

## Intellectual Capital Disclosure and Corporate Governance: Empirical Evidence from a Cross Country that Offering Islamic Bank Services

SYAIMA' ADZANAN, ZULKARNAIN MUHAMAD SORI & SHAMSHER MOHAMAD RAMADILI MOHD

### ABSTRACT

*Intellectual capital is imperative for Islamic banks given their unique characteristics in that they offer innovative Shariah-based solutions to the modern financial problems. This study therefore examined the influence of corporate governance on intellectual capital disclosure (ICD) practices of Islamic banks. Data from a sample of 33 Islamic banks for the period 2012 to 2018 were collected. A self-developed ICD checklist was used to measure the extent of IC information disclosed in the annual report. This paper also examines the relationship between ICD practices and several corporate governance components which includes board size, board meeting, board independence, board gender, board expertise, audit committee size, audit committee meeting, audit committee independence, audit committee gender and audit committee expertise. Our results revealed that having an effective corporate governance structure is essential, as it is able to influence the ICD practices of Islamic banks. However, instead of focusing on the role of the board, our paper highlights the importance role of audit committee functions. Specifically, the results suggest that larger or reasonable audit committee size tends to have varied skills and expertise among the audit committee members, resulting in more information by allowing for greater diversity of backgrounds and viewpoints. Gender diversity in audit members' profiles will also encourage the board to be more effective and creative in generating innovative ideas, hence more IC will be created. This study adds to the empirical studies on corporate governance from Islamic banks' perspectives covering several countries. It also introduces the Shariah capital, as one of components in the IC index to respond to the peculiarities of Islamic on intellectual capital.*

*Keywords: Islamic banks; intellectual capital disclosure; corporate governance.*

### INTRODUCTION

Stewart (1997) defined IC as the wealth of ideas and knowledge, resource capabilities, infrastructures, along with brand value and corporate reputation which play an important role in driving financial value and providing a unique competitive edge to businesses (Stewart 1997). The importance of IC is critical especially among knowledge intensive companies such as banks due to the fact that the main resources of banks are knowledge and intellectual in nature (Cabrita et al. 2017). The operation of banks depends so much of IC which includes close interaction between human capital (i.e. employees) and trusted relational capital (i.e. customers) and rely, to a larger extent on the sustainability of structural capital for the development of products and services. Hence, understanding IC helps banks to develop and maintain a competitive advantage. For Islamic banks, IC is even more pertinent as competitions are higher for them since Islamic banks need not only compete among themselves but also against their conventional peers.

Currently, the main value proposition that Islamic banks brings is the Shariah knowledge which is drawn based on the Islamic laws (Shariah). This can be considered a unique IC for Islamic banks but there is a significant lack of discussion on this matter in IC literature. The ability to utilize this Shariah-IC is the main

source of Islamic banks' competitive advantage over their conventional peers. Shariah-IC or Shariah capital is a new IC category introduced in this study to cater for the salient characteristics of Islamic banks. Islamic banks also require a higher degree on other IC components, namely the human capital, relational capital and structural capital. Human capital is important for Islamic banks since competent and versatile human capital support greater innovation. For instance, Ousama et al. (2020) believe that having employees with good knowledge of Shariah will enhance the credibility and reputation of Islamic banks. Relational capital and structural capital such as good customer relations and conducive infrastructure with high technology tools are also valuable resources that helps Islamic banks to achieve competitive advantage and future market expansion.

Past literature has documented that corporate governance mechanisms play a significant role in IC development (Cabrita et al. 2017; Belal et al. 2018), with numerous empirical studies showing a strong link between corporate governance and the release of IC information (see Li et al. 2012; Ahmed Haji 2015; Buallay et al. 2019:2020; Elgattani & Hussainey 2020), but lack of mechanism is found with regard to Islamic banking settings. Further, Buallay et al. (2020) argue that there is significant lack of studies that have contributed to the understanding of linkage between corporate

governance and IC despite the imperative role of IC in the value creation process of Islamic banks. Islamic banks with effective corporate governance mechanisms will add value through IC by a safe workplace, having more experts, enhancing process and systems and establishing a valuable relationship with all stakeholders. Strong and good corporate governance is also essential for Islamic banks since they are exposed to additional risks such as Shariah noncompliance risk that conventional banks do not own; and deal with real economic activities with more distinct stakeholders such as the investment depositors who participate in the profit and loss like shareholders. Weak corporate governance mechanisms could lead to Islamic bank failure leading up to reputational risk and economic problems. Therefore, it is reasonable to expect some level of relationship between corporate governance and ICD practices of Islamic banks.

The objective of this study is to examine the influence of corporate governance mechanisms on ICD practices of Islamic banks measured by a self-developed checklist. This study emphasizes the importance of corporate governance in managing the opportunistic behaviour of Islamic bank's managers and believes that corporate governance has an influence on ICD. Data is collected from respective Islamic banks' annual reports for the period 2012 to 2018. This study contributes to the literature of corporate governance and IC for which there is limited empirical knowledge for Islamic banks. Apart from that, the findings obtained may serve as valuable input for Islamic banking practitioners including regulators and standard setters to work together to create more specific IC and robust banking system that live up to the spirit of Shariah. The remaining parts of the study are structured as follows. The subsequent section reviews the IC related literature and hypotheses development. The third section presents the methodology adopted by this study while section four discusses the results and findings. Finally, the concluding section outlines the implications, limitations and suggestion for future studies.

#### RELATED LITERATURE AND HYPOTHESES DEVELOPMENT

Managing IC remains a challenge for any organisations mainly due to difficulties in intangible (Earnest & Sufian 2013). For Islamic banks, the challenge is even more given their diverse and unique nature of IC. Past studies have documented a strong link between corporate governance and the release of IC information (see Li et al. 2012; Bhattacharjee et al. 2015; Ahmed Haji 2015; Salehi et al. 2017; Dashtbayaz et al. 2020), but lack of evidence is found with regard to Islamic banking settings. For example, Bhattacharjee et al. (2015) and Dashtbayaz et al. (2020) believe that corporate governance mechanisms play a significant role in influencing businesses to better manage and utilize their IC for competitiveness. Their studies are based on the Bangladeshi and Iranian financial market where they investigate the association between IC and some of the corporate governance attributes such as

board size, board meeting, board independence, audit committee size and ownership structure. Salehi et al. (2017) also declare that a good corporate governance practices can help with the formation of strong IC and this is why organisations with good governance practices outperform their rivals in the market. On the other hand, Earnest and Sofian (2013) provided a different perspective of IC where they found effectiveness of IC management and utilization is driven by the effectiveness of corporate governance activities. In the study, corporate governance acts as a mediating role between IC and company performance.

Just like any organisations, Islamic banks are run by a group of management who have their own self-interests that need to be managed and protected. Hence, effective corporate governance is important as it increases the level of confidence of public towards Islamic banks (Azrak 2015), limits the opportunistic behaviour of managers (Harun 2020) and safeguard the interest of diverse stakeholders (Dashtbayaz et al. 2020; Aslam & Haron 2020). Basiruddin and Ahmed (2020) document that Islamic banks with strong corporate governance environments reduce Shariah non-compliance risks among Islamic banks in Malaysia and Indonesia over the period 2007 to 2017. Specifically, the study discovered that a smaller board size and higher proportion of independent board members motivate them to be more sensitive to the Shariah compliant issues. They act more conservatively toward Shariah committee's advices and thus, reduce, the Shariah non-compliance risks. Their action also due to fulfil the fiduciary role of complying with Shariah and mitigate the reputational risks that can arise from non-compliance. On the other hands, Magalhães and Al-Saad (2013) expressed concerns that Islamic banks are lacking in treating with fairness especially to their investment account holders. Thus, the establishment of a dedicated corporate governance seems to be a must, to protect these rights and assure fair treatment to these parties.

Agency theory provides a powerful theoretical framework in this study since this study is focusing on voluntarily disclosure and financial reporting disclosure is among the cost-effective monitoring tools in principle-agent relationship. In the context of this study, the agent (Islamic bank manager) could have more information or more aware on the kind-of- IC-information of company's business, accordingly, they (Islamic bank manager) tend to disclose IC information as a medium of communication to reduce information asymmetry, leading to lower agency cost. While in some circumstances, the agent could take advantage of the know-how of IC information for their own benefit at the expense of the principal (the shareholders). Empirically, Goebel (2019) and An et al. (2015) suggest for voluntarily ICD as it is able to reduce information asymmetry and other related agency costs (e.g. insider trading) as well as to ensure utilization of IC resources. In addition, Li et al. (2012) interpreted the link between agency theory and IC reporting from the perspective of reducing uncertainty about intangible IC

values for investors. The study investigates corporate governance characteristics where they conclude that ICD is valuable information for investors as it helps reduce uncertainty on future prospects and facilitate more precise valuation of the company

The previous literature highlights several gaps. There are limited studies focusing on ICD practices of Islamic banks and to the best of research knowledge, no comparative study conducted on several Islamic banks. Besides, most of the existing IC studies are largely on developed economies and very little documentations on emerging economies. These studies mostly focus on conventional banking and only recently there is growing works on Islamic banking. While there are a number of studies done in Bangladesh, Malaysia, Indonesia and MENA region but they are using other IC measures (i.e. IC efficiency) that is different from the objective of the study. Except study by Belal et al. (2018), little is known about the ICD practices of Islamic banks across countries and their study concerns only on disclosure practices of a bank. While this study is more comprehensive as we includes several prominent countries that offer Islamic banking services i.e. Malaysia, Bahrain, Jordan and Brunei. This study also developed a systematic and comprehensive ICD index to measure the extent of IC information disclosure of Islamic banks annual reports. Through the index, a refined framework on disclosure practice for Islamic banks was developed as many aspects of ICD practice have been taken into account. The introduction of Shariah capital category is timely as it reflects the exclusivity of Islamic banks compared to other institutions. Our study is important and fills the gap since this is the first to empirically shed some light on the relationship between ICD and overall Islamic bank's governance structure from various perspectives and approaches.

#### BOARD SIZE

From agency theory point of view, the board size is viewed as one of the important determinants of effective board and the theory predicts that larger board size will lead to higher ICD than smaller board. A larger board consist of more number of board members who work towards the interest of the stakeholders in monitoring, controlling and thereby increasing the ICD practices of companies. Empirically, several studies (Yan 2017; Ahmad Haji & Mohd Ghazali 2013; Dalwai & Mohammadi 2020) found that larger boards provide better board monitoring capabilities and gives a positive influence to the disclosure practices of Islamic banks. Harun et al. (2020) believed that larger board provides more vigilant and better advice as larger board have more links externally. Larger boards also should be more effective than small boards, as larger boards are able to make better collective decisions. But, in some cases, larger board can be costly and more challenging for them to communicate and to reach a consensus when making decisions. Elgattani

and Hussainey (2020) also believed that companies with smaller boards are more collaborative and outperform than companies with larger boards. Building on these past related studies, this study predicts a positive association between the board size and ICD. The following hypothesis is formulated.

H<sub>1</sub> There is a positive relationship between the board size and ICD practices

#### BOARD MEETING

The effectiveness of board can be assessed by the number of meetings held during the year and the complexity of banking sector would require regular meeting among the board members (Dalwai & Mohammadi 2020). Romero and Araujo (2017) suggested that the more board meetings that are held during the year the more the board members can gather to discuss arising issues related to companies. Thus, agency theory believes that frequency of board meetings enhances the firm disclosure practices by better monitoring. Consistently, regular board meeting allows members to perform their duties (Ahmad Haji & Mohd Ghazali 2013; Cabrita et al. 2017) and Li et al. (2012) believe that it can lead companies to be more transparent. Ahmed Haji and Mohd Ghazali (2013) also argued that higher meeting frequency could lead to higher ICD as more IC issues able to be discussed in the meeting, which could have resulted in an improved role of board in corporate reporting disclosure. However, Formigoni et al. (2020) have different view, for them loads of meetings could lead to inefficiency especially with the existence of larger board. Larger board usually comprises of different board members that possess different qualifications, skills and experiences. They should be enough resources (experts) to easily deals with company issues, hence reduces the need for meetings. In this context, many board meetings will lead to ineffective management and consequently less information disclosure. This can also lead to high agency cost due to higher monitoring cost to manage conflicts between board members.

Past studies have mixed findings. Harun et al. (2020) found frequent board meeting has negative linkage with corporate disclosure and firm; while, Romero and Araujo (2017); Elgattani and Hussainey (2020) and Dalwai and Mohammadi (2020) studies indicate no relationship between board meeting and ICD. On the other hand, Li et al. (2012), Ahmed Haji and Mohd Ghazali (2013) documented a highly significant and positively associate between the frequency of board meetings and the extent of ICD practices in the UK and Malaysia, respectively. This implies that more frequent board meetings (a sign of active and committed board members) could lead to greater ICD practices. Consistent with this line of literature, the following directional hypothesis is formulated.

- H<sub>2</sub> There is a positive relationship between the frequency of board meeting and ICD practices

#### BOARD GENDER

Financial industry has always been male-dominated especially at the top-level management (Isola et al. 2020) and Islamic banking industry was no exception. But, the past decade has seen a growing number of women professionals' breakings down barriers. Empirically, Ramirez et al. (2020) and Formigoni et al. (2020) discovered that female participation on board had improved and that the female directors were appreciated for the different knowledge, skills and expertise they contributed to the board. Female directors are a valuable resource for a company. Their combination with male director would lead to better colorations as Nadeem et al. (2019) confirmed that the presence of female directors on board enhance the ICD for Chinese listed firms over the period 2009 to 2017.

Some studies (see Cabrita et al. 2017; Isola et al. 2020) revealed that female board participation has insignificant influence on bank performance, while other studies (see Gomez et al. 2018; Nadeem et al. 2019; Ramirez et al. 2020; Harun et al. 2020; Romero et al. 2021) emphasize that gender is an important characteristic that influence firm performances. Similarly, Romero et al. (2021) discovered a significant and positive association between board gender and the level of ICD. They confirmed that the existence of female members on boards prompted stronger monitoring and oversight behavior. Romero and Araujo (2017) also found gender diversity has a positive and significant relationship with ICD. Consistent with this line of literature, the following directional hypothesis is formulated.

- H<sub>3</sub> There is a positive relationship between the board gender and ICD practices

#### BOARD INDEPENDENCE

The appointment of outside or independent directors are viewed as a check-and-balance mechanism not only to monitor the opportunistic behaviour of management but also to ensure the interest of owners as well as other stakeholders are well protected. Excessive representation of internal appointed directors aggravates the agency problem as they have access to inside information and able to act to serve their own interest. Yan (2017) suggests that the presence of independent boards associated to more ICD and board effectiveness. The presence of independence directors also can strengthen the board through monitoring and bringing fresh and wider view of the world to board discussion and decision making (Harun et al. 2020).

Harun et al. (2020) also suggests that independent or non-executive directors are more likely concerns on IC related matters because it contributes to their social

and reputation. However, some studies (see Li et al. 2012; Ahmed Haji & Mohd Ghazali 2013) criticize the role of independent directors as whether they truly 'independent' in performing their duties to improve the performance and transparency of the company. Especially, if the independent directors are allowed to serve for long period of time, this can result in close relationships that will affect their independence. Several past studies found significant positive (Li et al. 2012; Ahmed Haji & Mohd Ghazali 2013; Romero et al 2021; Romero & Araujo 2017; Formigoni et al. 2020; Harun et al. 2020) relationship between independent directors and disclosure. This indicates that the presence of more independent directors contributes to higher level of disclosure practices among firms. Therefore, the following hypothesis is developed.

- H<sub>4</sub> There is a positive relationship between the board independence and ICD practices

#### BOARD EXPERTISE

Collectively, all board members should possess certain range of necessary skills to ensure they discharge their duties effectively. In the context of financial disclosure of a company, at least the board should have a representative that is financially literate who can articulate and understand matters related to financial reporting process. This is essential to ensure effective disclosure policies are in place where the interest stakeholders and the management are best aligned. Agency theory and prior literature suggests that board size affects board effectiveness in the sense of a larger board is more likely to have more knowledge and skills (see Romero et al. 2021; Dalwai & Mohammadi 2020; Harun et al. 2020), but without an appropriate level of expertise among the board members, it will be a cost instead of benefit to the firm. Moreover, Adznan and Nelson (2015) found that lack of right expertise among board members resulted in the failure of board to exercise its oversight duties. The study highlights the relevance of financial literacy or expertise among the board as it would enable the board to better understand on disclosure related matters with better complied with financial reporting standards.

The board of directors is a valuable resource that renders competitive advantage of firm. Romero et al. (2021) also asserts that boards should have diverse views, skills and professional experience as these are value creation characteristics that is critical and most difficult to imitate. Diversity in board members' profiles (including accounting and financial-related experts) will encourage the board to be creative and to generate new ideas, hence more IC will be created. In the context of this study, the board with accounting knowledge will add values to balance and provide a practical solution to those other board members who may not so well-versed with accounting or financial related knowledge. This study hypothesizes the following.

- H<sub>5</sub> There is a positive relationship between the board expertise and ICD practices.

#### AUDIT COMMITTEE SIZE

Agency theory posits that the effectiveness of an audit committee depends on the number of members forming the committee. Although there is no actual recommended size for an audit committee, most literature and regulatory requirements seem to suggest a range between three to five members (Li et al. 2012; Ahmed & Haji 2015; MCCG 2017). Li et al. (2012) also claimed that an audit committee should have adequate resources to discharge their increasing responsibilities where they argued that the more the audit committee members the more likely to resolve problems of financial reporting process since the member has more strength with different views and expertise. However, Ahmed and Haji (2015) discovered that as the size of audit committee members increases, there is a tendency of free riders and more challenging to reach for mutual consensus when making decision. Many studies found audit committee size to be a significant determinant of company's disclosure practices (Li et al. 2012; Ahmed Haji 2015; Buallay et al. 2019; Elgattani & Hussainey 2020). Similarly, Elgattani & Hussainey (2020) found audit committee size was the only mechanism that was statistically significant and positive to the AAOIFI governance disclosure of Islamic banks. This signifies that there is a greater likelihood that with a larger audit committee size will result in more disclosure as there is a higher level of accountability among the members to ensure Islamic banks comply with Shariah. Thereby, the following hypothesis is developed.

- H<sub>6</sub> There is a positive relationship between the audit size and ICD practices

#### AUDIT COMMITTEE MEETING

Audit committee meeting reflects the effectiveness and commitment of audit committee members where Naimah and Mukti (2019) argued that the frequency of audit committee meetings indicates their efforts to fulfill their responsibilities. Buallay et al. (2019) added that as the frequency of meeting increases, awareness and experience increases among members, and there will be more encouragement to disclose more IC information publicly. Li et al. (2012) also suggest that an audit committee should meet more frequently, as most frequent meeting would mean a high level of oversight of all corporate reporting issues, including IC related issues.

Islamic banks business is more complex than normal businesses and among the responsibilities of an audit committee is to review the internal audit (including Shariah internal audit) in ensuring adequate supervision of banks. Hence, regular meeting is required to provide effective monitoring to Islamic bank activities and sufficient IC information in Islamic bank annual reports. Empirically, Dalwai and Mohammadi (2020) report a

significant positive relationship between IC and corporate governance of Oman's financial sector companies, suggesting that the more the committee meets, the better vigilance is maintained on the financial operations. Li et al. (2012) and Naimah and Mukti (2019) found a significant positive relationship between audit committee meeting and ICD in the UK and Indonesia respectively. Ahmed Haji (2015) also found a significant positive relationship between audit committee meeting and ICD in Malaysia. Buallay et al. (2019) also found that a significant positive relationship between audit committee and IC efficiency. Hence, the following directional hypothesis is formulated

- H<sub>7</sub> There is a positive relationship between the frequency of audit meeting and ICD practices

#### AUDIT COMMITTEE GENDER

Nowadays, gender diversity received extensive recognition where it leads to a wider knowledge base, which in turn gives competitive advantage compared to companies with non-diversified boards (Romero et al. 2021; Nadeem et al. 2019; Shahzad et al. 2020). Many focused on board diversity and there is still limited literature linking audit committee diversity with IC particular in Islamic bank settings. Gomez et al. (2018) found that the presence of women improves business performance in terms of the teams are more innovative and are quicker to implement change, as a result companies are more profitable. Therefore, the existence of women sitting on the audit committee board of Islamic banks is imperative given the widening mandates of audit committees' role. In the context of this study, the role of an audit committee in Islamic banks is beyond financial reporting oversight, they should be well-rounded about the Islamic financial industry. They should know and understand at least the basic Islamic finance transactions and terms used then only they will become effective. Exploring women in these specific roles is of much interest, as their checks and balance and their management style will affect the IC related decision and ultimately, more ICD is reported in the corporate reports of the banks. Gomez et al. (2018); Nadeem et al. (2019) and Harun et al. (2020) found that gender has a positive influence on firm disclosure. Consistent with this line of literature, this study argues that having more women participate in the audit committee board of Islamic banks would provide a positive influence on the level of ICD practices of Islamic banks. Hence, the following directional hypothesis is formulated

- H<sub>8</sub> There is a positive relationship between the gender of audit committee members and ICD practices

#### AUDIT COMMITTEE INDEPENDENCE

Effective audit committee oversight is essential for investor protection and audit committee independence is

a main characteristic that influences the audit committee competence and effectiveness (Buallay 2018). In addition, Ahmed Haji (2015) believe that the ability to monitor the management by having full or unrestricted access to information and be able to provide objective judgement is a function of independence. From the agency theory's perspective, there is a positive association between audit independence and firm's disclosure which means a higher proportion of independent directors sitting in the audit committee would lead to greater ICD (Ahmed Haji, 2015). Empirically, Harun et al. (2020) and Buallay (2018) found that audit committee independence is powerful influence over disclosure practices of Islamic banks, specifically the study found that the majority of the independent members in GCC banks encourage sustainability-related disclosures. Consistent with above past literature, this study believes audit committee independence as a potential factor explaining the ICD practices of Islamic banks. It assumes that Islamic banks with a higher proposition of independent directors sitting in the audit committee would lead to a higher ICD. Hence the following hypothesis is proposed.

H<sub>9</sub> There is a positive association between audit committee independence and the ICD practices

#### AUDIT COMMITTEE EXPERTISE

The rationale for having financial expertise in the audit committee is to ensure the members able to provide independent oversight on company's financial reporting and internal control system and ensuring checks and balances within the company. Li et al. (2012) argue that audit committee with financial expertise are more likely in a better position to understand the implications of providing quality ICD where such understanding would lead to improvement in ICD. Furthermore, Ahmed Haji (2015) found a significant positive relationship between financial expertise and the amount of ICD, which means the more members with financial expertise within the audit committee function result in higher levels of ICD.

Agency theory and prior literature suggests that audit committee size affects audit effectiveness in the sense of a larger board is more likely to have more knowledge and skills (see Romero et al. 2021; Dalwai & Mohammadi 2020; Harun et al. 2020), but without an appropriate level of expertise among the board members, it will be a cost instead of benefit to the firm. Mnif and Tahari (2020) also believed that lack of right expertise among the audit committee members will leads to a failure of a board to exercise its oversight duty. Specifically, they highlight the importance of sound knowledge among audit committee members as it would enable the board to better understand on the nature of industry and related disclosure issues with better complied with financial reporting standards. Consistently, audit committee members with accounting knowledge will be added values to balance and provide a practical advice to management who may not so well-

versed with accounting or financial related knowledge. Therefore, the following hypothesis is formulated

H<sub>10</sub> There is a positive relationship between the audit committee expertise and ICD practices.

## METHODOLOGY

### SAMPLE SELECTION

This study focuses on all Islamic banks in Malaysia, Jordan and Bahrain covering period from year 2012 to 2018. This selection is made considering the availability of data and all of these countries were chosen as sample of study for a number of reasons. First, they are among the significant players in the Islamic banking industry. Second, the Islamic banking industry (under service category) is among the key drivers contributing to more than 50 % of their respective countries' economic growth. Third, all of these countries have shifted their dependency on oil revenue due to the impact of global market uncertainty and weak oil prices. They continue to initiate efforts to diversify and create new economic streams where their current focus is on knowledge-based sector with high value-added goods and services. For Malaysia, there is a total of sixteen (16) Islamic banks based on the listing by BNM<sup>1</sup> while, for Bahrain, there is a total of thirteen (13) Islamic banks based on the listing by CBB<sup>2</sup> which consists of six (6) retail Islamic banks and seven (7) wholesale Islamic banks. In Jordan, there are four (4) Islamic banks, three (3) national banks and one foreign bank based on the listing by Central Bank of Jordan (CBJ)<sup>3</sup>. The significance of the year 2012 as a preliminary starting year is because it is considered a stable year after several events that occurred to the Islamic financial industry either at the country level or global level. Among the significant events were; firstly, the enforcement of Shariah Government Framework (SGF) by the Malaysian authority (BNM). SGF was first introduced in the market and came into force in January 2011 but all Islamic banks were given a six-months grace period from the effective date in order to have sufficient interval to comply will all the requirements<sup>18</sup>. Secondly, the establishment of the Monetary Authority of Brunei (AMBD) which the central bank of Brunei that began operations on January 1, 2011. AMBD signifies an important milestone in the development of the financial sector in Brunei Darussalam. It showed the commitment of the Government of Brunei to provide conducive and sound financial system in support of the national economic development (AMBD 2019). Third, AAOIFI updated their standard in 2010 which took effect from 2011 onwards. These events together make 2012 a steady starting point to start the study since the time was stable and provided a progressive avenue to evaluate the Islamic banks' disclosure movements for countries that adopt AAOIFI. In this case, the changes in AAOIFI are applicable to Bahrain and Jordan Islamic banks

Content analysis is used to generate data from the annual reports of the sampled bank. Ahmed Haji & Mubaraq (2012) identified content analysis as the most reliable method to access ICD practices. An essential element of content analysis is to operationally and clearly develop a disclosure checklist in which the content units can be grouped or categorized. In this study, the dependent variable is the extent of ICD practices of Islamic banks which was measured using a self-constructed ICD checklist. Since there is no one commonly accepted ICD checklist suits for Islamic banks, a self-constructed ICD checklist was prepared. The disclosure index used in this study consist of four components with 6 categories and 25 indicative terms. The components are (i) Shariah capital, (ii) human capital, (iii) relational capital and (iv) structural capital. Shariah capital is an additional component to reflect the peculiarities of Islamic banks inspired by past studies such as Laldin and Furqani (2016), Belal et al. (2018), Buallay et al. (2019) Harun et al. 2020; Dalwai & Mohammadi 2020; Mnif & Tahari 2020). In developing the disclosure items, the existing and grounded studies (Li et al. 2012; Ahmed Haji &

Mubaraq 2012; and Cabrita et al. 2017; Sharma & Dharni 2017; Belal et al. 2018) were used.

Reliability concerns of coding were addressed using inter-coder reliability test. Two coders were used, one coder is an experienced finance manager in a reputable company who prepares and is proficient with annual reports items, while another coder is not from accounting background, has no experience in content analysis and no knowledge about the annual reports. The second coder is selected to see whether the instructions are clear and communicable. Both of the coders were assigned to conduct a content analysis independently on a one-year annual report, which is then compared to the researcher's result. Generally, there was no significant difference between the scores

The independent variables for this study are represented by corporate governance mechanisms which are hand collected from the annual reports of the Islamic banks. The summary of the independent and control variables together with their measurements are defined in Table I.

TABLE I. Definition and measurement of variables

Variable	Definition	Measurement	Past studies using this variable
<i>Independent variables</i>			
BSIZE	Board Size	Number of directors	Goebel, (2019); Ramirez et al. (2020)
BMEETING	Frequency of board meetings	Number of board meetings held in a year	Li et al. (2012); Ahmed Haji, (2015); Naimah and Mukti, (2019)
BGENDER	Board Gender	Proportion of women in the board.	Romero& Araujo, (2017); Nadeem et al. (2019); Shahzad et al. (2020); Ramirez et al. (2020); and Formigoni et al. (2020)
BIND	Board Independence	Proportion of independent non-executive directors in the board	Ahmed Haji and Mohd Ghazali, (2013) Romero & Araujo, (2017); Romero et al, (2021); Formigoni et al. (2020); Harun et al. (2020)
BEXPERTISE	Board Expertise	Proportion of board members with accounting, finance or Islamic finance background or related experience	Ahmed Haji and Mohd Ghazali, (2012); Adznan and Nelson, (2015); and Ahmed Haji, (2015); Mnif and Tahari, (2020)
ACSIZE	Audit Committee Size	Number of audit committee members	Li et al. (2012), Ahmed Haji, (2015), Buallay et al. (2019)
ACMEETING	Frequency of audit committee meetings	Number of audit committee meetings held in a year	Li et al. (2012), Ahmed Haji, (2015), Naimah and Mukti, (2019)
ACGENDER	Audit committee gender	Proportion of women in the audit committee team	Romero & Araujo, (2017); Nadeem et al. (2019); Shahzad et al. (2020); Ramirez et al. (2020); and Formigoni et al. (2020)
ACIND	Audit committee independence	Proportion of independent non-executive directors in the audit committee team	Naimah and Mukti, (2019), Mnif and Tahari, (2020)
ACEXPERT	Audit committee Expertise	Proportion of audit committee members with accounting, finance or Islamic finance background or related experience	Adznan and Nelson, (2015); Ahmed Haji (2015)

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<i>Control Variables</i>			
FSIZE	Bank size	Natural log of firm size based on total assets	Ahmed Haji (2015) and Harun et al. (2020).
FPROFIT	Profitability	Natural log of return on average assets	Ahmed Haji (2015) and Harun et al. (2020).
FCOMPLEX	Complexity	Denoted 0 for local and 1 for foreign banks.	Sharma and Dharni (2017)

## SCORING ICD

The present study measures the extent of ICD practices of Islamic banks. The 'extent' in this context is defined as the level of disclosure disclosed by the respective Islamic bank. This study adopts a weighted disclosure index to measure the level of ICD practices of Islamic banks, since different IC items would have varied disclosure importance, and it was problematic to treat all disclosure items equally when the items were obviously not of equal importance. This method was used in many past studies (see Razak et al. 2016; Onuoha et al. 2020). In addition, the ICD index measures the number of sentences, photos, tables and figures based on a rubric scale ranging from 0-3, which is consistent with past studies such as Ahmed Haji (2015:2016). This study also includes the number of sentences as applied by Milne and Adler (1999) and tables and figure by Eljido-ten et al. (2010) by counting it as one sentence. The scoring of the annual reports against the index was performed manually by reading the whole annual report. Each IC item was scored based on their presentational formats which is in line with past studies (see Li et al. 2012; Razak et al. 2016; Onuoha et al. 2020). For scoring marks, 0 indicates IC indicative term or variable did not appear in the annual report, a value of 1 for one sentence or more but without numerical data, photo or graphical, 2, one sentence or more with numerical data on information related to IC and a maximum of 3 marks are awarded for one sentence or more with numerical data, photo and graphical. The weightage was designed for each IC component to have equal contribution to the index. Each IC component namely Shariah capital, human capital, relational capital or structural capital has the same weightage of 25%. The study later divided the 25% by 25 as each of the component is further represented by 25 indicative terms. Subsequently, each indicative term is divided into 3 since the full marks for each item is 3, hence 1 mark obtained signifies around 0.33%. This method of measurement is inspired by studies of Li et al. (2012) and An et al. (2015).

Multiple regression analysis is chosen after testing the assumptions of normality, linearity, multicollinearity, homoscedasticity and model specification. As this study used panel data and consistent with relevant prior studies such as Sofi and Yahya (2020), Isa and Lee (2020). Mollah and Zaman (2015), this study applies Hausman test and uses a random effect since fixed effect fail to deal with time invariant parameter, such as religion effect.

Hausman test is a statistical test used to determine the most appropriate model to be used (i.e. random effect model vs fixed effect model). Essentially, the test identifies if there is a correlation between the unique errors and the regressors in the model. The null hypothesis states that there is no correlation between the two models. In other words, the null hypothesis prefers the model of random effects. While, the alternate hypothesis is that the appropriate model is the fixed effects. If p-value >0.05, then we accept the null hypothesis which means the random effect models are preferred, and if p-value is small or p-value <0.05, the null hypothesis is rejected and the alternate hypothesis accepted, indicating that the fixed effects model is more suitable model to be applied in the study. Based on the test and consistent with past studies (see Isa & Lee 2020; Sofi & Yahaya 2020), the estimation of panel model in this study follows the random effects generalized least-squares (GLS) regression model. The random effect GLS was developed and employed in this study to test the relationship between independent or predictor variables and a dependent or criterion variable (Cooper & Schindler 2011).

At this stage, the random effect GLS helps to explain how the typical value of dependent variable changes when any one of the independent variables varies. Governance mechanisms covering board and audit committee characteristics were demonstrated as independent variables. The control variables were also in place which includes several firm characteristics to control for any cross-sectional differences associated with ICD practices. The control variables adopted in this study are bank size, bank profitability and bank complexity. The association between corporate governance and ICD is tested based on the following regression model:

$$ICD_{it} = \beta_0 + \beta_1 B\_SIZE_{it} + \beta_2 B\_MEETING_{it} + \beta_3 B\_GENDER_{it} + \beta_4 B\_IND_{it} + \beta_5 B\_EXPERTISE_{it} + \beta_6 AC\_SIZE_{it} + \beta_7 AC\_MEETING_{it} + \beta_8 AC\_IND_{it} + \beta_9 AC\_EXPERTISE_{it} + \beta_{10} AC\_GENDER_{it} + \beta_{11} FSIZE_{it} + \beta_{12} FPROFIT_{it} + \beta_{13} FCOMPLEX_{it} + e_{it}$$

where,

ICD	=	is the dependent variable (intellectual capital disclosure) in percentage
B_SIZE	=	board size
B_MEETING	=	frequency of board meeting

B_GENDER	=	proportion of women in the board.
B_IND	=	proportion of independent non-executive directors in the board
B_EXPERTISE	=	proportion of board members with accounting, finance or Islamic finance background or related experience
AC_SIZE	=	audit committee members
AC_MEETING	=	frequency of audit committee meeting
AC_GENDER	=	proportion of women in the audit committee team
AC_IND	=	proportion of independent non-executive directors in the audit committee team
AC_EXPERTISE	=	proportion of board members with accounting, finance or Islamic finance background or related experience
FSIZE	=	Natural log of firm size based on total assets
FPROFIT	=	Natural log of return on average assets
FCOMPLEX	=	Denoted 1 for Local and 0 for Foreign Banks

Multiple regression analysis is used to measure the above using Eview 10 software. This regression analysis is chosen after testing the assumptions of normality, linearity, multicollinearity, homoscedasticity and model specification. As this study used panel data and consistent with relevant prior studies such as Sofi and Yahya (2020), Isa and Lee (2020). Mollah and Zaman (2015), this study uses a random effect since fixed effect fail to deal with time invariant parameter, such as religion effect. Further, for a robustness check, the study used a two-step system of generalized method of moments (GMM) and Three-stage least squares (3SLS) methods which is consistent with Abdallah and Bahloul (2021).

#### RESULTS AND FINDINGS

Table 2 shows descriptive results of ICD of the sample Islamic banks over the seven-year period. The overall ICD ranges from 18% to 92.67%, with a mean score of

57.42%. In term of the IC components, the mean score for human capital is 68.83%, while relational capital is 51.90% and structural capital is 60.34%. The lowest mean score is for Shariah capital amounting of 48.1%. which shows that the sampled banks are moderately disclosing their Shariah capital information in their annual reports.

Table III presents the ICD scores by category. The results indicate that human capital is the highest disclosed category in all seven years examined, accounting for 31.31, 29.97, 30.32, 30.53, 29.71, 29.38, and 28.05, respectively. The result is consistent with the past ICD studies i.e. Cabritta et al. (2017) and Almutirat (2020) and Ousama et al. (2020). It is also consistent with the predictions by Ahmed Haji and Mohd Ghazali (2013) on Malaysian companies which observed that country effects have some influence on ICD practices. Specifically, the study provides evidence that human capital disclosure significantly increased over the period of 2008 to 2010, is a reflection of the Malaysian economy's transformation into a knowledge-based one through human capital development as part of the en route to Vision 2020. Ting and Lean (2009) also found that IC value creation of commercial banks in Malaysia is largely contributed by human capital which means that the investment in human capital yields a relatively higher return than investment in relational and structural capital.

There are some related studies perhaps that could link to Islamic banks in Bahrain and Jordan, such as studies by Razak et al. (2016) and Ousama et al. (2020) who discovered that the average ICD is lower for most GCC countries. The finding also supports the observations of Almutirat (2020), who argued that the best way to win in current intense competitive world is to build dedicated employees who possess the right competencies that can stand the test of time. In this context, the dominance of human capital information provides a quest for Islamic banks to tackle the competition. However, based on Table III, there is an inconsistent percentage of contribution of scores for human capital to total of IC disclosure from year to year. A decrease of percentage from 31.31 % to 29.97% in year 2013, increase for two consecutive years, to 30.32 in year 2014 and 30.53 in year 2015, then subsequent decrease for the following years to 29.05 in year 2018. This can be due to contributions from other categories, where banks disclosed new information on other categories. For instance, in year 2016 to 2018, Shariah capital and Structural capital information appears to have been given additional attention by Islamic banks with additional disclosures being made.

TABLE 2. Descriptive statistics of ICD

In (%)	Average scores of ICD over a seven-year period (2012-2018)			
	Mean	Minimum	Maximum	SD
Overall ICD	57.42	18.00	92.67	17.27
Human capital	68.83	13.33	100	19.27
Relational capital	51.90	2.67	100	23.35
Structural capital	60.34	6.67	92.00	18.77
Shariah capital	48.61	21.33	86.67	15.36

Structural capital is the second widely disclosed IC category by Islamic banks with an average score of 60.34 percent, minimum and maximum values of 6.67 percent and 92 percent. This finding is consistent with Haji and Mubaraq (2012) and Cabrita et al. (2017) that mentions human capital and structural capital are the major reported category by banks in the period examined. In addition, Shariah capital is a new dimension introduced in this study to cater certain peculiar features that are not found in conventional banking. Alas, Shariah capital is the least

category disclosed by Islamic banks (based on Table 3) with a mean score of 48.61 percent, maximum and minimum score of 86.67 and 21.33 percent, respectively. The minimum score of 21.33 percent occurred in the year 2012 for several Islamic banks. This could arguably due to a highly competitive market and Islamic banking is has yet to be a mature industry unlike conventional banking. A large number of Islamic banks are wary of their movements and would rather be 'followers' than be a market leaders bringing about changes in the industry.

TABLE 3. ICD scores by category

Year (% contribution)	Total ICD	Human Capital *	Relational Capital	Structural Capital	Shariah Capital
2012	100	31.31	22.41	25.08	21.21
2013	100	29.97	22.45	26.75	20.83
2014	100	30.32	22.48	26.58	20.62
2015	100	30.53	22.28	25.88	21.30
2016	100	29.71	22.91	26.15	21.22
2017	100	29.38	22.72	26.51	21.39
2018	100	29.05	22.80	26.68	21.47

Note: \* The highest disclosed category

In terms of independent variables, the results in Table 4 indicate that the size of board range from 4 to 15 members with a mean score of 8.25. This is consistent with past studies. For examples, Dalwai and Mohammadi (2020) and Harun et al. (2020) found that the average board size for financial sectors in Oman as well as GCC countries were around 8 to 9. For board gender (B\_GENDER), some Islamic banks do not have female members sitting in the board. The maximum number of female directorships is 4 or 50 percent from the total board members, with the

average score of 5.56 percent and standard deviation of 9.54 percent. This result is slightly lower than what have been obtained by Romero and Araujo (2017) and Shahzad et al. (2020) on the involvement of women directors in the intellectual capital practices of Spanish and US firms, respectively. For Malaysian Islamic banks, the Malaysian Code of Corporate Governance (2017) required Malaysian listed companies to have at least 30% of women directors. The involvement of women in top management as well as decision making positions will serve as a talent pipeline

for board candidacy. No requirement as such for Jordan and Bahrain Islamic banks.

Moreover, findings obtained in this study indicate that for all Islamic banks, there is at least one board member or 12.5 percent from total board members with accounting, or finance related knowledge (B\_EXPERT). At most, all board members (100 percent) but on average, about five to six board members (or 69.49 percent or 69.90 percent from total board members) have either accounting, or finance background or accounting-related experience. The figures are considered reasonably high as compared to prior study in year 2012 conducted by Adznan and Nelson (2015), who discovered that on average, 28% of the board members in Malaysian public listed companies have an accounting or finance related background and/or experience. The increase in the number of B\_EXPERT highlights the relevance of

financial literacy or expertise among board as it enables the board to perform their duties effectively. In addition, the number of meetings held by the board (B\_MEETING) of Islamic banks for the year is between 1 to 25 times, with a mean of 8.69 and standard deviation of 4.79. Board independence (B\_IND) is another important board characteristic and the results shows that some banks do not have any independence directors but there are banks with all their boards members are independence directors (100%). The mean score for B\_IND is 53.84 percent with standard deviations 23.84 percent, that is consider low as compared to other studies such as Ahmed Haji and Mohd Ghazali (2013); Adznan and Nelson (2015); Yan (2017) and Dalwai and Mohammadi (2020). The low scores seem to be contributed by the GCC countries as Harun et al. (2020) also found less board independence among GCC countries.

TABLE 4. Descriptive results-independent and control variables

Dependent and Control Variables (N=224)	Min	Max	Mean	SD
Continuous Variables				
B_SIZE	4	15	8.25	2.44
B_MEETING	1	25	8.69	4.79
B_GENDER (%)	0.00	50.00	6.11	9.63
B_IND (%)	0.00	100.00	53.84	23.84
B_EXPERT (%)	12.50	100.00	69.90	17.45
AC_SIZE	2	8	3.50	0.89
AC_MEETING	7	24	7.50	4.79
AC_GENDER (%)	0.00	66.67	5.31	13.48
AC_IND (%)	0.00	100.00	74.31	26.61
AC_EXPERT (%)	0.00	100.00	76.48	20.34
F_SIZE (USD)	72,238.00	56,303,765.25	5,750,025.22	7,721,839.89
F_PROFIT	-0.59	0.19	0.03	0.05
Dichotomous Variable	Frequency	%	Frequency	%
	Local		Foreign	
F_COMPLEX	175	78.12	49	21.83

Notes: B\_SIZE= board size; B\_MEETING= frequency of board meeting; B\_GENDER= proportion of women in the board; B\_IND = proportion of independent non-executive directors in the board; B\_EXPERTISE= proportion of board members with accounting, finance or Islamic finance background or related experience; AC\_SIZE=audit committee members; AC\_MEETING= frequency of audit committee meeting; AC\_GENDER= proportion of women in the audit committee team; AC\_IND= proportion of independent non-executive directors in the audit committee team; AC\_EXPERTISE=proportion of board members with accounting, finance or Islamic finance background or related experience; FSIZE= Natural log of firm size based on total assets; FPROFIT= Natural log of return on average assets; FCOMPLEX= Denoted 1 for Local and 0 for Foreign Banks

The effectiveness of audit committee largely arises from the available resources i.e. the number of members forming the committee. Although there is no exact recommended size for audit committee, the descriptive statistics in Table 4 show that audit size (AC\_SIZE) of Islamic banks ranges from 2 to 8 members with a mean score of about 3 members. This is consistent with Ahmed Haji (2015) and Harun et al. (2020). Likewise, the audit committee meetings (AC\_MEETING) ranged from 7 to 24 meetings per year with a mean figure of 7.50. The number of meetings indicates the effectiveness of commitment of audit committee carry out their duties. Buallay et al. (2019) added that as the frequency of meeting increases, awareness and experience increases among members, and there will be more encouragement to disclosed more IC information publicly. The results of this study also revealed that the proportion of women audit committee members (AC\_GENDER) range from 0 to 66.67 percent, with mean 5.31 percent. The proportion of independent directors to total number of audit committee is ranged between 0 to 100 percent, with the mean 74.31 percent and SD 26.61. The results also indicate that for all Islamic banks, there is at least one audit committee member or 25 percent from total board members with accounting, or finance related knowledge (B\_EXPERT). At most, all audit committee members (100 percent) but on average, about two to three audit committee members or 76.78 percent from total audit committee members have either accounting, or finance background or accounting-related experience. Diversity among audit committee members enables the audit committee provide independent oversight of Islamic bank's financial reporting and internal control system as well as ensuring checks and balances within the Islamic banks. This lead to better

management of information asymmetry at the same time reduce agency problems among the stakeholders (Ahmed Haji 2015; Harun et al. 2020; Romero et al. 2021).

Prior to conducting the panel regression analyses, a correlation analysis was performed. The results shown in Table 5. The correlation analyses were conducted to identify whether there are any collinearity or multicollinearity problems exists among the variables. The results in Table V show that no multicollinearity problems in the data of the study. The highest correlation coefficient, which is between board meeting and audit committee meeting, is only 0.736 which is well below the proposed cut-off point of 0.8 multicollinearity concerns (Cooper & Schindler 2011). Correlation analyses, however, are not good indicators of how a set of independent variables explain the dependent variable. Therefore, panel data regression analyses were conducted to determine the relationship between ICD and corporate governance mechanisms.

As mentioned earlier, the data was regressed based on the three (3) steps to ensure the completeness and accuracy of the findings. Overall the results show consistency and robust. It also consistent with the expectation of our theoretical argument that includes insights from agency theory. Table 6 provides a summary analysis of the panel regression results. The F-value of the data is 20.5727 and is statistically significant at 1% level, with p-value of 0.000. In addition, the explanatory power of the entire set of variables is estimated based on the  $R^2$  value amounting of 0.8412. In other words, the  $R^2$  for this study shows that the data fit the regression model. The  $R^2$  value is considered reasonably high and consistent with past studies such as Buallay et al. (2020), Ahmed Haji (2015), Sharma and Dharni (2017).

TABLE 5. Correlation analysis

	ICD	B_SIZE	B_MEETING	B_GENDER	B_IND	B_EXPERT	AC_SIZE	AC_MEETING	AC_IND	AC_EXPERT	AC_GENDER	F_SIZE	F_PROFIT	F_COMPLEX
ICD	1.00													
B_SIZE	0.200**	1.00												
B_MEETING	0.350**	-0.244**	1.00											
B_GENDER	0.388**	-0.075	0.288**	1.00										
B_IND	-0.132*	-0.265**	0.173**	0.217**	1.00									
B_EXPERT	0.029	-0.268**	-0.033	-0.009	-0.016	1.00								
AC_SIZE	0.344**	0.186**	0.413**	0.170*	0.112	-0.105	1.00							
AC_MEETING	0.418**	-0.157*	0.736**	0.227**	0.145*	0.065	0.456**	1.00						
AC_IND	-0.128	-0.117	0.041	0.174**	0.628**	-0.01	-0.006	0.057	1.00					
AC_EXPERT	0.132*	0.092	-0.163*	0.140*	0.093	0.179**	-0.097	-0.014	0.136*	1.00				
AC_GENDER	0.237**	-0.096	0.252**	0.337**	0.05	0.011	0.237**	0.241**	0.136*	0.021	1.00			
F_SIZE	0.489**	-0.151*	0.510**	0.480**	-0.016	0.126	0.323**	0.546**	0.138*	-0.05	0.348**	1.00		
F_PROFIT	-0.089	0.250**	-0.265**	-0.041	-0.096	-0.019	-0.056	-0.293**	-0.092	0.02	-0.107	-0.166*	1.00	
F_COMPLEX	-0.461**	-0.321**	-0.178**	-0.172*	-0.033	0.138*	-0.216**	-0.193**	-0.043	-0.184**	-0.155*	-0.047	-0.055	1.00

Notes: B\_SIZE= board size; B\_MEETING= frequency of board meeting; B\_GENDER= proportion of women in the board; B\_IND = proportion of independent non-executive directors in the board; B\_EXPERTISE= proportion of board members with accounting, finance or Islamic finance background or related experience; AC\_SIZE=audit committee members; AC\_MEETING= frequency of audit committee meeting; AC\_GENDER= proportion of women in the audit committee team; AC\_IND= proportion of independent non-executive directors in the audit committee team; AC\_EXPERTISE=proportion of board members with accounting, finance or Islamic finance background or related experience; FSIZE= Natural log of firm size based on total assets; FPROFIT= Natural log of return on average assets; FCOMPLEX= Denoted 1 for Local and 0 for Foreign Banks

The overall results show that, the independent variables for all the board elements were found to be insignificant in this study. Hence, instead of focusing on the board, it seems that audit committee characteristics play a critical role in ensuring sound and prudent reporting practices among Islamic banks. Specifically, this study found that audit committee size (ACSIZE) is positive and significant at 1percent level. The results support the H6 and consistent with prior empirical observations in other financial reporting studies (see Li et al. 2012; Ahmed Haji 2015). Consistent with agency theory prediction, the significant and positive association between audit size and ICD indicates the bigger the audit committee size, the more effective should they carry their responsibilities as they have varied skills, expertise and exposure among them. In this context, their skills, expertise and exposure

able to bring competitive advantages to the firms as it contributes to better reporting practices (Li et al. 2012).

For some countries, i.e Malaysia, it is mandatory requirement within the audit committee team to have at least a member who is an accounting expert or has experience in the field of finance to ensure the team able to provide independent judgement and perform their job diligently. Consistently, this study found that audit committee expertise (ACEXPERT) is positively and significantly associated with ICD practices of Islamic banks at 5 percent level. H10 is supported. Several past studies also supported this finding (see Ahmed Haji 2015; Goebel 2019; Mnif & Tahari 2020) which indicates audit committee members with accounting related knowledge will give values to Islamic banks since they able to provide a practical advice to management who may not so well-versed with accounting or financial related knowledge.

TABLE 6. Descriptive results-independent and control variables

Dependent and Control Variables (N=224)	Min	Max	Mean	SD
<i>Continuous Variables</i>				
B_SIZE	4	15	8.25	2.44
B_MEETING	1	25	8.69	4.79
B_GENDER (%)	0.00	50.00	6.11	9.63
B_IND (%)	0.00	100.00	53.84	23.84
B_EXPERT (%)	12.50	100.00	69.90	17.45
AC_SIZE	2	8	3.50	0.89
AC_MEETING	7	24	7.50	4.79
AC_GENDER (%)	0.00	66.67	5.31	13.48
AC_IND (%)	0.00	100.00	74.31	26.61
AC_EXPERT (%)	0.00	100.00	76.48	20.34
F_SIZE (USD)	72,238.00	56,303,765.25	5,750,025.22	7,721,839.89
F_PROFIT	-0.59	0.19	0.03	0.05
Dichotomous Variable	Frequency	%	Frequency	%
	Local		Foreign	
F_COMPLEX	175	78.12	49	21.83

Notes: B\_SIZE= board size; B\_MEETING= frequency of board meeting; B\_GENDER= proportion of women in the board; B\_IND = proportion of independent non-executive directors in the board; B\_EXPERTISE= proportion of board members with accounting, finance or Islamic finance background or related experience; AC\_SIZE=audit committee members; AC\_MEETING= frequency of audit committee meeting; AC\_GENDER= proportion of women in the audit committee team; AC\_IND= proportion of independent non-executive directors in the audit committee team; AC\_EXPERTISE=proportion of board members with accounting, finance or Islamic finance background or related experience; FSIZE= Natural log of firm size based on total assets; FPROFIT= Natural log of return on average assets; FCOMPLEX= Denoted 1 for Local and 0 for Foreign Banks

TABLE 7. Panel regression results

	Variables	Coefficient	Significance (p-value)
Independent Variables	B_SIZE	0.0911	0.8500
	B_MEETING	0.1413	0.5988
	B_GENDER	0.0577	0.5362
	B_IND	0.0354	0.5518
	B_EXPERT	0.0771	0.1128
	AC_SIZE	1.7418	0.0065***
	AC_MEETING	0.1258	0.6822
	AC_GENDER	0.1029	0.0739*
	AC_IND	0.0888	0.0667*
	AC_EXPERT	0.0855	0.0324**
Control Variables	F_SIZE	0.0966	0.0001***
	F_PROFIT	-1.7602	0.6444
	F_COMPLEX	1.3435	0.0056*
	R <sup>2</sup>	0.8412	
	Adjusted R <sup>2</sup>	0.8032	
	F-value	20.5727	
	p-value	0.0000	
	N	224	

\*\*\*, \*\*, \*, significant at 1%, 5% and 10% respectively

*Note:* ICD: The percentage of Intellectual Capital Disclosure score; B\_SIZE: Total number of directors sitting on the board; B\_MEETING: Number of meeting conducted by the board for the year; B\_GENDER: The proportion of women in the board; B\_IND: The proportion of independent non-executive directors in the board; B\_EXPERT: The proportion of board members with accounting, finance or Islamic finance background or related experience; AC\_SIZE: Total number of audit committee; AC\_MEETING: Number of meeting conducted by the audit committee for the year; AC\_GENDER: The proportion of women in the audit committee team. AC\_IND: The proportion of independent non-executive directors in the audit committee team. AC\_EXPERT: The proportion of audit committee members with accounting, finance or Islamic finance background or related experience; SC\_SIZE: Number of Shariah committee members; SC\_GENDER: The proportion of women in the Shariah committee team. F\_SIZE: Natural log of firm size based on total assets; F\_PROFIT: Natural log of return on average assets; FCOMPLEX: Denoted 0 for local and 1 for foreign banks.

Next, our study also shown that audit committee gender (ACGENDER) play a critical role in ensuring sound reporting practices among Islamic banks since it is positively and statistically significant at 10% level. H8 is supported. Although there is still limited number of female representatives in the audit committee board, especially among Islamic banks in Middle East countries (Bahrain and Jordan) due to their cultural differences, but this study empirically proven that women in leadership fosters an equitable work environment as women are known to be more conservative and meticulous than men in dealing with finance related matters. In the context of this study, women representatives in audit committee board able to provide positive impact to the ICD practices.

Turning to audit independence (ACIND), the findings is consistent with agency theory prediction in which the higher proportion of independent directors sitting in the audit committee would lead to greater monitoring over the board. The greater monitoring over board in the context of this study is reflected by more ICD among the Islamic banks. The results support the H9 and are consistent with the findings by Ahmed Haji (2015) who reported significant association between audit committee

and ICD practices among Malaysian companies. The results of AC\_IND also a reflection of the legitimacy practices of the society. For instance, the Malaysian code of corporate governance (MCCG 2017) stated that the audit committee shall be chaired by an independent director with at least three members, of which the majority should be independent director. While AAOIFI (2015) does not clearly mentioned about the requirement to be independence, the standards described for audit committee to has more than three members to represent a balanced perspective and experience.

For control variables, firm size (FSIZE) is positive and significant at percent level that is consistent with most previous study while form complexity (FCOMPLEX) positive and significant at 10 percent level in association with the ICD practices of Islamic banks. The results are as predicted since the bigger the size of the Islamic banks, more disclosure is required as a means to reduce the agency cost. Moreover, big Islamic banks shall obtain vigilant monitoring from diverse stakeholders than small banks. For FCOMPLEX, the results implied that the local Islamic banks are more likely to disclosed ICD practices than foreign Islamic banks. Foreign Islamic bank in the

context of this study refers to any licensed Islamic banks with headquartered outside their home-country.

This study also perform additional analysis for each component of IC (Table 3) where the results indicate that human capital and relational capital are significantly related to ACGENDER and ACEXPRT, while ACIND for

Shariah capital. Consistent with Abdallah and Bahloul (2021), the study used a two-step system of generalized method of moments (GMM) and Three-stage least squares (3SLS) methods to eliminate the endogeneity problem and robustness test. The results revealed no significant different from the results obtained in Table 6.

TABLE 8. Robustness test

Variables	Coefficient	Prob
Constant	0.697	0.000***
B_SIZE	0.091	0.950
B_MEETING	0.141	0.438
B_GENDER	0.0577	0.362
B_IND	0.0354	0.918
B_EXPERT	0.0771	0.282
AC_SIZE	1.7418	0.035**
AC_MEETING	0.1258	0.822
AC_GENDER	0.1029	0.044**
AC_IND	0.0888	0.054*
AC_EXPERT	0.0855	0.044**
F_SIZE	0.0966	0.051**
F_PROFIT	-1.7602	0.944
F_COMPLEX	1.3435	0.004*
R <sup>2</sup>		0.7312
Adjusted R <sup>2</sup>		0.7032

Note(s): \*\*\*, \*\* and \*, indicates significant at 1%, 5% and 10% levels, respectively

## CONCLUSION

This study provides recent empirical evidence on the ICD practices among Islamic banks in multiples countries covering the period of seven years (2012-2018). In general, the results indicate that the trend of ICD practices among Islamic banks is hardly satisfactory though the level of disclosure keeps increasing from year to year. Human capital is the predominance category disclosed by the Islamic banks and the least reported is the Shariah capital information. Previously, human capital related information was unknown to the public but, now the trend has reversed with the changes in business settings and market expectations. It is a strategy to 'win the battle' in business. Specifically, such information is demanded by the current millennials' generation much more so than other generations (Romero & Araujo 2017).

Although Shariah capital is the lowest category reported but it showed an increasing trend especially in the post-event period. This shows a bright future for the industry and huge opportunity for Islamic banks to continuously explore innovations in their products and services to meet the dynamic demands of customers. The lack of disclosure could also due to Shariah capital is still considered a new term to the market with no proper disclosure guidelines unlike other IC components. It is

challenging but high time for Islamic bank to appreciate their own value, creatively carve and promote their unique Shariah brand. Islamic banks should always challenge themselves and focus towards creating more IC that promotes a more holistic observation of Shariah and bring positive benefits to all.

The adoption of agency theory in this study suggests that ICD practices is needed but will be effective only with the establishment of effective corporate governance. Unlike other related studies that focus on the role of board, this study highlights the vital role of audit committee functions. The results suggest that larger or reasonable audit committee size tends to have varied skills and expertise among the audit committee members, resulting in more information by allowing for greater diversity of backgrounds and viewpoints. Gender diversity in audit members' profiles will also encourage the board to be more effective and creative in generating innovative ideas, hence more IC will be created. Apart from contributing to the literature on Islamic financial reporting and corporate governance or specifically on audit committee characteristics, this study may serve as valuable input for Islamic banking practitioners including regulators and standard setters to work together and strengthen the role of audit committee. However, this study is subject to several limitations such as limited data

and research method used which could be extended by future researchers.

#### NOTES

- <sup>1</sup> <https://www.bnm.gov.my/?ch=li&cat=islamic&type=IB&lang=en>
- <sup>2</sup> <https://www.cbb.gov.bh/licensing-directory/>
- <sup>3</sup> <https://www.cbj.gov.jo/EchoBusV3.0/SystemAssets/b59794e8-ccd2-4da0-b293-863e6efc83c1.pdf>

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Syaima' Adznan\*

Centre for Global Business and Digital Economy (GLOBDE)  
Faculty of Economics & Management  
Universiti Kebangsaan Malaysia  
43600 UKM Bangi, Selangor, MALAYSIA.  
E-mail: syaima@ukm.edu.my

Zulkarnain Muhamad Sori  
International Centre for Education in Islamic Finance (INCEIF)  
Lorong Universiti A  
59100, Kuala Lumpur, MALAYSIA.  
E-mail: zulkarnain@inceif.org

Shamsher Mohamad Ramadili Mohd  
International Centre for Education in Islamic Finance (INCEIF)  
Lorong Universiti A  
59100 Kuala Lumpur, MALAYSIA.  
E-mail: shamsher@inceif.org

\* Corresponding author