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Submission date: 20-Sep-2022 09:11AM (UTC+0700)
Submission ID: 1904131707
File name: en_intellectual_capital_and_maqasid_sharia-based_performance.pdf (167.07K)
Word count: 8556
Character count: 45782

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Received 7 July 2021
Revised 5 September 2021
21 December 2021
21 May 2022
Accepted 25 June 2022

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Abstract

Purpose – The purpose of this study is to examine the relationship between intellectual capital, sharia governance and Islamic bank performance based on the maqasid sharia index, as well as the moderating effect of sharia governance on the relationship between intellectual capital and maqasid sharia index.

Design/methodology/approach – Dynamic panel regression is used with the two-step generalised method of moments with data from the Bankscope database for 2014–2018.

Findings – The results show that higher intellectual capital efficiency improves Islamic bank performance based on maqasid sharia. Larger board sizes are also found to improve Islamic bank performance. By contrast, higher sharia supervisory board quality and larger independent boards can reduce Islamic bank performance. In the moderating relationship, sharia governance is proven to moderate the relationship between intellectual capital and Islamic bank performance.

Research limitations/implications – This study used a sample that is restricted to Islamic bank and only used value-added intellectual coefficient to measure intellectual capital. Thirdly, the quality of the sharia supervisory board only involves the presence, size, expertise and doctoral qualification of the sharia supervisory board.

Originality/value – This research: analyses the relationship between intellectual capital, sharia governance and Islamic bank performance in one research framework; uses maqasid sharia index-based Islamic bank performance benchmarks; and examines the moderating effect of sharia governance on the relationship between intellectual capital and maqasid sharia index.

Keywords Islamic bank, Maqasid sharia index, Sharia governance, Intellectual capital

Paper type Research paper

1. Introduction

As Islamic banks (IBs) are based on Islamic ideology, all of their activities are subject to Islamic law, which prohibits interest-based transactions (riba), speculative activities (gharar) and financing projects that violate sharia. Farook *et al.* (2011) claim that IBs are similar to conventional banks as they both use the same benchmarks rather than a sharia-based maqasid

The authors gratefully acknowledge the helpful comments from two anonymous reviewers, and the editor Prof. Jonathan Wilson.

Journal of Islamic Marketing

1759-0833
DOI 10.1108/JIMA-07-2021-0226

performance measurement system (Mohammed and Taib, 2015). Maqasid performance is the measurement, which is derived from maqasid sharia principle, that according to Al-Ghazali consist of five aspects, including protection of religion (al-din), life (al-nafs), mind (al-'aql), progeny (al-nasl) and wealth (al-mal). This performance measurement, the known as maqasid sharia index (MSI) (Syafa and Haron, 2019). This index is used to operationalise the five aspects of maqasid sharia into 15 performance ratios. Some previous researchers, such as (Mohammed and Taib, 2015; Syafa and Haron, 2019), have used MSI to analyse IB performance. Therefore, to encourage IBs to operate in line with maqasid sharia, it is necessary to measure the performance based on such strictures (Tarique *et al.*, 2020).

Assure IBs fulfil the maqasid sharia standard, sharia governance is thus needed for the IB to meet the maqasid sharia aspect. Good sharia governance practices ensure the sustainability of Islamic banks in achieving maqasid sharia, which, in turn, improves the welfare of the people (Asutay, 2012). Grassa (2013) argues that the Shariah Supervisory Board (SSB) is an important component of sharia governance that functions to control transactions based on Islamic law by directing, reviewing and supervising the activities of Islamic banks to achieve better performance.

Several empirical studies have been carried out by operationalising maqasid sharia in the form of an index to measure the performance of IBs, such as the one by (Mohammed and Taib, 2015; Antonio *et al.*, 2012). Syafa and Haron (2019) linked MSI with the characteristics of the SSB of IBs. The results of their study showed that the characteristics of the SSB and board structures play an important role in increasing MSI achievement for IBs.

The current literature claims that intellectual capital (IC) can create a competitive advantage (Nawaz and Haniffa, 2017) that can lead to an increase in performance (Edvinsson and Malone, 1997). The resource-based view theory (RBV) assumes that the composition of tangible and intangible resources managed by IBs is the main actor in achieving success. Scafarto *et al.* (2016) stated that human capital (HC) is a strategic resource to enhance performance as IBs require innovation to create new knowledge to maintain their existence and compete with conventional banks (Nonaka *et al.*, 2018). IC resources are thus able to have a positive impact on IB performance if managed properly. Therefore, the board and SSB play a vital role in managing resources efficiently. Indeed, empirical results (Mardnly *et al.*, 2018; Nomran *et al.*, 2018) have proven that the board can have a positive impact on performance.

Several researchers have also investigated the relationship between IC and banking performance with mixed results. Tiwari and Vidyarthi (2018) provided evidence for a positive relationship between IC and bank performance. Furthermore, HC and capital employed (CE) have a positive relationship with ROA, but structural capital (SC) does not have a significant relationship with bank performance (Nawaz and Haniffa, 2017; Vo and Tran, 2021). Tran and Vo (2018) found evidence that HCE is negatively correlated with bank performance, while SCE does not significantly affect performance. Empirical findings Buallay *et al.* (2019) have also shown support for a positive relationship between IC with ROE and Tobin's Q on IBs. Extant studies have also discussed IC with ROA, ROE and Tobin's Q. Given that IBs have to comply with sharia principles, their performance benchmarks should include both financial and sharia aspects. Thus, this study measures IB performance based on the MSI.

The motivation of the study is to further investigate the relationship between IC and sharia governance (SG) with IB performance based on the MSI and to examine the moderating impact of SG on the relationship between IC and IB performance based on maqasid sharia. This study contributes to the IC literature on IB in several ways. Firstly, the analysis explores the relationship between IC, SG and IB performance in a single research framework. Secondly, this study uses IB performance-based MSI benchmarks. This study

appears to be the first study to link IC and SG with IB performance based on the MSI of IBs from various countries. Thirdly, the results of this study will provide empirical evidence of SG moderation on the relationship between IC and IB performance.

The remainder of this paper is organised as follows. Section 2 discusses the literature review, while Section 3 presents the hypotheses development. Section 4 describes the research design, and Section 5 presents the findings and discussion. Finally, Section 6 contains a summary and closing comments.

2. Literature review

Sharia governance and IC are related in that they both play a role in achieving IB performance (Saeed and Saeed, 2018). The SSB is tasked with ensuring sharia compliance, while the board of directors is responsible for allocating IC resources efficiently to improve IB performance (Nawaz, 2017). Therefore, the combination of SG and IC is key for generating profit and growth in IBs (Nawaz, 2019); a maqasid sharia-based measurement system is thus needed for sharia compliance in IBs (Tarique *et al.*, 2020). IBs generally need HC and CE to increase resilience (Nawaz, 2019) because IBs require expertise, knowledge and relationships with customers (Aslam and Haron, 2021). IC can create added value if it is managed efficiently; therefore, it requires regulation from the board (Aslam and Haron, 2021; Nawaz, 2019). Therefore, this study uses SG as a moderator of the relationship between IC and performance.

As it relates to strategic management, the resource-based view (RBV) is developed by the company for practical decision-making. Several strategic management studies have discussed how companies can achieve a competitive advantage and have highlighted the need for a consistent analytical model to identify the characteristics of RBV comprehensively and objectively (Nagano, 2020). Nonaka *et al.* (2018) argued that IBs need to create new knowledge to maintain their existence in the future, emphasising the importance of strategy and resource management in achieving this goal. Several studies have analysed the IC component as partial to the dependent variable, such as (Nawaz and Haniffa, 2017; Ousama *et al.*, 2019; Tiwari, 2020). This opinion considers the specific impact of each component on performance rather than the IC as a whole. The present study thus agrees with previous researchers that the literature can treat IC components, namely, HC, SC and CE, as independent variable constructs.

In the IB context, the resource-based theory (RBT) views the firm as a collection of useful resources for developing IB products, services and strategies (Barney, 1991). The SSB and the board are seen as corporate resources that contribute to IB performance (Nomran *et al.*, 2018). RBT is thus a theoretical basis to explain the relationship between sharia governance (SG) and IB performance (Nomran *et al.*, 2018; Quttainah and Almutairi, 2017).

Maqasid sharia has been developed to fulfil aspects of human welfare by protecting religion, soul, mind, lineage and property (Antonio *et al.*, 2012; Syafa and Haron, 2019). The implementation of maqasid sharia will help the IB in achieving social welfare and reaping commercial benefits, such as the fulfilment of maqasid sharia creates a positive image that, in turn, attracts customers (Tarique *et al.*, 2020).

3. Hypothesis development

IC efficiency can create added value, which is an important variable in assessing performance (Nawaz and Haniffa, 2017). Islamic banking is a knowledge-intensive industry that requires IC and physical assets to create value (Goh, 2005). Cenciarelli *et al.* (2018) argued that IC performance is useful for achieving above-average performance and maintaining financial stability. However, some studies have treated IC subcomponents, namely, HC and SC, as independent variables (Bayraktaroglu *et al.*, 2019; Tiwari, 2020). This is supported by the

assertions of empirical studies (Nawaz and Haniffa, 2017; Ozkan *et al.*, 2017; Tiwari and Vidyarthi, 2018) that VAIC has a positive relationship with ROA. However, conflicting results were found by Tran and Vo (2018) that VAIC is not significant when associated with ROA. The first hypothesis is thus:

H1. IC has a positive effect on performance.

The SSB plays an important role in the SG mechanism, which reviews and supervises IB activities (Darmadi, 2013). SSB quality is determined by size, expertise, doctoral qualification, cross-membership and reputation (Bukair and Abdul Rahman, 2015; Neifar *et al.*, 2020; Nomran *et al.*, 2018; Syafa and Haron, 2019). A larger SSB size involving fiqh experts, financial experts, cross-membership and reputation can positively impact performance (Hamza, 2016). There is also empirical evidence that SSB size (Nomran *et al.*, 2018), expertise (Nomran *et al.*, 2018), doctoral degree (Nomran *et al.*, 2018; Syafa and Haron, 2019), cross-membership (Syafa and Haron, 2019) and reputation (Nomran *et al.*, 2018) have a positive effect on IB performance. Therefore, the second hypothesis is:

H2. SSB quality has a positive effect on performance.

IBs serve products with many schemes that have an impact on financial contract risk (Ramly and Nordin, 2018), thereby requiring higher sharia expertise and knowledge. IBs require substantial infrastructure support and capital employed to deliver the product so as to increase revenue. Thus, the IBs need the experience and knowledge of the SSB to organise and allocate resources to provide added value. The SSB plays an important role in educating and advising the board and senior managers to ensure that IB operations and activities are sharia compliant. To be effective, the SSB must thus be qualified in terms of size, expertise, doctoral qualification, cross-membership and reputation. The third hypothesis is:

H3. SSB quality moderates the relationship between IC and performance.

Matoussi and Grassa (2012) argued that a larger board size could improve the monitoring of top management, decision-making, asset location and also increase company wealth. However, a larger board size could lead to communication problems and inefficient decision-making (Aslam and Haron, 2021). Previous studies (Al Farooque *et al.*, 2020; Boachie, 2021; Saidat *et al.*, 2019) have found that board size has a positive impact on performance. By contrast, (Al-Malkawi and Pillai, 2018) found that board size has a negative impact on performance, while (Mardnly *et al.*, 2018) observed that board size has no significant effect on performance. The fourth hypothesis is:

H4. Board size has a positive effect on performance.

Good governance can help companies attract talented employees, adopt advanced technology infrastructure and maintain good relations with stakeholders (Tran *et al.*, 2020). Empirical results have shown that there is governance relationship with IC. For example, (Buallay, 2019) documented that the level of corporate governance affects the efficiency level of HC and SC. Rodrigues *et al.* (2017) revealed that board size has a positive effect on IC disclosure. However (Appuhami and Bhuyan, 2015) found evidence that board size has no significant effect on IC. Dependency theory says that the effective and efficient use of tangible and intangible assets will lead to better performance (Aslam and Haron, 2021). Islamic banking is included in the high-knowledge sector, which necessitates effective IC management (Nawaz, 2019) through the role of the board. Thus, the fifth hypothesis is:

H5. Board size moderates IC's relationship with performance.

The resource-based theory assumes that an independent board is an external resource that has diverse abilities and experiences that create added value as company assets (Khan *et al.*, 2017). Several researchers (Alipour *et al.*, 2019; Elamer *et al.*, 2019; Farag *et al.*, 2018) have documented a positive relationship between board independence and performance. These findings have been mixed, with (Aslam and Haron, 2021; Tran *et al.*, 2020) finding that board independence has a negative effect, while (Boachie, 2021; Lari Dashtbayaz *et al.*, 2020) did not observe a significant effect on performance. The sixth hypothesis is:

H6. Board independence has a positive effect on performance.

A good governance structure can increase IC efficiency in IBs (Aslam and Haron, 2021). Independent boards play a role in making important decisions related to IC based on their experience, expertise and network ownership (Haniffa and Cooke, 2002). Dalwai and Mohammadi (2020) argued that independent directors have a strategy to increase the company's IC. However, empirical studies have shown that independent boards have a negative effect (Aslam and Haron, 2021; Dalwai and Mohammadi, 2020; Tran *et al.*, 2020) on IC. This is in contrast to Dalwai and Mohammadi (2020), Lari Dashtbayaz *et al.* (2020), who confirmed that there is no relationship between board independence and IC. The seventh hypothesis is thus:

H7. Board independent moderates the relationship between IC with performance.

4. Research design

4.1 Data

This study used IB samples from various countries, with data obtained from the Bankscope database with a research period of 2014–2018. Data related to maqasid sharia and SSB information were collected manually from the annual report and website. The total number of IBs in the database list is 96; however, after checking the completeness of the data, 26 IBs were removed, yielding a total sample of 70 IBs.

4.2 Measurement variables

The dependent variable in this study, MSI, is adopted from previous studies (Antonio *et al.*, 2012; Mohammed and Taib, 2015; Syafa and Haron, 2019). MSI uses the simple additive weighting (TASW) method by adding up the contributions of each dimension. Maqasid sharia consists of five dimensions with 15 performance ratios (Mohammed and Taib, 2015); the weighting is done proportionally as the dimensions represent the five objectives of maqasid sharia. Mathematically, the formula for the maqasid sharia index is:

$$\mathrm{MSI} = \mathrm{PI}(\mathrm{D1}) + \mathrm{PI}(\mathrm{D2}) + \mathrm{PI}(\mathrm{D3}) + \mathrm{PI}(\mathrm{D4}) + \mathrm{PI}(\mathrm{D5})$$

where,

MSI = maqasid sharia index;
PI = performance indicator;
D1 = first dimension preservation of faith;
D2 = second dimension preservation of life;
D3 = first dimension preservation of intellect;
D4 = first dimension preservation of progeny; and
D5 = first dimension preservation of wealth.

IC is measured as an independent variable using the value-added intellectual coefficient (VAIC) method (Pulic, 2004). HCE shows the amount of value added (VA) that can be generated in monetary units for investments in HC (Tran and Vo, 2018). According to the VAIC method, the first step is to calculate the value added (VA) by adding up the profit before tax and personal cost (HC). After obtaining the VA value, the HCE is the division of VA with HC. SC is obtained from VA minus HC; therefore, SCE is SC divided by VA. CEE is calculated by dividing VA by capital employed (net assets).

SSB quality is proxied by the SSB index (Ajili and Bouri, 2018; Elamer *et al.*, 2019; Neifar *et al.*, 2020). The SSB attribute is measured as a dichotomous variable with a value of 1 or 0. The SSB index includes four attributes, namely:

(1) the existence of an SSB: score 1 if IB has SSB and 0 if not;

(2) the number of SSB members: 1 for IB with three or more SSB members and 0 if fewer;

(3) the expertise of the SSB: 1 if there are SSB members who are experienced in the IB field or have a finance and accounting background (Nomran *et al.*, 2018; Syafa and Harun, 2019) and 0 if not; and

(4) the doctoral qualification of the SSB members: 1 if an SSB member holds a doctorate and 0 otherwise.

The next step is to add up the scores of the four attributes and then convert them into percentages (Ajili and Bouri, 2018). An IB with a higher SSB score indicates a higher quality of SSB and vice versa (Neifar *et al.*, 2020).

The diversity of samples in the study has an impact on IC investment in each IB, thereby necessitating the use of a control variable. Proxy control variables commonly used by other researchers on the same topic are firm size, leverage, debt to equity ratio (DER), return on asset ratio (ROA), capital adequacy ratio (CAR) and growth of gross domestic product per capital (Nawaz and Haniffa, 2017; Ozkan *et al.*, 2017; Tiwari and Vidyarthi, 2018). Firm size is obtained from the log of total assets, while leverage is proxied by the ratio of total debt to total assets. ROA is obtained from net income divided by total assets, then ROE is calculated by net income divided by shareholders' equity. DER is defined as the ratio of debt to equity and growth of gross domestic product per capital is growth in year *t* minus year t-1.

Our baseline regression is estimated with the system generalised method of moment (SYS-GMM) proposed by Arellano and Bover (1995) and Blundell and Bond (1998) and developed by Roodman (2009). Using SYS-GMM, we can tackle potential endogeneity, which matters in panel data regression. In more detail, we used the two-step SYS-GMM because it is more efficient than the one-step version. The goodness of fit is based on Arellano-Bond and Sargan statistics. The former indicator is used to detect second-order autocorrelation, whereas the latter tests the validity of instrumental variables. The research estimation model is:

$$MSI_{ict} = \beta_0 + \beta_1 MSI_{ict-1} + \beta_2 VAIC_{ict} + \beta_3 SSB_{ict} + \beta_4 BOZ_{ict} + \beta_5 BOI_{ict} + \beta_6 VAIC_{ict} \times SSB_{ict} + \beta_7 VAIC_{ict} \times BOZ_{ict} + \beta_8 VAIC_{ict} \times BOI_{ict} + \sum_{s=1}^{5} \delta_s Z_{s,ict} + \varepsilon_{ict}$$

MSI_{ict}: maqasid sharia index; $VAIC_{ict}$: intellectual capital indicator; SSB_{ict}: sharia supervisory board quality; BOZ_{ict}: the number of board of directors; BOI_{ict}: the number of the independent board of directors; Z: control variables, consisting of the natural log of total

assets ($SIZE_{ict}$), debt-to-equity ratio (DER_{ict}), return-on-asset ratio (ROA_{ict}), capital adequacy ratio (CAR_{ict}) and growth of gross domestic product per capital ($GDPPC_{ct}$) and; ε_{ict}: error term. The *ict* subscript indicates that the observations vary across banks (i), countries (c) and year (t).

5. Empirical result

The descriptive analysis for each variable studied is presented in Table 1. MSI's performance shows a positive performance with an average score of 0.428, indicating that during the observation period, the IB is able to achieve greater performance by generating profits and meeting the maqasid sharia criteria.

The average VAIC score is 0.053, which indicates that IBs are generally efficient in generating added value from IC. The average scores are 0.045 for HCE, 0.005 for SCE and 0.004 for CEE. This shows that HCE is the main driver of VAIC, demonstrating the effective utilisation of human resources. The quality of SSB has an average value of 66.9%, consistent with (Ajili and Bouri, 2018). A high score indicates that IB has good SSB quality during the observation period.

Table 2 presents the significant correlation coefficient, with the highest value being 0.6386. According to Kennedy (1998), there is no serious multicollinearity issue when the correlation coefficient is below 0.8000. Thus, it can be concluded that this research model does not experience multicollinearity problems (Table 3).

A two-step GMM analysis is used to test the hypotheses, revealing that VAIC has a positive and significant effect on IB performance (0.582). VAIC represents the efficiency of the proven IC that can provide added value to increase IB performance. This finding supports the resource-based view (RBV) theory that IB with higher IC efficiency will have an impact on better performance. Given that VAIC is an accumulation of HC, SC and CE investments, IB must pay attention to the optimal composition of investment in these three components. First, related to HC, IB must focus on employee competencies starting from recruitment, maintenance and skill upgrades to be able to provide optimal added value. Second, related to SC, the adoption of the latest technology is crucial for IB, especially amid situations like the Covid-19 pandemic, in which all operations are replaced with technology to limit human interaction.

IB must immediately adapt to new technologies, such as digital offices that can provide banking services for complaints, open new accounts, handle cash deposits, print account

Variable	N	Mean	SD	Min	Max
MSI	338	0.428	0.595	0.009	7.321
VAIC	338	0.053	0.097	−0.462	0.451
HCE	338	0.045	0.088	−0.136	0.443
SCE	338	0.005	0.031	−0.462	0.106
CEE	338	0.004	0.017	−0.001	0.161
SSB_QTY	338	0.669	0.245	0.000	1.000
BOD_SIZE	333	8.694	3.105	3.000	21.000
BOD_IND	333	1.739	2.129	0.000	9.000
SIZE	338	7.762	2.098	2.276	11.341
DER	338	74.71	23.952	8.573	111.806
ROA	338	0.433	2.641	−12.6	6.44
CAR	338	19.777	23.608	4.544	117.735
GDPGROWTHPERCAP	333	1.606	2.873	−7.043	6.737

Table 1. Descriptive statistics

Table 2.
Pearson correlation

Variable	MSI	VAIC	HCE	SCE	CEE	SSB_QTY	BOD_SIZE	BOD_IND	SIZE	DER	ROA	CAR	GDP_PERC
MSI	1												
VAIC	0.1510*	1											
HCE	0.1380*	0.6386*	1										
SCE	0.0482	0.3581*	0.0459	1									
CEE	0.0762	0.3144*	0.1863*	0.0169	1								
SSB_QTY	−0.0079	0.0236	0.0141	−0.0221	0.1315*	1							
BOD_SIZE	0.0796	−0.1477*	−0.1758*	0.0127	0.0458	0.0104	1						
BOD_IND	0.0420	0.1881*	0.1698*	0.0463	0.1581*	0.3334*	0.1428*	1					
SIZE	0.5013*	0.1231*	0.1120*	−0.0205	0.1918*	0.3166*	0.1638*	0.1878*	1				
DER	0.4372*	0.1263*	0.1138*	−0.0115	0.1846*	0.3671*	0.1717*	0.1934*	0.9746*	1			
ROA	0.2532*	0.3241*	0.3460*	0.0092	0.0639	0.0651	0.0646	0.1389*	0.3787*	0.3709*	1		
CAR	−0.1560*	−0.1304*	−0.1324*	0.0099	−0.0973	−0.2288*	−0.1465*	−0.1731*	−0.5567*	−0.6489*	−0.2674*	1	
GDP_PERC	−0.0784	0.2429*	0.2107*	0.1309*	0.0856	0.1740*	0.1549*	0.3186*	−0.0872	−0.0368	0.0007	−0.0741	1

Variable	(1) MSI_{ict}	(2) MSI_{ict}	(3) MSI_{ict}	(4) MSI_{ict}	(5) MSI_{ict}
MSI_{ict-1}	0.630***	0.614***	0.592***	0.651***	0.578***
	(20.543)	(38.513)	(48.061)	(33.812)	(19.327)
$VAIC_{ict}$	0.201***	0.368***	0.029	0.091**	0.582***
	(4.936)	(6.017)	(0.333)	(2.326)	(3.824)
SSB_{ict}	−0.113***	−0.085***	−0.106***	−0.102***	−0.072***
	(−7.517)	(−10.641)	(−18.002)	(−15.563)	(−7.241)
BOZ_{ict}	0.006***	0.005***	0.005***	0.005***	0.005***
	(5.021)	(8.853)	(6.721)	(7.776)	(4.818)
BOI_{ict}	−0.004***	−0.002**	−0.003***	−0.002*	−0.006***
	(−2.774)	(−2.509)	(−4.622)	(−1.687)	(−3.396)
$VAIC_{ict} \times SSB_{ict}$		−0.323***			−0.618***
		(−3.109)			(−4.766)
$VAIC_{ict} \times BOZ_{ict}$			0.008		−0.031**
			(0.888)		(−2.088)
$VAIC_{ict} \times BOI_{ict}$				0.022**	0.071***
				(2.572)	(4.325)
$SIZE_{ict}$	0.054***	0.068***	0.063***	0.059***	0.069***
	(6.177)	(9.540)	(8.783)	(7.806)	(8.824)
DER_{ict}	−0.024***	−0.036***	−0.034***	−0.033***	−0.036***
	(−2.959)	(−5.501)	(−4.808)	(−4.456)	(−4.778)
ROA_{ict}	0.001	0.001	0.002**	0.001**	0.002**
	(1.238)	(1.047)	(2.571)	(2.369)	(2.103)
CAR_{ict}	0.060**	0.036	0.025	0.033	0.037
	(2.270)	(1.508)	(0.904)	(1.182)	(1.264)
$GDPPC_{ct}$	0.007***	0.006***	0.007***	0.007***	0.005***
	(5.447)	(8.420)	(8.567)	(9.910)	(5.120)
C	−0.146***	−0.163***	−0.113***	−0.123***	−0.156***
	(−6.396)	(−13.124)	(−4.697)	(−6.817)	(−8.293)
Obs	263	263	263	263	263
Bank	68	68	68	68	68
AR2	0.398	0.412	0.408	0.424	0.323
AR2 p	0.691	0.681	0.683	0.671	0.747
Sargan	39.919	61.153	63.331	56.139	86.833
Sargan p	0.647	0.678	0.604	0.825	0.604

Notes: This table reports baseline regression. Two-step system GMM is used to estimate regression model to deal with endogeneity. Model specifications are based on the second-order Arellano-Bond (AR2) and Sargan Statistics. The null hypotheses on both indicators shall be accepted to meet non-autocorrelation assumption and instrument validity. T-stat. in parentheses. *, ** and *** indicate level of significance 10, 5 and 1%, respectively

Table 3.
Baseline regression

mutations and deliver other services virtually without physical interaction with employees. The third component, related to CE, represents the efficient use of financial capital and physical capital. IBs are required to comply with aspects of capital, good corporate governance, profitability and disclosure of risk profiles to avoid the risk of bankruptcy. All of these criteria can be achieved if the IB has the necessary resources and can manage them efficiently to increase performance (Nawaz and Haniffa, 2017; Ozkan *et al.*, 2017; Tiwari and Vidyarthi, 2018).

SSB quality is found to have a significant negative effect on performance (−0.072). This result rejects *H2* and does not support the resource-based theory. According to Garas and Pierce (2010),

the SSB functions as a supervisor and advisor. We suspect that the SSB is more of a sharia advisor because of the majority of the SSB's background in Islamic law. (Baklaouti, 2022) argued that the SSB should also know accounting and finance to understand modern banking business activities, improve the quality of supervision and ultimately improve IB performance. In addition, the SSB must know the development of other industries to avoid overlap in issuing fatwas and must also not be rigid in providing Islamic legal advice related to operations. Given that the IB industry has complex products and schemes and is related to many industries to be funded, it is important to understand the core business and risk profiles and to stay on track with sharia principles. This finding rejects previous empirical results (Grassa, 2013; Nomran *et al.*, 2018; Syafa and Haron, 2019). Indirectly, the SSB has a negative moderating impact on the relationship between IC and IB performance (−0.618), meaning that *H3* is accepted. SSB quality thus plays an important role in IC value creation to improve IB performance. The findings show that the presence of an SBB, larger SSB size, SSB expertise and SSB doctoral qualification can improve monitoring. The IB will then be more conservative in managing IC resources and the capital employed to achieve greater performance in terms of both finance and compliance with the elements of maqasid sharia law. However, these aspects can reduce performance if the IB is overly careful.

Board size has a significant positive relationship with IB performance (0.005). Larger board sizes can improve monitoring by providing advice and guidance. Furthermore, larger sizes are related to a more diverse board composition. A board with experience, a positive reputation and a good relationship with business associations will have a positive impact on the IB, thereby supporting the resource-based theory. The board as an IB resource contributes to generating profits and fulfiling the maqasid sharia component. The results of the study support previous empirical evidence (Al Farooque *et al.*, 2020; Aslam and Haron, 2021). Board size is further found to moderate the significant negative relationship between IC and IB performance (−0.031). We suspect that the larger board size triggers less effective communication, which then impacts IC management and reduces IB performance. Consistent with the findings of Tulung and Ramdani (2018), board size has a negative effect as a moderating variable.

Board independence has a significant negative correlation with IB performance (−0.006). This shows that as board independence increases, so does the IB's conservatism in decision-making; however, this conservatism may cause the IB's profits to decrease. According to Alsartawi (2019), independent boards do not have detailed information about the company, which increases the frequency of board meetings and increases costs as a result. Although this finding rejects the assumptions of the resource-based theory, it is consistent with previous findings (Alsartawi, 2019; Rashid, 2018). An independent board moderated the significant positive relationship between IC and IB performance (0.071), suggesting that it is an effective monitor in the governance mechanism (Kweh *et al.*, 2021). The optimal percentage of independent boards can increase the benefits of IC efficiency to have a positive impact on IB performance. Board independence acts as a resource from external IBs who have experience in managing IC; it thus has the potential to improve IC management to achieve higher efficiency, which, in turn, improves IB performance. This finding is consistent with (Kweh *et al.*, 2021), who found that board independence will increase IC efficiency (Table 4).

A robustness check is conducted with other proxies for IC, namely HCE, SCE and CEE. As a result, HCE has a significant positive effect on IB performance (0.279). HC is a crucial asset because it is difficult to duplicate human capabilities and can be easily hijacked by an offer of higher compensation from a competitor. The IB can budget personal expenses related to skill upgrades through training or other activities that can enrich skills. Future

Variable	(1) MSI_{ict}	(2) MSI_{ict}	(3) MSI_{ict}
MSI_{ict-1}	0.633***	0.660***	0.736***
	(36.846)	(40.137)	(58.201)
HCE_{ict}	0.279***		
	(2.999)		
SCE_{ict}		1.937**	
		(2.623)	
CEE_{ict}			10.610***
			(17.234)
SSB_{ict}	−0.098***	−0.107***	−0.075***
	(−6.967)	(−12.557)	(−12.257)
BOZ_{ict}	0.004***	0.007***	0.004***
	(4.848)	(8.976)	(8.772)
BOI_{ict}	−0.001	−0.007***	−0.000
	(−0.308)	(−6.894)	(−0.094)
$HCE_{ict} \times SSB_{ict}$	−0.405**		
	(−2.555)		
$HCE_{ict} \times BOZ_{ict}$	−0.008		
	(−1.306)		
$HCE_{ict} \times BOI_{ict}$	0.045***		
	(4.069)		
$SCE_{ict} \times SSB_{ict}$		1.176*	
		(1.784)	
$SCE_{ict} \times BOZ_{ict}$		−0.322***	
		(−2.960)	
$SCE_{ict} \times BOI_{ict}$		0.246***	
		(3.255)	
$CEE_{ict} \times SSB_{ict}$			−13.419***
			(−20.235)
$CEE_{ict} \times BOZ_{ict}$			−0.106***
			(−5.853)
$CEE_{ict} \times BOI_{ict}$			0.721***
			(24.466)
C	−0.147***	−0.133***	−0.086***
	(−10.088)	(−7.509)	(−4.691)
Control Variable	Included	Included	Included
Obs	263.000	263.000	263.000
Bank	68.000	68.000	68.000
AR2	0.478	0.326	0.556
AR2 p	0.632	0.745	0.578
Sargan	63.970	66.587	104.441
Sargan p	0.649	0.975	0.159

Notes: This table reports robustness regression. Two-step system GMM is used to estimate regression model to deal with endogeneity. Model specifications are based on the second-order Arellano-Bond (AR2) and Sargan Statistics. The null hypotheses on both indicators shall be accepted to meet non-autocorrelation assumption and instrument validity. T-stat. in parentheses. *, ** and *** indicate level of significance 10, 5 and 1%, respectively

Table 4.
Robustness check

technological developments will change the scope of work that is usually done by humans and replace them with technology and robots. Therefore, humans must master specific skills to avoid becoming obsolete. However, some jobs can't be replaced by technology, such as analysts, policymakers and sales. Instead, their work requires upgrades to analyse complex

problems and improve services, thereby ultimately boosting sales. These results are consistent with the findings of previous studies (Nawaz and Haniffa, 2017; Ozkan *et al.*, 2017; Tiwari and Vidyarthi, 2018) that HC has a positive relationship with company performance.

SCE and IB performance have a significant positive relationship (1.937). IBs can take into account the SC portion because it is an important resource for IBs that can increase performance. This finding is consistent with RBV's assumption that efficiently managed SC resources will provide a higher level of profit. IBs already have an SC level that is equivalent to commercial banks, especially in regard to technology adoption. In addition, SC is sourced from the internal processes such as corporate culture that can increase competitiveness. Furthermore, the use of technology for databases is important for presenting data to map market potential, analyse non-performance financing, underlying, outstanding financing and be able to see details of assets, liabilities and employee competencies. This data becomes a reference for IB strategic analysis to plan both short-term and long-term strategies that can ultimately improve performance. These results are consistent with the findings of Bayraktaroglu *et al.* (2019). Some studies that contradict this result include (Nawaz and Haniffa, 2017; Ozkan *et al.*, 2017). As IBs have a unique organisational culture, management philosophy and operating system that is different from commercial banks, if management ignores the unique characteristics that can encourage the creation of added value for the company, this can result in a decrease in the efficiency of the SC, which will affect revenue and profitability (Soewarno and Tjahjadi, 2020).

CEE is shown to have a significant positive effect on IB performance (10.610), thereby supporting the RBV's assumption that CEE is an IB resource that has a significant impact on performance. This finding indicates that the IB with optimal CE efficiency has a positive impact on the achievement of IB performance. CEE shows the extent to which new added value is created by every monetary unit invested. Smriti and Das (2018) emphasise that physical assets are the most important aspect of increasing employee productivity and profitability. Strong financial and physical capital support for IB will increase going concerns and market share in the long term (Chen *et al.*, 2014). Strict banking regulations force IBs to use CE resources more efficiently and maintain the number of CEs to meet regulatory assessment criteria. The results of this study support the findings of Ousama *et al.* (2019), Ozkan *et al.* (2017), which shows a significant positive relationship between CEE and performance. This finding is not in line with the findings of Nawaz and Haniffa (2017) that CEE does not have a significant impact on performance.

Directly, the SSB, board size, board independence and IB performance results are consistent with the baseline regression. Meanwhile, in the interaction relationship, the SSB moderates the significant positive relationship between HCE and CEE with IB performance, while SCE and IB performance is moderated negatively by SSB. We suspect that human and physical assets are still the focus of the SSB's monitoring, as these are the main drivers in generating performance. The principle of excessive prudence can suppress investment and IC management, which, in turn, can reduce efficiency. In contrast, SCE relates to infrastructure, resulting in looser SSB monitoring. Board size has a negative moderating effect on the relationship between HCE, SCE, CEE and IB performance, which is consistent with the baseline regression results. Board independence positively moderates the relationship between HCE, SCE, CEE and IB performance. However, this result is under the baseline regression.

6. Conclusion, limitations and recommendations

Intellectual capital (IC) and sharia governance play an important role in IBs achieving performance based on maqasid sharia. IC is crucial to gaining a competitive advantage.

Sharia governance (SG) is characterised by the presence of SSB, whose role is to ensure that all IB activities are in accordance with Islamic law. The SSB, as a layer of governance, is more careful in monitoring IB in the management and utilisation of IC so that it not only generates high profits but also fulfils the elements of maqasid sharia. This study aimed to examine the relationship between IC and SG on IB performance based on the maqasid sharia index and the moderating impact of SG on the relationship between IC and IB performance.

The research findings show that a more efficient IC can improve the IB performance based on maqasid sharia. These results explain that when IC is managed efficiently as an IB resource, it will provide added value to improve IB performance. Another finding is that higher SSB quality results in lower IB performance. This result can be explained by the SSB being more of an advisor than a monitor. SSB quality is proven to moderate the relationship between IC and performance. A higher-quality SSB is more conservative in compliance with sharia principles, resulting in a decrease in the maqasid sharia index. Furthermore, board size is proven to have an impact on IB performance. A larger board size provides more information, experience, diversity and insight for the company, thus helping in decision-making, which ultimately positively impacts IB performance. However, board size has a negative moderating effect on the relationship between IC and performance. Larger boards cause conflicts in inefficient IC management resulting in lower performance. In addition, larger independent boards can reduce the IB's performance because of the independent board's lack of control over the IB's condition. Furthermore, board independence can further increase IC resource management to be more efficient, thereby strengthening performance achievement.

This research has several implications for theory and practice. First, this empirical evidence supports the resources-based view. IC, if managed efficiently, can provide added value for IB. The SSB and board are also resources that can contribute to the increase in IB performance. This supports the resource-based theory. Practically, the results of this study can be used by IBs as consideration for strategic decisions related to IC investment and the capital employed. In addition, this research can also be used as the basis for regulators' policymaking as it relates to the international accounting standard IAS 38 regarding the accounting treatment of intangible assets at IB.

References

Ajili, H. and Bouri, A. (2018), "Assessing the moderating effect of shariah board on the relationship between financial performance and accounting disclosure", *Managerial Finance*, Vol. 44 No. 5, pp. 570-589.

Al Farooque, O., Buachoom, W. and Sun, L. (2020), "Board, audit committee, ownership and financial performance emerging trends from Thailand", *Pacific Accounting Review*, Vol. 32 No. 1, pp. 54-81.

Alipour, M., Ghanbari, M., Jamshidinavid, B. and Taherabadi, A. (2019), "Does board independence moderate the relationship between environmental disclosure quality and performance? Evidence from static and dynamic panel data", *Corporate Governance: The International Journal of Business in Society*, Vol. 19 No. 3, pp. 580-610, doi: 10.1108/CG-06-2018-0196.

Al-Malkawi, H.A.N. and Pillai, R. (2018), "Analyzing financial performance by integrating conventional governance mechanisms into the GCC Islamic banking framework", *Managerial Finance*, Vol. 44 No. 5, pp. 1-20.

Alsartawi, A.M. (2019), "Board independence, frequency of meetings and performance", *Journal of Islamic Marketing*, Vol. 10 No. 1, pp. 290-303.

Antonio, M.S., Sanrego, Y.D. and Taufiq, M. (2012), "An analysis of Islamic banking performance: maqashid index implementation in Indonesia and Jordania Muhammad", *Journal of Islamic Finance*, Vol. 1 No. 1, pp. 12-29.

Appuhami, R. and Bhuyan, M. (2015), "Examining the influence of corporate governance on intellectual capital efficiency evidence from top service firms in Australia", *Managerial Auditing Journal*, Vol. 30 Nos 4/5, pp. 347-372.

Arellano, M. and Bover, O. (1995), "Another look at the instrumental variable estimation of error-components models", *Journal of Econometrics*, Vol. 68 No. 1, pp. 29-51.

Aslam, E. and Haron, R. (2021), "Corporate governance and banking performance: the mediating role of intellectual capital among OIC countries", *Corporate Governance: The International Journal of Business in Society*, Vol. 21 No. 1, pp. 111-136.

Asutay, M. (2012), "Conceptualising and locating the social failure of Islamic finance: aspirations of Islamic moral economy vs the realities of Islamic finance", *Asian and African Area Studies*, Vol. 11 No. 2, pp. 93-113.

Baklaouti, I. (2022), "Is the sharia supervisory board a friend or an enemy of Islamic banks?", *Journal of Islamic Marketing*, Vol. 13 No. 2, pp. 526-541, doi: 10.1108/JIMA-04-2020-0118.

Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.

Bayraktaroglu, A.E., Calisir, F. and Baskak, M. (2019), "Intellectual capital and firm performance: an extended VAIC model", *Journal of Intellectual Capital*, Vol. 20 No. 3, pp. 406-425.

Blundell, R. and Bond, S. (1998), "Initial conditions and moment restrictions in dynamic panel data models", *Journal of Econometrics*, Vol. 87 No. 1, pp. 115-143.

Boachie, C. (2021), "Corporate governance and financial performance of banks in Ghana: the moderating role of ownership structure", *International Journal of Emerging Markets*.

Buallay, A. (2019), "Corporate governance, sharia governance and performance: a cross-country comparison in MENA region", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 12 No. 2, pp. 216-235.

Buallay, A., Cummings, R. and Hamdan, A. (2019), "Intellectual capital efficiency and bank's performance: a comparative study after the global financial crisis", *Pacific Accounting Review*, Vol. 31 No. 4, pp. 672-694.

Bukair, A.A. and Abdul Rahman, A. (2015), "Bank performance and board of directors attributes by Islamic banks", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 8 No. 3, pp. 291-309.

Cenciarelli, V.G., Greco, G. and Allegrini, M. (2018), "Does intellectual capital help predict bankruptcy?", *Journal of Intellectual Capital*, Vol. 19 No. 2, pp. 321-337.

Chen, J., Danbolt, J. and Holland, J. (2014), "Rethinking bank business models: the role of intangibles", *Accounting, Auditing and Accountability Journal*, Vol. 27 No. 3, pp. 563-589.

Dalwai, T. and Mohammadi, S.S. (2020), "Intellectual capital and corporate governance: an evaluation of Oman's financial sector companies", *Journal of Intellectual Capital*, Vol. 21 No. 6, pp. 1125-1152.

Darmadi, S. (2013), "Corporate governance disclosure in the annual report: an exploratory study on Indonesian Islamic banks", *Humanomics*, Vol. 29 No. 1, pp. 4-23.

Edvinsson, L. and Malone, M. (1997), *Intellectual Capital*, Harper Business, New York, NY.

Elamer, A.A., Ntim, C.G., Abdou, H.A. and Pyke, C. (2019), "Sharia supervisory boards, governance structures and operational risk disclosures: evidence from Islamic banks in MENA countries", *Global Finance Journal*, Vol. 46, p. 100488.

Farag, H., Mallin, C. and Ow-Yong, K. (2018), "Corporate governance in Islamic banks: new insights for dual board structure and agency relationships", *Journal of International Financial Markets, Institutions and Money*, Vol. 54, pp. 59-77.

Farook, S., Kabir Hassan, M. and Lanis, R. (2011), "Determinants of corporate social responsibility disclosure: the case of Islamic banks", *Journal of Islamic Accounting and Business Research*, Vol. 2 No. 2, pp. 114-141.

Garas, S.N. and Pierce, C. (2010), "Sharia supervision of Islamic financial institutions", *Journal of Financial Regulation and Compliance*, Vol. 18 No. 4, pp. 386-407.

Goh, P.C. (2005), "Intellectual capital performance of commercial banks in Malaysia", *Journal of Intellectual Capital*, Vol. 6 No. 3, pp. 385-396.

Grassa, R. (2013), "Shari'ah governance system in Islamic financial institutions: new issues and challenges", *Arab Law Quarterly*, Vol. 27 No. 2, pp. 171-187.

Hamza, H. (2016), "Does investment deposit return in Islamic banks reflect PLS principle?", *Borsa Istanbul Review*, Vol. 16 No. 1, pp. 32-42.

Haniffa, R.M. and Cooke, T.E. (2002), "Culture, corporate governance and disclosure in Malaysian corporations", *Abacus*, Vol. 38 No. 3, pp. 317-349.

Kennedy, P. (1998), *A Guide to Econometrics* (Fourth Edi.), MIT Press.

Khan, I., Khan, M. and Tahir, M. (2017), "Performance comparison of Islamic and conventional banks: empirical evidence from Pakistan", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 10 No. 3, pp. 419-433.

Kweh, Q.L., *et al.* (2021), "The cubic S-curve relationship between board independence and intellectual capital efficiency: does firm size matter?", *Journal of Intellectual Capital*.

Lari Dashtbayaz, M., *et al.* (2020), "The impact of corporate governance on intellectual capitals efficiency in Iran", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 13 No. 4, pp. 749-766.

Mardnly, Z., Mouselli, S. and Abdulraouf, R. (2018), "Corporate governance and firm performance: an empirical evidence from Syria", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 11 No. 4, pp. 591-607.

Matoussi, H. and Grassa, R. (2012), "Is corporate governance different for Islamic bank? A comparative analysis between the Gulf cooperation council context and the Southhest Asia context", working paper, The Economic Research Forum, December.

Mohammed, M.O. and Taib, F.M. (2015), "Developing Islamic banking performance based on Maqasid Syariah framework: cases of 24 selected banks", *Journal of Islamic Monetary Economics and Finance*, Vol. 1 No. 1, pp. 55-77.

Nagano, H. (2020), "The growth of knowledge through the resource-based view", *Management Decision*, Vol. 4 No. 1, pp. 98-111.

Nawaz, T. (2017), "Intellectual capital, financial crisis and performance of Islamic banks: does sharia governance matter?", *International Journal of Business and Society*, Vol. 18 No. 1, pp. 211-226.

Nawaz, T. (2019), "Exploring the nexus between human capital, corporate governance and performance: evidence from Islamic banks", *Journal of Business Ethics*, Vol. 157 No. 2, pp. 1-21.

Nawaz, T. and Haniffa, R. (2017), "Determinants of financial performance of Islamic banks: an intellectual capital perspective", *Journal of Islamic Accounting and Business Research*, Vol. 8 No. 2, pp. 130-142.

Neifar, S., Salhi, B. and Jarboui, A. (2020), "The moderating role of sharia supervisory board on the relationship between board effectiveness, operational risk transparency and bank performance", *International Journal of Ethics and Systems*, Vol. 36 No. 3, pp. 325-349.

Nomran, N.M., Haron, R. and Hassan, R. (2018), "Sharia supervisory board characteristics effects on Islamic banks' performance: evidence from Malaysia", *International Journal of Bank Marketing*, Vol. 36 No. 2, pp. 290-304.

Nonaka, I., Nishihara, A.H. and Kawada, H. (2018), "Knowledge based management theory", in Hirose Nishihara, A., Matsunaga, M., Nonaka, I. and Yokomichi, K. (Eds), *Knowledge Creation in Public Administrations*, Palgrave Macmillan, Cham, doi: 10.1007/978-3-319-57478-3_1.

Ousama, A.A., Hammami, H. and Abdulkarim, M. (2019), "The association between intellectual capital and financial performance in the Islamic banking industry: an analysis of the GCC banks", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 13 No. 1, pp. 75-93.

Ozkan, N., Cakan, S. and Kayacan, M. (2017), "Intellectual capital and financial performance: a study of the Turkish banking sector", *Borsa Istanbul Review*, Vol. 17 No. 3, pp. 190-198.

Pulic, A. (2004), "Intellectual capital does it create or destroy value?", *Measuring Business Excellence*, Vol. 8 No. 1, pp. 62-68.

Quttainah, M.A. and Almutairi, A.R. (2017), "Corporate governance: evidence from Islamic banks", *Social Responsibility Journal*, Vol. 13 No. 3, pp. 6[illegible]24.

Ramly, Z. and Nordin, N. (2018), "Sharia supervisory board, board independence, risk committee and risk-taking of Islamic banks in Malaysia", *International Journal of Economics and Financial Issues*, Vol. 8 No. 4, pp. 290-300.

Rashid, A. (2018), "Board independence and firm performance: evidence from Bangladesh", *Future Business Journal*, Vol. 4 No. 1, pp. 34-49.

Rodrigues, L.L., Tejedo-Romero, F. and Craig, R. (2017), "Corporate governance and intellectual capital reporting in a period of financial crisis: evidence from Portugal", *International Journal of Disclosure and Governance*, Vol. 14 No. 1, pp. 1-29.

Roodman, D. (2009), "How to do xtabond2: an introduction to difference and system GMM in Stata", *The Stata Journal: Promoting Communications on Statistics and Stata*, Vol. 9 No. 1, pp. 86-136.

Saeed, M.B. and Saeed, S.K. (2018), "Characteristics of sharia supervisory board, corporate governance mechanisms and efficiency of Islamic banks: evidence from listed banks in Asia", *Journal of Islamic Business and Management*, Vol. 8 No. 1, pp. 116-138.

Saidat, Z., Silva, M. and Seaman, C. (2019), "The relationship between corporate governance and financial performance: evidence from Jordanian family and nonfamily firms", *Journal of Family Business Management*, Vol. 9 No. 1, pp. 54-78.

Scafarto, V., Ricci, F. and Scafarto, F. (2016), "Intellectual capital and firm performance in the global agribusiness industry: the moderating role of human capital", *Journal of Intellectual Capital*, Vol. 17 No. 3, pp. 530-552.

Smriti, N. and Das, N. (2018), "The impact of intellectual capital on firm performance: a study of Indian firms listed in COSPI", *Journal of Intellectual Capital*, Vol. 19 No. 5, pp. 935-964, doi: 10.1108/JIC-11-2017-015[illegible]

Soewarno, N. and Tjahjadi, B. (2020), "Measures that matter: an empirical investigation of intellectual capital and financial performance of banking firms in Indonesia", *Journal of Intellectual Capital*, Vol. 21 No. 6, pp. 1085-1106.

Syafa, A. and Haron, R. (2019), "The effect of corporate governance on Islamic banking performance: a Maqasid sharia index approach on Indonesian Islamic banks", *Journal of Islamic Finance*, Vol. 8, pp. 1-18.

Tarique, K.M., Islam, R. and Mohammed, M.O. (2020), "Developing and validating the components of Maqasid al-Shari'ah-based performance measurement model for Islamic banks", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 14 No. 2, pp. 366-390.

Tiwari, R. (2020), "Nexus between intellectual capital and profitability with interaction effects: panel data evidence from the Indian healthcare industry", *Journal of Intellectual Capital*, Vol. 23 No. 3.

Tiwari, R. and Vidyarthi, H. (2018), "Intellectual capital and corporate performance: a case of Indian banks", *Journal of Accounting in Emerging Economies*, Vol. 8 No. 1, pp. 84-105.

Tran, D.B. and Vo, D.H. (2016), "Should bankers be concerned with intellectual capital? A study of the Thai banking sector", *Journal of Intellectual Capital*, Vol. 19 No. 5, pp. 897-914.

Tran, N.P., Van, L.T.H. and Vo, D.H. (2020), "The nexus between corporate governance and intellectual capital in Vietnam", *Journal of Asia Business Studies*, Vol. 14 No. 5, pp. 637-650.

Tulung, J.E. and Ramdani, D. (2018), "Independence, size and performance of the board: an emerging market research", *Corporate Ownership and Control*, Vol. 15 Nos 2/1, pp. 201-208.

Vo, D.H. and Tran, N.P. (2021), "Intellectual capital and bank performance in Vietnam", *Managerial Finance*, Vol. 47 No. 8.

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