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PRIMARY RESEARCH

The Cost Effectiveness, Performance & Sharī'ah Supervisory Board Attributes in Islamic Banks

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Abstract.

Purpose: This study emphasis on cost, which is the most essential form of efficiency that can be attained when a company identifies inputs that allow it to get the required results at the lowest possible cost. This study concentrates only on the Islamic banking sector in Pakistan and aims to observe the impact of cost efficiency on Islamic banks performance with moderating role of Sharī'ah Supervisory Board (SSB) attributes such as size, qualification, cross membership, expertise and annual change in composition.

Methodology: The study uses data envelopment analysis technique to measure the cost efficiency of Islamic banks. The data has been collected through 13 Islamic banks' annual reports over the period of 2005 to 2018. Bank performance has been measured using two indicators: return on asset and return on equity and the panel data regression analysis is employed.

Findings: The study reports a significant positive association among the cost efficiency and Islamic banks performance. Additionally, the study also establishes that SSB attributes such as size of board, qualification, expertise , and cross membership, annual change in composition moderates the significant association among cost efficiency and Islamic banks performance in Pakistan.

Significance: This study has useful implications for managers and investors operating in international settings. In addition, they will act as a source of information for policy makers and the top management of Islamic banking sector. Academic researchers engaged in Islamic banking might get insight from this study by better understanding the importance of efficiency-enhancing components.

KAUJIE Classification: M10, P51
JEL Classification: G24, G31

INTRODUCTION

Islamic banking is one of the most growing businesses in the globe. It is operating in many non-muslim and in all muslin countries (Shahzad et al., 2020). Modern Islamic banking

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was introduced in the 1960s in Malaysia and Egypt in an attempt to practice an aspect of economic life in an Islamic way (Islahi, 2018). Since then, Islamic banks have consistently expanded internationally and attained incredible levels. In Pakistan, although the process of islamization of economy started in the late 70s (Kennedy, 1990), the first full-fledged Islamic bank started its operations in 2002.

Islamic banks differ from conventional banks in several ways. Islamic banks provide Sharī'ah-compliant products that do not contain *ribā* (interest), *gharar* (uncertainty), or *maysir* (speculations), and are in accordance with the Sharī'ah (Islamic law). For the Islamic banks, there are two types of regulations: (i) the central bank's regulations, and (ii) that of Sharī'ah Supervisory Board (SSB), which certifies Islamic banks' products and monitors the adherence to the standards established by the SSB (Alam et al., 2021).

It is pertinent to note that SSB is one of the fundamental components of Islamic banks. It provides an additional layer of governance. Additionally, it added another layer of monitoring and supervision and can prevent the board of directors and management from making constant loans or taking significant risks (Mollah & Zaman, 2015). Limited research has been done in the past on SSB. Earlier studies have mostly focussed on the Sharī'ah governance structure (Grassa, 2013); the effects of the Sharī'ah governance and Sharī'ah compliance of Islamic banks and the efficiency of the Sharī'ah supervisory model (Hamza, 2016). One significant gap in the broader domain of research on SSBs is a lack of complete exploration of their characteristics. Although its significance has been recognized, the topic of SSBs and Islamic banks' performance remains unexplored.

This study focuses on those SSB attributes that affect Islamic banks' performance, which includes the size of the Sharī'ah board, Sharī'ah board cross membership, Sharī'ah board qualification, Sharī'ah expertise, and Change in composition yearly. In this study, we used SSB attributes as a moderator between the relationship between cost efficiency and the performance of Islamic banks.

The current study is important because it examines new attributes of the SSB that influence the Islamic banks' performance apart from the common attributes, i.e., the expertise of SSB and the yearly change in the composition of SSB. According to various studies, the supervisory role and the creation of SSB positively impact the performance of Islamic banks (Mollah & Zaman, 2015; Nomran et al., 2018). Furthermore, the size, composition, credentials, education, and knowledge of Islamic jurisprudence positively affect the Islamic banks' performance (Almutairi & Quttainah, 2017).

In this study, Islamic banks' performance has been gauged by two indicators, return on asset (ROA) and return on equity (ROE). The non-parametric Data Envelopment Analysis (DEA) method is used to measure the cost-efficiency (CE) of Islamic banks (Charnes et al., 1978). Earlier, Kamaruddin et al. (2008) used the DEA technique to analyze the efficiency of Islamic and conventional banks.

This study is of practical importance. This study's results will help investors design and develop strategies focusing on the Islamic banks' profitability. Furthermore, the results will be useful for Islamic banks' management to improve the performance of Islamic banks. Additionally, marketers of Islamic banks should emphasise SSB as an essential component for

fascinating Muslim customers and gaining customer trust. Therefore, the results are expected to contribute more to academic and business practice. In addition, they will act as a basis of information for policymakers and the management of Islamic banking sector.

The rest of the paper is structured as follows: Section 2 presents a brief literature review, while Section 3 describes the current study's research methods. Section 4 then analyses the results, and Section 5 concludes the paper.

LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

The development of Islamic banks is because of its Sharī'ah-based principles, which ultimately stimulate economic growth (Rashid, 2020). Cost efficiency is well-defined as a measure of the extent to which the bank's costs deviate from the benchmark. According to Pandey (2004), a business can achieve a comparatively high-profit margin by introducing efficiency management. The efficiency approach helps companies to produce the standard product or service in large volume at the most reasonable price for customers. It also helps to create greater financial capacity for struggling companies in developing economies such as China, India, etc., as companies can gain a comparative advantage through reduced labour and manufacturing costs (Aulakh et al., 2000). According to Mokhtar et al. (2008) larger banks are more effective than smaller banks, and banks' profitability is positively associated with all efficiency measures.

The literature used the non-parametric technique DEA to find the efficiency of the Islamic banks. Akhtar (2010) demonstrates the status of the effectiveness of the Pakistani banks from 2001 to 2006. He suggests that the Pakistani system can be made more effective by better use of labour and capital. Recommendations include: (a) diversifying investments (b) developing merger and acquisition plans to reduce risks and increase profits, and (c) developing new legislation and new policies. Larger players are likely to take a global perspective and become more competitive.

H1: Cost efficiency has positive effect on the performance of Islamic banks

Moderating Impact of Size of Sharī'ah Board on the Association between Cost Efficiency and Islamic Banks Performance

Practical indication in corporate governance proposes that the board size may affect control, oversight and the degree of intended disclosure of information in banks' annual reports (Dhouibi, 2013). SSB in Islamic banks is an important governance mechanism. It can be claimed that greater number of SSB members causes a higher degree of adherence to Islamic beliefs and laws and leads to a greater level of disclosure (Grassa, 2013). A large SSB improves Sharī'ah compliance and allows access to a broader range of talents and experiences.

Hamza (2016) contends that SSB containing scholars with several knowledge, abilities and schools of thought, leads to a clear understanding of objection processes and Sharī'ah products and as a result it improves performance. Matoussi and Grassa (2012) and Mollah and Zaman (2015) also found that the size of SSB significantly impacts Islamic banks' effectiveness and performance. Simply it can be said that larger SSBs can increase the effectiveness of

Islamic banks. A Board of executives diminishes organisational costs and raises direction among board associates (Quttainah et al., 2013). Some researches conclude that the small size of the board is better because they provide good communication and are more effective (Yermack, 1996). In order for the board to act efficiently, the size might be at a minimum of 7 to 8 people (Jensen, 1993). In practice, firms with larger boards of directors perform better because they are able to budget properly, access external money, and use social influence (Pfeffer & Salancik, 2003).

H2: Sharī'ah board size moderates positively the relationship between cost efficiency and Islamic banks' Performance.

Moderating Impact of Board Cross Membership on the Association among Cost Efficiency and the Islamic Banks performance

Cross membership is the case in which a board member has a different boards' membership (Haniffa & Cooke, 2002). Some researchers argue that cross membership of SSB members can have an adverse effect on the SSB's effectiveness (Alman, 2012) because they have access to exclusive information (Garas, 2012). On the other hand, other researchers claim that cross membership of SSB members leads to more debate on the practice of Sharī'ah law in the Islamic banks, which in turn increases their awareness of the application of Islamic instructions to corporate governance (Farook & Lanis, 2007).

Cross-membership of SSB members positively influence their effectiveness by increasing their awareness and capability and then increasing Islamic banks' performance. Repetitioning some of the Sharī'ah scholars' names helps attract new customers, which will improve the effectiveness and competence of Islamic banks (Grassa, 2016). The literature advocates that cross membership increases transparency by using the knowledge gained from different boards and employing the decision made in one board as part of the information for decisions in other boards (Haniffa & Cooke,2002).

H3. Sharī'ah board cross membership moderates positively the relationship between cost efficiency and Islamic banks' performance.

Moderating Impact of Board Qualification on the Association among Cost Efficiency and the Islamic Banks Performance

There is a significant relationship between the banks' performance and the qualifications of the Board of Directors (Cheng, 2008; Haniffa & Cooke, 2002). Musibah and Alfattani (2014) stated that the higher level of education of SSB members is highly profitable. Empirical research shows that individual board members' ability in terms of knowledge and skills considerably improves the performance of banks (Shahrier et al., 2020). In practice, members of the BOD with greater knowledge and ability ensure greater adherence to Islamic norms (Shahrier et al., 2020). SSB members with a PhD or other university qualifications are presumed to have more experience in Islamic finance and banking than those SSB members that do not have an academic qualification or diploma. (Farook et al., 2011; Raman & Bukair,

2013). SSB members generally comprise scholars who are highly qualified in secular studies. Therefore, scholars with a PhD degree in accounting, business and finance are undoubtedly better informed about the present situation.

H4. Sharī'ah board qualification moderates positively the relationship between cost efficiency and Islamic banks' performance.

Moderating Impact of Board Expertise on the Association among Cost Efficiency and the Islamic Banks Performance

In the SSB, scholars with financial literacy and expertise outperform those who do not have such expertise (Raman & Bukair, 2013). Normally, SSB members are Islamic scholars. However, not all have accountancy, finance, economics, or banking skills (Abdullah et al., 2014; Ginena & Hamid, 2015). SSBs must be composed of members with experience and expertise in banking or finance, which allows them to carefully evaluate business transactions and take decisions that affect the bank's performance. Resource Dependency Theory depends on the rule that an organization's top management gives significant resources to organizations (Hillman & Dalziel, 2003). For example, information and ability which enhance performance (Abdullah & Valentine, 2009; Pfeffer, 1972). It is pertinent to note that the skills and abilities of scholars influence the performance of banks and their efficiency.

According to their banking qualifications, most SSB members are incapable of making well-informed management decisions. Following that, numerous Islamic banks have replaced their entire SSBs because scholars could not perform well due to their limited knowledge of Sharī'ah standards. Therefore, SSB scholars' training in finance and accounting can significantly and positively affect Islamic banks' performance (Grassa, 2016; Matoussi & Grassa, 2012).

H5. Sharī'ah board expertise moderates positively the relationship between cost efficiency and Islamic banks' performance.

Moderating Impact of Annual Change in Composition on the Association among Cost Efficiency and the Islamic Banks performance

Resource Dependency Theory is based on the premise that the change in composition views resources as an essential tool for existence and growth. In contrast, from the Agency Theory's perspective, the change in composition variable imitates the degree of management dominance over the management of the group. Therefore, the composition of the board replicates whether the selective enrollment of the members is ended in a way that protects the interests of enterprise (Zahra & Pearce, 1989). The changes in the structure of the company's board of directors reveal the entry and leaving of board members during the year. This change may include new members with experience, familiarity and new vision (Al-Matari et al., 2014). New members are generally selected to increase the company's performance (Fox & Opong, 1999). This view is based on the fact that the better the environmental impact, the different resources a company can obtain (Hillman & Dalziel, 2003) and subsequent efficiency (Pfeffer,

1972). Entry and exit of scholars in the SSB have an effect on performance (Al-Matari et al., 2014). Change in composition adversly affect the Islamic banks' performance, because, the resignation of SSB member is not good for Islamic banks.

H6: Sharī'ah board change in annual composition moderates negatively the relationship between cost efficiency and Islamic banks' performance.

RESEARCH METHODOLOGY

Econometric Model

The effect of cost efficiency on the performance of Islamic banks is given as under:

$$ROA_{it} = \beta_0 + \beta_1 CE_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROE_{it} = \beta_0 + \beta_1 CE_{it} + \beta_2 Banksize_{it} + \beta_3 Bankag_{it} + \mu$$

Moderating impact of SSB attributes on the relationship between cost efficiency and performance of Islamic banks is given as under:

$$ROA_{it} = \beta_0 + \beta_1 CE_{it} * SSBS_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROE_i t = \beta_0 + \beta_1 CE_{it} * SSBS_{it} + \beta_2 Banksiz_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROA_{it} = \beta_0 + \beta_1 CE_{it} * SSBMEM_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROE_{it} = \beta_0 + \beta_1 CEit * SSBMEM_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROA_{it} = \beta_0 + \beta_1 CE_{it} * SSBQ_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROE_{it} = \beta_0 + \beta_1 CE_{it} * SSBQ_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROA_i t = \beta_0 + \beta_1 CE_{it} * SSBEXP_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROE_{it} = \beta_0 + \beta_1 CE_{it} * SSBEXP_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROA_{it} = \beta_0 + \beta_1 CE_{it} * SSBANCH_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

$$ROE_{it} = \beta_0 + \beta_1 CE_{it} * SSBANCH_{it} + \beta_2 Banksize_{it} + \beta_3 Bankage_{it} + \mu$$

TABLE 1
Measurement of Variables

Variables	Label	Measurement	References
Sharī'ah board size	SSBSIZE	Number of scholars in Sharī'ah board at the end of year	(Grassa, 2016; Matoussi & Grassa, 2012).
Cross directorship	SSBMEM	% of scholars who sit on other Sharī'ah board	(Grassa, 2016; Matoussi & Grassa, 2012).
Academic qualification	SSBQ	% of PhD degree of scholars	(Farook et al., 2011; Farook & Lanis, 2007; Raman & Bukair, 2013).
Sharī'ah expertise	SSPEXP	% of scholars knowledge of accounting or finance	(Grassa, 2016).
Annual change in composition	ANCH	If Sharī'ah board composition changed used 1, or if not changed 0 otherwise	(Alman, 2012).
Cost efficiency			
Q(output)	Sum of cost	Operating + interest +personnel +overheads	(Ariff & Luc , 2008).
X1(input)	Price of capital	Personnel and overhead exp divided by sum of all assets.	
X2(input)	Price of deposit	Income paid to depositor divided by sum of all deposit	
Control variables			
Bank-age	BA	Sum of asset at the completion of year	(Matoussi & Grassa, 2012; Mollah & Zaman, 2015; Musibah & Alfattani, 2014).
Bank size	BS	Sum of years then the establishment of bank	(Hamza, 2016)
Performance Proxies			
Return on asset	ROA	After tax net profit divided by sum of all assets	(Mollah & Zaman, 2015; Musibah & Alfattani, 2014).
Return on Equity	ROE	After tax net profit divided by sum of shareholder equity	(Samad & Hassan, 2006).

Research Design

All the data is secondary. The cost efficiency of Islamic banks is measured by DEA. In this study, we have used the random effect model generalized least square (GLS) regression with panel data to test the hypotheses of the study.

Population and Sample

A sample of 13 Islamic banks is taken for this study. A convenient sampling technique has been used, and the data was collected through published annual reports. Data ranges in the period 2005-2018. In 2002, the first Islamic banking licence was given. Since then, the industry has seen consistent and significant growth. The reason for this small sample size is the less number of Islamic banks in Pakistan; most banks are new, so historical data is unavailable. The number of observations is 101.

RESULTS AND ANALYSIS

TABLE 2
Descriptive Statistics

Variables	N	Mean	Min	Max	Med	SD
Independent variable						
Cost efficiency	101	0.316	0.0075	1	0.1283	0.3436
Performance variables						
ROA	101	0.342	0.0009	0.254	0.011	0.5411
ROE	101	0.321	0.004	2.87	0.162	0.523
SSB CHARACTERISTICS						
SSBSIZE	101	3.26	3	4	3	0.4447
SSBMEM	101	0.45	0	1	.5.00	0.2953
SSBQ	101	0.308	0	-6	.3.00	0.1397
SSBEXP	101	0.735	-3	1	.75.00	0.2614
ANCH	101	0.118	0	1	0	0.3251
CONTROL VARIABLES						
Bank size	101	680	843	302	599	606
Bank age	101	8.92	4	13	10	2.78

The table I displays the findings of the descriptive statistics for the variables. The detailed examination finds that the mean return on asset is 0.342, and mean return on equity is 0.3214. ROA is 34% and ROE is 32%, which means that 34 percent earnings are generated through invested capital and 32 percent earnings through net assets. Table I displays that the mean size of the SSB (SSBSIZE) is nearly 3.27, ranging from three to nine scholars. Mollah and Zaman (2015) found the mean size of the SSB as 4.17 yet extended from one to fourteen from a sample of 15 Islamic banks. The mean for the SSBMEM is 0.45. The minimum number of members in SSB is 1 to 14, respectively. The SSB qualification (SSBQ) is 0.30; the SSB ability (skills) is 0.7 and variation in the SSB composition (ANCH) is 0.11. The mean estimation of the cost efficiency is 0.31696, which proposes that cost efficiency is 31%, with a base estimation of 0.75 and most extreme estimation of 1. The SD esteem is 0.34, proposing

a deviation from the mean. The middle estimation of cost efficiency is 0.12, demonstrating that half of banks have cost efficiency more noteworthy than 0.12 and a half have under 0.12.

TABLE 3
Correlations

Variables	SSBS	SSBMEM	SSBQ	SSBEXP	Anch	BS	BA	ROA	ROE	CE
SSBS	1									
SSBM	0.36**	1								
SSBQ	-0.40**	0.03*	1							
SSBE	-0.43**	-0.21**	-0.02	1						
Anch	0.60**	0.68**	-0.01	-0.33**	1					
BS	-0.24**	-0.04	0.12*	0	-0.17*	1				
BA	0.12*	0.62**	0.05**	0.38**	0.53**	0.24**	1			
ROA	-0.03	-0.20**	-0.05**	0.16*	-0.12*	0.26**	-0.06*	1		
ROE	0.31**	-0.46**	-0.12*	-0.11*	-0.04	-0.07	-0.28*	0.60**	1	
CE	0.28**	0.07	-0.06	-0.29**	0.24**	-0.14*	0.08*	-0.09*	0.07*	1

Notes: CE, cost efficiency; SSBSIZE, SSB size; SSBMEM, SSB cross-membership; SSBQ, SSB qualification; SSBEXP, SSB expertise in accounting & finance; ANCH, Annual variation in the SSB composition; BS, bank size; BA, bank age. Note: ** and * Correlation is significant at 5%, and 10% only.

Correlation Analysis

Using correlation, we examined the multicollinearity of explanatory factors. In general, correlations between variables are relatively modest, and there is no evidence of multicollinearity. The table 2 presents correlation coefficients, indicating the strength and direction of the association between the two variables. SSB membership has a significant relationship with SSB size, and the direction of the relationship is positive. The value of Pearson correlation coefficient is 0.36. The next variable, SSBQ have a negative relation with SSBS and positive relationship with SSB membership and SSB expertise has an adverse relationship with SSB size and SSB membership and SSB qualification. Annual change in composition has the positive association between the variables SSB size and SSB membership and adverse relation with SSB qualification and expertise.

Control variable "bank size" has a negative association between SSB size and SSB membership and positive with SSB qualification and SSB expertise, and also adverse with annual change in composition. Bank age is also used as a control variable. It positively affects SSB size, SSBMEM, SSB qualifications, expertise, and annual change in composition. And negative association with bank size. ROA had a negative relation with SSB size, SSBMEM, SSB qualification, ANCH, BS, and BA, and positive relation with SSB expertise. ROE also have adverse association with SSB mem, qualification, expertise, ANCH, BS and BA. Cost efficiency positively affects SSB size, qualification, ANCH, bank age and ROE.

Regression Analysis

Hypothesis 1 investigates the association of cost efficiency with the performance of Islamic

banks with dual performance indicators ROA and ROE as shown in Table 4. Islamic banks are generally good at creating benefits than controlling costs. The *p* value is (0.041, or 0.011) the P value is under 10 percent, which implies that cost efficiency has a significant impact on the performance of Islamic banks. The regression coefficient tells that there is a positive association between the variables. The results strengthen the findings of earlier studies (Kamraudin et al., 2008; Kumbahakar, 2007; Yudistira, 2003). The positive sign demonstrates that higher efficiency is connected with higher profitability.

Table 5 presents the generalized least square (GLS) regression results of the moderating impact of the SSB attributes. All the five SSB attributes (size, cross-membership, capability, ability and yearly change in the board composition, anch) are significantly influencing the performance of Islamic banks for the primary model (ROA) while, on the second model (ROE) they also had a significant impact on the performance of Islamic banks. A positive association is found among the cost efficiency of banks and the performance of Islamic banks with moderating effect of SSB size, thus, the hypothesis is supported. A negative coefficient estimation of (- .0588127) shows that the cost efficiency increases (with moderating impact of Sharī'ah board size) the Return on asset decreases.

To justify this relationship, prior literature suggests that large board size lead to reduced performance due to a lack of efficient monitoring, communication difficulties and greater agency problems. Delayed decisions and slower coordination mark the presence of a large number of members. It creates communication difficulties causing the agency problem, will cause negative relations, and reduce the performance of banks. Pillai (2017) and Salim et al. (2016) also report the negative relation among board size and banks efficiency. The general chi-square estimation of both models is significant under 0.01, so the hypotheses for the two measures are accepted.

SSB cross membership has a significant and positive moderating impact on cost efficiency and performance of Islamic banks with both performance measures ROA and ROE. A negative coefficient estimation of (-0.0616587) shows that SSB cross membership has the significant negative connection between the cost efficiency and performance of Islamic banks. To justify this negative relationship, cross membership enhances the knowledge and experience of scholars.

TABLE 4
Cost Efficiency Impact on Performance of Banks

	ROA	ROE
Variables	Coefficient (P)	Coefficient(P)
CE	.1226141(.041)**	.0209919(.011)**
Bank-size	-9.78e-08(0.341)	-2.14e-08(0.022)**
Bank age	-.0625541(0.007)***	-.0001979(0.927)
Prob chi square	0.0345*	0.0772*

CE (cost efficiency), bank size, bank age, ROA (return on asset), ROE (return on equity), bank size and bank age are control variables. Correlation is significant at ***, **, *,1%,5%,10% only.

TABLE 5
Moderating influence of Sharīah Board Attributes on Cost Efficiency & Performance of IBs

	ROA	ROE
Variables	Coefficient (P)	Coefficient (P)
SSBS*CE	-.0588 (0.007) ***	.0684 (0.081) ***
Bank size	-1.34 (0.130)	6.08 (0.577)
Bank age	-.0007 (0.720)	6202 (0.005) **
Prob chi square	0.0235**	0.0247**
SSBM*CE	-.0616(0.012) **	.2811(0.181)
Bank size	-6.88 (0.405)	4.67 (0.66)
Bank age	.0066 (0.000) ***	.063(0.003) ***
Prob chi square	0.000***	0.018**
SSBQ*CE	.0766(0.151)	-.2513 (.0499) **
Bank size	-1.22(0.221)	4.67(0.667)
Bank age	.0059(0.008) *	.0663 (0.003) **
Prob chi square	0.006***	0.036**
SSBE*CE	.0410 (.022) **	.1491 (.045) **
Bank size	-1.33(0.218)	5.75(0.60) *
Bank age	.0048 (0.0040) ***	.0647815 (0.004) ***
Prob chi square	0.0008***	0.0465***
SSBANC*CE	-.0203 (0.32)	.2890(.249)
Bank size	-1.33 (0.140)	4.96 (0.442)
Bank age	.0055 (0.002) **	.0627 (0.005) **
Prob chi square	0.0010**	0.0326**

CE (cost efficiency), SSBS (Sharī'ah supervisory board size), SSBM (Sharī'ah supervisory board membership), SSBQ (Sharī'ah supervisory board qualification), SSBE (Sharī'ah supervisory board expertise), SSBANCH (Sharī'ah supervisory board annual change in composition), ROA (return on asset), ROE (return on equity), bank size or bank age are the control variables. ***, ** and * Correlation is significant at 1%, 5%, and 10%.

If scholars have no cross membership, they reflect a negative connection or will lead to decrease performance due to less knowledge and experience. The *p* value is under (0.01), and both models' chi-square estimation is significant, so both hypotheses are accepted.

The current study finds that a higher qualification is needed for the scholars of the SSB, but the adverse impact may reflect the need for the scholars of the SSB to obtain a PhD in other areas, such as, finance or accounting. This finding supports the argument of those who accept that the part of the board that has a PhD in accounts or finance is undoubtedly better (see, for example, Farook et al., 2011; Farook & Lanis, 2007).

In terms of annual composition change, the coefficients are adversely related to performance

for the model (1). This variable has a positive and insignificant influence on performance for the 2nd model (p = .249) so this hypothesis is supported. There are numerous reasons to demonstrate this negative relationship. Retirement, death, and resignation of a member can negatively affect the performance, and it isn't helpful for the organization. A resignation can likewise happen for some reasons, for instance, some personal reasons or the board member is worried about what is happening in the organization (Fox & Opong, 1999). There are many other reasons to prove this negative link. The composition of the board of directors after a new appointment or recall due to resignation, retirement or death could deprive the company. Resettlement can negatively impact the performance and is not in the company's best interest.

Conclusion and Recommendation

To ascertain the cost-effectiveness of Islamic banks, this study reviewed some of the significant efforts in the area with two main goals in mind. This study's primary objective was to estimate Islamic banks' cost efficiency and its effect on performance. The study's second component was estimating how its characteristics will affect how well Islamic banks performed with the Sharī'ah board as the facilitator. In this study, SSB attributes have positive and some have insignificant influence on the performance of Islamic banks in Pakistan. That's the primary goal of SSB to secure the privilege and enthusiasm of all partners, not just investors. The viable commitment of Sharī'ah scholars is to serve to increase the performance of Islamic banks in the competition of conventional banks. This study provides lots of evidence emphasising the significance of the SSB in enhancing the performance of Islamic banks.

The scope of this study was limited, and more could have been done. It can, however, be extended in the future. There are few limitations to this study. To begin with, this study was limited to Pakistan. This study considered only Islamic banks while conducting research. It did not include conventional banks for comparison. Limited data were available for the study because the first Islamic bank in Pakistan started its operation in 2002. So, Islamic banks are still new in the industry that's why very less data is available for the study. Limited variables were used in this study and this study only observe the cost efficiency of the Islamic banks.

The future researchers can use other methods to measure the effectiveness of banks like the Stochastic meta Frontier Approach (SFA) etc. They can also use a large amount of data to check the authenticity of this method. Future researchers can also consider other causes that influence the efficiency or performance of Islamic banks. So, using different techniques or methods may give a better understanding of best practices and view of SSB practices for the Islamic banks.

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