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Earnings management and internal governance mechanisms: The role of religiosity

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ABSTRACT

Motivated by the managers' social norms and religious orientations, this study offers new avenues for investigating the effect of internal governance in curbing earnings management. We comparatively assess whether internal governance mechanisms (i.e., boards of directors and audit committees) employed by Islamic and conventional banks could differentially mitigate earnings management. We take a step further to assess this association under the extended governance mechanism (i.e. Shari'ah supervisory board) employed by Islamic banks. For a global sample of 14 countries operating on a dual banking system between the years 2007–2015, we find that, on average, having effective boards and audit committees enhance the quality of financial reporting in banking industry. Conditional on bank type, we find that large and independent board of directors (and audit committees) are negatively associated with earnings management for Islamic and conventional banks. There are no structural differences across the two bank types for the effectiveness of these traditional governance mechanisms. We also find that Shari'ah supervisory board (i.e., non-traditional governance) can significantly reduce earnings management. This finding is more evident when this board is large; its members have financial expertise and serve on multiple banks' boards. Our results provide important implications for regulators governing dual banking systems by highlighting the explicit role of religiosity on managerial opportunism and the impact of double governance in promoting high financial reporting quality for global banking.

1. Introduction

The quality of financial reporting has long been discussed as having broader moral and ethical implications on various stakeholders (Du et al. 2015; Kanagaretnam et al., 2015; Lai et al., 2016; Vladu et al., 2017). Corporate scandals (e.g., Enron and WorldCom) have raised serious concerns about the credibility of financial statements over the last decade. Organisations enjoy legitimacy as they show that their activities are congruent with wide societal acceptations. Managers might be motivated in some situations to show that their firms adhere to the prevailing systems of acceptable norms, beliefs and cultural values to confer legitimacy upon their organisations

Abbreviations: LLP, Loan loss provisions; RSGL, Realized security gains and losses; IBs, Islamic banks; CBs, Conventional banks; SSB, Shari'ah supervisory board.

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(Wijayana and Gray, 2018). A weak system of governance is likely to offer managerial incentives to opportunistically manipulate reported earnings. Earnings management[1] has been documented as one of the most critical questionable practices, which have substantial detrimental societal and economic consequences (Dechow et al., 1996; Klein, 2002; Leuz et al., 2003). Earnings management emerge within the presence of several motives (e.g. stock market incentives, compensation contracts incentives, debt contracts incentives, political incentives). Consequently, financial reporting quality is substantially lower as investors receive inaccurate information about the actual financial performance of the entities. This could cause adverse selection problems and moral hazards (Jiraporn et al., 2008; Chen et al., 2010).

Regulators in stock markets emphasise the role of different corporate governance mechanisms. To limit manipulative earnings management practices and protect shareholders' interests, various internal governance mechanisms (e.g., the board of directors and the audit committee) and external governance mechanisms (e.g., auditing and regulation) should be employed by organisations (Fama and Jensen, 1983; Demsetz and Lehn 1985). Extant literature (e.g. Xie et al., 2003; Iatridis and Kadorinis, 2009; Salem et al., 2021) document that effective governance and high disclosure quality should limit managerial opportunism. For example, an effective board of directors can monitor top management on behalf of shareholders to reduce information asymmetry between managers and shareholders and lessen agency costs. From one perspective, prior empirical evidence on governance and earnings management often excludes financial institutions given their unique institutional and regulatory environments (see Jo and Kim, 2007; Zalata et al., 2018). The banking industry forms a necessary pillar for global economic and financial stability given their intermediation and financing roles which constantly remains under heightened regulatory and market scrutiny (Talavera et al., 2018). While banks contribute to their communities' social and developmental activities, some banks have been marked with opacity and ethically questionable financial practices and fraudulent financial reporting (Grougiou et al., 2014)[2] . The complexity and diversity of banking financial instruments and transactions lead to substantial information asymmetries. From another perspective, there is a lack of empirical studies in the literature examining the role of bank type (i.e., Islamic versus conventional banks)[3] on corporate governance-earnings management nexus (e.g., Kanagaretnam et al., 2010, 2015, Talavera et al., 2018). Prior literature has also failed to investigate the role of religiosity in mediating the association between effective governance and earnings management. This effect could be pervasive for specific banking systems like Islamic banks, marked by religious business practices and complex internal governance mechanisms, compared to their conventional counterparts. Therefore, research on the governance and earnings management within religious establishments (e.g., Islamic banking) has become prolific. A few studies have found that Judo-Christian religious norms affect earnings quality (Callen et al., 2011; Du et al. 2015; Kanagaretnam et al., 2015); financial reporting irregularities (Dyreng et al., 2012; McGuire et al., 2012); stock returns and volatility (Al-Khazali et al., 2017); corporate decision-making (Hilary and Hui, 2009); and corruption (Mensah, 2014).

Studying the Islamic banking business model compared to the conventional banking model offers a unique setting for identifying the role of ethical business orientations and the effect of additional monitoring mechanisms on restraining earnings management. This banking sector has been proliferating over the past decade for various reasons associated with the collapse of global banking during the 2008′s financial crisis, investors' perceptions of the sector's ethical practices and the stability of the Islamic banking model as compared to conventional banking (see Trinh et al., 2020).

Islamic banks are distinguished from conventional banks by several characteristics in their business models. The operations of the Islamic banking industry are principally driven by a constrained banking practice, which inherits both religious orientations and moral accountability values alongside legal responsibilities (Abdelsalam et al., 2020).

Furthermore, governance in Islamic banking is more complex and extended than that in conventional banking. Besides the traditional governance mechanisms used in conventional banks (i.e., board of directors and audit committees), Islamic banks operate on an additional (i.e., non-traditional) governance structure, with the existence of Shari'ah supervisory board (SSB). This internal (extra) layer of governance represents scholars in Islamic legitimacy who monitor the banks' activities and funding decisions[4] .

Moreover, the principal-agent relationships in Islamic banks are complex compared to their conventional counterparts (Elnahass et al., 2020a; Abdelsalam et al., 2021). Depositors in Islamic banks, i.e., Investment account holders (IAHs), have no right to intervene in their funds' financial and operational management. They rely on the bank's board of directors to monitor the management on their behalf. Therefore, Islamic banks' managers have opportunities to pursue personal benefits at the expense of IAHs and engage in earning management practices (Safieddine, 2009).

This study investigates the roles of internal governance mechanisms in mitigating earnings management practices among Islamic and conventional banks. These mechanisms are represented by: (1) the board of directors; (2) the audit committees; and (3) the extra

[1] Earnings management can be defined as the deliberate alteration of a firm's reported financial performance by managers to mislead stakeholders or influence contractual outcomes (Healy and Wahlen, 1999).

[2] For example, Lehman Brothers and Bear Stearns cases highlight the severe repercussions of banks' activities on their communities and market participants.

[3] We refer to Islamic banks as those banks that follow Islamic Shari'ah principles in their business transactions. These banks operate on a banking model which prohibits usury, excessive uncertainty and speculation while encourages risk and profit-sharing between the bank and its depositors. Conventional banks refer to traditional commercial banks which operate on an interest basis (Elnahass et al., 2018).

[4] This board acts as a monitoring mechanism to carry out an independent audit and issue a separate report as part of the bank's financial statements. SSB members may also have to review additional information and reports, such as operating and financial reports and policies (Abdul Rahman and Bukair, 2013). This board is appointed during the annual general assembly, and its members are likely to be recommended by the board of directors and approved by the shareholders.

governance mechanism (i.e., SSB) in Islamic banks. Given the constrained business model and the additional governance layer adopted by Islamic banks, our premise is that earnings management is likely lower in Islamic banks than in conventional banks. This prediction is also in line with prior evidence (Elnahass et al., 2014, 2018; Abdelsalam et al., 2016, 2020; Lassoued et al., 2018; Salem et al., 2021), showing that Islamic banks engage in a higher financial reporting quality and lower managerial opportunism as compared to their conventional counterparts. That premise is also consistent with prior literature, which documents that religious orientation and robust institutional environments ultimately shape corporate behaviour and mitigate aggressive earnings management (Dyreng et al., 2012; McGuire et al., 2012; Kanagaretnam et al., 2015; Abdelsalam et al., 2021). Moreover, Islamic banks commonly act under a predominant set of social norms.[5]

Our study employs a global banking sample representing 679 bank-year observations of listed conventional and Islamic banks located in 14 countries that operate on a dual banking system. The empirical setting uses several alternative models to measure earnings management across the two bank types, including (i) loss avoidance, (ii) loan loss provisions and realised security gains and losses, and (iii) discretionary accruals. We examine the size and independence of both the board and audit committees for the traditional governance mechanisms. We extend our analyses to identify the effect of the non-traditional mechanism by examining within the Islamic banking sub-sample SSB size, financial expertise, and multiple directorships.

Our results show strong evidence that internal governance mechanisms play a catalytic role in restricting earnings management for the whole sample of banks. In particular, we find that having both large and independent board of directors and audit committees can significantly reduce earnings management practices within the two bank types. These findings suggest that despite institutional differences across the two bank types, no significant differences exist between conventional and Islamic banks for the effectiveness of traditional governance in limiting earnings management. Such findings remain consistent across several model specifications and sensitivities including market microstructure factors (e.g. volatility and bank size). By examining the incremental impact of the SSB (i.e., jointly with the presence of the board of directors and audit committees in Islamic banks), we show that the SSB significantly mitigates earnings management practices in Islamic banks. This association is observed when SSB is large in size and includes financially qualified Shari'ah scholars. The analyses also report that Shari'ah scholars employed across many Islamic banks. These findings imply that multiple directorships in Islamic banks can reduce managerial opportunism for their banks.

Our findings contribute to the broad strands of literature on earnings management and corporate governance. First, to our knowledge, this is the first empirical study to identify the combined effects of traditional and non-traditional governance mechanisms on limiting earnings management in the banking sector. We provide international evidence while recognising the effect of bank type. Accordingly, our findings extend prior studies in conventional banking (e.g. Kanagaretnam et al., 2010, 2015; Leventis and Dimitropoulos, 2012; John et al., 2016). Second, none of the prior literature has investigated the systematic effect(s) of additional monitoring within the context of earnings management. Previous studies have mainly examined the individual effect of SSB on bank risk-taking, performance and social reporting (e.g., Farook et al., 2011; Abdul Rahman and Bukair, 2013; Almutairi and Quttainah, 2017). These studies have not assessed the cumulative effect of traditional governance mechanisms within both Islamic and conventional banks. As such, our research is among early attempts in the comparative literature of Islamic versus conventional banking. By applying Islamic banks' case, this study highlights the impact of religious norms and the influence of religiosity on mediating the predicted relationship between internal governance and earnings management for dual banking systems. Hence, our findings provide strong evidence from the Islamic Code of religion to offer new insights to the established literature identifying the role of religion on corporate choices (Menash, 2014; Chen et al., 2016; Abdelsalam et al., 2021).

This study provides important implications for policymakers and various set of stakeholders engaging with global banking sectors. We highlight the importance of effective monitoring in enhancing financial reporting quality for countries operating on a dual banking system. Banking regulators and auditors should consider the combined effect of different layers of internal governance on mitigating accounting opportunism in both sectors. Although prior studies provide strong evidence that Islamic banks are less likely to engage with earnings management practices when compared to conventional banks. The absence of variations in results for traditional mechanisms among the two bank types implies that these mechanisms tend not to be the sole and ultimate reason for the prior established evidence on higher financial reporting quality in Islamic banking than conventional banking. Our findings suggest that double governance through SSB incrementally and significantly contributes to the enhancement of the financial reporting quality for Islamic banks. Therefore, policymakers and regulators can use the evidence presented in this study to establish double governance mechanisms within dual banking systems to unify/monitor financial operations and promote high earnings quality. The overall results substantiate the influence of social norms on core economic matters with important ramifications for financial reporting framework and effective governance systems.

The remainder of the paper is organised as follows. Section 2 presents the theoretical background and reviews the related literature. Section 3 develops the research hypotheses. Section 4 describes the data selection procedure. Section 5 discusses the study's methodology. Section 6 presents the empirical results and sensitivity analyses. Section 7 concludes.

[5] Social norms refer to the external rules and values shared by a group of individuals. Individuals are expected to comply with the understandings and reactions of their peer groups to avoid sanctions associated with non-adherence to the shared values and beliefs. Accepted attitudes are likely to be widely supported and socially approved by the community (Akerlof, 1980; Kohlberg, 1984).

2. Theory and literature review

2.1. Theoretical framework

According to the agency theory, self-interest and external rewards motivate managers to behave opportunistically. Agency conflicts may arise from the separation of ownership and control (Jensen and Meckling, 1976; Fama and Jensen, 1983). The problem of “information asymmetry”, where the agents have more access to the company’s information than the principals (Arnold and De Lange, 2004), creates more earnings management opportunities. Information asymmetry complicates the agency conflicts, as managers can manipulate the information they disclose, and owners might not monitor and evaluate managers’ actions accurately. Earnings management can be viewed as a core agency cost (Jiraporn et al., 2008). In line with the agency theory, managerial self-serving and opportunistic behaviour can be limited by establishing formal corporate governance mechanisms. The agency theory considers corporate governance mechanism(s) as one of the classical cures in controlling conflict of interests between agents and principals (Shleifer and Vishny, 1997; Brennan, 2006). Effective board and audit committee are indications of a sound internal governance system, which can help to reduce agency costs through greater monitoring activities (Adam and Ferreira 2007; Ronen and Yaari, 2008; Kent et al., 2010; Talavera et al., 2018).

Unethical activities such as financial fraud and fraudulent financial reporting confirm ethical failures (Staubus, 2005). The attitudes toward the morality or ethics of particular behaviour should affect managers’ choices and decisions. It has long been argued that managers are driven merely by self-interest, while owners should rigorously limit opportunistic managerial behaviour either by aligning managers’ and shareholders’ interests or through implementing additional monitoring mechanisms. Despite the dominance of the agency theory in explaining many aspects of the contracting environment, this theory has been criticised for assuming that self-interest explains managerial behaviour (Ferraro et al., 2005). The agency theory focuses mainly on extrinsic rewards and ignores intrinsic rewards like self-satisfaction and ethical conduct (Cohen et al., 2007). Prior studies have shown that dominant cultural values in a community and social norms such as fairness and reciprocity can shape managerial behaviour and mitigate earnings management (Wijayana and Gray, 2018). Cohen et al. (2007) suggest that fairness is an essential motivator for positive organisational behaviour. Also, Bosse and Phillps (2016) argue that self-interested managers will attempt to maximise their own interests only as long as they are not violating their perceived social norms of fairness and reciprocity.

The social norm theory provides detailed grounds for shaping individual economic attitudes (Akerlof, 1980; Kohlberg, 1984). Social norms represent the prevailing code of conduct and ethics jointly shared by a group of individuals. This code drives forces and mechanisms for individuals. Compliance with norms and group expectations is subject to community support and acceptance, while non-compliance would promote social discrimination. Such social acceptance or discrimination should shape the accepted attitudes and moral liability. Social norms also affect corporate decision making (Hilary and Hui, 2009). Organisational policies and decision-making process represent peer-group expectations and community beliefs. Hence, as driven by the social norms theory, corporate management practices are influenced by their informal beliefs and values, besides the formal organisational governance arrangements (McGuire et al., 2012). Therefore, codes of ethics can stimulate social norms to help to deter opportunistic behaviour (Davidson and Stevens, 2012).

Religiosity, conceptualised as the extent of adhering to prevailing religious codes and promulgations, represents a prime example of the social norm. Religious norms interact with individual attitudes and corporate decision making (Hunt and Vitell, 1986). Influential religions such as Judaism, Christianity and Islam have promulgated a joint set of principles and beliefs which serve as the code of actions and virtues for good ethical attitudes (Melé et al., 2017). Moral and religious groups penalise activities that deviate from the endorsed frame of ethics. Hence, ethics and religions should promote anti-fraudulent and anti-manipulative ethos and facilitate the development of morality and ethical conducts (Callen and Fang, 2015; McGuire et al., 2012; Al-Khazali et al., 2017).

Many theoretical arguments support the expectation that the social norm perspective of religion drives more resistance against aggressive earnings management at the corporate level. First, ethically oriented organisations often adhere to the moral constraints that shape the individual frames of their financial operations[6] . These restraints are also predicted to impact their corporate and business decisions and to encourage faithfulness and trust. According to Abdelsalam et al. (2021), religiously oriented organisations are more inclined to internalise ethical norms associated with conservatism and are, as a result, less likely to embark on earnings management. Second, if the managers of ethically oriented organisations are tempted to embark on earnings management practices for personal gain, they are still less likely to trade off the gain from additional remuneration against the cost of social stigma. Finally, communities in which ethics are predominated hold expectations that shape individuals and organisations’ behaviour (Weaver and Agle, 2002). Attitudes in these communities are, to a certain degree, shaped by endorsed behaviours. Such influences are predominantly pervasive in organisations where religious adherence is a predominant characteristic of the local population (Hilary and Hui, 2009; Callen and Fang, 2015). Consequently, banks, either Islamic or conventional, operating in countries where religion is highly important, are expected to display a distinct ethical conduct profile to gain broader public trust. Akin to people, religiously oriented firms are likely to be less manipulative in their business practices (Hilary and Hu, 2009). Against this background, we argue that banks marked, at least in principle, with ethical and religious orientations should prioritise moral choices among different business opportunities that involve excessive manipulations.

[6] According to Ha-Brookshire (2017), in corporations with well-defined moral guidelines or structures that all members can easily follow, individuals’ morally responsible behaviour improves.

2.2. Islamic banking business model

Islamic banks present an example for ethical and religiously orientated organisations assumed to operate in compliance with their set of moral codes and the Shari'ah rulings, which broaden the moral accountability of Islamic banks beyond their legal responsibility (Abdelsalam et al., 2016). An essential foundation of Shari'ah principles is the commitment to ethical behaviour. The Islamic moral code is built on coherent guidelines that control all religious, social, and economic affairs (Haniffa and Hudaib, 2002). Islamic principles of honesty, transparency, integrity and truthfulness constrain managers from engaging in ethically questionable activities, like earnings management. Recent attempts have established that solid ethical commitment can influence financial reporting and act as deterrence for earnings management (Hilary and Hui, 2009; Kanagaretnam et al., 2015). Islamic banking is also based on the profit-and-loss sharing principle[7] . The contracts between the banks and their depositors (i.e., IAHs) imply that all transactions are backed by real economic activities that include tangible assets.

In line with the behavioural theory of the firm (Van Ees et al., 2009), a corporate manager's ability to make optimal decisions is limited. Therefore, the decision-making process will be managed by reasonable attempts to arrive at satisfying rather than optimising outcomes. In this context, managerial decision-making will be affected by prior managerial experiences, beliefs and values instead of rational thought only. This is particularly crucial for Islamic banks, whereby the business context is characterised by the commitment to Islamic religious values and beliefs (Abu-Tapanjeh, 2009).

Islamic banks are marked with complex agency-principal relationships compared to their conventional counterparts (Elnahass et al., 2020a; Abdelsalam et al., 2021). The distinct nature of the bank-depositor relationship in Islamic banks is likely to promote additional complexities to the agency costs associated with this banking sector[8] . IAHs have no right to intervene in the financial and operating management of their funds. Therefore, Islamic banks' managers have opportunities to pursue their personal benefits at the expense of IAHs, resulting in additional agency costs to be carried by the depositors (Abdelsalam et al., 2016). Also, Islamic banks do not compete on an equal footing with conventional banks (Hasan and Dridi, 2011), which might give an incentive for opportunistic earnings management. Telling against that consideration is the ethical commitment of Islamic banks to their stakeholders, which is likely to enhance financial reporting quality. Earnings management practice by Islamic banks is also subject to an additional governance mechanism: the SSB. The principal role of SSB is to guide whether banks' operations and activities comply with Islamic Shari'ah law. Within the context of earnings management, the existence of the SSB may provide an added assertion to shareholders that top managers of Islamic banks are less likely to manage their earnings relative to other institutions without such committee. Therefore, both the religious orientation alongside the existence of SSB as part of the governance structure should, in principle, restrain managerial opportunism in an Islamic banking business model.

2.3. Prior literature

Prior literature has established that effective governance mechanisms mitigate agency problems (Shleifer and Vishny, 1997; La Porta et al. 2000; Filatotchev and Wright, 2011). Some studies examine the role of individual traditional governance mechanisms in earnings management, such as board size (Beasley, 1996; Gulzar and Wang, 2011); board independence (Bédard et al., 2004; Osma, 2008; Dimitropoulos and Asteriou, 2010); audit committee independence and expertise (Klein, 2002; Zhou and Chen 2004). Other previous studies investigate the association between governance index and earnings management (Liu and Lu, 2007; Iatridis and Kadorinis, 2009; Leventis and Dimitropoulos, 2012; Zalata et al., 2018).

The Islamic banking literature provides inconclusive evidence on earnings management. Ismail and Be Lay (2002) find evidence of earnings management through banks' loan loss provisions (LLP) within a sample of Malaysian Islamic banks. Zoubi and Al-Khazali (2007) reach the same conclusion for conventional and Islamic banks in the GCC region. On the other hand, Taktak et al. (2010) find no evidence of income smoothing through LLP for an international sample of Islamic banks. Similarly, Abdelsalam et al. (2016) find that Islamic banks are less likely to engage in earnings management when compared to conventional banks within the Middle East and North Africa region. Elnahass et al. (2018) investigate the use of different loan loss provision models across Islamic banks (i.e. adopting forward-looking loan loss model) and conventional banks (i.e. adopting backward-looking loan loss model) to assess the implications on earnings management within three countries, Bahrain, Jordan and Qatar. This study shows that, unlike conventional banks, Islamic banks tend not to use LLP in earnings management practices. This study suggests that differences in the practices of the two bank types may be attributed to the constrained business model of Islamic banking, strict governance and religious orientations.

Overall, prior studies in the banking sector suggest that even in highly regulated institutions such as banks, corporate governance mechanisms significantly mitigate aggressive earnings management. However, none of these studies examines the effect of bank type while distinguishing between different internal governance systems. Exploring these aspects is essential in identifying possible differential effects of the internal system of governance on mitigating motives/opportunities for earnings management in banking. Moreover, our study offers new insights into the literature of Elnahass et al. (2018) and Abdelsalam et al. (2016) who find that Islamic

[7] Because of the prohibition of charging interest in Islamic banking, depositors are recognised as investment account holders (IAHs) who enter into equity-based investment contracts. Under these arrangements, banks are allowed to share in profits, while losses are borne by the IAHs (Abdelsalam et al., 2016).

[8] While depositors receive a fixed rate of return (interest) on investments in the conventional banking system, Islamic banks use the profit-sharing contract to invest funds on behalf of investment account holders (IAHs) who earn their returns by sharing in the profits generated from their funds and bear their share in any investment losses incurred (Elnahass et al., 2020a).

banks are less likely to manage their earnings relative to their conventional counterparts. IThese studies have not explicitly utilised any measures for internal governance mechanisms. They only narratively attribute their main findings to the possible unobserved effect of double-governance mechanisms (i.e., board of directors and SSB) within Islamic banks relative to their conventional counterparts. These studies also used restricted sample for emerging economies like the Gulf and the Middle East North Africa (MENA) region. Therefore, we extend such earlier theoretical claims by introducing empirical examinations for a dedicated set of internal governance measures, alternative models of earnings management, and a comprehensive sample of international banks. Consequently, this study fills this gap using Islamic banking as a case of religiosity-oriented organisations whose conservative business model operates on an extended monitoring mechanism layer.

3. Hypotheses development

3.1. Board of directors and audit committee size

The board of directors is widely recognised as an essential internal governance mechanism (Fama and Jensen, 1983). It ensures that top managers act in the best interests of shareholders and approve primary business strategies (Cerbioni and Parbonetti, 2007; John et al., 2016). In discharging their responsibility of managing and supervising banks' business affairs, the boards of directors owe fiduciary duties to the banks and their shareholders. The complex nature of banking institutions implies that the duties and obligations of bank directors are more extensive relative to those of other directors. According to Macey and O'Hara (2003), boards of directors must make careful and prudent decisions to ensure the banks' safety and soundness. They are also required to provide careful oversight of banks' operations. Boards will not have an effective control role unless they can curtail discretionary managerial decisions (Elnahass et al., 2018; Trinh et al., 2020). Previous research documents that effective governance through the board of directors will cause better monitoring of management operations and better bank performance (Talavera et al., 2018).

An effective audit committee represents a governance device that assists the board in its monitoring role and therefore promotes financial reporting quality (Pomeroy and Thornton, 2008; Beasley et al., 2009). This end is achieved through strengthening governance, promoting conservatism, and reducing opportunistic earnings management (Xie et al., 2003; Bédard et al., 2004; Sharma and Kuang, 2014). Audit committees are also associated with oversight of risk management and internal control systems (Chambers and Weight, 2008). The effectiveness of both the board of directors and the audit committee in monitoring and controlling opportunistic managerial behaviour depends on their characteristics and attributes. Among these aspects are the sizes of the board and audit committee. The relationship between their sizes and earnings management is not straightforward, and prior literature provides no consensus about the direction of this association (Xie et al., 2003; Ronen and Yaari, 2008; Zalata et al., 2018).

On the one hand, according to the resource dependence theory, a larger board is "a provider of resources, such as legitimacy, advice and council links to other organisations, etc." (Hillman and Dalziel, 2003, p. 383) and therefore enhances the skills, expertise, and knowledge needed to exert effective monitoring over earnings management practices (Xie et al., 2003; Peasnell et al., 2005; Abed et al., 2012). Similarly, a large audit committee can be seen as an indication of the resources and varied expertise available to the committee to effectively monitor financial reporting practices (Baxter and Cotter, 2009). Yang and Krishnan (2005) provide evidence of a significant negative association between audit committee size and discretionary accruals for a sample of 250 U.S. publicly traded firms between 1996 and 2000. Kent et al. (2010) examine a sample of Australian companies and find that higher accruals quality is associated with larger audit committees. García et al. (2012) study a sample of Spanish firms between 2003 and 2006 and conclude that the size of the audit committee has a significant negative association with discretionary accruals.

On the other hand, according to the agency theory, firms with larger boards tend to be less effective in monitoring managerial behaviour due to coordination and communication problems, hindering the decision-making process (Jensen, 1993). Consistent with this view, several studies find a positive association between board size and the degree of earnings management (Hoitash et al., 2009; Gulzar and Wang, 2011). Likewise, some studies show that the size of the audit committee is not related to earnings management (Xie et al., 2003; Abbot et al. 2004; Baxter and Cotter, 2009; Habbash et al., 2013). In a multi-country analysis of 69 commercial banks, Andres and Vallelado (2008) find that adding new directors to the board improves governance and enhances the advisory function of the board if communication and coordination problems outweigh the benefits.

Given the mixed prior evidence on the association between board (and audit committee) size and earnings management, a directional hypothesis is difficult to state. We provide no prediction for the direction of the association between board size (and audit committee size) with measures of earnings management for both conventional and Islamic banks. However, we conjecture that for Islamic banks operating on a complex and constrained banking model, the role of the board of directors and audit committee in controlling agency problems should be more visible compared with that in conventional banks. With expectations that social norms in these religious organisations dominate, effective scrutiny by the boards of directors and audit committees becomes necessary. In Islamic banks, the board of directors plays an executive role and enforces the SSB's authority to perform either supervisory or advisory functions or both. Hence, the size of the boards of directors and audit committees in Islamic banks can substantially influence their monitoring and control capabilities of managerial opportunism. Thus, our first hypotheses are stated in alternative forms:

H_{1a}: A significant (positive/negative) relationship exists between the board of directors' size and earnings management practices.

H_{1b}: A significant (positive/negative) relationship exists between the audit committee's size and earnings management practices.

We expect that the above relationships should be more significant in Islamic banks relative to conventional banks.

3.2. Board of directors and audit committee independence

Besides board (and audit committee) size, the board's effectiveness in its monitoring function is determined by its independence (John and Senbet, 1998). According to the agency theory, independent directors can exercise sovereign judgement to protect shareholders' interests when an agency conflict is present (Jensen and Meckling, 1976). Given the need to develop and maintain a reputation in the labour market, and since independent directors bring valuable expertise and potential networks that could benefit the firm (Fama and Jensen, 1983; Pathan and Skully, 2010), boards dominated by independent directors are better positioned to monitor and control managers' activities (Fama and Jensen, 1983). If independent directors on the board enhance monitoring, they should also be associated with lower use of earnings management (Cornett et al., 2009). Beasley (1996), for example, examines whether including larger proportions of outside members on the board reduces the likelihood of financial statement fraud and finds that non-fraud firms have boards with significantly higher percentages of outside members than those of fraud firms. Dechow et al. (1996) use a sample of firms subject to Securities and Exchange Commission enforcement actions between 1982 and 1992 to investigate firms alleged to have violated GAAP to overstate their earnings and match businesses that did not. They find that firms manipulating earnings are more likely to have boards with a lower proportion of independent members. Klein (2002) concludes a negative relation between board independence and abnormal accruals.

Much emphasis has also been placed on the audit committee's role in overseeing the financial reporting process and preventing fraudulent accounting statements. The effectiveness of an audit committee in accomplishing these functions depends on the independence of its members (Klein, 2002). Abbott et al. (2004) suggest that audit committee directors' independence is associated with effective monitoring for two reasons: (1) the absence of economic or psychological ties to management that might conflict with their job duties; and (2) the reputational capital preservation/development motivates independent directors to serve as active overseers of the financial accounting processes. Klein (2002) finds that large increases in abnormal accruals accompany reductions in audit committee independence. Abbott et al. (2004) find that the independence of the audit committee exhibits a significant and negative association with the occurrence of a financial restatement. Chang and Sun (2009) and Chen and Zhang (2014) provide evidence for a significant negative association between audit committee independence and earnings management.

We conjecture that more independent boards and audit committees are likely to monitor and mitigate managerial opportunism. We maintain similar predictions to that in the first hypothesis; the role of independent boards of directors/ audit committees in controlling managerial behaviour is expected to be more noticeable in Islamic than in conventional banks particularly, under the assumed dominance of religious norms in Islamic banking. This leads to our second set of hypotheses stated in alternative forms:

H_{2a}: A negative relationship exists between the board of directors' independence and earnings management practices.

H_{2b}: A negative relationship exists between the audit committee's independence and earnings management practices.

In line with predictions, we expect these relationships to be more significant in Islamic banks relative to conventional banks.

3.3. Shari'ah supervisory board

Decisions of the board of directors (audit committee) can depend much on the effectiveness of Shari'ah compliance for an Islamic bank. The presence of non-traditional and extra governance – SSB – aims at developing an effective internal mechanism to monitor Islamic banks' prioritisation of religious/ethical business orientations (Elnahass et al., 2020a). The existence of the SSB is likely to provide additional assurance to shareholders that the social norms of the bank are preserved. At least in principle, having SSB should provide a deterrent against earnings management practices in Islamic banks.

To date, several studies investigating the role of the SSB have been carried out; however, most of these studies occurred within the context of corporate social responsibility disclosure, bank risk-taking, and performance. Farook et al. (2011) examine the association between SSB characteristics and corporate social responsibility disclosure for a sample of Islamic banks and conclude that SSB members with cross-memberships and international reputation are associated with higher levels of such disclosures. Abdul Rahman and Bukair (2013) also find similar results for Islamic banks operating in the GCC countries. Mollah and Zaman (2015) and Almutairi and Quttainah (2017) provide evidence that SSBs positively affect Islamic banks' performance. Mollah et al. (2016) investigate whether the differences in governance structures between Islamic banks and conventional banks affects their risk-taking. They find that the unique governance structures in Islamic banks lead to a lower risk-taking profile. Both Elnahass et al. (2020a) and Trinh et al. (2020) examine whether SSB busyness (i.e. multiple directorships across different banks) affects stock market valuations for the former and the bank stability for the latter. Although previous studies have shown the significant role of the SSB in enhancing corporate social responsibility disclosure, promoting bank performance, and mitigating risks, we find that such investigation is incomplete as it fails to explicitly highlight the cumulative effect (i.e., in addition to boards and audit committees) of having an effective SSB to scrutinize the bank activities against impermissible business activities.

In response to the above research gap, we extend our comparative assessments for the effects of the internal system of governance across the two banking sectors to identify the role of the SSB in controlling earnings management in Islamic banks. We consider three key characteristics of SSB: (i) size, (ii) financial qualification, and (iii) multiple memberships. For SSB size, in line with Farook et al. (2011) and Elnahass et al. (2020a), we predict that a larger SSB enables members to share their experience and benefit from diverse knowledge. In line with these findings and supported by the resource dependence theory, we conjecture that a larger SSB should provide more effective monitoring and limit earnings management in Islamic banks.

The effectiveness of the SSB is also likely to be affected by the scholars' financial and accountancy qualifications. Because of the complex nature of Islamic bank activities, SSB members should not only be knowledgeable in Islamic commercial jurisprudence, but they should also be equipped with relevant expertise and education on modern business disciplines, economic developments, and accounting and financial practices. The financial qualification of a Shari'ah scholar is expected to enable him/her to monitor and detect opportunistic managerial acts. Finally, the competence of Shari'ah scholars may also be determined by their multiple memberships. Like board members, multiple memberships held by Shari'ah scholars in many Islamic banks can promote knowledge and expertise within the SSB, as they are exposed to more diverse experiences (Trinh et al., 2020). Multiple memberships could be regarded as a proxy for the scholars' reputation in the external labour market (Brennan et al., 2016). Accordingly, the diverse knowledge and expertise of reputable Shari'ah scholars are predicted to enhance their ability to monitor and control opportunistic managerial behaviour.

We, therefore, conjecture that large SSBs with financially qualified members who hold multiple directorships should promote additional monitoring and temper discretionary acts in Islamic banks. This conjecture leads to the following hypothesis, stated in an alternative form:

H_3: A significant and negative relationship exists between the SSB's size, financially qualified membership, members' multiple directorships and the earnings management practices within Islamic banks.

4. Sample selection and data

Our multi-country sample comprises 679-year observations of 93 listed banks operating between the years 2007 and 2015. We initially had 146 Islamic banks (IBs) and 515 conventional banks (CBs). Following Beck et al. (2013); Mollah et al. (2016) and Elnahass et al. (2020a, b), we applied three sample criteria: (1) countries having both types of banks; (2) the availability of governance data for both types of banks, and (3) the availability of at least three consecutive years of bank data. Moreover, our sample excludes CBs with Islamic windows, which refer to traditional CBs that provide compliant products with Shari'ah (Beck et al., 2013). The supervisory issues and capital adequacy requirements for those windows are different from Islamic banks (Islamic Financial Services Board (IFSB, 2005). Therefore, our final sample represents 39 IBs and 54 CBs, across 14 countries operating on a dual banking system.[9] The relevance of the sample period is that the Basel II Capital Adequacy Framework (Basel Committee on Banking Supervision, 2006) became mandatory for IBs in 2007 (see Islamic Financial Services Board (IFSB, 2005; Ariss and Sarieddine, 2007). This period also allows an examination of whether bank managers opportunistically deviate from accounting standards and regulations during the 2007–2008 financial crisis (see Hoffmann et al., 2013).

Financial data are collected from Bankscope, DataStream, and Bloomberg, while country-specific macroeconomic and governance data are obtained from the World Bank's World Development Indicators. Data on corporate and Shari'ah governance are hand-collected from banks' annual reports. Table 1 presents the final sample distribution across countries and the two bank types.

5. Methodology

5.1. Earnings management models

To examine earnings management practices in banks, we use three different models to measure earnings management in the two banking sectors. The first model is developed initially by Burgstahler and Dichev (1997), who document that U.S. managers use accounting discretion to avoid reporting small losses. Following Burgstahler and Dichev (1997); Leuz et al. (2003) and Barth et al. (2008), we use the frequency of small positive net income as a proxy for earnings management. The notion is that managers avoid reporting losses by reporting small positive net income. Accordingly, we use an indicator variable for loss avoidance (*LOSS_AVOID*) that takes 1 if net income scaled by lagged total assets is between 0 and 0.01 for each given year, and 0 otherwise (Leventis and Dimitropoulos, 2012; Abdelsalam et al., 2016). Our first model of earnings management utilises *LOSS_AVOID* as a dependent variable in a logit regression specified as:

$$LOSS\_AVOID_{it} = a_0 + a_1 IG_{it} + a_2 IB_i + \gamma\, Control_{it} + \varepsilon_{it} \quad (1)$$

Where, IG_{it} represents vector of internal governance variables, IB_i is an indicator variable taking 1 if the bank is Islamic, and 0 otherwise, $Control_{it}$ is a vector of control variables, and ε_{it} is an error term. A significant and negative coefficient on *IG* indicates that banks with effective internal governance report small positive income to avoid losses less frequently and are less likely to engage in earnings management.

The second model to measure earnings management practices in both bank types is based on the use of loan loss provisions (*LLP*) and realised securities gains and losses (*RSGL*) to manage banks' earnings. Prior studies have found that CBs use *LLP* to significantly manage their earnings (Scheiner, 1981). Also, Kanagaretnam et al. (2003) suggest that managers' use of *LLP* to manage reported earnings is motivated by opportunistic reasons (i.e. to reduce job security concerns) as well as efficiency reasons (i.e. to reduce the cost of borrowing). Similar conclusions are drawn from studies using Japanese banks (Shrieves and Dahl, 2003), Spanish banks (Anandarajan et al., 2003), and Australian banks (Anandarajan et al., 2007). Moreover, global banking studies have documented the use of *LLP* to manage earnings in several countries (Leventis et al. 2011). Although prior studies provide inconclusive evidence for the use of LLP in earnings management (see Ismail and Be Lay, 2002; Zoubi and Al-Khazali, 2007; Taktak et al., 2010), LLP remains as the

[9] The final sample countries include Bahrain, Bangladesh, Egypt, Indonesia, Jordan, Kuwait, Malaysia, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Turkey, and United Arab Emirates.

Table 1
Sample Distribution by Country and Bank Type.

Country	Islamic Banks	Bank-Year Observations	Conventional Banks	Bank - Year Observations	Full Sample	Observations
Bahrain	5	39	2	18	7	57
Bangladesh	6	28	6	34	12	62
Egypt	1	6	1	9	2	15
Indonesia	1	6	8	55	9	61
Jordan	2	14	9	76	11	90
Kuwait	5	35	4	33	9	68
Malaysia	1	9	2	18	3	27
Oman	2	6	3	18	5	24
Pakistan	2	18	2	17	4	35
Palestine	2	14	2	16	4	30
Qatar	3	22	5	42	8	64
Saudi Arabia	4	28	1	9	5	37
Turkey	2	17	7	61	9	78
United Arab Emirates	3	18	2	13	5	31
Banks	39	–	54	–	93	
Observations	–	260	–	419	–	679

Notes: This table shows the number of Islamic banks and conventional banks in our sample countries from 2007 to 2015. The full sample represents 93 banks (39 Islamic and 54 conventional) over 14 countries.

primary tool used by bank managers to manage and smooth earnings (Cornett et al., 2009; Abdelsalam et al., 2016; Elnahass et al., 2018).

In addition to the use of *LLP* to manage earnings, the prior literature shows that banks' earnings can be managed through *RSGL* (Beatty and Harris, 1999; Beatty et al., 2002; Cornett et al., 2009; Leventis and Dimitropoulos, 2012). This evidence has also been extended to Islamic banks (Abdelsalam et al., 2016), as there are no specific restrictions for securities' gains and losses within Shari'ah law. Both *LLP* and *RSGL* combine a non-discretionary component and a discretionary component (Cornett et al., 2009). Accordingly, we define an additional measure of earnings management based on estimating the discretionary part of *LLP*. The focus on a single accrual is explained by the fact that *LLP* is large and explains much of the variability in total accruals. In addition, a measure of a specific discretionary accrual account results in less subjectivity in measurement issues than an aggregate accrual measure (Beatty and Liao, 2014). However, there is a lack of consensus in the literature on how to best model discretionary provisions. Accordingly, we follow (Beatty et al., 2002; Cornett et al., 2009; Abdelsalam et al., 2016) to calculate the discretionary part of *LLP* through the following fixed-effect model:

$$LOSS_{it} = a_t + b_1 LnTA_{it} + b_2 NPL_{it} + b_3 LLR_{it} + b_4 LOANR_{it} + b_5 LOANC_{it} + b_6 LOANI_{it} + \varepsilon_{it} \tag{a}$$

Where, $LOSS_{it}$ is the ratio of loan loss provisions to total loans, $LnTA_{it}$ is the natural logarithm of total assets, NPL_{it} is the ratio of nonperforming loans to total loans, LLR_{it} is the ratio of loan loss reserves to total loans, $LOANR_{it}$ is the ratio of real estate loans to total loans, $LOANC_{it}$ is the ratio of commercial and industrial loans to total loans, $LOANI_{it}$ is the ratio of consumer and instalment loans to total loans, and ε_{it} is an error term.

The discretionary part of *LLP* (*DLLP*) is the error term from this regression. We standardise the error term by total assets, and define our measure of *DLLP* as:

$$DLLP_{it} = (\varepsilon_{it} \times LOANS_{it}) / ASSETS_{it} \tag{b}$$

Where, $LOANS_{it}$ is defined as the total loans while $ASSETS_{it}$ is the total assets.

To estimate the discretionary part of *RSGL*, we estimate the following fixed-effect model (Cornett et al., 2009; Leventis and Dimitropoulos, 2012):

$$RSGL_{it} = a_t + b_1 LnTA_{it} + b_2 URSGL_{it} + \varepsilon_{it} \tag{c}$$

Where, $RSGL_{it}$ is the realised security gains and losses as a ratio of total assets, $URSGL_{it}$ is the unrealised security gains and losses as a ratio of total assets, and ε_{it}

The error term from the regression above is the discretionary component of realised security gains and losses (*DRSGL*). The estimated measure of earnings management is defined as the difference between the discretionary component of *RSGL* and the discretionary component of *LLP* which is specified as:

$$EM_{it} = DRSGL_{it} - DLLP_{it} \tag{d}$$

This leads to our second model for earnings management estimated using random-effect estimation[10], based on the results from the

[10] We use random-effect estimation as corporate governance variables (board of directors and audit committee characteristics) do not vary much over time. Hence, using fixed-effect estimations would result in a massive loss of the degrees of freedom (Baltagi, 2005; Mollah and Zaman, 2015).

Hausman Test that are reported in Table 4, and specified as follows:

$$EM_{it} = a_0 + a_1 IG_{it} + a_2 IB_i + \gamma\ Control_{it} + \varepsilon_{it} \tag{2}$$

We predict that higher levels of earnings management correspond to understating *LLP* and overstating *RSGL*. Accordingly, a significant and negative coefficient on *IG* is expected, suggesting that banks with effective internal governance are less likely to manage their earnings through *LLP* and/or *RSGL*.

Our third model for measuring earnings management is based on the magnitude of discretionary accruals[11] (*DACC*). Our measure of *DACC* is estimated from a variation of the Jones (1991) model, developed by Yasuda et al. (2004). This model adjusts for firm-specific factors in banking institutions and has been used in the banking literature (Leventis and Dimitropoulos, 2012; Abdelsalam et al., 2016). To obtain the discretionary component of total accruals, we follow Yasuda et al. (2004) and estimate the following regression model:

$$ACCR_t / TA_{t-1} = a_1 (1 / TA_{t-1}) + a_2 (\Delta OI_t / TA_{t-1}) + a_3 (PPE_t / TA_{t-1}) + \varepsilon_t \tag{e}$$

Where, $ACCR_t$ is the total accruals calculated as the difference between net income and operating cash flows, TA_{t-1} is lagged value of total assets, ΔOI_t is the change in operating income between t − 1 to t, PPE_t is the bank's property, plant, and equipment and ε_t is the error term.

To reduce heteroscedasticity, we deflate all variables, including the intercept in the above model, by lagged total assets (Jones, 1991). We define the residuals from Eq. (e) as *DACC*, which is introduced as the dependent variable in the following regression model estimated using random-effect:

$$DACC_{it} = a_0 + a_1 IG_{it} + a_2 IB_i + \gamma\ Control_{it} + e_{it} \tag{3}$$

Discretionary accruals are viewed as an inverse measure of earnings quality (i.e. higher discretionary accruals reduce earnings quality). Accordingly, a significant and negative coefficient on IG is predicted, indicating that banks with effective internal governance report lower discretionary accruals and hence have higher financial reporting quality.

5.2. Internal governance measures

We follow prior studies to measure traditional internal governance mechanisms (i.e. the board of directors and audit committee) represented by their size and independence (e.g. Dimitropoulos and Asteriou, 2010) within the two banking sectors. We define the board size (*BODSIZE*) as the total absolute number of board members and the board independence (*BODINDEP*) as the ratio of independent members over the total number of board members.

We define the audit committee size (*ACSIZE*) as the total absolute number of audit committee members. We also measure audit committee independence (*ACINDEP*) as the ratio of independent audit committee members over the total number of members in the audit committee (Habbash et al., 2013; He and Yang, 2014). In line with our first two hypotheses, we maintain non-directional expectations for the coefficients on both *BODSIZE* and *ACSIZE*. Consistent with hypotheses H_{2a} and H_{2b}, we expect negative coefficients on the *BODINDEP* and *ACINDEP*.

For the influence of an additional governance mechanism (i.e., the SSB) on IBs earnings management practices, we identify three characteristics of the SSB: size, financial qualification, and multiple memberships. First, the SSB size (*SSBSIZE*) is measured as the total absolute number of SSB members (Farook et al., 2011; Mollah and Zaman, 2015; Almutairi and Quttainah, 2017). Second, in line with Farook et al. (2011), we also test for the effect of financial qualification of SSB members (*SSBQUAL*). This variable is defined as the ratio of SSB members with financial/accounting qualification (undergraduate or postgraduate degree in finance, accounting, or Islamic finance) over the total number of SSB members. Finally, SSB multiple memberships (*SSBMM*) is defined as the ratio of SSB members with multiple memberships over the total number of SSB members. Following (Elnahass et al., 2020a; Trinh et al., 2020), we define a member with multiple memberships as a member serving on at least three boards. Consistent with H_3, we predict negative coefficients on all SSB variables.

We additionally control for various bank-specific and country-level factors that may explain variations in the earnings management models. Prior studies have demonstrated that CEO duality impedes effective monitoring and could be linked to higher managerial opportunism (Dechow et al., 1996; Klein, 2002). Therefore, we control for the effect of CEO duality by introducing an indicator variable (*CEODUAL*), taking 1 if the CEO is also the chairman of the board and 0 otherwise. We also control for banks' earnings performance through earnings before taxes (*EBT*). If income smoothing is an important determinant (Anandarajan et al., 2007). We further control for the leverage (*LEV*), measured as the ratio of total debt to equity (Chang and Sun, 2009).

We also control for the bank age (*AGE*), measured as the natural logarithm of the number of years the bank has operated in the country (Elnahass et al., 2020a). Furthermore, we control for the bank size (*BANK SIZE*) measured as the natural logarithm of the total year-end assets. We also control for financial performance using net cash flows (*CFO*) from operating activities deflated by average total assets (average total assets recorded at the end of the current year and preceding year; Becker et al., 1998). We also control for the banks' investment and growth opportunities which might affect the magnitude of discretionary accruals (Lai, 2009). We measure growth opportunities (*GRW*) as the ratio of market-to-book value of equity (Cornett et al., 2009). To control for the external audit

[11] Accruals are widely used as a proxy for earnings management (Becker et al., 1998; Bédard et al., 2004; Lai et al., 2016), as they aggregate the net effect of all accounting choices into a single measure (Watts and Zimmerman, 1990).

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