	-0.05	-0.20	-0.15	0.10	0.60	0.82	1.00							
MRMC	0.01	-0.01	-0.27	-0.04	-0.12	-0.04	-0.03	-0.12	-0.34	-0.21	-0.10	0.53	0.66	0.71	1.00						
IRMC	-0.14	0.32	-0.08	-0.28	-0.48	-0.02	0.05	-0.02	0.15	-0.21	-0.17	0.19	0.27	0.30	0.34	1.00					
ICRMC	-0.18	0.24	-0.01	-0.24	-0.23	0.10	-0.07	-0.05	0.03	-0.14	0.23	0.30	0.12	0.13	0.27	0.51	1.00				
FLRMC	-0.12	0.07	-0.12	0.06	0.01	-0.05	0.11	-0.05	-0.02	-0.14	0.22	0.51	0.84	0.68	0.54	0.26	0.20	1.00			
STC	0.10	-0.28	-0.52	0.24	0.11	0.23	-0.03	0.07	-0.04	0.12	-0.20	-0.01	-0.15	0.05	0.10	0.05	-0.04	-0.05	0.20	1.00	
LTC	-0.20	0.06	-0.23	-0.16	-0.03	0.46	0.03	0.23	0.17	0.15	-0.09	0.03	-0.16	-0.03	0.21	0.23	0.24	-0.05	0.10	0.66	1.00

TABLE 6. Logistic regression results (Long-term credit rating =Dependent)

Coefficients (Estimated) & Z score (P values)						
Board Attributes	*Model 1*	P-value	*Model 2*	P-value	*Model 3*	P-value
Board size	-.534**	0.01			-.73***	0.00
Board independence	1.26	0.75			12.27**	0.02
Boards Non-executive directors	1.19	0.74			10.52*	0.01
Foreign Board Director	-.2.54**	0.01			-3.19*	0.06
Women in board	2.11***	0.00			16.74***	0.00
Shariah Board Attributes						
Shariah Board size	-.500	0.16			-.401	0.40
Shariah Board Interlock	11.78***	0.006			6.37	0.21
Shariah Board AFC	4.45*	0.075			1.19	0.72
Shariah Board Foreign Member	2.98	0.82			16.10*	0.07
shariah board supervisory	-1.36*	0.05			-1.83*	0.06
Risk Management Committee (RMC)						
Existence of RMC			6.14***	0.00	9.66***	0.00
RMC Size			-.025	0.93	0.73**	0.05
RMC Meetings			.075***	0.00	1.10***	0.00
RMC independence			1.86***	0.00	0.24**	0.06
RMC chairman Independent			0.80	0.36	1.71	0.16
RMC Financial Literacy			1.75	0.14	1.87	0.19

Statistical significance: ***p < .01, **p < .05, p **< .10

TABLE 7. Logistic regression results (short-term credit rating =dependent) the effect of corporate governance and shariah governance attributes on islamic banking short-term credit rating

Coefficients (Estimated) & Z score (P values)						
Board Attributes	*Model 4*	P-value	*Model 5*	P-value	*Model 6*	P-value
Board size	-.126*	0.07			-1.12*	0.07
Board independence	-3.01	0.51			1.40	0.81
Boards Non-Executive directors	6.47	0.12			16.76**	0.01
Foreign Board Director	-1.79	0.45			-2.65	0.52
Women in board	19.03**	0.04			3.13*	0.09
Shariah Board Attributes						
Shariah Board size	-1.2	0.15			-.95	0.50
Shariah Board Interlock	11.75*	0.09			2.00	0.85
Shariah Board RMC	-.17	0.96			-4.17	0.53
Shariah Board Foreign Member	3.56	0.55			2.47**	0.04
shariah board supervisory	-3.13**	0.03			-5.30***	0.00
Risk Management Committee (RMC)						
Existence of RMC			-23.42	0.98	-2.57	0.98
RMC Size			.93**	0.03	2.28*	0.009
RMC Meetings			.56***	0.00	0.53	0.28
RMC independence			1.86	0.23	2.62	0.32
RMC chairman Independent			1.93*	0.05	.76	0.70
RMC Financial Literacy			2.67**	0.06	5.66	0.16

Statistical significance: ***p < .01, **p < .05, p **< .10

Managerial Implication

This Study investigates the relationship between RMC, board, Shariah board attributes and credit ratings. The Study suggests that Islamic banks might improve their credit rating by reducing the board size because a large board size causes decision-making delay, enhance dependency on other members and lacks communication, which causes governance problems. This also provides evidence in support of the agency theory that the monitoring function can be performed effectively in the presence of Independent and Non-executive directors on the corporate board. The existence of an Independent board leads to quality credit risk management and improves the credit ratings of Islamic banks in Pakistan. The presence of foreign directors on the Islamic bank board causes low credit ratings due to poor attendance and more focus on international misreport. The Study recommends supporting the gender diversity theory that the presence of women on the board reduces e attendance problems and changes the environment of the board, which results in effective monitoring and fewer frauds. Low default and Islamic bank credit ratings increased. The study also recommends that the Shariah scholars interlock, Business based knowledge, enhancing the Shariah board monitoring and evaluation function. Findings included that Islamic banks must have RMC to manage corporate risk effectively. The large size of the RMC reduces the work burden of the members and improves the risk management process, which results in high credit ratings. The Study concluded credit rating improves with the frequency of RMC meetings because the regular meetings of RMC improve the communication among the members and more time available to discuss risk management, including credit risk. The study recommendation included that the creditworthiness evaluation bodies', i.e. PACRA and JC-VIS, must include the Shariah board characteristics in the credit rating evaluation of Islamic banks because Islamic banks can be differentiated based on Shariah. Further, the Top three international credit grading organizations, Fitch, Moody and S&P, do not consider the Sharia governance attributes in the credit grading evaluation mechanism. Such amendments in credit rating evaluation processes enforce Islamic banks to improve Islamic shariah compliance, and stakeholders can compare the level of shariah compliance of different Islamic banks.

The Study's first limitation is the shortage of literature on Islamic Financial industry governance attributes. Therefore, the Study tries to develop the model from available literature on RMC in Islamic banks, Shariah governance, firm performance and credit rating. Secondly, the study is limited to Pakistan, so cross-country data is required for generalising purposes. Future research can be conducted on why the Shariah supervisory board negatively affects Pakistan's Islamic bank credit rating. Still, literature and theory suggest Shariah supervisory board enhances the firm performance. Future research might focus on cross-country data analysis to obtain more generalizable results.

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