2011

working paper series

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Working Paper 645

October 2011

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Abstract

In this paper, we examine 1) whether Islamic banks are less likely to manage their earnings, and 2) how the corporate governance system, especially Shari'ah Supervisory Boards (SSBs), impacts the earnings management behaviors within Islamic banks. Using a sample of Islamic Banks and a matched non-Islamic Banks in the ERF region, we find that first; Islamic Banks are less likely to conduct earnings management as measured by both earnings loss avoidance and abnormal loan loss provisions. Second, there is no significant difference between Islamic Banks with and without SSBs in terms of earnings management. Third, several SSB characteristics and board characteristics, such as SSB size, Auditing Organization for Islamic Financial Intuitions (AAOIFI), and outside board members, are important determinants of the earnings management for Islamic Banks with SSBs.

ملخص

في هـذه الورقـة، نقـوم بدراسـة 1) مـا اذا كانـت البنـوك الإسـلامية أقـل قـدرة لإدارة مكاسـبهم، و 2) كيـف يمكـن لنظـام حوكمـة الشـركات، ومجـالس الرقابـة الشـرعية وخاصـة (SSBs) ان يـؤثر علـى سـلوكيات إدارة الأربـاح داخـل البنـوك الإسـلامية. باسـتخدام عينـة مـن البنـوك الاسـلامية والبنـوك غيـر المتطابقـة الإسـلامية فـي منطقـة ERF ، نجـد اولا أن المصـارف الإسـلامية أقـل قـدرة لسـلوك إدارة الأربـاح وفقـا للقيـاس مـن قبـل كـل مـن تجنـب خسـارة الأربـاح ومخصصـات خسـائر القـروض الغيـر طبيعـي. ثانيـا ، لـيس هنـاك فـرق كبيـر بـين المصـارف الإسـلامية مـع وبـدون شـروط SSBs فـي إدارة الأربـاح. ثالثـا يتضـح اهميـة العديـد مـن خصـائص SSB مثـل حجـمSSB ، محاسـبات عـن البـديهيات الماليـة الإسـلامية (AAOIFI)، وأعضاء مجلس الإدارة في الخارج ، في إدارة الأرباح للمصارف الإسلامية معSSBs .

1. Introduction

Banking industry is of great importance to national, regional, and global economy. However, banks around the world are found to have managed their earnings (Shen and Chih, 2005). Earnings management disables investors to forecast banks' future cash flow accurately based on the current financial information. Consequently, it increases information asymmetry problems between banks and investors and reduces banking sector stability. The recent global financial crisis has shown that information dissemination in banking industry is not enough and information asymmetry problems are very severe. One notable phenomenon is that Islamic Banks (IBs) were not severely affected by the financial crises period. Thus, it is an interesting and an important question to examine whether IBs are less likely to manage their earnings compared to non-Islamic banks.

Most of the IBs are located in ERF region (the Arab countries, Iran and Turkey) and they have several distinct characteristics compared to conventional banks. First, IBs follow and implement the dynamic provisioning policy, which enables provisions for loans to be accounted for when there are expected losses rather than actual losses. Second, since IBs implement risk sharing and Profit and Loss Sharing techniques, IBs should set up an allowance for loss provision for any possible future losses. Third, Islamic Law (Shari'ah) is integral to providing the religious guidelines to which IBs have to adhere to, and provides rules to circumscribe managing the allocation of resources, the distribution of income and wealth, and the reporting of accounting numbers. Hence, religion in Islamic banks plays an important role in shaping the ethical behaviors of managers. Finally, to ensure compliance with Shari'ah in IBs' transactions, beyond general bank board of directors, many Islamic banks have another kind of independent board, which is the Shari'ah Supervisory Board (SSB).

We use a sample of 82 Islamic Banks, and a matched non-Islamic Banks from 11 countries in the ERF region, we examine whether IBs employ less earnings management, whether the existence of the SSB within the IBs' governance can further reduce IBs' earnings management behaviors, and how SSBs characteristics, such as size and composition, affect IBs' earnings management behaviors. The existing research in this area is mixed and/or only focuses on one country. Thus, this study provides a comprehensive investigation about the effects of the unique characteristics of IBs on earning managements.

Following prior studies, such as Beatty et al. (2002), Altamuro and Beatty (2010), Burgstahler and Dichev (1997), Degeorge et al. (1999) and Kanagaretnam et al. (2010), we use two main measures to capture earnings management in the bank industry: earnings loss avoidance and abnormal loan loss provisions. We also control for major bank characteristics, country effect, and year effect that are likely to affect earnings management in the bank industry.

Our main findings are threefold. First, consistent with our expectation, we find that Islamic Banks are less likely to conduct earnings management compared to non-Islamic banks. For example, we find that Islamic Banks are about 3%-5% less likely to use earnings loss avoidance technique to manage their earnings compared to their counterparts, depending on different model specifications. In addition, the average abnormal loan loss provisions of Islamic Banks are about 0.002 lower than that of non-Islamic Banks. The results are both statistically and economically significant, indicating that Islamic Law (Shari'ah) effectively impacts bank managers' financial reporting decision-making.

Second, we find that there is no significant difference between Islamic Banks with and without SSBs in terms of earnings management, regardless of different measures of earnings managements. The result suggests that having SSB is not sufficient enough to make less different earnings management within Islamic banks.

Third, we find that several SSB characteristics and board characteristics are important determinants of the earnings management for Islamic Banks with SSBs. For example, there is a negative relation between SSB size and earnings management in the Islamic banks, suggesting more members sitting in SSBs could more effectively monitor managers and deter earning management. Consistent with traditional board literature, we find that outside board members are also important for deterring bank earnings management behaviors, indicating board independence is critical for effective monitoring of management. Interestingly, we find that if a bank's board has a member who is from Auditing Organization for Islamic Financial Intuitions (AAOIFI), the bank is less likely to manage earnings compared to banks without such professional members, suggesting the importance of professional accounting and auditing background of boards to monitor management.

Our study has several contributions to the existing literature. First, to our knowledge, this paper is the first one that compares earnings management behaviors between Islamic banks and conventional banks. Our findings suggest that religion does have an important impact on mangers' accounting decision making. Second, our paper focuses on the unique corporate governance structure of Islamic banks, SSB, and examines how different SSB structure impacts its effectiveness, and in turn, earnings management behaviors in the bank industry.

The rest of this paper is organized as follows: Section II discusses the related literature and develops our hypotheses. Section III presents our sample, measures, data sources, and reports descriptive statistics. Section IV provides empirical results. Section V summarizes our conclusions.

2. Related Literature and Hypothesis development

2.1 Literature and historical background

Cormier et al. (1998) and Stolowy and Breton (2000) have empirically investigated the proposition regarding managers' motivations of smoothing earnings management in unregulated industries. This theory suggests that managers manipulate earnings to either mitigating political costs, lowering financing costs and/or maximizing managers' wealth (self-serving) instead of maximizing the overall shareholders' wealth. Ma (1998) documents that regulated industry are more likely to manage their earnings to comply with sufficient levels of ratios such as return on equity return on assets, the capitalization rate of earnings and changes in the results, which investors, financial analysts, bankers and regulators use as measures to asses and the quality of management that proxies profitability. Consequently, such measures open a window for managers to engage in practices like smoothing earnings management. Since regulated industries are of importance to the financial stability of the economy, governments represented by regulators (central banks) monitor the use of earnings management to safeguard the economic stability and prevent any crisis that affect the national economy. To preserve and protect national and global economies, the regulatory capital requirement under the Basel Accord (1988) incentivized bank managers to manage their earnings and alter results to meet this minimum requirement, which is achievable through managing the biggest discretionary accruals in banks' expense account, the loan loss provisions (Kim et al., 1998 and Shrieves et al., 2003).

Prior empirical literature document the existence of earning management in regulated industries and that bank managers smooth their earnings management upward (downward) when the results are lower (higher) due to asymmetry information on risk default (Gonzalez 2008; Hasan and Wall 2004, Bhat 1996, Wahlen, 1994). Furthermore, empirical studies that specialize in Shari'ah compliant regulated industries, document the existence of income smoothing hypothesis. Income smoothing practices in IBs is documented by using a sample of 55 commercial banks and 10 IBs from the Gulf Cooperation Council region. A considerable return paid smoothing activity form the PLS investment accounts by using a

sample of 14 Islamic Banks in 8 countries (Zoubi and Al-Khazali 2007, Sundararajan 2005, Ismail and Be Lay 2005). Inconsistent with the latter, Ismail et al. (2002), argue that managers routinely employ earnings management for unscrupulous reasons and document that Shari'ah "discourage opportunistic behaviors," which prevent Muslim managers in IBs to practice earnings management in comparison to non-Muslim managers. Deploying a sample pertaining ten commercial banks that offer IBs windows from 1998 to 2001, they document that managers did not use loan loss provision to manage capital and earnings. Thus, our aim here is stated in the introduction that IBs are less likely to engage in smoothing earnings management due to the moral and ethical values that Shari'ah stress upon. Furthermore, IBs objectives are to serve owners and depositors of the bank and most importantly to socially and economically improve and support societies.

IBs objectives focus not only on the maximization of shareholders value, they are responsible to improve and assist in the socio-economic development of societies. As an attempt to forester the latter, the Mit Ghamr Savings and Loan bank (project)[1] was the first project to in the Middle East and North Africa to establish a bank that takes in to consideration the core values of Shari'ah, which are the corner stone of IBs (Shari'ah)[2] (Ready 1981). The second IB was a multi-governments Islamic Bank, which was established during the 1970s. The Islamic Development Bank (IDB)[3] is an international financial institution established in December 1973. The main objectives of the IDB is to offer loans that will help in the social and economic developments of the needy countries and to extend financial assistance to entrepreneurs that have the expertise in their fields but need the capital. Since the corner stone of the IBs are to help and assist in developing the socio-economic standards of societies and needy countries, IBs are by Shari'ah prohibited from charging and receiving interest on any business transactions and that what makes IBs distinct in nature. The financial assistance is based on the benevolent loan or in the term of either Mudarabah (limited ownership) that depends on Loss Sharing or Musharakah (Full partnership) that is based on the Profit and Loss Sharing (PLS).

2.2 Accounting standards

IBs offer two types of investment accounts, (1) a Restricted Investment Account (IAH) where the utilization of funds is specific to either a particular project, Mudarabah[4] or Musharakah[5] projects, which suits the depositors (investors) choice of investment activities and grants

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[1] The economist who pioneered establishing the Islamic Banking system was Dr. Ahmad Elnaggar who successfully engineered the Mit Ghamr Savings Bank in Egypt in 1963.

[2] Sharia is the Islamic law of human conduct, which regulates all matters of the lives of Muslims. It is based on the God's holy word in the Qur'an, the deeds and sayings of the prophet Mohammed, and the consensus of Islamic religious scholars.

[3] IDB function is to participate in equity capital and grant loans for productive projects and enterprises besides providing financial assistance to member countries in other forms for economic and social development. It fosters the socio-economic development of member and Muslim countries and communities with accordance to Shari'ah.

[4] "The term refers to a form of business contract in which one party brings capital and the other personal effort. The proportionate share in profit is determined by mutual agreement. However, the loss, if any, is borne only by the owner of the capital, in which case the entrepreneur gets nothing for his labor. The financier is known as 'rabal-maal' and the entrepreneur as 'Mudarib'. As a financing technique adopted by Islamic banks, it is a contract in which all the capital is provided by the Islamic bank while the other party manages the business. The profit is shared in pre-agreed ratios, and loss, if any, unless caused by negligence or violation of terms of the contract by the 'Mudarib' is borne by the Islamic bank and the bank passes on this loss to the depositors" (Institute of Islamic Banking and Insurance).

[5] "Musharakah is word of Arabic origin, which literally means sharing. In financial world or banking & finance industry, it means either a full partnership or a joint enterprise in which all the partners share the profit of a business or partnership according to predetermined profit sharing ratio while the loss is distributed in the ratio of contribution (capital)" (Institute of Islamic Banking and Insurance).

them voting rights towards the types of investments, however, denies any representation on the board. The distribution of investments income follows the pro-rata basis of the overall share of the investment. (2) An Unrestricted Investment Account (UIAH) utilizes funds in diverse projects (either Mudarabah or Musharakah) or investment activities and the investor receives percentage share of the investments income as with the IAH. Since the financial reporting rules set by the International Accounting Standards and the Generally Accepted Accounting Principles do not reliably reflect the true performance of IBs, because the standards of the financial reporting do not cover the spectrum of Islamic financial operations like the PLS that deals with the Mudarabah and Musharakah accounts. Thus, conventional accounting is unable to mitigate a number of problems that the Mudarabah accounts present, which are as follows: (1) conventional accounting deals with the entity theory, which considers liabilities as equities with different rights and legal standing in the business. The entity theory fails to account for Mudarabah holdings on a balance sheet because the depositor (investors) who contributes capital in return for a share of either the profit or the loss. Meaning, the IBs consider the depositor on its own balance sheets, but the enterprises, which receive the depositors' capital from the IBs, do not. Nevertheless, the depositor owns the ventures in which IBs have invested. (2) Mudarabah constitutes concerns for the conventional accounting because conventional accounting takes into consideration the separation of ownership from management in the corporate form (Berle & Means 1932; Maurer 1999). Inconsistent with the conventional accounting, managers in the Mudarabah accounts are the "agents" of the shareholders, and simultaneously are the "principals" of the corporation. (3) Income is another problem that the Mudarabah account constitutes to conventional accounting. Conventional accounting deploys different methods to calculate income, but must first determine the value of the entity's assets. One of which is based on the original purchase price adjusted for inflation, or even one based on projections of its value at some future liquidation date. Both the former and the latter introduce the possibility of engaging in receiving or charging an interest, which violates Shari'ah law. Thus, the establishment of the AAOIFI[6] in 1991 helped in filling the gap of the spectrum of Islamic financial operations that do not reflect the true performance of the IBs (Abdel Karim and Archer, 2002; Grais and Pellegrini, 2006a). Consequently, IBs deploy different accounting treatments for the IAH and UIAH that deal with the Mudarabah accounts. Some IBs employ these treatments as either equity or liabilities, while others may report them as an off-balance sheet item (Abdel Karim, 2001). The distinct nature of IB's Risk sharing and PLS, led AAOIFI to recommend the dynamic provisioning, which is a tool that enables IBs to anticipate the expected credit losses rather than the actual losses.

Mudarabah accounts are treated exactly like any other liability, and exactly like deposit accounts in a conventional bank. The problems that Mudarabah poses for conventional accounting are transformed into non-problems, the practices of Islamic accounting are identical to conventional accounting, and the distinction between the two seems to disappear.

2.3 Governance structure

2.3.1 SSBs and BODs Objectives and Interaction:

An interview with the Chairman of the largest IB in Kuwait and the second largest IB in the Middle East revealed crucial information on the interaction between the SSB and the BOD. This piece of information is vital in understanding the major role that SSB play within the IB. despite the fact that SSB roles should be identical throughout IBs, there are additional roles

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[6] The Accounting and Auditing Organization for Islamic Financial Institutions develops accounting and auditing thoughts relevant to Islamic financial institutions. The activities of the AAOIFI are a fundamental groundwork that underpins Islamic banking activities by keeping them away from individual, personal reasoning. The collective personal reasoning (ijtihad) of the AAOIFI is highly important in this vital aspect of Islamic economic life.

that SSBs in other IBs that do not apply. Based on the interview and following the Nicholson and Kiel (2004) model, we have included SSB within the said model. SSBs roles and duties overlap with the BOD, but from the religious and ethical perspectives. While the SSBs do share in the monitoring and control, access to resources, and advice and counsel roles with the BOD, they are not involved in the planning and strategizing roles; however, they do attend the BOD meetings to offer guidance and religious rulings. *First*, monitoring and controlling should be a priority because it measures the compliance of decision agents (Fama and Jensen, 1983). Thus, BODs delegates responsibilities and duties and then monitors the management behavior as a measure to ensure management's compliance in implementing and deploying the BOD's strategies. SSBs monitoring and controlling overlaps with the BOD but from the religious aspect and they delegate the BOD and the management the responsibility of executing the ex-ante approved products and services as well as ensuring compliance to their religious guidelines (Al-Mahmoud, 2007). *Secondly*, having access to all resources and information, SSB can justify its decision and relieve management from any responsibility in the religious ruling part. Since SSB is a reliable source that promotes the IBs and thus it helps in attracting more depositors and/or clients when they engage in like meetings with different members of the society and provides them with the socially responsible reports that the IBs established. The social welfare and economic developments are other elements that IBs are responsible for besides the profit maximization concept to the owners/shareholders of the IBs. *Thirdly*, the SSB provides advice and counsel to the external and internal environments in terms of educating them and explaining the virtuousness of religion and the importance of following such principles benefit societies.

Fourthly, the SSB is responsible to audit (ex-ante and ex-post) IBs transactions. Since SSB is committed to Islamic tenets and answers to a higher authority (divine role of Shari'ah), the higher authority offers SSB a full autonomy and independence in issuing Fatwas. SSB independence is important not only as a religious board but also as an independent religious and audit board that (1) monitors and controls, (2) advices and counsels and offers access to (3) resources. Although and as mentioned earlier that the BOD recommends the appointment of the SSB and the SSB members are employees of the IBS and are on their payroll, the SSB independence stems out of a higher authority that empowers the SSB in issuing unbiased Fatwas. Thus, the employees' relationship does not produce any significant doubts about the SSB independence and authority because Shari'ah empowers SSB fulfills the necessary audits and roles of IBs' compliance. Thus, the relation between the SSBs and IBs are greater than the external auditing firms and IBs.

2.3.2 Religion, Shari'ah supervisory board & Shari'ah apex

Shari'ah governance "entails the notion of protecting the interest and rights of all stakeholders within the Shari'ah rules"; this is of utmost importance (Hasan, 2008), which is an integral to providing the religious guidelines and provides rules to circumscribe managing the allocation of resources, production, consumption, capital market activity, and the distribution of income and wealth. Islamic philosophy represents a religious based system of business ethics. This system is characterized by the ethical and moral norm that is socially committed. Consequently, it acts as filtration system based on the Shari'ah teachings. The enrichment of the latter that provides additional support of complying with the teaching of Shari'ah and assist in spreading the Islamic ethical imperatives are the reason for the existence of the SSB. SSBs audit the behavior of IBs and assure conformity of Islamic ethics. Hence, banks that conform to and comply with Shari'ah should comply with full and creative accounting disclosure, legal form over substance and precept of social accountability. Thus, SSBs are the guardian angels of Shari'ah and it is of importance to understand their roles and functions in spreading Shari'ah at both firm and country levels. SSBs objectives and duties are to issue religious rulings on products and services (ex-ante and ex-post), monitor, and

control the Shari'ah aspects of the IBs products and services rendered to the clients. Based on the Countries Governance Law (CGL), this section employs a multi-theoretic perspective. On the one hand, Suleiman (1999) developed a model, to ensure the fulfillment of Shari'ah aspects and to avoid jeopardizing Shari'ah compliance. On the other hand, Shaffaii (2008) develops an alternative model, which is a centralized Shari'ah Apex, which resumes the SSB duties (Shaffaii, 2008). The embeddedness of SSBs within the governance structure provides higher religious CG in terms of issuing religious ruling, controlling, and monitoring, advising and counseling and auditing, which the Shari'ah Apex may be unable to provide a prompt services having to deal with multiple IBs within the same time. Therefore, it leads us to hypothesize

2.4 Hypotheses

H1: Earnings management is less likely for Islamic banks compared to non-Islamic banks, ceteris paribus.

Shaffaii (2008) explains that corporate governance in IBs is comprised of two vital components, which are "a Shari'ah apex Body as appointed by regulators and a Shari'ah Body as set up by a financial institution," which we refer to as SSB (Shaffaii, 2008). His model consists of (1) external regulatory system, (2) internal regulatory system and (3) and internal control system. Shaffaii (2008) defines the Shari'ah Apex Body as a body, which intends "to assist the Islamic financial industry in the interpretation of the Shari'ah issues" (Shaffaii, 2008). However, Shaffaii (2008) argues that when one of the governance structures is missing, either the Apex Body or the in-house SSB, negative effects accompany the governance infrastructure, which Shaffaii refers to as "a limping infrastructure" (Shaffaii, 2008). Our theory extends Shaffaii (2008) model to examine the case of countries like Iran, Pakistan, and Sudan that do not require the presence of SSB within IBs governance structure.

Since the current regulations in Iran, Pakistan and Sudan do not require the existence of an in-house SSB and since they rely only upon the Shari'ah-Apex to receive Fatwas on certain IBs products and/or services, approaching the Shari'ah-Apex and waiting for their religious ruling may negatively influence the performance of the IBs. The waiting time until the IBs receive the Fatwa may result in a lost opportunity for the IBs. In addition, IBs literature has neglected IBs that operate without an in-house SSB and the focus has always been on banks with in-house SSBs. In fact, circumstances in Iran, Pakistan, and Sudan were different where there has been more "inclusive regulation either to Islamise the entire domestic financial system as in Iran or to Islamise a range of financial instruments as in Pakistan and Sudan" (Wilson, 2000).

To reiterate, since IBs that operate in Iran, Pakistan and Sudan neglect embedding the SSB within the IBs CG due to the distinct nature of the countries they operate in, a major element is missing and may hinder IBs performance. Those IBs are, therefore, unable to benefit from the different roles and service the SSB provide like monitoring and controlling, advising and cancelling as well as providing access to resources. Furthermore, with the increasing interest in Islamic Banking Theory and its distinct nature of risk sharing and PLS, the impact of IBs without in-house SSB orientation is a very interesting area of research. Moreover, according to Shanmugam (2007) "The statutory corporate governance in … the Shari'ah (where the author refers to the SSB) governs the bank's operations and transactions in accordance with Islamic principles derived from the Quran and Hadith. It needs to be reiterated here that Shari'ah in Islamic banking has a crucial role not only in governing bank transactions and operations, but also in monitoring and supervising the roles of all players within the banking system." Therefore, it is of importance to investigate the embeddedness of SSBs within the governance structure of the IBs and to determine which model best describes the relationship

between the SSB and IBs performance and stock price synchronicity respectfully. We therefore anticipate that:

H2: Earnings management is lower for Islamic banks with the SSB board compared to Islamic banks without the board, ceteris paribus.

In examining SSB, we look at the effects on idiosyncratic risk and stock price synchronistic and due to the applicability of SSBs, that operates hand-in-hand with the BOD. Therefore, we shall extend the analysis of the SSB characteristics and the size by following the three different CG theories like (1) the Agency Theory (AGT), (2) the Steward Theory (STD), and (3) the Resource Based View Theory (RBV). Three governing concerns have directed debates of board demographics, such as board size, board composition, and board leadership structure. In AGT, board size is determined by the size of the firm. Meaning, when the firm size is large, the board size is expected to be large thus enabling proper control and monitoring capabilities (Fama, 1980). However, Yermack (1996) and James (1951) reported that the average board size to best enable proper interaction and decision making between either groups or top management and the board was around 6 to 8 members. Furthermore, Yermack (1996) findings show a negative relationship between the board size and firms value/performance. AGT posits that smaller BOD size is appropriate to minimize agency-monitoring costs and to ensure proper coordination and communication amongst board members. Both of the STD and RBV models suggest that larger boards are better.

 STD is inconsistent with the AGT because it provides an alternate view of governance that diverts from economic interpretation. The theory offers clear premises of acceptance to Stakeholder Theory, which is trust and inclusion. It also offers a clear-cut premise and support to Theory Y, which indicates that individuals do not place their interests above those of the organization. Therefore, firms with a management-dominated board tend to be most profitable (Donaldson et al., 1995; Donaldson, 1990). STD, therefore, is able to capture the smooth interaction between the board-management dynamics and the social exchanges inherent of the long-term personal relationships and confirms that larger board sizes are less prone to bankruptcy. In other words, the non-failed forms firms maintain larger boards than the failed firms.

RBV, on the other hand, relies on interpreting the board size as an opportunity a firm is able to capture when inviting or appointing outside directors. The appointment or the invitation of the outside director is based upon the strategic contingency of the firm. It helps with the formulation of the strategy that the firm is intending to pursue and its interaction with the external environment. Thus, installation of on outside director ensures the continued resources necessary for the survival of the firm. Furthermore, Dalton et al. (1999) found that larger boards motivate better environmental links and more expertise. The RBV perspective, on the other hand, reaffirms the importance of larger BOD size due to the extent to which it affects the firm's performance. In a seminal study, findings revealed that bigger boards might be constructive for some companies as they provide diversity that would help companies to secure critical resources and reduce environmental uncertainties (Pfeffer 1987; Pearce and Zahra 1992; Goodstein et al.1994). Two additional factors contribute to our hypothesis. First is the SSB's distinct nature and its role that complements the BOD and independent auditing firms. Second is the important of having capable members who are able to fulfill their role when the IBs are large. Thus we then hypothesize

H3: BOD Size correlates negatively with IBs Earnings management.

Extending the AGT theory of BOD size to the SSB size, AGT advocates, contend that large board size is expected in firms that are large in size (Fama, 1980). Hermalin et al. (2003) conducted a review of different empirical studies in board composition and firm performance

and concluded that that board size is negatively related to corporate performance. Jensen (1993), Yermack (1996) and Eisenberg, Sundgren, and Wells (1998) provide evidence that smaller boards are associated with higher firm value, as measured by Tobin's Q. The findings indicate that a large board adversely influences the board's effectiveness and is negatively correlated with firm performance. The justification is that directors in larger boards could become more hesitant to instigate changes because of unforeseen delays and disagreements (Hermalin et al., 2003), poor coordination (Yermack, 1996), and lack of motivation (Jensen, 1993).

Moreover, Lipton and Lorch (1992) and Jensen (1993) suggest that larger boards could be less effective than smaller boards because of coordination problems and the free riding of directors. Yermack (1996) and James (1951) reported that the ideal average board size to enable proper interaction and decision-making between top management and the board was around 6.5 to 8 members. Any number beyond the latter will have a negative effect and an inverted U shape relationship between the board size and the firm's value/performance (Yermack, 1996). In addition, as the size of the board increases, the board becomes diluted and less effective to the extent that it negatively affects the performance of the firm (James, 1951). Thus, larger board size may not allow efficient utilization of resources due to the difficulties in coordination that cause fraction and increase the conflict between the members of the board and the top management. Goodstein, Gautam, and Boeker (1994) further contend, "The nature and context of decisions considered by the board also exacerbates the potential group dynamics problems associated with large groups. Decisions that involve complex and ambiguous tasks are apt to be more unfavourably affected by large group dynamics"

Smaller BOD size is able to mitigate any deficiency in communication and is more responsive to the needs of the firm. This is the reason why AT scholars (Fama, 1980; Yermack, 1996; Goodstein et al., 1994; Jenson, 1993) recommend a relatively small BOD to reduce the monitoring duties costs. That would lead us to expect:

H4: SSB Size Correlates negatively with IBs Earnings management.

Moreover, AGT proponents, recommend a higher proportion of outside BOD members. It enables mitigating the Agency problem cost and avoids conflict of interest. RBV proponents share the same view, but for a different reason (improved network and interlocks effects that either the directors and the CEO or both have allowing for greater resources), but STD is inconsistent with both, being more firmly in support of boards consisting of greater proportions of insiders. According to Lorsch and MacIver (1989), the main advantage of inside directors lies within their broad knowledge of organization-specific information. To specify, on issues concerning internal difficulties and organizational strengths and weaknesses, inside directors' input may greatly improve decision-making. Thus, leads us to hypothesize that:

H5: Higher proportion of independent directors correlates negatively with IBs Earnings management.

The RBV theory is inconsistent with the STD and shares a similarity with the AGT. AGT advocates recommend that outside directors should be a majority on the BOD to monitor and control management's opportunistic behavior and to prevent any agency conflict/problem. However, the RBV proponents recommend that the BOD should be formed with a higher proportion of outside directors but for a different reason, which is the improved network and interlocks effects allowing for greater resources. The board composition as proposed by Pfeffer (1972, 1973) and Pfeffer and Salancik (1978) reflects firms' strategic contingencies in operations that are defined as a major variable, which constitute a fundamental role in

determining the effectiveness and survival of a company. Pfeffer and Salancik (1978) explained that contingency is conditioned by interdependence. The organizational outcomes are based on interdependencies that are characterized either as the causes or as the agents. It is important to distinguish between outcome interdependence and behavior interdependence. The former and the latter are themselves independent; they can occur jointly or separately (Peffer and Salancik, 1978). Since "interdependence is a consequence of the open-systems nature of organizations, or the fact that organizations must transact with elements of the environment in order to obtain the resources necessary for survival" (Pfeffer and Salancik, 1978). Consequently, part of the importance of the contingencies in operations is to find the appropriate directors.

Outside directors enable appropriate extraction of necessary external resources, which according to Peffer (1972, 1973) and Peffer and Slancik (1978), help in the survival of the firm. The selection criterion of a director is rigorous and of vital importance to the firm. The right candidate must possess proper networking credentials that assist the firm in extracting the necessary resources from the external environment. Another important element that the RBV stress is the necessity to select outside directors with interlocks capabilities. Furthermore, the broader inter-organizational network literature has largely examined the positive effects of inter-organizational ties (Zaheer and Bell, 2005). CEO networks constitute a valuable organizational resource. The networks create ties that reduce the uncertainty levels surrounding external resources (Pfeffer et al., 1978). Such ties provide firms with the necessary tools to secure critical resources, often on very favorable terms (D'Aveni, 1990; Mizruchi and Stearns, 1994).

Moreover, to bring greater access to strategic information, directors' networks and interlocks provide the necessary resources that could only be available to the firm through the executive ties (Pfeffer, 1991). Thus, executives are able to examine the broader environment for new trends and developments by participating in a directorate network (Useem, 1984), which is "a means of signaling managerial of organizational quality" (Spence, 1974). Research also indicates that director's networks and ties "aid in the attraction of potential strategic partners and new alliance opportunities" (Eisenhardt and Schoonhoven, 1996). In sum, executives' external networks convey numerous benefits of considerable strategic value. The RBV theory advocates contend that the BOD is a key link between the firms, as the external networks maximize resources and thus, the firm's performance (Pfeffer et al., 1978; Pfeffer, 1972, 1973; Zald, 1969). Linking firms to the external resources is necessary (Barney, 1991) and provides indispensable linkage between the firm and external resources (Wernerfelt, 1984). Interlocks between different firms are the means by which linkages with the external environment are achieved. Dooley (1969) was one of the first academicians in the USA to consider simple board interlocks.

The board's as well as the CEO's networks and interlocks reveal the importance of the inter-organizational networks. To be connected (interlocked) between organizations is when the board member is affiliated with one corporation and sits on the board of another corporation. Consequently, findings suggest that less solvent organizations are more likely to be interlocked with banks Dooley (1996), most often due to their having high debt-to-equity ratio (Pfeffer, 1972). It is also more likely for organizations with increased demand for capital to have a higher inclination to interlock their boards. Interlocked corporations are defined either as having outside directors or a CEO serving on multiple boards. This concept has emerged from the strategic contingency, the main concern of which is to harness the effectiveness of the board in extracting the necessary resources from networks of the outside directors or CEO to the firm. Therefore,

H6: CEO interlocks correlates negatively with IBs Earnings management.

Furthermore, expanding on the importance of the interlocks, the extensive research of Pennings (1980) in his book "Interlocking Directorates: Origins and Consequences of Connections Among Organizations' Boards of Directors", showed that new directors were invited to become members of the boards for their prestigious status within the community and their possible control of resources for the corporation's business. Thus, the main concern of the strategic contingency that is presented by the board interlock approach is to select a director who enhances and harnesses the ability of the firm to have consistent access to resources. These resources are in the forms of raw materials or the ability to raise funds and to mitigate any possible existing or future threats from the external environment. The underlying principle of the interlock theory is that the composition of the board constitutes resource inter-exchange and intra-exchange between the firm and its environment. Those are crucial for the organizational existence and effective financial performance (Pfeffer and Salancik, 1978). Thus, we would anticipate that:

H7: SSB interlocks correlates negatively with IBs Earnings management.

Auditing demographics (composition and size) act as a proxy to SSB and do influence the performance directions of the IBs. Larger audits firms "serves as a surrogate for audit quality" that influences audited firms' performance due to the notion that with a higher quality auditing, clients are well retained (DeAngelo, 1981b). Consequently, audited firms' credibility is associated with auditors' brand name or reputation (Dopuch and Simunic, 1980 and 1982).

Furthermore, a firm's ability to prevail quality through rigorous selection process of an external auditor is identical to the underwriter's selection process. Thus, through the repeated services rendered through the SSBs member is a cutting-edge in enhancing and preserving the SSB members' reputation. Consequently, leading different IBs represented by BOD nomination and recommendation, to hire their services and invite them to serve on the SSB board. Thus, following and extending Beatty and Ritter (1986) to SSB members, a repeated invitation for the SSB members to serve on different SSB boards, develop a reputation. An SSB member with a superior "reputation capital is able to earn a higher return" (Beatty and Ritter, 1986). In addition, once the SSB members' reputation is in effect, they work harder in order to preserve their reputation[7], which leads to a superior-quality Shari'ah governance and religious rulings (Fatwas), which in turn enhances the IBs performance.

Therefore, the Islamic International Financial Organizations (IIFO)[8] like the (1) Accounting and Auditing Organization for Islamic Financial Intuitions (AAOIFI), (2) International Financial Services Board (IFSB), and acquiring special credit rating from a specialized Islamic organization (3) the Islamic International Rating Agency (IIRA) improves the SSB quality and soundness and thus far improves the overall IBs' performance.

Focusing on the subscription to IIFO is detrimental to IBs and precisely to the in-house SSB since a unified or a pre-approved Fatwas are absent. The outcome of the absence of a unified Fatwas creates friction and may lead to confusion to both IBs' customers, staff, management, and the BOD. IBs that subscribe to one or more of the above-mentioned IIFO are or have been seeking to foster and improve the overall products and services compliance and thus the performance of the IBs. Once the IBs are members, the IIFO may either elect an individual member of the IBs from the BOD and/or the SSB to represent the IB in the said organization.

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[7] Carter and Manaster (1990) suggest that the desire of the underwriter companies to work harder to protect their reputation leads higher-quality underwriters to market low-risk IPOs. The same context applies to the SSB members.

[8] IIFO refers to official Islamic International Financial Organizations like (1) Accounting and Auditing Organizational for Islamic Financial Institutions (AAOIFI), (2) International Financial Services Board (IFSB), and (3) Islamic International Rating Agency (IIRA).

The selection of the individual depends upon the achievement and expertise this member can offer to the IIFO.

Thus, the elected members' roles, duties, and responsibilities are to help in the creation of knowledge whether it is (1) implicit, (2) explicit, and (3) tacit for the prosperity of the IBs. Thus, those IBs who become members in one or more IIFO are having more commitment towards complying with the principles set by Shari'ah. It also indicates that those banks are committed in resolving any issues that might create divergence in issuing Fatwas that might contradict with other school of thoughts (Jurisprudence schools).

AAOIFI provides the necessary expertise for accumulating knowledge whether it is implicit or explicit knowledge. Implicit knowledge accumulates when IBs staff and management accumulate the necessary expertise in executing the accounting and auditing services in compliance with Shari'ah. The explicit knowledge is another important aspect that cushions auditors in the process of conducting any auditing service. It is by explicitly explaining to the concerned party where the pitfalls are and how to over-come such pitfalls. Hence, AAOIFI fulfill the role of advising and counseling by being knowledgeable and SSB members who serve or sit on the AAOIFI SSB correlate positively to the IBs.

Furthermore, the IFSB is an important organization that enhances SSB soundness in standardizing Fatwas amongst the diverse jurisprudence schools. This is a step towards creating an international standard that helps regulatory and supervisory agencies to fine tune the soundness and stability of the Islamic financial services industry. It promotes the development of an intelligent and clear IB industry through the introduction of new, or adapting existing, international standards that is consistent with Shari'ah principles (IFSB, 2003) and hence leads to the creation of tacit knowledge accumulation. The establishment of the IIRA was a step to develop national and regional financial markets by evaluating relative credit or investment risks and, furnishing a risk appraisal profile of entities and instruments. When IBs obtain such credit rating means that, the BOD and the SSB are working hand-in-hand with harmony. Thus, we expect that:

H8: IBs who are members in the International Islamic financial organizations correlate negatively to Earnings management.

Moreover, as mentioned above, AAOIFI provides the necessary expertise to accumulate knowledge whether it is implicit or explicit. Implicit knowledge accumulates when IBs staff and management accumulate the necessary expertise in executing the accounting and auditing services in compliance with Shari'ah. The explicit knowledge is another important aspect that cushions auditors in the process of conducting any auditing service. It is by explicitly explaining to the concerned party where the pitfalls are and how to over-come such pitfalls. Hence, AAOIF fulfills the role of advising and counseling by being knowledgeable and SSB members who serve or sit on the AAOIFI SSB correlate positively to the IBs. Combining both the explicit and the implicit knowledge and expertise enable smooth and transparent symmetric information sharing amongst the internal and external environment and thus far, we would expect:

H9: SSB members that serve on one of the AAOFIF boards, negatively influence Earnings management.

3. Data

3.1. Sample Construction

The sample consists of IBs in 11 countries: Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Qatar, Saudi Arabia, Sudan, Turkey, and United Arab Emirates. We retrieve information of all IBs in these countries that are available in the BankScope database between 1994 and 2008. Table 1 reports the observation distribution by country. We see that Bahrain has the

highest number of observations (312) and Bangladesh has the lowest number of observations (64).

IBs and Commercial banks were matched according to size and geographic locations. The matched sample covers 82 Islamic Banks and 82 commercial (conventional) Banks from 11 countries: Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Qatar, Saudi Arabia, Sudan, Turkey, and United Arab Emirates. The sample covers 16 years from 1994 until 2008. In addition, the manual collection included the SSB and BOD characteristics including the size of each SSB outside directors, and leadership (CEO Dualiry) by searching relevant websites[9]. We obtained bank specialization, asset-liability, earning and expense, rating and country and risk rating information mainly from the BankScope database. The final sample consists of 164 banks, consisting of (2,624) bank-years of observation.

3.2. Measurement of earning management

In our empirical analysis, following prior studies, we employ two measures of earnings management. The first one is managing earnings for loss avoidance. Beatty et al. (2002) and Altamuro and Beatty (2010) find that bank managers have incentives to manage earnings for benchmark- beating behavior. Burgstahler and Dichev (1997) and Degeorge et al. (1999) provide empirical evidence that loss-avoidance is an important benchmark for managers. Following Kanagaretnam, Lim, and Lobo (2010), we define loss-,avoid as an indicator, which equals one if a bank has a small ROA (income before taxes scaled by total assets) in the interval between 0 and 0.01, and zero otherwise. [10]

The second measure that we use is abnormal loan loss provision, which is a widely used measure in the banking industry for earning management. Following Kanagaretnam, Lim, and Lobo (2010), we first estimate the normal or nondiscretionary component of LLP by regressing LLP on beginning loan loss allowance, Change in total loans outstanding, total loans outstanding, nonperforming loans, and controls for period and country effects using the following model:

$$LLP = \alpha + \beta_1 BEGLLA + \beta_2 CHANGE_{LOAN} + \beta_3 LOAN_{RATIO} + \beta_4 NPL + \beta_5 NPL_{DUMMY} + Country\ effects + Year\ effects + \varepsilon. \tag{1}$$

The residuals from Eq. (1) are the abnormal or discretionary component of LLP, referred to as ALLP, is the second measure of earning management.

3.3 Key variables

Islamic is a dummy variable that equals one if a bank is an Islamic bank, and zero otherwise. *SSB* is a dummy variable that equals 1 if SSB is within the governance structure of the IBs; it equals 0 otherwise. *SSB Size* is the total number of SSB members on the board. *SSB Interlock* is the ratio of the SSB members with interlocks to the overall number of the members serving on SSB. *AAOIFI* is a dummy variable that equals 1 if at least one SSB member is a member in the Auditing and Accounting Organization for Islamic Financial Institutions; it equals 0 otherwise. *IIFO* is a dummy variable that equals 1 if the IB is a member in any IIFO; it equals 0 otherwise.

3.4 Control variables

Following prior studies, we include several bank characteristics in the empirical analysis. Log Assets is the log of total assets at the end of the year. Growth is the growth in total assets from the beginning to the end of year t. Loan Ratio is the total loans scaled by total assets at the beginning of year t. Change Cash Flow is the change in total loans outstanding deflated

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[9] BankScope does not offer information on SSBs and BODs.

[10] The results are similar when we use 0.005 and 0.002 as the interval threshold.

by beginning total assets. Allow is the allowance for loan losses at the end of year t, scaled by total assets at beginning of year t. We also control for country effect and year effect.

4. Results

4.1 Summary statistics

Table 2 depicts the summary statistics, which are based on all 2,624 Bank-year observations. The mean (median) value of Loss avoid, which is an indicator variable taking the value one if the bank has a small ROA (income before taxes scaled by total assets) in the interval between 0 and 0.01 is 0.29 (0.00) and the mean (median) value for Appl is 0.01 (0.00). With respect to the bank characteristics, the mean (median) value of Log Assets is 7.00 (6.40). The mean (median) value of Growth is 0.13 (0.01), Loan Ratio is 0.47 (0.46), Change Cash Flow is 0.01 (0.00), Allow is 0.02 (0.01), Llp is 0.01 (0.00), Beglla is 0.02 (0.00), Change Loan is -0.06 (0), Npl is 0.02 (0.00), and the value of Dum Npl is 0.4 (0.00). With respect to SSB characteristics, we find that the SSB consists of 23% of the total sample and we find the average SSB size in our sample is 1.16 SSB members, with a minimum of (0.00) SSB members and a maximum of 9 SSB members. The mean (median) of the SSB Interlocks 0.02 (0.00) and it varies as a proportion across the sample from 0.00 to 0.33. About 8% of the SSB members are serving on the AAOIFI Shari'ah Board, and 26% of IBs have association with the IIFOs. BOD characteristics, we find the average BOD size in our sample is 4.77 directors, with 19% of outside directors, and 1% of CEO interlocks.

4.2 Empirical results

4.2.1. Earnings management to avoid earnings losses between IBs and non-IBs

Table 3 presents logit regression results on the effect of IBs on earnings management. The estimation for the logit regression is reported for the dependent variable Loss avoid, an indicator variable taking the value one if the bank has a small ROA (income before taxes scaled by total assets) in the interval between 0 and 0.01. Islamic is an indicator variable taking the value 1 if the IB is fully owned by an Islamic institution and 0 otherwise. Log Assets is the log of total assets at the end of the year. Growth is the growth in total assets from the beginning to the end of year t. Loan Ratio is the total loans scaled by total assets at the beginning of year t. Change Cash Flow is the change in total loans outstanding deflated by beginning total assets. Allow is the allowance for loan losses at the end of year t, scaled by total assets at beginning of year t.

The regression results in table 3, column 1 focuses on the effects of IBs on earnings management without controlling for country or year effects. The estimated coefficient of *Islamic* is -0.247and significant at the 1% level, indicating that a fully owned IB by an Islamic institution is less likely to manage earnings to avoid losses.[11] Column 2 indicates that when we add other explanatory variables like Log Assets, Growth, Loan Ratio, Change Cash Flow, and Allow, the estimated coefficient of *Islamic* dropped to -0.184, however it is still significant but at the 5% level. Column 3 includes the entire *Islamic* explanatory variable, including all the other independent variables in column 2, and we control for year and country effects. The coefficient of the *Islamic* dropped to -0.166, however, it is still significant, but at the 10% level, suggesting that IBs and specifically those owned by Islamic institutions is more critical in limiting earnings management. Hence, all the regression models in table 3 support hypothesis 1.

4.2.2. Abnormal loan loss provisions between IBs and non-IBs

Table 4 presents ordinary least square robust regression on the effect of Islamic bank on earnings management. We report the results for the dependent variable APPL, which is the abnormal loan loss provision calculated from equation 1. *Islamic* is an indicator variable

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[11] The Islamic bank dummy coefficient of -0.247 translates into a -0.05 marginal effect in the logit regression.

taking the value 1 if the IB is fully owned by an Islamic institution and 0 otherwise. *Log Assets* is the log of total assets at the end of the year. *Growth* is the growth in total assets from the beginning to the end of year t. *Loan Ratio* is the total loans scaled by total assets at the beginning of year t. *Change Cash Flow* is the change in total loans outstanding deflated by beginning total assets. *Allow* is the allowance for loan losses at the end of year t, scaled by total assets at beginning of year t. Heteroskedasticity robust t-statistics are in parentheses.

The regression results in table 4, column 1 focuses on the effects of IBs on earnings management without controlling for country or year effects. The estimated coefficient of *Islamic* is -0.003 and significant at the 1% level, indicating that a fully owned IB by an Islamic institution leads to less income-increasing earnings management. Column 2 indicates that when we add other explanatory variables like Log Assets, Growth, Loan Ratio, Change Cash Flow, and Allow, the estimated coefficient of *Islamic* is -0.002 and significant at the 1% level. Furthermore, column 3 includes the *Islamic* explanatory variable as well as all the other independent variables in column 2 and we control for year and country effects. The coefficient of the *Islamic* is -0.002 and significant at the 1% level, indicating and suggesting that Islamic Banks and specifically those owned by Islamic institutions are more decisive in constraining income-increasing earnings management by banks. Thus, it gives another support for hypothesis 1.

4.2.3. Earnings management between Islamic banks with and without SSB boards

Table 5 presents the regression results on the effect of SSB on earnings management. The dependent variables are Loss avoid and APPL in column 1 and 2, respectively. Loss avoid is an indicator variable taking the value one if the bank has a small ROA (income before taxes scaled by total assets) in the interval between 0 and 0.01. APPL is abnormal loan loss provision variable and it is calculated from equation 1. SSB is a dummy variable that equals 1 if SSB is within the governance structure of the IBs; it equals 0 otherwise. Log Assets is the log of total assets at the end of the year. Growth is the growth in total assets from the beginning to the end of year t. Loan Ratio is the total loans scaled by total assets at the beginning of year t. Change Cash Flow is the change in total loans outstanding deflated by beginning total assets. Allow is the allowance for loan losses at the end of year t, scaled by total assets at beginning of year t. Llp is the provisions for loan losses deflated by beginning total assets. Heteroskedasticity robust t-statistics or z-statistics are in parentheses.

The regression results in table 5, column 1 represents a logit regression that focuses on earnings management between Islamic banks with and without SSB boards. The regression controls for both country and year effects. The estimated coefficient of *SSB* is 0.057 is insignificant; it indicates that there is no difference between IBs with in-house SSB or without in-house SSB within the governance structure of IBs. Thus, there is no evidence supporting the effects of SSB on earnings management by using both the Loss avoid and APPL as dependent variables in column 1. Furthermore, column 2 represents an ordinary least square robust regression. The regression controls for both country and year effects. The estimated coefficient of *SSB* is -0.001 and insignificant. Despite the fact that the coefficient is insignificant, the direction is negative. Nevertheless, the evidence does not support that the effects of SSB on earnings management by using both the Loss avoid and APPL as dependent variables in column 2. Thus, there is no support for hypothesis 2.

4.2.4. The association between SSB and BOD characteristics and earnings management

Table 6 presents the regression results on the effect of SSBs and BODs characteristics on earnings management. The dependent variables are Loss avoid and APPL in column 1 and 2, respectively. SSB Size is the total number of SSB members on the board. SSB Interlock is the ratio of SSB members' interlocks to the total number of SSB members serving on each board.

IIFO is a dummy variable that equals 1 if the IB is a member in any IIFO; it equals 0 otherwise. Board Size is the total number of directors on the board. Outside Director is the ratio of outside directors to the total number of directors serving on each board. CEO Interlock is the ratio of CEOs to the total number of CEOs serving on each board. Board Interlock is the ratio of the Board members with interlocks to the number of directors serving on each board. AAOIFI is a dummy variable that equals 1 if at least one SSB member is a member in the AAOIFI; it equals 0 otherwise.

Table 6 employs two different regressions, logit column 1, and ordinary least square robust in column 2 respectively. The regression result in column 1 represents a logit regression that focuses on the effect of SSBs and BODs characteristics on earnings management. The estimated coefficient of *SSB Size* is -0.196 and significant at 5% level, indicating that a larger number of SSB members serving on the SSB leads to less income-increasing earnings management and is more decisive in limiting earnings management. Comparing the latter to column 2 that employs ordinary least square, the estimated coefficient of *SSB Size* is

-0.001. This is significant but at the 10% level, which supports our findings in column 1 that indicates larger numbers of SSB members serving on the SSB leads to less income-increasing earnings and is more crucial in limiting earnings management. Both columns provide support to hypothesis 4.

In addition to the importance of the SSB size, BOD size is another important factor that provides additional support to the SSB members in conducting and executing ex-ante and ex-post audit to ensure Ibs' compliance with Shari'ah teachings. The regression result in column 1 represents a logit regression that focuses on the effect of SSBs and BODs characteristics on earnings management. The estimated coefficient of *BOD Size* is -0.118 and significant at 1% level, indicating that a larger BOD members serving on the BOD leads to less income-increasing earnings management and is more crucial in limiting earnings management. This supports the notion that SSBs and BODs are important determinant for IBs and they do complement each other. They share responsibilities in monitoring and controlling, and advising and counseling. Thus, it provides support for hypothesis 3. Nevertheless, column 2 employs ordinary least square, the estimated coefficient of *BOD Size* is 0.01 and it is insignificant, which provides no support for hypothesis 3, which states that BOD with larger board members serving on the board leads to less income-increasing earnings and is more crucial in limiting earnings management. Thus, column 1 provides support and column 2 provides no support for hypothesis 3.

Interlocking is a proxy for board networks that provides additional support and opens a window of new opportunity to firms. The CEO Interlock is of importance to firms that corroborate within the same network and share resources and information to ensure firms' profitability and consistency. The regression result in column 1 represents a logit regression that focuses on the effect of SSBs and BODs characteristics on earnings management. The estimated coefficient of *CEO Interlock* is -16.290and significant at 1% level, indicating that IBs with interlocked capability of CEOs is critical for Ibs; it leads to less income-increasing earnings management and is more crucial in limiting earnings management. The latter provides support for hypothesis 6. Employing the ordinary least square, column 2 provides no support for the logit model. The estimated coefficient of *CEO Interlocks* is -0.014; it is insignificant, but the direction is negative, which provides no support the logit model or for hypothesis 6. Thus, column 1 provides support and column 2 provides no support for hypothesis 6.

Furthermore, the estimated coefficient of *SSB Interlocks* is 1.23; this is insignificant and indicates that interlocking members serving on the SSB do not lead to less income-increasing earnings management or are more decisive in limiting earnings management. Comparing the

latter to column 2 that employs ordinary least square, the estimated coefficient of *SSB Interlocks* is 0.012 and it is insignificant, which does not provide any support that interlocked SSB members serving on the SSB leads to less income-increasing earnings or are decisive in limiting earnings management. Both columns provide no support to hypothesis 7.

Moreover, the estimated coefficient of *IIFO* is 1.047 and significant at the 1% level, indicating that IBs with memberships in one or more international Islamic Financial organizations leads income-increasing earnings management or are more central to earnings management. Firm network is important in ensuring consistent resources to the firm, however it could have some sort of spill over in terms of earnings management (smoothing) once a firm becomes a member in a network. Firm network contagion effects are not due to reverse causality, endogenous matching of firm characteristics or common industry shocks, but are weakened by endogenous matching of firm characteristics. Comparing the latter to column 2 that employs ordinary least square, the estimated coefficient of *IIFO* is -0.002 and it is insignificant, which does not provide any support that firm networks lead to less income-increasing earnings or are more critical in limiting earnings management. Hence, both models fail to support hypothesis 8.

The AAOIFI is a proxy to auditors' quality and reputation of the SSB. The estimated coefficient of the *AAOIFI* is -37.365 and is significant at 1% level, indicating that higher audit quality is associated with preserving reputation. This estimated coefficient of the AAOFI supports the argument that higher reputation auditors (SSB) members constrain banks from smoothing earnings, leading to less income-increasing earnings and is decisive in limiting earnings management. Comparing the latter to column 2 that employs ordinary least square, the estimated coefficient of *AAOIFI* is -0.032 and significant at the 1% level, which supports the findings in column 1. It indicates that with higher reputation auditors, (SSB) members constrain banks from smoothing earnings, leading to less income-increasing earnings and is essential in limiting earnings management. Consequently, findings in both columns support hypothesis 9.

Outside directors are important determinant of the BOD, especially with the service they render to the firm and the BOD respectively. Thus, they influence a wide range of board decisions especially in the monitoring and controlling, advising and counseling, forming strategies and providing resources to the firm. Thus, they provide additional and genuine support to the SSB in conducting their ex-ante and ex-post audit to conform compliance with Shari'ah. Table 6 employs two different regressions, logit column 1, and ordinary least square robust in column 2 respectively. The regression result in column 1 represents a logit regression that focuses on the effect of SSBs and BODs characteristics on earnings management. The estimated coefficient of *Outside Director* is -2.910 and significant at the 1% level, indicating that a board with a higher proportion of outside directors serving on the BOD leads to less income-increasing earnings management and is more decisive in limiting earnings management. Comparing the latter to column 2 that employs ordinary least square, the estimated coefficient of *Outside Director* is -0.005 and significant at the 1% level, which provides support to the logit model and indicates that a BOD with a higher proportion of outside directors leads to less income-increasing earnings and is more critical in limiting earnings management. Both columns provide support to hypothesis 5.

5. Conclusion

In this paper, we examine whether IBs employ less earnings management, whether the existence of the SSB within the IBs' governance can further reduce IBs' earnings management behaviors, and how different SSBs characteristics affect IBs' earnings management behaviors. We find first, Islamic Banks are less likely to conduct earnings management compared to non-Islamic banks. Second, there is no difference between Islamic

Banks with and without SSBs in terms of earnings management. Third, several SSB characteristics, such as size, and board characteristics, such as board independence, are important determinants of the earnings management for Islamic Banks with SSBs.

Our paper is the first one that compares earnings management behaviors between Islamic banks and conventional banks with an international perspective. Our findings suggest that religion does have an important impact on mangers' accounting decision making. In addition, our results also suggest that having a SSB is not enough for effective monitoring, instead, to deter earnings management behavior in the Islamic banks, SSB with right structure and right people is needed.

Currently, the US government is trying to enact the stricter regulations to supervise banks after the global financial crisis. Given the recent, heighted concern with the quality of banks' reported earnings following the meltdown in this sector, a study of the effect of the unique governance features of IBs on earnings management in the banking industry is of considerable interest to regulators and investors.

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Table 1: Sample Country Distribution

Country name	Freq.	Percent
Bahrain	480	25.30
Egypt	176	6.71
Iran	160	6.1
Jordan	144	5.49
Ksa	144	5.49
Kuwait	416	15.85
Lebanon	176	6.71
Qatar	96	3.66
Sudan	192	7.32
Turkey	192	7.32
UAE	256	9.76
Total	2,624	100

Table 2: Summary Statistics

Variable	n	Mean	S.D.	0.25	Median	0.75
Earnings management measures						
Loss Avoid (dummy)	2624	0.29	0.45	0	0	1
Appl	2624	0.01	0.01	0	0	0.01
Bank Characteristics						
Log Assets	2624	7	2.6	5.4	6.4	7.95
Growth	2624	0.13	0.4	0	0.01	0.18
Loan Ratio	2624	0.47	0.37	0.18	0.46	0.66
Change-Cash-Flow	2624	0.01	0.03	0	0	0.01
Allow	2624	0.02	0.04	0	0.01	0.03
Llp	2624	0.01	0.01	0	0	0.01
Beglla	2624	0.02	0.03	0	0	0.02
Change Loan	2624	-0.06	0.20	-0.08	0	0
Npl	2624	0.02	0.05	0	0	0.02
Dum Npl	2624	0.4	0.49	0	0	1
SSB & BOD Board Characteristics						
Islamic	2624	0.5	0.5	0	0.5	1
SSB	2624	0.23	0.42	0	0	0
SSB Size	2624	1.16	2.3	0	0	0
SSB Interlocks	2624	0.02	0.05	0	0	0
IIFO	2624	0.26	0.44	0	0	1
BOD Size	2624	4.77	7.25	0	1.5	9
AAOIFI	2624	0.08	0.27	0	0	0
Outside Director	2624	0.19	0.35	0	0	0.09
CEO Interlock	2624	0.01	0.04	0	0	0

This table presents descriptive statistics for the data employed in our analysis. The data set is comprised of 2624 observations for the period 1994-2008.firm-year full sample. *Loss_avoid* is an indicator variable taking the value one if the bank has a small ROA (income before taxes scaled by total assets) in the interval between 0 and 0.01. *APPL* is abnormal loan loss provision variable and it is calculated from equation 1. *Log Assets* is the log of total assets at the end of the year. *Growth* is the growth in total assets from the beginning to the end of year t. *Loan Ratio* is the total loans scaled by total assets at the beginning of year t. *Change-Cash-Flow* is the change in total loans outstanding deflated by beginning total assets. *Allow* is the allowance for loan losses at the end of year t, scaled by total assets at beginning of year t. *Llp* is the provisions for loan losses deflated by beginning total assets. *Beglla* is the beginning loan loss allowance deflated by beginning total assets. *Change Loan* is the change in total loans outstanding deflated by beginning total assets. *Npl* is the nonperforming loans deflated by beginning total assets. *Dum_Npl* is the an indicator variable that equals one if the value for NPL is missing, zero otherwise. Islamic is a dummy variable that equals 1, otherwise 0. *SSB* is a dummy variable that equals 1 if SSB is within the governance structure of the IBs; it equals 0 otherwise. *SSB Size* is the total number of SSB member on the board. *SSB Interlock* is the ratio of SSB members interlocks to the total number of SSB members serving on each board. *IIFO* is a dummy variable that equals 1 if the IB is a member in any IIFO; it equals 0 otherwise. *Board Size* is the total number of directors on the board. *Outside Director* is the ratio of outside director to the total number of director serving on each board. *CEO Interlock* is the ratio of CEO directors to the total number of director serving on each board. *AAOIFI* is a dummy variable that equals 1 if at least one SSB member is a member in the AAOIFI; it equals 0 otherwise.

Table 3: Earnings Management to Avoid Earnings Losses between Islamic Banks and non-Islamic Banks

	(1)	(2)	(3)
Islamic	-0.247***	-0.184**	-0.166*
	[2.85]	[2.05]	[1.67]
Log assets		0.043**	0.051**
		[2.58]	[2.33]
Growth		0.247	0.219
		[1.63]	[1.39]
Loan Ratio		-0.302*	-0.185
		[1.91]	[1.02]
Change-Cash-Flow		-13.848***	-13.208***
		[5.70]	[5.40]
Allow		1.008	1.285
		[0.96]	[1.19]
Control for			
Country and year effect	No	No	Yes
Observations	2624	2624	2624
Model Chi-Square	8.15	57.61	160.85
Log likelihood	-1564.21	-1539.48	-1487.86
Pseudo R2	0.01	0.02	0.05

The table presents the regression results on the effect of Islamic bank on earnings management. The dependent variable is *Loss avoid*, and it is an indicator variable taking the value one if the bank has a small ROA (income before taxes scaled by total assets) in the interval between 0 and 0.01. *Islamic* is an indicator variable taking the value 1 if the IB is fully owned by an Islamic institution and 0 otherwise. *Log Assets* is the log of total assets at the end of the year. *Growth* is the growth in total assets from the beginning to the end of year t. *Loan Ratio* is the total loans scaled by total assets at the beginning of year t. *Change-Cash-Flow* is the change in total loans outstanding deflated by beginning total assets. *Allow* is the allowance for loan losses at the end of year t, scaled by total assets at beginning of year t. Z-statistics are in parentheses. Significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively.

Table 4: Abnormal Loan Loss Provisions between Islamic Banks and non-Islamic Banks

	(1)	(2)	(3)
Islamic	-0.003***	-0.002***	-0.002***
	[5.63]	[3.70]	[3.61]
Log assets		0.001*	0.000
		[1.70]	[0.01]
Growth		0.004***	0.004***
		[5.07]	[4.50]
Loan Ratio		-0.003***	-0.001
		[3.77]	[1.26]
Change-Cash-Flow		-0.072***	-0.076***
		[6.76]	[7.36]
Allow		0.047***	0.050***
		[8.17]	[8.95]
Control For			
Country and Year Effect	No	No	Yes
Observations	2624	2624	2624
Adjusted R-Squared	0.01	0.06	0.12

The table presents the regression results on the effect of Islamic bank on earnings management. The dependent variable is APPL, which is abnormal loan loss provision calculated from equation 1. *Islamic* is an indicator variable taking the value 1 if the IB is fully owned by an Islamic institution and 0 otherwise. *Log Assets* is the log of total assets at the end of the year. *Growth* is the growth in total assets from the beginning to the end of year t. *Loan Ratio* is the total loans scaled by total assets at the beginning of year t. *Change-Cash-Flow* is the change in total loans outstanding deflated by beginning total assets. *Allow* is the allowance for loan losses at the end of year t, scaled by total assets at beginning of year t. Heteroskedasticity robust t-statistics are in parentheses. Significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively.

Table 5: Earnings Management between Islamic Banks with and without SSB

	(1) Logit	(2) OLS
SSB	0.057	-0.001
	[0.36]	[1.26]
Log assets	0.267***	0.001***
	[3.99]	[5.41]
Growth	-0.364	0.003***
	[1.05]	[2.59]
Loan Ratio	0.862***	0.001
	[2.90]	[1.34]
Change Cash Flow	-25.963***	-0.047***
	[4.70]	[3.59]
Allow	-5.079	-0.01
	[1.61]	[1.23]
Control For		
Country and Year Effect	Yes	Yes
Observations	1312	1312
Model chi-square	290.15	
Log likelihood	-606.65	
Pseudo R2	0.19	
Adjusted R-squared		0.21

The table presents the regression results on the effect of SSB on earnings management. The dependent variables are Loss avoid and APPL in column 1 and 2, respectively. *Loss avoid* is an indicator variable taking the value one if the bank has a small ROA (income before taxes scaled by total assets) in the interval between 0 and 0.01. *APPL* is abnormal loan loss provision variable and it is calculated from equation 1. *SSB* is a dummy variable that equals 1 if SSB is within the governance structure of the IBs; it equals 0 otherwise. *Log Assets* is the log of total assets at the end of the year. *Growth* is the growth in total assets from the beginning to the end of year t. *Loan Ratio* is the total loans scaled by total assets at the beginning of year t. *Change Cash Flow* is the change in total loans outstanding deflated by beginning total assets. *Allow* is the allowance for loan losses at the end of year t, scaled by total assets at beginning of year t. *Llp* is the provisions for loan losses deflated by beginning total assets. Heteroskedasticity robust t-statistics or z-statistics are in parentheses. Significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively.

Table 6: The Association between SSB and BOD Characteristics and Earnings Management

	(1)	(2)
	Logit	OLS
SSB Size	-0.196*	-0.001**
	[1.85]	[2.35]
SSB Interlocks	1.236	0.012
	[0.45]	[1.56]
IIFO	1.047***	-0.002
	[2.65]	[1.25]
AAOIFI	-37.365***	-0.032***
	[3.39]	[2.76]
Board Size	-0.118***	0.01
	[4.88]	[0.50]
Outside Director	-2.910***	-0.005***
	[5.03]	[3.66]
CEO Interlocks	-16.290***	-0.014
	[3.33]	[0.85]
Log assets	1.688***	0.003***
	[6.59]	[5.80]
Growth	-0.932	0.005***
	[1.46]	[3.20]
Loan Ratio	1.956***	0.001
	[2.76]	[0.72]
Change Cash Flow	-40.264***	-0.017
	[3.30]	[0.85]
Allow	-15.145	-0.087**
	[1.20]	[2.53]
Control For		
Country and Year Effect	Yes	Yes
Observations	576	608
Model chi-square	185.24	
Log likelihood	-209.59	
Pseudo R2	0.40	
Adjusted R-squared		0.43

The table presents the regression results on the effect of SSBs and BODs characteristics on earnings management. The dependent variables are Loss avoid and APPL in column 1 and 2, respectively. SSB is a dummy variable that equals 1 if SSB is within the governance structure of the IBs; it equals 0 otherwise. SSB Size is the total number of SSB member on the board. SSB Interlock is the ratio of SSB members' interlocks to the total number of SSB members serving on each board. IIFO is a dummy variable that equals 1 if the IB is a member in any IIFO; it equals 0 otherwise. Board Size is the total number of directors on the board. Outside Director is the ratio of outside director to the total number of director serving on each board. CEO Interlock is the ratio of CEOs to the total number of CEOs serving on each board. Board Interlock is the ratio of the Board members with interlocks to the number of directors serving on each board. AAOIFI is a dummy variable that equals 1 if at least one SSB member is a member in the AAOIFI; it equals 0 otherwise. Heteroskedasticity robust t-statistics or z-statistics are in parentheses. Significance at the 10%, 5%, and 1% levels is indicated by *, **, and ***, respectively.

Appendix

Variable	Definition
Loss Avoid (dummy)	An indicator variable taking the value one if the bank has a small ROA (income before taxes scaled by total assets) in the interval between 0 and 0.01
Log Assets	Log of total assets at the end of the year
Growth	The growth in total assets from the beginning to the end of year t
Loan Ratio	Total loans scaled by total assets at the beginning of year t
Change Cash Flow	Change in cash flows (income before taxes and loan loss provisions) from the beginning to the end of year t scaled by total assets at the beginning of year t
Allow	Allowance for loan losses at the end of year t, scaled by total assets at beginning of year t
Llp	Provisions for loan losses deflated by beginning total assets
Beglla	Beginning loan loss allowance deflated by beginning total assets
Change Loan	Change in total loans outstanding deflated by beginning total assets
Npl	Nonperforming loans deflated by beginning total assets
Dum Npl	An indicator variable that equals one if the value for NPL is missing, zero otherwise
Islamic	The Islamic Bank is fully owned by an Islamic institution
SSB	Shari'ah Supervisory Board
SSB Size	The size of the Shari'ah Supervisory Board
SSB Interlocks	The ratio of SSB members interlocks to the total number of SSB members serving on each board.
IIFO	A dummy variable that equals 1 if the IB is a member in any IIFO; it equals 0 otherwise.
Board Size	The total number of directors on the board
Outside Director	The ratio of outside director to the total number of director serving on each board.
CEO Interlock	The ratio of CEO directors to the total number of director serving on each board
AAOIFI	A dummy variable that equals 1, if at least one SSB member is a member in the AAOIFI, it equals 0 otherwise