Internal Governance Mechanisms and Financial Reporting Quality: Evidence from Alternative Banking Systems

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Abstract

Anglo-American research has long documented the positive impact of effective corporate governance mechanisms in improving corporate financial reporting quality. However, examination of this causality across different bank types (e.g. conventional and Islamic banks) is still lacking. This thesis investigates the role of different internal governance mechanisms (i.e. boards of directors and audit committees) in enhancing the financial reporting quality in conventional and Islamic banks. It utilises the Islamic banking model operating on an extended governance structure (i.e. Shari'ah supervisory board) to gain new insights into the influence of bank institutional characteristics and additional monitoring mechanisms on managerial opportunism and on the information value of earnings. For a sample of listed conventional and Islamic banks from 16 countries, the results are twofold. First, the findings provide evidence that having a large and independent board of directors and audit committee is associated with reduced levels of earnings management for both conventional and Islamic banks. These findings demonstrate the absence of structural differences between the two bank types regarding the effectiveness of the traditional governance mechanisms in limiting opportunistic earnings management behaviour. Conditional on the bank type, the results show that the presence of an additional layer of governance through employing a large and financially qualified Shari'ah supervisory board, whose members serve on multiple boards, provides a significant deterrent against earnings management in Islamic banks. Second, the findings provide evidence for the role of effective boards of directors and audit committees in enhancing the information value of earnings. The results show that large and independent boards and audit committees are associated with more persistent earnings, predictable cash flows, and reliable loan loss provisions that are highly associated with future loan charge-offs. The findings of this thesis provide valuable insights for a better understanding of the role of traditional and additional monitoring mechanisms in promoting financial reporting quality in both banking types.

Dedication

I dedicate this work to my great parents, my beloved husband and my kids, Lulwa and Ebrahim.

Thank you for your love and support.

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All praise is to Allah, the Most Merciful and the Most Gracious, who gave me the strength, the courage and the ability to pursue my passion and complete my doctoral journey.

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Thesis Outcomes

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Chapter One: Introduction

1.1 Introduction

The quality of corporate financial reporting and the practices of earnings management have been the subjects of extensive research, as factors having broad implications for various stakeholders. The number of accounting scandals that the twenty-first century has witnessed, such as Enron and WorldCom, has caused severe damage to investors' confidence in financial reporting, and raised many concerns about the quality of financial reporting. In addition, the global financial crisis of 2007-2009 drew attention to the importance of corporate governance and prompted much investigation into the way that banks are governed.

Banks' corporate governance and financial reporting quality are two questionable issues. The governance of banking institutions came under stricter scrutiny after the onset of the financial crisis of 2007-2009, because bank governance was believed to have been a major contributory factor to the crisis (Isaksson and Kirkpatrick, 2009; Adams and Mehran, 2012). Although banks contribute to the economic and financial growth of communities, some banks exhibit great opacity and discretionary attitudes, such as aggressive earnings management and fraudulent financial reporting (i.e. the cases of Lehman Brothers, and Bear, Stearns and Co.).

Bank governance is a unique monitoring system, due to the unique features possessed by banks, which make them distinct from other non-financial institutions, and these features influence the effectiveness of their governance mechanisms. Among these features are the complexity and opacity of banking activities, which lead to substantial informational asymmetries and therefore, both the internal governance systems and financial reporting issues in the banking industry are debatable. Another feature is related to the heavy regulations imposed by governments and other regulators on banking institutions. Strict government regulations are fundamental given the crucial role played by banks in societies. Banks intermediate funds from investors and depositors to borrowers in order to finance activities that actuate economic growth, and hence, their stability is central to a country's general economic health (Basel Committee on Banking Supervision, 2015).

In modern economies, corporate financial reports issued by firms around the world are a highly important matter. These reports are considered the key source of valuable information about the financial performance and position of firms. This information is significant to a wide range of users, such as managers, shareholders, investors, creditors, suppliers, regulators and other stakeholders. These users rely on financial reports to satisfy their need for

information that assists them in their decision-making process. According to the "Conceptual Framework for Financial Reporting" issued by the International Accounting Standards Board (IASB), the purpose of financial reporting "is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders, and other creditors in making decisions relating to providing resources to the entity" (International Accounting Standards Board, 2018). In addition to satisfying the informational needs of decision makers (i.e. shareholders and creditors), financial reports are a tool to monitor and evaluate managerial performance. In other words, financial reporting helps shareholders in assessing the management's discharge of its stewardship responsibility. The stewardship responsibility arises from the separation of ownership and management, where a manager acts as a steward to owners. With the assumption that managers are self-interested individuals, monitoring and performance evaluation tools are vital. According to Watts and Zimmerman (1978) and Bushman and Smith (2001), financial reporting limits managerial self-interest behaviour and aligns managers' interests with shareholders' interests.

Given the significant functions of financial reporting (i.e. its informativeness role and its stewardship role), financial report users need to receive high-quality financial reports. Reliable and trustworthy financial information is vital, as it boosts the efficiency of resource allocation (Bhattacharya et al., 2003), lowers the information asymmetry between managers and shareholders (Biddle and Hilary, 2006), and mitigates the risks of moral hazards and adverse selection (Li, 2008).

Prior literature has established a close link between financial reporting quality and corporate governance. Issues pertaining to corporate governance are linked with the expansion of the modern corporation, where the ownership and control of the corporation are separated. The separation of ownership and control implies that owners delegate their decision-making authority to controllers (i.e. managers) (Fama and Jensen, 1983). Due to the different objectives of both owners and managers, the authority delegation results in implicit conflicts of interests between the two parties. Furthermore, under the agency relationship, the two parties (i.e. owners and managers) do not possess the same level of information about the firm, a situation that creates the problem of "information asymmetry" (Noreen, 1988; Arnold and De Lange, 2004; Chen and Liu, 2013). The problem of information asymmetry exacerbates the agency problem, as managers might manipulate the financial information they report, a practice that hinders owners from effectively monitoring and controlling managerial performance.

However, owners can, to some extent, protect their interests and control agency problems by establishing some devices to monitor and control managerial performance. The agency theory argues that managerial self-interest, opportunistic behaviour and other agency problems can be controlled for by setting up formal mechanisms of corporate governance. Such mechanisms are considered as the typical cures to agency problems (Shleifer and Vishny, 1997; Brennan, 2006; Dey, 2008; Chen et al., 2012).

Accordingly, to govern the conflicts of interests between owners and managers and to ensure the effective management of resources, corporations need to establish a comprehensive system of governance that supports the continuous evaluation of managerial performance. Such systems promote transparency and corporate fairness, as it has been argued by Mallin (2001) that "corporate governance goes hand in hand with increased transparency and accountability" (Mallin, 2001, p. 77).

1.2 Motivation and Rationale of the Thesis

The importance of corporate governance systems stems from their role in enhancing the efficiency and effectiveness of corporations. This is achieved by ensuring that firms' resources are properly managed and controlled. The global financial crisis of 2007-2009 and the collapse of large and highly reputed financial institutions, such as Lehman Brothers and Bear, Stearns and Co., have intensified interest in the effectiveness and reliability of corporate governance systems in banking institutions. Hence, banking governance has become one of the most debated subjects.

Corporate governance in the financial sector is unique relative to other sectors. Banks play a crucial role in societies, as they are responsible for intermediating funds between investors and borrowers. They are also responsible for supplying external finance to firms in other sectors, thus contributing to the economic growth at the general society level. Consequently, the stability of banking institutions is fundamental for a robust and healthy economy.

The association between corporate governance effectiveness and financial reporting quality has long been established in the literature. However, prior studies often exclude financial institutions owing to their peculiar regulatory environment (Lobo and Zhou, 2001; Davidson et al., 2005; Lapointe-Antunes et al., 2006; Jo and Kim, 2007; Jiang et al., 2008; Marra et al., 2011; Katmon and Al Farooque, 2017). The complexity of banking transactions and the diversity of financial instruments lead to substantial information asymmetries and therefore,

both corporate governance mechanisms and related financial reporting issues in the banking sector are still questionable.

Financial reporting quality issues in banking have mainly been addressed within the context of the conventional banking sector (Shrieves and Dahl, 2003; Shen and Chih, 2005; Anandarajan et al., 2007; Kanagaretnam et al., 2010; 2015); much less is known about the role of internal governance mechanisms in improving the financial reporting quality across alternative banking systems. Therefore, an ideal setting for such an investigation is the unique systems of governance in Islamic versus conventional banks. Under the growing emphasis placed by regulators on various systems of governance, examining the association between corporate governance effectiveness and financial reporting quality in such a unique research context (i.e. conventional and Islamic banks) is warranted.

Research on governance and financial reporting quality within religious establishments (e.g. Islamic banks) has become prolific. A number of studies have found that Judeo-Christian religious norms affect corporate decision making (Hilary and Hui, 2009), the levels of perceived corruption (Mensah, 2014), financial reporting irregularities (Dyreng et al., 2012; McGuire et al., 2012) and earnings management (Callen et al., 2011; Kanagaretnam et al., 2015). Within the Islamic research context, empirical evidence on the association between internal governance and financial reporting quality is limited. Although the concept of corporate governance came into spotlight after corporate failures in developed countries during the early 1990, the concept of corporate governance is rooted in the Islam fourteen hundred years ago, where it was presented by the *Hisba* system. It was initiated in Islam with the purpose of safeguarding the society from crime and corruption, ensuring public safety, and monitoring the market place to ensure compliance with Islamic law. The *Hisba* "seeks to protect people's religion, honor, property, rights, safety, and public funds, utilities and interests. It does so by ensuring that the rules of Shari'ah govern the religious, financial, economic, and social activities" (Ginena and Hamid, 2015, p. 61).

Prior Islamic banking studies have focused on examining the influence of the unique governance structure on corporate social responsibility disclosure (Farook et al., 2011; Abdul Rahman and Bukair, 2013), performance (Mollah and Zaman, 2015; Almutairi and Quttainah, 2017), and risk-taking (Mollah et al., 2017). However, there has been little empirical evidence on the impact of the unique governance system in Islamic banks on the quality of financial reporting (Quttainah et al., 2013). Given the significant role of corporate governance in enhancing efficiency, stability, and promoting economic development, and since Islamic

banks are gaining prominence, further study of the role of corporate and Shari'ah governance in financial reporting quality in Islamic banks is warrented.

Finally, this thesis is also motivated by the noticeable fact that "Islamic banks did not announce substantial write-offs but have been rather resilient during the financial crisis" (Mollah and Zaman, 2015, p. 418). Hence, it is valuable to investigate whether the difference in governance structures between Islamic banks and conventional banks affects their financial reporting quality.

1.3 Research Aim and Objectives

The main aim of this thesis is to investigate the role of various internal governance mechanisms in improving the quality of financial reporting in two different types of banks (i.e. conventional and Islamic). A comparative assessment of conventional and Islamic banks offers a unique setting in which to examine the possible effect of different institutional characteristics on enhancing the quality of financial reporting.

In this thesis, the quality of banks' financial reporting will be evaluated from two distinct perspectives; the opportunistic earnings management perspective and the information value perspective.

To achieve the main research aim, the thesis sets out to answer the following two research questions:

i) Do internal mechanisms of corporate governance constrain opportunistic earnings management behaviour in both conventional and Islamic banks?
ii) Do internal mechanisms of corporate governance raise the information value of earnings reported by both conventional and Islamic banks?

Although these two research questions are related to financial reporting quality, however, they will be separately addressed in this thesis. Chapter 4 will present the research hypotheses, methodology, and empirical results for the first research question, while chapter 5 will present the hypotheses, methodology, and results for the second research question.

The whole thesis seeks to explicitly examine the joint effects of traditional and additional (non-traditional) internal governance mechanisms on financial reporting quality in the two bank types.

Figure 1.1 illustrates the research framework for this thesis.

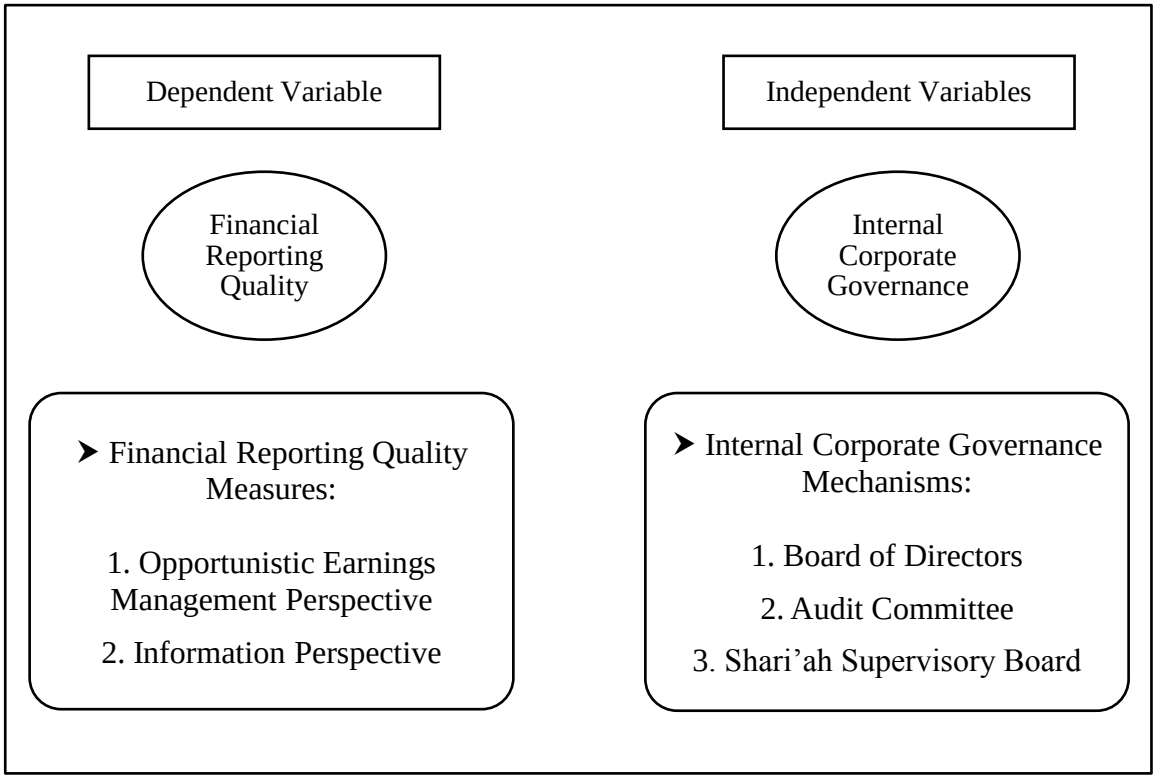

Figure 1.1 Research framework

1.4 Contributions of the Thesis

This thesis investigates whether effective corporate governance mechanisms play a role in enhancing the financial reporting quality in banks. It assesses the quality of financial reporting from two different perspectives; opportunistic earnings management and information value, in two empirical chapters (Chapters 4 and 5).

This thesis contributes to the comparative literature (conventional banks vis-à-vis Islamic banks) in several ways. First, to the best of my knowledge, the first empirical study is among the early attempts to directly identify how traditional and additional mechanisms of corporate governance affect earnings management behaviour within the banking industry. It provides cross-country evidence from different banking systems, and therefore its findings extend studies on banking governance (Cornett et al., 2009; Kanagaretnam et al., 2010; Leventis and Dimitropoulos, 2012; John et al., 2016). It also extends the study of Quttainah et al. (2013), which examined earnings management behaviour in Islamic banks, but it failed to comparatively assess the role of different internal governance mechanisms in constraining opportunistic earnings management in conventional and Islamic banks. Second, the study

offers new insights into the recent literature (Elnahass et al., 2014; 2018; Abdelsalam et al., 2016), which finds that Islamic banks are less likely to opportunistically manage their earnings relative to their conventional counterparts. While these studies theoretically attribute their findings to the possible effect of additional governance mechanisms (i.e. double-governance) on lowering managerial opportunism in Islamic banks, I explicitly examine these claims through an identifiable set of measures for internal governance mechanisms. Finally, by presenting the Islamic banks as ethically oriented organisations, the findings shed light on the role of ethical norms and institutional factors in shaping financial reporting quality (Labelle et al., 2010; Anagnostopoulou, 2017; Jiang et al., 2018).

The second empirical study extends the existing literature in a number of ways. First, the greater part of the banking literature examining the relationship between corporate governance and financial reporting quality examines this association from an opportunistic earnings management perspective (Leventis and Dimitropoulos, 2012; Quttainah et al., 2013; Abdelsalam et al., 2016). This study is among the early attempts to examine the association between corporate governance and financial reporting quality from an informational perspective. Second, it extends the study of Kanagaretnam et al. (2014a) by examining the role of different corporate governance mechanisms, as their study focuses on the effects of international legal and political institutions.

The examination of financial reporting quality in conventional and Islamic banks offers some advantages. First, focusing on a single industry enhances the accuracy of the findings from the empirical analyses, and in turn results in a more reliable assessment of earnings quality. Second, the high levels of profitability in the banking sector until 2007 provided managers with opportunities and incentives to obtain personal benefits from manipulating earnings (Kanagaretnam et al., 2014a). Third, comparing conventional banks with Islamic banks offers a unique setting, given the presence of additional governance mechanisms and the heightened commitment to the Islamic religious values and beliefs. According to the social norms theory, these religious beliefs are expected to shape corporate decisions, thus to play a role in enhancing financial reporting quality.

The investigation in this thesis responds to prior calls for research to better understand the relevance of bank type and internal governance mechanisms for accounting opportunism and financial reporting quality (Elnahass et al., 2014; 2018, He and Yang, 2014; Abdelsalam et al., 2016).

1.5 Structure of the Thesis

This thesis consists of six chapters. The current chapter has presented an overview of the research. It has also discussed the motivation and rationale of the thesis, outlined the main research aim and objectives, and has highlighted the expected contributions of the thesis.

Chapter 2 presents the discussions on corporate governance by exploring two alternative perspectives; the conventional perspective and the Islamic perspective. The chapter begins by defining corporate governance from a conventional perspective and then develops the theoretical framework for the corporate governance model. This chapter also identifies the unique features of banking institutions and their implications for corporate governance structures. The second part of the chapter examines the concept of corporate governance from an Islamic perspective and describes the unique governance model in Islamic banks.

Chapter 3 reviews and discusses the literature on the role of corporate governance in financial reporting quality. The first part of the chapter discusses the concept and definitions of financial reporting quality. It also reviews the literature assessing financial reporting quality. The second part reviews the literature that examines the role of corporate governance in financial reporting quality.

Chapters 4 and 5 present the hypotheses development, research methodology, and the empirical results for the first and second research questions, respectively. In particular, Chapter 4 empirically investigates whether internal corporate governance constrains opportunistic earnings management behaviour in conventional and Islamic banks. Chapter 5 investigates the role of internal governance mechanisms in enhancing the information value of earnings reported by conventional and Islamic banks.

Finally, Chapter 6 draws the conclusion of this thesis. It presents a summary of the main findings. The chapter also discusses the implications of the research findings and offers some suggestions for future research.

Figure 1.2 below outlines the structure of the thesis.

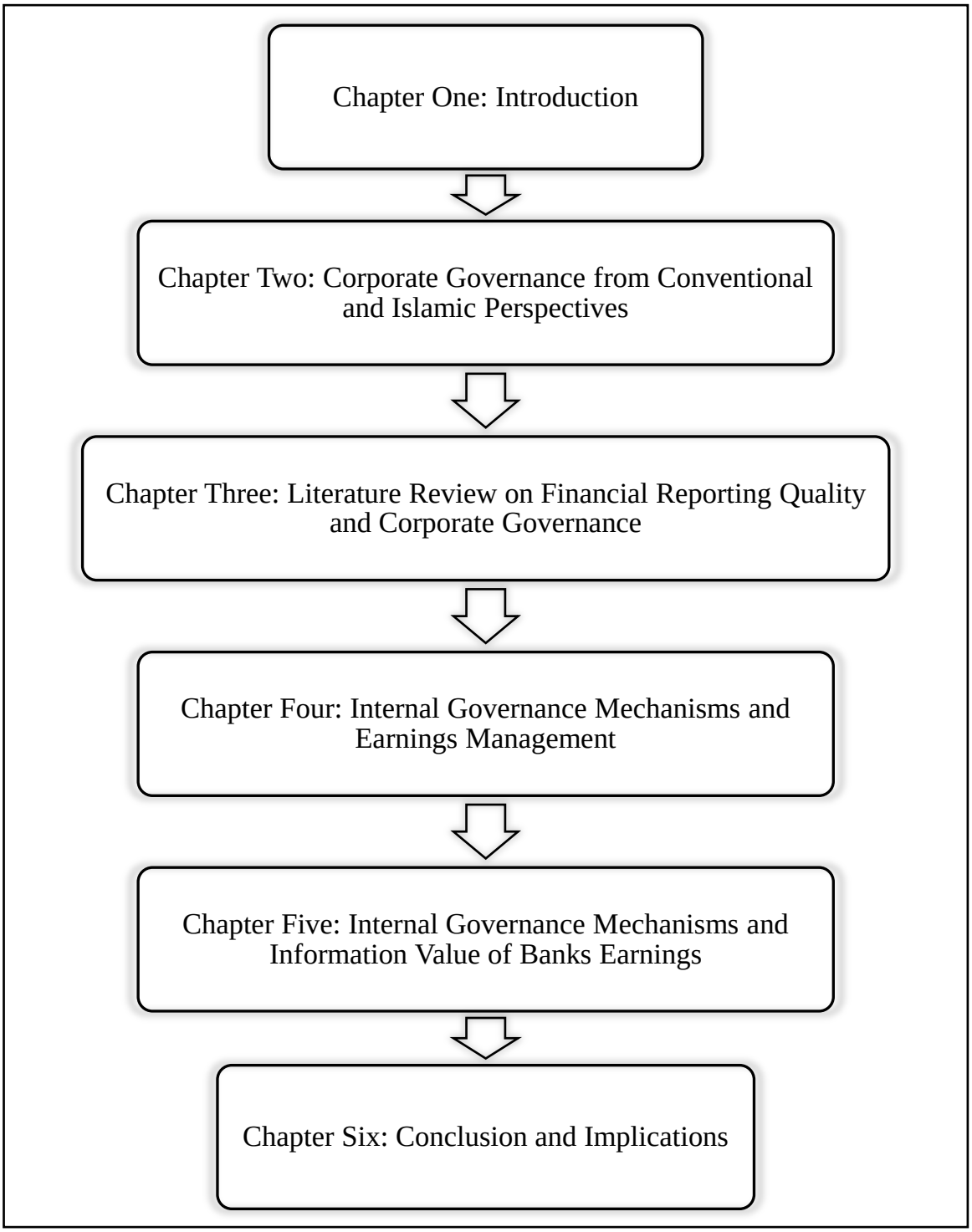

Figure 1.2 Structure of the Thesis

Chapter Two: Corporate Governance from Conventional and Islamic Perspectives

2.1 Background

The recent global financial crisis has brought increased attention to the importance of corporate governance, as it plays a fundamental role in determining the behaviour of corporations in achieving their goals. Managerial behaviour and the role of internal governance mechanisms in monitoring this behaviour has come under increased scrutiny. The corporate governance systems aim to improve the efficiency of business organisations and to enhance their public image. Consequently, effective corporate governance systems are key elements for sustainable economic growth. Indeed, corporate governance seems to be a crucial consideration for both developed and emerging economies. However, prior literature proposes that banks' governance systems differ from that of non-financial institutions, due to the unique characteristics of banking institutions. Although financial markets have been observed to reward banks with effective and strong corporate governance, the recent financial crisis has affirmed the need for improved financial reporting quality and corporate governance in banks.

The global financial crisis that started in 2007 resulted in a series of bank failures (such as Lehman Brothers and Bear, Stearns & Co.), especially within the conventional banking industry. As a result to this financial crisis, "world stock markets have fallen, large financial institutions have collapsed or been bought out, and governments in even the wealthiest nations have had to come up with rescue packages to bail out their financial systems" (Shah, 2010). Several studies have demonstrated that Islamic banks had showed more stability and resilience during the crisis, relative to conventional banks (Green, 2010; Mollah and Zaman, 2015; Pappas et al., 2017). Subsequent to the collapse of leading financial institutions, more attention has been focused on Islamic banking as an alternative mode of finance (Wilson, 2010). The unique business model under which Islamic banks operate had been argued to contribute to such resilience and stability. The Shari'ah-compliant financial products offered by Islamic banks have a role in enhancing the stability of the banks because all of these products are asset-baked. Furthermore, because Islamic banks' operations are based on the principles of Shari'ah, they are likely to advocate ethical banking, which emphasises fairness, just and interpersonal trust (Pappas et al., 2017). Such principles encourage truthfulness and prevent unethical, risky and opportunistic practices on management side.

Referring to the impact of the global financial crisis, there has been no empirical evidence for the impact of the crisis on the financial reporting quality within conventional and Islamic banking. The greater part of the literature has compared conventional and Islamic banks on the basis of risk and stability during the recent financial crisis. Among the comparative studies are Hasan and Dridi (2010), Abdulle and Kassim (2012), Beck et al. (2013), Saeed and Izzeldin (2016), and Pappas et al. (2017). For a sample of 120 conventional and Islamic banks from Bahrain, Kuwait, Saudi Arabia, Qatar, UAE, Jordan, Malaysia and Turkey, Hasan and Dridi (2010) illustrated that Islamic banks showed strong resilience during the global financial crisis. They claimed that the Islamic banks' unique business model helped in limiting the adverse impact on profitability in 2008. Furthermore, Abdulle and Kassim (2012) provided evidence that Islamic banks were less exposed to liquidity risks during the financial crisis, due to the fact that they were holding more liquid assets relative to their conventional peers. A more recent comparative study by Hamdi et al. (2019) found that, during the period 2007-2012, Islamic banks were more stable, profitable, and capitalised. Hence, they have performed better than conventional banks during the financial crisis. All of these comparative studies provide evidence for the resilience of the Islamic banking industry during the recent financial crisis. Supporting descriptive statistics are presented in Appendix 2.

The discussions above motivated research into differences between conventional banks and Islamic banks, and the implications of such differences on the governance, performance and financial reporting quality of the two banking sectors.

Hence, this chapter is organised as follows. Section 2.2 introduces some conceptual definitions of corporate governance. Section 2.3 presents the theoretical framework of corporate governance. Section 2.4 presents discussion of the concept of corporate governance in the banking sector. Section 2.5 explores the concept of corporate governance from an Islamic perspective. For the purpose of this exploration, Section 2.5 introduces a background on the Islamic economic system as the foundation for Islamic banks, reviews the basic principles of Islamic banks, and describes the unique corporate and Shari'ah governance model adopted by Islamic banks. Finally, Section 2.6 provides a brief summary of the chapter.

2.2 Defining Corporate Governance

Despite extensive research on corporate governance, there is a lack of consensus on its definition and concept (Solomon and Solomon, 2004; Du Plessis et al., 2010). This is due to the different perspectives from which corporate governance is observed. An early definition

of corporate governance is developed by Tricker in 1984, where corporate governance is defined as "the process by which corporate entities are governed; that is with the exercise of power over the direction of the enterprise and the acceptance of a duty to be accountable" (Tricker, 1984, p. 8). This definition focuses mainly on two aspects: supervision of entities and their accountability. Another definition is provided by Koh (1994), who describes corporate governance as "the process and structure used to direct and manage the business and affairs of the corporation with the objective of enhancing long-term value for shareholders and financial viability of the business" (Koh, 1994, p. 23). This definition clearly adopts a narrow shareholder perspective. On the other side, the Cadbury Committee (1992) offers one of the most common definitions, where corporate governance is viewed as the system by which firms are directed and controlled. The Cadbury Committee gives a quite neutral definition for the concept of corporate governance, as it emphasises the role of both, shareholders and boards of directors. It states that "boards of directors are responsible for the governance of their companies. The shareholders' role in governance is to appoint the directors and the auditors and to satisfy themselves that an appropriate governance structure is in place" (Cadbury Committee, 1992, p. 15). Similarly, Turnbull (1997) views corporate governance as all the forces affecting the institutional functions in a corporation. Both definitions (i.e. the Cadbury Committee, 1992; Turnbull, 1997) consider corporate governance in the context of the board's role and function. From a financial view, Shleifer and Vishny (1997, p. 737) claimed that "corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investments". In other words, their definition elaborates on assuring that investors get reasonable and fair returns on their investments.

A broader definition considers that the objective of a good corporate governance system is to maximise firms' beneficences to the overall economy, through all stakeholders (Claessens and Yurtoglu, 2012). This definition is consistent with the broad definition developed by the Organization for Economic Co-operation and Development (OECD), where corporate governance is viewed as "a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined" (The Organization for Economic Co-operation and Development, 2004, p. 11). Following these definitions, corporate governance would encompass the relationships between the corporation and its shareholders, directors, creditors and employees, and other institutions. Although the definitions of corporate

governance vary between narrow and broad perspectives, Bouheni et al. (2016) conclude that corporate governance is defined as "a set of internal and external mechanisms working together to obtain an efficient and an optimal alignment of all parties' interests, and getting a win-win relationship" (Bouheni et al., 2016, p. 7).

2.3 Theoretical Framework of Corporate Governance

This section aims to develop a theoretical base for this thesis. A number of theories have been used in the literature to explain the role of corporate governance and to describe its practices. However, based on the main aim of this thesis, this section reviews and discusses five theories; agency theory, stakeholder theory, resource dependence theory, and social norms theory.

2.3.1 Agency Theory

The agency theory, which was developed by Jensen and Meckling in 1976, has been used by scholars in many fields, such as economics, accounting, finance, political science and organisational behaviour (Eisenhardt, 1989; Clarke, 2004). The agency theory emerges from the separation of ownership and control, a situation that can be described "as a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent" (Jensen and Mechling, 1976, p. 308). The popular use of the agency theory in the field of corporate governance is due to its clarity and simplicity. The agency theory breaks down the business entity into two parties, the owners (principals) and the managers (agents), where owners delegate management responsibility and authority to managers. This authority delegation results in a possible conflict of interest between the different parties involved. On one hand, a conflict may arise between shareholders and managers, which is referred to as agency cost of equity. On the other hand, a conflict may arise between debtholders and shareholders with managers, a conflict that is referred to as agency cost of debt (Abd-Elsalam, 1999). The conflicts of interest under the agency contracts are due to the different objectives of the parties involved (Fama and Jensen, 1983; Hill and Jones, 1992). In agency theory, owners (shareholders) expect agents to make decisions in the owners' interests. On the other side, the agent does not necessarily act in the best interests of the owners. Under agency contracts, managers are assumed to be self-interested individuals, and hence, they are motivated to act in their own self-interest rather than shareholders' interests. According to

Solomon (2007), shareholders' principle objective is to maximise their own wealth while managers might intend to maximise their personal benefits.

In addition to the conflict of interest in the agency relationship, the parties (principal and agents) do not have the same level of information about the company – as agents have more access to the company's information, relative to the principals who are normally not involved in the business operations. This creates the problem of "information asymmetry" (Noreen, 1988; Arnold and De Lange, 2004; Akhtaruddin and Hossain, 2008; Chen and Liu, 2013). The problem of information asymmetry implies that complete and full information about the business entity is not fairly available to all interested users. Hill and Jones (1992) proposed that the problem of information asymmetry aggravates the agency problem, as managers will be able to manipulate the information they disclose, and owners will not be able to monitor and control managers' actions.

To summarise the core problems arising from agency contract, Lubatkin et al. (2005) proposed a brief review of the agency theory's principal-agent model. They argued that the agency theory is based on four assumptions. First, opportunism is the major threat, because agents (managers) are assumed to be opportunistic by nature, who act in their own interest. Second, the opportunistic behaviour of managers is driven by their desire to maximise their objectives. Third, corporations are characterised by information asymmetry. Finally, the theory's views about enforced compliance and opportunism are not nationally bounded. This review is demonstrated in Figure 2.1.

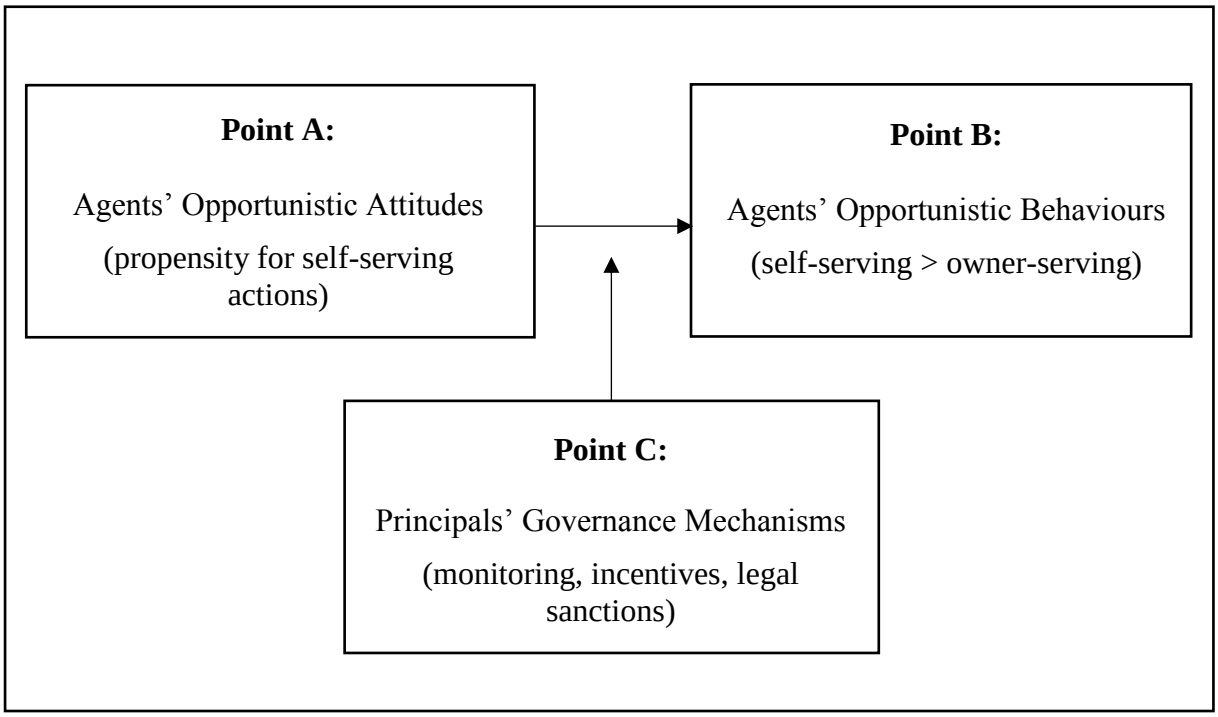

Figure 2.1 Agency Theory's View of Principal-Agent Relationships

Source: Lubatkin et al. (2005)

The agency problems discussed above are even more complex in a regulated environment (i.e. banks and financial institutions). This is due to the peculiar nature of their functions (Ciancanelli and Gonzalez, 2000; Levine, 2004). Banks operate in highly regulated and administered markets and they are characterised by a capital structure that is highly geared. These unique characteristics create additional agency problems that involve market regulators in addition to the classical problems existing between owners and managers. More discussions will be presented later in Section 2.4.

However, principals can, to some extent, protect their interests and mitigate these agency problems by establishing devices and mechanisms, and taking a number of actions to monitor and control management performance. These actions are intended to reduce the agency costs, and are grouped into three categories: monitoring costs, bonding costs, and residual costs (Jensen and Meckling, 1976; Kelly, 1983; Hoque, 2006). Monitoring costs are those related to observing the managerial behaviour and any action that limits opportunistic behaviour (Deegan, 2000; Wang, 2010). Bonding costs relate to all the procedures to align managers' interests with shareholders' interests (Denis, 2001; Boučková, 2015). Basic examples for such

procedures are the incentive contracts that intend to align agent's interests with those of owners. These contracts can take a variety of forms, such as stock options or share ownership. All costs, other than monitoring and bonding costs, are referred to as residual costs (Wang, 2010). Indeed, there is a general agreement in the literature that effective corporate governance mechanisms can reduce agency problems, as the role of these mechanisms involves monitoring and controlling the management in order to achieve the maximum benefit for all parties involved (La Porta et al., 2000; Fan and Wong, 2005; McKnight and Weir, 2009; Filatotchev and Wright, 2011). It has been claimed by Hart (1995), that corporate governance will be worthless in the absence of agency problems.

Denis (2001) suggests two main criteria for any corporate governance tool: the tool should have a role in reducing the conflicts of interest in the agency contract and it should have a significant impact on firm performance. According to the agency theory, the board of directors is considered the most influential internal governance mechanism (Fama and Jensen, 1983). With respect to its role, the agency theory focuses on the role of the board to monitor managerial acts in order to protect the interests of owners. It also considers the fiduciary responsibilities of board members to ensure that managers act in the best interest of shareholders (Miller, 1993).

From an Islamic banking perspective, although the agency theory has been used in Islamic banking literature, agency problems are more severe in Islamic banks, relative to conventional banks. This is due to the peculiarity of Islamic banks' structure and operations. Firstly, as the Islamic banks' operations should comply with the principles of Shari'ah, any departure from these principles creates additional agency problems (Mollah et al., 2017). According to Safieddine (2009, p. 144), "A large percentage of capital providers – shareholders and investors – to Islamic financial institutions are extremely concerned that their funds are invested in a Shari'ah-compliant manner". Secondly, the equity-based contracts between the Islamic banks and their depositors (the Investment Account Holders (IAHs)) allow banks to share in profits with IAHs, but under these contracts, IAHs are not allowed to be involved in managing their funds. In other words, the Islamic banks have discretion over management and control of depositors' funds, while IAHs have no voting rights in shareholders' meetings (Darmadi, 2013). IAHs are viewed as "principals entrusting their resources to an agent, the financial institutions' management – with the significant difference that, in their case, the agent is appointed by another principal, namely, the shareholder" (Grais and Pellegrini, 2006, p. 22). The complex contractual structures in Islamic banks might motivate managers to act opportunistically (i.e. put less effort in managing depositors' funds, extract private benefits at

the expense of depositors) (See Section 2.5.2 for more discussions on the basic principles of Islamic banking). Finally, it has been argued by a number of researchers that existing international accounting rules and standards may not accurately reflect the actual performance of Islamic banks.

In summary, the management in Islamic Banks is recognised as a double agent; to shareholders and to Investment Account Holders (Farag et al., 2018). That is to say, agency issues in Islamic banks do not solely emerge from the separation of owners and managers, but also from the separation of depositors' cash flow and control rights (Safieddine, 2009).

2.3.2 Stakeholder Theory

The discussions of agency problems often focus on the relations between owners (shareholders) and managers. Under this model of corporate governance, owners have the control right and managers have a fiduciary responsibility to manage and protect owners' interest. However, this approach has been criticised for being too narrow, and focusing on profit-maximisation as the firm's objective (Christopher, 2010).

When comparing the stakeholder theory with the agency theory, the former rejects the concept that shareholders' profit-maximisation is the only objective of a firm. The stakeholder theory is based on the assumption that firms have responsibilities to a broad range of stakeholders than only to shareholders (Freeman, 1999). Under the stakeholder theory, the society expects beneficial behaviour from corporations in terms of their economic and social role. Accordingly, corporate managers are responsible for selecting activities and managing resources to attain benefits evenly for all stakeholders (Donaldson and Preston, 1995). A stakeholder is defined as "any individual or group who can affect or is affected by the achievement of the organisation's objectives" (Freeman, 1994, p. 46).

Unlike the concept of the agency theory that "managers are working and serving for the shareholders, stakeholder theorists suggest that managers in organizations have a network of relationships to serve – this includes the suppliers, employees and business partners" (Bouheni et al., 2016, p. 21).

The use of the stakeholder theory in explaining the association between corporate governance and financial reporting quality is justified by Hoque (2006) and Prior et al. (2008), who document that, in order for managers to improve their private interests, they may be motivated to manipulate earnings. However, both agency and stakeholder theory provide that, shareholders and other stakeholders can monitor managers via different corporate governance

mechanisms. Consistent with these views, Mattingly et al. (2009) provide evidence that good corporate governance, financial reporting quality, and low earnings management are associated with organisation's stakeholder management.

The foundations of the Islamic economic system imply that the stakeholder theory is more applicable to the Islamic framework, given the concept of equitably protecting the rights of all stakeholders (whether they hold equity or not). The main arguments that support stakeholder theory in the Islamic framework are based on the principle of property rights in Islam. Although the right of individual property is acknowledged in Islam, this right ought to be exercised with due care to preserve the interest of a large group of stakeholders (Bashir, 1999).

To distinguish between agency theory, which is believed to present a shareholder perspective, and the stakeholder theory, Figure 2.2 demonstrates the key distinctions between the two theories.

	Agency Theory (Shareholder Perspective)	**Stakeholder Theory (Stakeholder Perspective)**
Objective	Maximise shareholder wealth	Multiple objectives of parties with different interest
Governance structure	Principal-agent model	Team production model
Governance process	Monitoring and control	Coordination, cooperation and conflict resolution
Performance metrics	Shareholder value sufficient to maintain investors' commitment	Fair distribution of value created to maintain commitment of multiple stakeholders
Residual hazard holder	Shareholders	All stakeholders

Figure 2.2 Comparison between Agency Theory and Stakeholder Theory

Source: Ayuso (2009)

2.3.3 Resource Dependence Theory

Despite the dominance of the agency theory in the corporate governance literature, it has been criticised for focusing entirely on a single board function (i.e. monitoring) and overlooking another important function (i.e. provision of resources to the firm).

According to resource dependence theorists, the provision of resources is another essential board function (Pfeffer, 1972; Boyd, 1990; Hillman et al., 2009). This function is reflected by the ability of the board members to bring resources to the corporation. The theoretical foundation of the resource provision function is based on the work of Pfeffer and Salancik (1978, p. 163), where they express that "when an organization appoints an individual to a board, it expects the individual will come to support the organization, will concern himself with its problems, will variably present it to others, and will try to aid it". The resource dependence theory highlights that boards of directors are responsible for providing resources to corporations, not just monitoring and evaluating managers (Hillman and Dalziel, 2003).

Proponents of resource dependence theory claim that, in order for corporations to survive, they need resources from the external environment, as these corporations cannot be entirely reliant on themselves in operating capacity, and the resources are needed to add value to the corporation (Aldrich, 1999; Rao et al., 2007). The board members provide corporations with four basic benefits: (1) legitimacy, (2) advice and guidance, (3) advantageous access to external resources, and (4) linkages and networks with other organisations (Zahra and Pearce, 1989; Judge and Zeithaml, 1992; Hillman et al., 2001; Johnson et al., 2013).

The primary determinant of resource provision by boards is the board capital, which refers to the directors' knowledge, skills, experience and reputation. Hillman and Dalziel (2003) asserted that board capital is positively associated with the benefits provided by corporate boards. Board capital has been related to the provision of legitimacy, as prestigious boards provide confirmation of the value of the firm to the rest of the world (Pfeffer and Salancik, 1978). Furthermore, board capital (i.e. experience and skills) is relevant to the provision of advice and guidance. In addition, directors' ties can help firms to obtain key resources at favourable terms (Geletkanycz and Hambrick, 1997). The board capital also encompasses social capital (relational capital), which refers to "the sum of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal, 1998, p. 243). Finally, directors' external ties provide channels of communication, which can play a substantial role in

disseminating information across firms and facilitating access to strategic opportunities (Haunschild and Beckman, 1998; Nicholson and Kiel, 2007).

Figure 2.3 below illustrates how the agency theory and the resource dependence theory are integrated to explain the relation between board of directors and the quality of financial reporting. The agency theory argues that the board of directors provides monitoring over financial reporting quality to ensure that the corporation provides high quality financial information to the users and to ensure the managerial opportunistic behaviour is constrained, while the resource dependence theory focuses in the resource provision function of the board, where board members provide essential resources to the corporation through their skills, expertise, and links with the external environment.

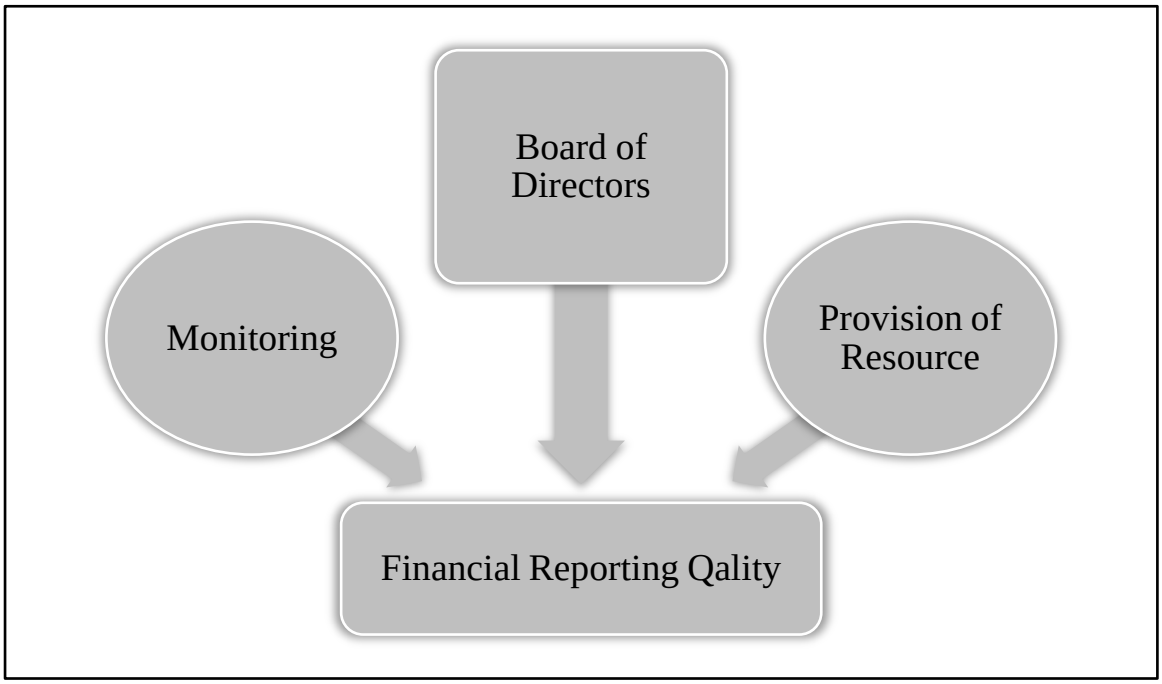

Figure 2.3 Integrating the Agency Theory and Resource Dependence Theory to Explain the Relation between Board of Directors and Financial Reporting Quality

Source: Hillman and Dalziel (2003)

2.3.4 Social Norms Theory

Despite the dominance of the agency theory in explaining many aspects of the contracting environment, it has been criticised for its assumption that self-interest is the sole explanation of managerial behaviour, as this focuses mainly on extrinsic rewards, and ignores intrinsic rewards such as self-satisfaction and ethical conduct (Ferraro et al., 2005; Cohen et al., 2007).

Social norms[1] are defined as "informal, mostly unwritten, rules that define acceptable, appropriate, and obligatory actions in a given group or society" (Cislaghi and Heise, 2018, p. 2). Social norms may also refer to perceived social pressure on individuals either to do or not to do (Abduh et al., 2011).

Prior studies have demonstrated that social norms influence managerial behaviour, as social norms represent the prevailing code of conduct and ethics that are jointly shared by a group of individuals. To illustrate, Bosse and Phillips (2016) argued that self-interested managers would attempt to maximise their own interests only as long as they are not violating what they perceive to be social norms of fairness and reciprocity. Hence, according to the social norms theory, corporate managers' practices are influenced by their informal beliefs and values, in addition to the formal organisational governance arrangements.

Religiosity, conceptualised as the extent of adherence to religious promulgations, represents a prime example of social norms. The social norms theory predicts that religious norms influence individuals' behaviours and decision making (Dyreng et al., 2012). Islamic banks exemplify ethically and religiously oriented organisations, which are assumed to operate in compliance with Shari'ah rulings and with social norms[2] underlying these rulings. The Islamic moral system stems from coherent guidelines that control all religious, social and economic affairs (Haniffa and Hudaib, 2002). Among the moral and ethical values stressed by Islamic principles are honesty, transparency, truthfulness and integrity (Ali and Al-Owaihan, 2008), which are all expected to constrain managers from engaging in ethically questionable activities.

[1] A norm is defined as "a construct that has widespread usage because it helps describe and explain human behaviour" (Cialdini and Trost, 1998, p. 151).
[2] Social norms in Islamic banks fulfil the religious obligations of trust (*Amana*), which requires managers to behave per the principles of justice (*Adl*), balance (*Qist*) and perfection (*Ihsan*) (Beekun and Badawi, 2005).

2.4 Corporate Governance in Banking

The agency problems resulting from agency contracts that have been discussed in Section 2.3.1 are even more complicated in banks. Banks operate in highly regulated environments, characterised with great opaqueness of transactions and activities. Accordingly, the notion of corporate governance in the banking sector exhibits its own attributes and characteristics. This is due to the banks' unique features, which aggravate governance problems and may lessen the effectiveness of traditional governance structures. The first unique feature of banks is that they are highly leveraged (Macey and O'Hara, 2003; Levine, 2004; Laeven, 2013). Relative to non-financial firms, the primary providers of capital to financial firms are depositors and other debtholders (John et al., 2016). According to Gornall and Strebulaev (2018), the average leverage of U.S. banks has been between 87% and 95% over the last 80 years. These high leverage ratios imply that agency costs are likely to be higher in banks, relative to non-financial institutions. This is due to the fact that banks are exposed to a higher degree of the moral hazard problem, when compared to non-financial institutions (John et al., 2016). Because depositors are the major capital providers, their interests may deviate from shareholders' interests. Furthermore, the high leverage provides incentives for managers to invest in risky projects, as debtholders bear more of the excessive risk (John and Senbet, 1998). Another unique feature of banks relates to the number of stakeholders. Banks are characterised by large number of stakeholders relative to non-financial firms.

The third unique bank characteristic that contributes to the importance of governance in banks is the complexity and opacity of their activities, which in turn increases the level of informational asymmetries (Morgan, 2002; Becht et al., 2012). Greater information asymmetry in banks arises from the ability of banks to hide valuable information about loan quality and structure, making it difficult to monitor their activities, which in turn threatens the traditional corporate governance mechanisms (Furfine, 2001; Caprio and Levine, 2002; Levine, 2004). Beside the problem of information asymmetry between owners and managers, Ciancanelli and Gonzalez (2000) claimed that there are three more forms of information asymmetry in banks: (1) among depositors, the bank and the regulator; (2) among borrowers, managers, and the regulator; and (3) among owners, managers and the regulator. Finally, banks are subject to intense liquidity problems due to the mismatch between their assets and liabilities (Diamond and Dybvig, 1983; Bai et al., 2018).

These unique bank features indicate the need for more effective and distinct corporate governance measures for banks, in order to control for the high agency costs. From this view, the Basel Committee on Banking Supervision (BCBS) illustrates that corporate governance,

from a banking industry viewpoint, "involves the manner in which the business and affairs of banks are governed by their boards of directors and senior management" (Basel Committee on Banking Supervision, 2006, p. 4). This implies that corporate governance affects the way banks set their objectives, their operations and their day-to-day business, the way they meet their obligations, and the way in which they protect the interests of their depositors. Due to the special nature of the banking institutions, banking governance plays a special role. Accordingly, Adams and Mehran (2003) and Macey and O'Hara (2003) conclude that governance structures are industry specific, given the systematic differences they found between the governance of banks and manufacturing institutions.

To summarise the difference between banking governance and corporate governance, Caprio and Levine (2002) highlight two features of financial institutions that affect corporate governance. The first feature relates to the greater information asymmetries in banks, which makes it difficult for owners to monitor management and easier for managers to maximise their personal benefits. The second feature relates to the heavy regulations imposed on banks, which hinder natural corporate governance mechanisms.

With regard to corporate governance mechanisms, they can be categorised into two groups: mechanisms that are internal to firms and those external to them (Denis and McConnell, 2003; Gillan, 2006). From a broad perspective, internal governance mechanisms are grouped into five categories: (1) board of directors (including its role, structure and incentives), (2) managerial incentives, (3) ownership structure, (4) bylaw and charter provisions, and (5) internal control systems. This categorisation positions the board of directors at the apex of the internal governance system, charged with the responsibility of approving primary business strategies and ensuring that top managers act in the best interests of shareholders (Cerbioni and Parbonetti, 2007; Allegrini and Greco, 2013). In discharging their responsibility of managing and supervising banks' business affairs, 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 in comparison to those of other directors. According to Macey and O'Hara (2003), boards of directors are not only required to make careful and prudent decisions to ensure the safety and soundness of the banks, but they are also required to provide careful oversight of banks' operations. Board monitoring is a function of its structure and composition (i.e. board sub-committees), as most critical board decisions originate at the committee level (Kesner, 1988, Adams et al., 2015). Board sub-committees are composed of board members and are responsible to the board. These sub-committees have specific functions defined by the board. It has been argued that there are four

board committees that significantly affect firm activities: the audit, compensation, executive and nomination committees.

Furthermore, the managerial incentives (i.e. compensation policies) that are chosen by the boards of directors can have a role in aligning shareholders' interests with managers' interests. Among these policies are the option-based compensations. Additionally, prior literature provided evidence for the role of capital structure of an entity (different classes of stock and debt) in mitigating potential agency costs (Gompers et al., 2004; Klock et al., 2005). For example, ownership concentration, managerial ownership and debt financing have all been discussed as ways of reducing agency costs (Short and Keasey, 1999; Beiner et al., 2003; Singh and Davidson, 2003).

With regard to the external governance mechanisms, Gillan (2006) classified the following as external mechanisms: government agencies, external regulatory authorities, capital markets, labour markets, external auditors, market analysts and the media. These mechanisms are vital in facilitating and supporting the accomplishment of corporate governance models. However, discussions of the role of external governance mechanisms are out of the scope of this thesis.

Figure 2.4 below illustrates the classifications of the corporate governance mechanisms, according to Gillan (2006).

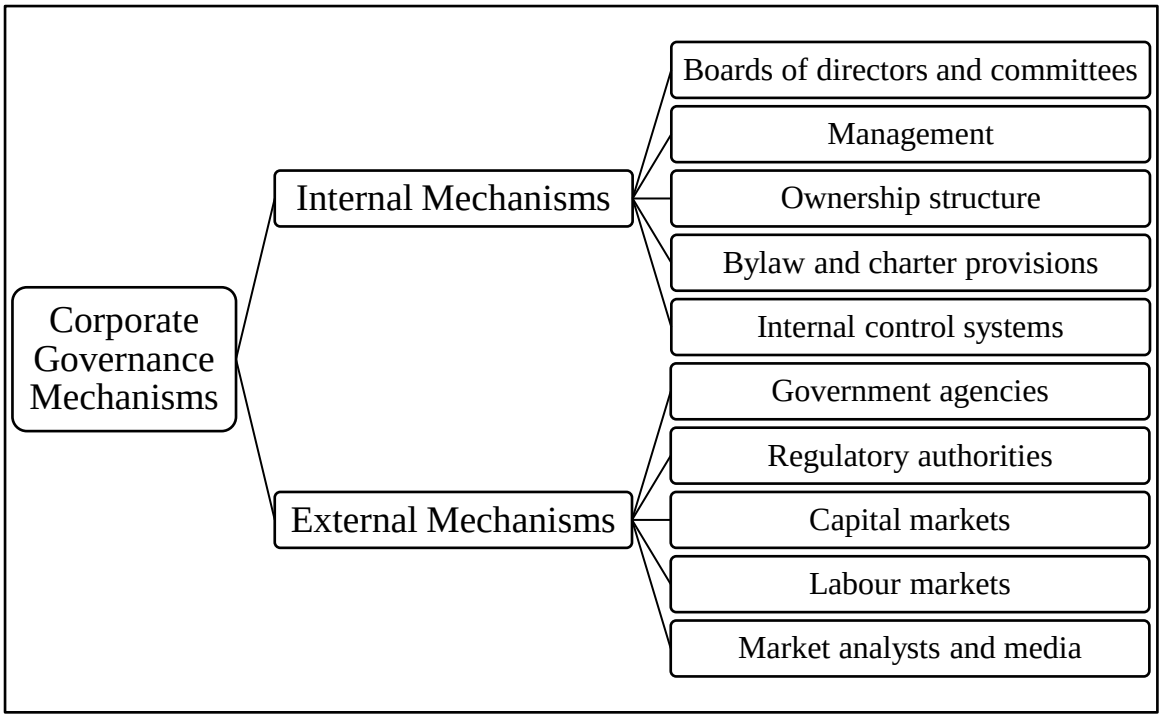

Figure 2.4 Classifications of Corporate Governance Mechanisms

Source: Gillan (2006)

2.5 Corporate Governance: An Islamic Perspective

This section aims to explore the concept of corporate governance from an Islamic perspective, within the context of Islamic banks. For the purpose of this exploration, a background on the Islamic economic system will be presented. This is followed by a review of the basic principles of Islamic banks. Finally, the unique corporate and Shari'ah governance model adopted by Islamic banks will be described.

2.5.1 Background on the Islamic Economic System

Islam is a religion that is not designed only to shape and regulate the relation between the creator and the human beings. Islam is believed to be a way of life that intends to govern the lives of individuals in different ways (i.e. social, political, cultural and economic) (Iqbal and Tsubota, 2006). The economic pillar of the society has received great attention by Islam. Therefore, the influence of Islam made the Islamic economic system distinct from other economic systems, schools and theories (Al Janahi, 2010), that attempts to satisfy the needs of individuals and communities in accordance with the Islamic law. One of the features that distinguish the Islamic economic system from other systems is the dual control embedded in it. On one side, individuals mind their behaviour to avoid misconduct, and on the other side, state authorities monitor and control behaviour to ensure social and economic stability. The second feature differentiating the Islamic economic system is the balance between individuals' interests and the public interest. This is achieved through fair allocation and disbursement of limited resources according to the rules of Shari'ah[3]. The Islamic economic system gives people the flexibility to enter into transactions, and it acknowledges the right to private ownership. In addition, this system promotes the production and trading of particular goods and services that support economic growth (Ginena and Hamid, 2015).

Hence, a primary objective of the Islamic economic system is to promote just and honourable lives for people. According to Chapra (1985), the Islamic economic system ensures fairness and freedom, as Islam itself aims to promote economic fairness and social equality.

Based on the aforementioned philosophical foundations, the Islamic economic system is defined as "the knowledge and application of injunctions and rules of the Shari'ah that prevent injustice in the acquisition and disposal of material resources in order to provide satisfaction to human beings and enable them to perform their obligations to Allah and to society"

[3] Shari'ah is defined as a set of laws, norms, values and ethics that govern the life of Muslims. It exists to protect the welfare of people by safeguarding their life, faith and wealth (Iqbal and Tsubota, 2006).

(Hasanuz Zaman, 1984, p. 50). This definition highlights two crucial concepts of the Islamic economic system: it is bound by Shari'ah and it aims at the well-being of people and society. Although this system considers social justice, it does not deter individuals from seeking gains and wealth; however, these actions should be bounded by the Shari'ah rules (Nor, 2012).

With regard to the aspects mentioned above, the Islamic economic system is completely different from other economic systems (i.e. capitalism and socialism), as it is viewed as a way of approaching economics ethically. The ethical base provides the guidelines for governing all forms of economic activities. The Islamic ethics and morality are a basic reason for people to adhere to regulations even in the absence of authority (Ginena and Hamid, 2015).

Understanding the basic characteristics of the Islamic economic system facilitates the understanding of Islamic banking, which is part of this system. The basic principles and characteristics of Islamic banks are presented next.

2.5.2 Basic Principles of Islamic Banking

The Islamic banking industry has demonstrated a rapid growth level, not only in Muslim countries, but also in other countries around the world. The financial assets of the Islamic finance industry amounted to $1.7 trillion in 2013, and were expected to reach $6.5 trillion by 2020 (Ernst and Young, 2016). Islamic banking generally refers to the application of Islamic rules and principles to banking activities. Islamic banks are those that follow Islamic Shari'ah principles in their business transactions. According to Al Janahi (2010, p. 66), "Islamic banks are financial institutions that aim to collect deposits in society and then invest the money in order to make a profit for either their depositors or for their shareholders. Islamic banks are commercial companies that have an obligation to provide banking products and services that comply with Shari'ah law". These banks operate on a banking model, which prohibits usury, excessive uncertainty and speculation, while encouraging risk and profit sharing between the bank and its depositors (Saif Alnasser and Muhammed, 2012). The primary objective of Islamic banks is to satisfy the financial needs of Muslims, who seek to avoid interest – whether paid or received – which is prohibited in Islam.

The prohibition of interest (*riba*) represents the keystone of the Islamic banking system. However, it is not the sole distinguishing principle; there are other principles governing the Islamic banking system. These principles involve the prohibition of ambiguity (*gharar*) and gambling (*maisir*), trade-based activities, and the profit and loss sharing paradigm.

Riba is one of the main prohibited elements in Islamic finance. The meaning of the word *riba* in Arabic is increase, addition or growth. Although *riba* generally refers to interest, it has been argued that the concept has a wider definition than simply pertaining to interest. In the pre-Islam era, *riba* used to be a common practice. When borrowing money, the borrower had to pay a specific amount above the principle to the lender, as a payment for the use of money for a given period. *Riba* can also refer to any predetermined return in a financial activity (Aggarwal and Yousef, 2000). According to Naughton and Naughton (2000), *riba* takes in all forms of exploitation and extreme charges in business dealings. The rationale behind the prohibition of *riba* is that it violates the concept of social justice, as it will result in an uneven allocation of risks and rewards (Ahmad and Hassan, 2007). According to Shari'ah principles, *riba* is harmful to the society because it allows individuals (creditors) to gain income without making any effort.

Additionally, Islamic principles prohibit excessive uncertainty and ambiguity (*gharar*). *Gharar* refers to the uncertainty caused by deficiency in the clarity of values intended to be exchanged. It can be illustrated as the "sale of probable items whose existence or characteristics are not certain, due to the risky nature which makes the trade similar to gambling" (Khir et al., 2008, p. 57). *Gharar* may involves the sale of an item that is not currently at hand, or a sale transaction that involves uncertain hazards. Such transactions are highly risky and might lead to undesirable consequences. To ensure that a transaction is free from *gharar*, the commodity must be identified by all the contracting parties (Ayub, 2007). In addition to *riba* and *gharar*, gambling (*maisir*) is also prohibited in Islam. It refers to any form of business activity where wealth and gains are obtained merely by chance or speculation, whether or not it deprives the rights of another party (Ibrahim and Hameed, 2009).

Trade-based activities are employed to replace interest-based activities, which are prohibited in Islam. These activities include contracts of exchange, whether to exchange goods for money or exchange services for money. This implies that all transactions of Islamic banks are backed by real economic activities that include tangible assets or services. Trade-based activities in Islamic banks may include *murabaha* (mark-up), *bai'mua'jjal* (deferred payment sale), *bai'salam* (purchase with deferred delivery) and *istisna'a* (commissioned manufacture).

Finally, the profit and loss sharing paradigm is a crucial distinguishing attribute of Islamic banks. Due to the prohibition of *riba*, depositors in Islamic banks are recognised as investment account holders (IAHs) who enter into contracts with the bank. Under these arrangements, both the provider of the capital and the entrepreneur jointly share the risks

through profit and loss: they both gain when returns are favourable and suffer when returns are poor (Ahmed, 2008). This model is expected to enhance social justice and reduce the inequitable distribution of wealth. The basic examples of contracts that are based on profit-loss sharing are *mudaraba* and *musharaka*. Under *mudaraba* contracts, investors provide the capital to the entrepreneur, with the agreement to share profits at a predetermined ratio, while loses are completely borne by the investors (Aggarwal and Yousef, 2000). On the other side, under *musharaka* contracts, all profits and losses are shared among all investors according to an agreed-upon ratio (Belal et al., 2015). To distinguish between these two contracts (*mudaraba* and *musharaka*), Figure 2.5 below illustrates the differences between them.

	Mudaraba	***Musharaka***
Investment	From the investor "r*ab-el-mal*"	From all partners
Partners	- The investor has no right to participate in managing the investment - The loss is borne solely by the investor	- The investor can contribute to the management of the investment - Losses are shared between the investor and the entrepreneur according to their investments
Liabilities	The responsibility of the investor is limited to the amount invested	If m*usharaka* is dissolved and liabilities exceed assets, the gap is supported by all partners
Profits	The property acquired by the entrepreneur is exclusively owned by the investor. The entrepreneur is entitled to share only the profit from the sale of the property	Profits are shared by all partners according to their contributions

Figure 2.5 Differences between Mudaraba and Musharaka Contracts in Islamic Banks

Source: Bouheni et al. (2016)

2.5.3 Shari'ah Governance in Islamic Banks

Recent corporate failures and the collapse of prestigious banks such as Lehman Brothers and Bear, Stearns & Co. Inc. have increased focus on the effectiveness of corporate governance structures in banks, and have stressed the need to adopt strong governance mechanisms, which are vital in protecting stakeholders' interests. This need extends from conventional banks to Islamic banks as well.

The concept of corporate governance in Islamic banks does not vary much from that in conventional banks, as it refers to the system by which corporations are managed, directed and controlled in order to achieve corporate objectives. However, the corporate governance in an Islamic bank is likely to be perceived as being more complex than that in a conventional bank. In addition to ensuring that managers act in the best interests of shareholders and stakeholders, corporate governance systems in Islamic banks are also required to ensure that all transactions and activities are in compliance with Shari'ah (Archer et al., 1998). According to the Islamic Financial Services Board (IFSB) (2006), corporate governance in an Islamic bank is defined as "a set of organisational arrangements whereby the actions of the management of an Institution offering only Islamic financial services (IIFS) are aligned as far as possible with the interests of its stakeholders" (Islamic Financial Services Board, 2006, p. 27). The Islamic Financial Services Board extends the definition of corporate governance and emphasises the need to provide incentives for the board of directors and management to protect stakeholders' interests, to promote effective monitoring, and to ensure compliance with Islamic Shari'ah principles.

The above definition implies that the key outstanding feature distinguishing the governance system of Islamic banks from that of conventional banks is Shari'ah compliance. It is a primary point of attraction for investors and depositors, as they need assurance that Shari'ah compliance claims made by the Islamic banks are true. The assurance on Shari'ah compliance is achieved through the Shari'ah governance model, which is defined as "the overall system that manages the conformity of the activities of Islamic banks and financial institutions to the precepts of Shari'ah pertaining to transactions" (Ginena and Hamid, 2015, p. 80). A sound and well-functioning Shari'ah governance model is required to enhance the confidence and trust of stakeholders of Islamic banks.

In an attempt to compare Islamic principles of corporate governance with conventional principles of corporate governance, Abu-Tapanjeh (2009) analysed the similarities and differences between the conventional corporate governance and the Islamic corporate

governance. In this attempt, Abu-Tapanjeh referred to the principles of corporate governance endorsed by the Organization for Economic Co-operation and Development (OECD) in 2004. He concluded that Islamic perspectives of corporate governance are broader than conventional principles of corporate governance, given that all actions and obligations in Islamic institutions fall under the law of Islam, whereas the conventional corporate governance principles focus on six specific issues and obligations. These issues involve: ensuring the basis for an effective corporate governance framework, the right of shareholders, the equitable treatment of shareholders, the role of stakeholders in corporate governance, disclosure and transparency and the responsibilities of the board (Abu-Tapanjeh, 2009). Hence, Islamic institutions are subject to stricter scrutiny and monitoring relative to their conventional counterparts. In the same vein, Sheikh Obid and Naysary (2016) compared Islamic corporate governance principles with conventional corporate governance principles. Figure 2.6 below presents the comparison between the conventional principles with the Islamic principles.

Issue	Conventional Corporate Governance	Islamic Corporate Governance
(1)	Focuses on economic performance of the firm	Takes into account the spiritual needs and religious values
(2)	Managers have fiduciary duty toward shareholders	Managers have fiduciary duty toward shareholders and Investment Account Holders (IAHs)
(3)	The equitable treatment of shareholders	IAHs require more information
(4)	Responsibility to stakeholder whose rights are stipulated in law or agreement (employees and creditors)	Accountable to welfare and well-being of wide range of stakeholders
(5)	Disclose financial and non-financial information in line with accounting standards	In addition to financial and non-financial information, disclosure of Shari'ah pronouncements and resolutions
(6)	The roles and responsibilities of the board (competent and independent to effectively monitor the firm)	In addition to the board, the Shari'ah board monitors the functions of the firm to ensure the Shari'ah compliance

Figure 2.6 Comparison of Conventional Corporate Governance Principles with Islamic Principles

Source: Sheikh Obid and Naysary (2016)

In order to comprehend the corporate governance framework in Islamic banks, it is crucial to examine the roles and duties of its key participants. According to Safieddine (2009), the key governance organs of Islamic banks are: board of directors, Shari'ah supervisory board, audit committee, compensation committee, nomination committee, internal control, internal audit, and external audit. The roles of these governance elements are very similar to those of conventional banks. The key difference lies in the existence of an additional layer of governance (i.e. the Shari'ah supervisory board), which could serve as an effective mechanism to monitor Islamic banks' prioritisation of social norms. The importance of the role played by the Shari'ah supervisory board stems from the Islamic banks' need for stakeholders' trust and confidence, as this will affect their stability (Grais and Pellegrini, 2006).

The Shari'ah supervisory board is responsible for monitoring the Islamic banks' activities and funding decisions. Its members (Shari'ah scholars) act as investigators in conducting independent audits, and issue a separate report as part of the bank's financial statements. The aim is to certify that the bank's operations are free of elements prohibited by Islamic principles (some copies of Shari'ah reports are presented in Appendix 1). Moreover, Shari'ah supervisory board members may also have to review additional information and reports, such as operational and financial reports and policies (Abdul Rahman and Bukair, 2013). This responsibility of the Shari'ah supervisory board is similar to that of the independent external audit.

In an attempt to demonstrate the uniqueness of the governance model in Islamic banks, Abdelsalam et al. (2016) illustrated the interactions between the various parties (i.e. the board of directors and its sub-committees, the Shari'ah supervisory board, the management, the shareholders and creditors, and the depositors). They argued that the board of directors, acting as the first layer of governance, provides legal monitoring over managerial behaviour. While the Shari'ah supervisory board, acting as the second layer of governance, provides moral monitoring over management. They also claimed that the legal monitoring and the moral monitoring by the board of directors and Shari'ah supervisory board, respectively, reduce the agency costs.

2.6 Summary

This chapter presented the discussions on corporate governance from two perspectives: the conventional perspective and the Islamic perspective. It began by providing conceptual

definitions for corporate governance and developed a theoretical framework for corporate governance. The theoretical framework integrates the agency theory, stakeholder theory, resource dependence theory, and social norms theory. Thus, the framework addressed the monitoring and controlling function of the board of directors, in addition to its function of providing resources to the firm. Then, the chapter briefly identified the unique characteristics of banking institutions and their implications for corporate governance systems. Moreover, some key corporate governance participants were identified.

This chapter also explored the concept of corporate governance from an Islamic perspective by reviewing the basic principles of the Islamic economic system and the Islamic banking industry. The discussions demonstrated the unique features of the Islamic banking industry. Finally, the chapter described the unique extended governance model in Islamic banks by identifying the key participants, making a special reference to the extra layer of governance in Islamic banks (i.e. the Shari'ah supervisory board).

Chapter Three: Literature Review on Financial Reporting Quality and Corporate Governance

3.1 Introduction

The previous chapter presented discussions on the concept of corporate governance from two alternative perspectives; the conventional and the Islamic. It developed the theoretical framework for the corporate governance models from both perspectives. It also described the unique extended governance model in Islamic banks.

The aim of this thesis is to examine the role of different corporate governance mechanisms in enhancing the financial reporting quality in conventional and Islamic banks. Based on this objective, this chapter aims to review and discuss the existing literature related to financial reporting quality and different corporate governance mechanisms that have a role in enhancing financial reporting quality. Hence, this chapter is organised as follows. Section 3.2 discusses the concept and definitions of financial reporting quality. Section 3.3 reviews different measures used in the literature to assess the quality of financial reporting. Based on the objectives of this thesis, the quality of financial reporting is assessed from two alternative perspectives: the opportunistic earnings management perspective and the information perspective. Section 3.4 reviews prior studies concerning the role of different corporate governance mechanisms in enhancing financial reporting quality. Finally, section 3.5 presents a brief summary of the literature reviewed in this chapter.

3.2 Financial Reporting Quality: Concept and Definition

The series of accounting scandals witnessed by the twenty-first century has caused severe damage to investors' confidence in capital markets generally, and specifically in financial reporting. The collapse of large and highly reputed corporations in the United States, such as Enron and WorldCom, has raised serious concerns about the credibility of corporate financial reporting.

Accounting information in general, and specifically earnings numbers, is of tremendous importance to the users of financial statements. This is because most financial statement users regard earnings as the ultimate financial performance measure. The importance of accounting information stems from its dual role: informativeness and stewardship (Narayanan and Davila, 1998; Lambert, 2001; Feltham et al., 2006; Drymiotes and Hemmer, 2013).

The informativeness role emerges as a response to the demand by users for information that helps them with their decision-making process. For example, investors need accounting information in order for them to predict future cash flows and assess risk from investments, whereas creditors use accounting information to assess the ability of firms to repay loans as they are due.

In line with the agency theory explained in Chapter 2, the stewardship role stems from the separation of ownership and control, which puts the manager in the position of a steward to the owners (Jensen and Meckling, 1976; Fama and Jensen, 1983). According to the agency theory, managers act as self-interested individuals, and their interests may deviate from those of the owner. To regulate this contractual relationship, and to ensure that owners' interests are protected, there is a need to monitor and evaluate managerial performance. Watts and Zimmerman (1978) claim that financial reporting helps to ensure that managers act in the best interests of shareholders.

To summarise the importance of the informativeness role and the stewardship role, Ronen and Yaari (2008, p. 22) state that "Earnings are summary information. As such, they have the added benefit of conveying valuable information without requiring shareholders to learn the firm's operation in detail, a process that would be costly and cumbersome, and might expose proprietary information to competitors."

In order for the financial statement users to make accurate decisions, they need to rely on high-quality accounting information. Despite the considerable amount of existing literature that discusses the measurements, determinants and consequences of accounting information quality (or simply, earnings quality), no single accepted definition of earnings quality exists. The definition varies depending on the perspective from which the quality is assessed (Goncharov, 2005). Consistent with this claim, Dechow et al. (2010, p. 344) define earnings quality as follows: "Higher quality earnings provide more information about the features of a firm's financial performance that are relevant to a specific decision made by a specific decision-maker."

From a valuation perspective, Penman and Zhang (2002) consider earnings to be of good quality if they can serve as good indicators of future earnings. Their definition highlights the decision usefulness role of earnings. From an economic income perspective, Schipper and Vincent (2003) focused on Hicksian income and argued that earnings are of good quality if they faithfully represent Hicksian income. Furthermore, Francis et al. (2008) defined earnings

quality as the precision and accuracy of the accounting earnings derived from the firm's financial reporting system.

3.3 Assessing Financial Reporting Quality

Financial reporting quality has been assessed in prior literature using various measures that can be classified into two groups: market based and accounting based. The market-based measures are computed using the association between market information and accounting data, which include value relevance, timeliness and conservatism. Accounting-based measures are primarily constructed using accounting data taken from financial statements, and these include earnings persistence, earnings predictability, earnings smoothing, loss avoidance and accruals quality (Francis et al., 2004).

Based on the objectives of this thesis, the financial reporting quality will be assessed from the two different perspectives of opportunistic earnings management and information. Market-based financial reporting quality measures are not within the scope of this thesis. The discussions will be organised as follows: Section 3.3.1 provides a general understanding of the concept of opportunistic earnings management, its definition, the incentives and motivations behind it, and some measures used in the literature to detect earnings management practices. Section 3.3.2 reviews and discusses the prior studies in the literature related to earnings management practices in Islamic banks. Section 3.3.3 presents discussions of financial reporting quality from the information perspective and reviews some measures used to assess the information value of earnings. Section 3.3.4 provides a summary of the empirical studies that have been reviewed.

3.3.1 Earnings Management

The various uses of accounting information are important to many financial statement users, as emphasised earlier. However, providing managers with discretionary power and flexibility to choose among various methods to report accounting earnings would make their choices questionable, as the different methods used would result in different periodic earnings (Christie and Zimmerman, 1994).

Earnings management has been considered as one of the most ethically questionable issues and has attracted the attention of practitioners, academics, standard setters and regulators. Although there is no consensus in the literature on a single accepted definition of earnings management, Healy and Wahlen (1999) offered the most commonly accepted definition.

According to them, "Earnings management occurs when managers use judgement in financial reporting and in structuring transactions to alter financial reports, either to mislead some stakeholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers" (Healy and Wahlen, 1999, p. 368). This definition has been widely used in the literature because it considers both the informativeness role of earnings (earnings management to mislead stakeholders) and the stewardship role of earnings (earnings management to influence contractual outcomes).

In order to investigate what exactly motivates managers to engage in earnings management practices, the prior literature classified the motivations for earnings management into four categories: (1) capital market motivation, (2) contractual motivation, (3) behavioural motivation, and (4) political and regulatory motivation.

The investors' use of accounting information for valuation purposes can push managers to engage in earnings management practices by altering the firm's reported earnings in order to influence its market valuation (Trueman and Titman, 1988; Chaney and Lewis, 1995; Bao and Bao, 2004; Chi and Gupta, 2009; Coulton et al., 2015). A number of studies investigate earnings management behaviour around specific stock transactions such as seasoned equity offerings (SEOs) (Teoh et al. 1998; Shivakumar, 2000; Kim and Park, 2005; Yang et al., 2016), initial public offerings (IPOs) (Friedlan, 1994; DuCharme et al., 2001; Ball and Shivakumar, 2008; Cormier et al., 2014), management buyouts (Perry and Williams, 1994; Chou et al., 2006; Mao and Renneboog, 2015) and mergers and acquisitions (Louis, 2004; Kimbrough and Louis, 2011). All of these studies provide evidence of earnings management practices around specific events to benefit from enhanced short-term stock performance.

With regard to the contractual motivation, both debt contracts and management compensation contracts provide managers with incentives to engage in earnings management practices. In order to obtain debt financing at favourable rates, managers may have incentives to manage earnings to influence the perceptions of debt providers regarding the firm's financial position. Several empirical studies provide evidence of income-increasing earnings management to facilitate the debt-granting process (Bharath et al., 2008; Costello and Wittenberg-Moerman, 2011; Li and Richie, 2016). To control the possible conflict of interests between managers and debt holders, formal debt contracts may indicate some covenants related to the firm's accounting performance. To avoid debt covenant violations, managers may engage in income-increasing earnings management. A considerable number of studies provide evidence of earnings management behaviour to avoid debt covenant violations, thus providing support for

the debt hypothesis (DeFond and Jiambalvo, 1994; Dichev and Skinner, 2002; Beatty and Weber, 2003).

In addition to debt contracts, management compensation contracts can also create incentives for managers to opportunistically manage earnings. This highlights the fact that the separation of ownership and management results in conflicts of interest between managers and shareholders. According to the agency theory, compensation plans are used to align the interests of managers with the shareholders' interests. However, such compensation contracts may motivate managers to use their discretion to manipulate earnings, especially when these contracts are closely tied to the firms' financial performance. Healy (1985) provides one of the earliest pieces of evidences on earnings manipulation to increase managerial compensation. His results suggest that managers' accrual policies are significantly related to the income-increasing incentives of their bonus contracts. This conclusion has been supported by a number of empirical studies (Leuz et al., 2003; Johnson et al., 2009; Sun, 2014).

Another stream of research investigates earnings management practices related to behavioural motivations such as job security concerns. A number of studies examine earnings management surrounding chief executive officer (CEO) changes. These studies anticipate that the incoming CEO is motivated to show a better performance than that of the former CEO because positive good performance affects the manager's reputation and compensation level. A number of studies on earnings management surrounding CEO changes provide evidence of downwards earnings management during the transition year and upwards earnings management in the later periods (Elliott and Shaw, 1988; Murphy and Zimmerman, 1993; Geiger and North, 2006; Hazarika et al., 2012).

Finally, the political environment and government regulations provide incentives for managers to engage in opportunistic earnings management in order to demonstrate their compliance with the regulations and to avoid negative regulatory actions. Early evidence on regulatory motivation to manage earnings is provided by Jones (1991). From a sample number of U.S. firms, she provides evidence of firms' use of income-decreasing discretionary accruals during import relief investigations in order to benefit from government import protection. Earlier research has also documented that industry regulations provide incentives for managers to engage in earnings management (Key, 1997; Johnston and Rock, 2005; Godsell et al., 2017).

The above discussions review prior literature related to different incentives and motivation behind opportunistic earnings management practices. Different measures have been used in

the literature to detect opportunistic earnings management. Among these measures, this thesis focuses on: loss avoidance, income-increasing discretionary accruals, and the magnitude of discretionary accruals. Detailed discussions on these measures are presented in the first empirical study (Chapter 4).

3.3.2 Earnings Management Practices in Islamic Banks

The literature reviewed above reveals that managers of conventional banks tend to take advantage of their discretionary power in financial reporting to manage reported earnings. Within the Islamic banking context, previous research in earnings management has been inconclusive.

Before reviewing studies that examine earnings management practices in Islamic banks, it should be noted that Islamic banks exemplify ethically and religiously oriented organisations, which are assumed to operate in compliance with Shari'ah rulings and with the moral codes underlying these rulings. The Islamic moral system stems from coherent guidelines that control all religious, social and economic affairs (Haniffa and Hudaib, 2002). Among the moral and ethical values that Islamic principles stress are honesty, transparency, truthfulness and integrity (Ali and Al-Owaihan, 2008), all of which are expected to constrain managers from engaging in ethically questionable activities such as earnings management.

Consistent with the above arguments, some studies in the literature provide evidence that Islamic banks are less likely to manage their earnings relative to conventional banks. Taktak et al. (2010) examine income smoothing practices in a sample of 66 Islamic banks operating in 19 countries, for the period 2001 to 2006. They found that Islamic banks do not use loan loss provisions to manage or smooth their earnings. They claim that the fact that Islamic principles are against opportunism justifies the results of their study. They also argue that the dynamic provision policies adopted by Islamic banks result in stable earnings without managerial intervention.

Similarly, Taktak (2011) investigated the nature of income smoothing practices in a sample of 79 Islamic banks across 19 countries. She concludes that Islamic banks do not discretionarily smooth their earnings. She claims that smooth earnings in Islamic banks arise from stable financing and investment activities.

Hamdi and Zarai (2012) examined earnings management practices in a sample of 125 Islamic banking institutions across 27 countries. They find that earnings management phenomenon is not as obvious in Islamic banks as in non-Islamic banks.

Furthermore, Quttainah et al. (2013) analysed a sample of 84 Islamic banks and 82 conventional banks from 15 countries. They examined whether Islamic banks are less likely to manage their reported earnings than conventional banks. Using loss avoidance and discretionary loan loss provisions as measures for earnings management, they found that Islamic banks are less likely to engage in opportunistic earnings management relative to conventional banks. They also investigated whether and how the existence of an additional layer of governance (i.e. the Shari'ah supervisory board) within Islamic banks affect their earnings management behaviour. Their results show that several Shari'ah supervisory board factors, namely the presence and the number of members from the Accounting and Auditing Organization for Islamic Financial Institutions, are associated with less earnings management.

More recent work by Abdelsalam et al. (2016) and Elnahass et al. (2018) confirm earlier findings that Islamic banks are less likely to manage their earnings than conventional banks. Abdelsalam et al. (2016) conducted a comparative study, where they analysed Islamic banking institutions and compared them with their conventional counterparts. They provide evidence that Islamic banks adopt more conservative accounting policies relative to conventional banks. Regarding earnings management behaviour, they find that Islamic banks report small positive income less frequently, experience a relatively small difference between discretionary loan loss provisions and realised security gains and losses, and have less discretionary accruals. Their findings indicate that Islamic banks are less prone to earnings management than conventional banks. Focusing solely on loan loss provisions, Elnahass et al. (2018) reached a similar conclusion to that of Abdelsalam et al. (2016). Specifically, they find significant evidence of capital and earnings management practices via loan loss provisions in conventional banks. However, they find that Islamic banks tend not to engage in either capital or earnings management through loan loss provisions. They argue that the strict governance and the constrained business model of Islamic banks may restrain aggressive earnings management.

On the other hand, another stream of literature finds that Islamic banks tend to manage their earnings in a similar manner to conventional banks. From a sample of Islamic banks in Malaysia, Ismail and Be Lay (2002) provide significant evidence that loan loss provisions are used to manage capital and reported earnings. Similarly, Zoubi and Al-Khazali (2007) found

that loan loss provisions are used to smooth earnings in a sample of Islamic and conventional banks in the Gulf Cooperation Council (GCC) region.

Ben Othman and Mersni (2014) studied earnings management practices in a sample of Islamic banks and conventional banks in the Middle East region. They find that both Islamic banks and conventional banks use their discretion for earnings and capital management. Their findings reveal that Islamic banks, conventional banks with Islamic windows, and conventional banks behave similarly in terms of discretionary loan loss provisions.

3.3.3 Financial Reporting Quality from an Information Perspective

The conceptual framework for financial reporting developed by the International Accounting Standards Board (IASB) highlights the importance of the informativeness role of accounting information in general and earnings in particular. According to the conceptual framework, the objective of financial reporting is to provide useful information about the reporting entity to existing and potential investors, lenders and other creditors. Those users rely on financial statements to help them assess the risks and prospects for future cash flow to the entity (International Financial Reporting Standards, 2018). The discussion on the informativeness role of accounting information is of key importance to standard setters, professionals, practitioners and other interested users. The informational role of earnings has influence on share prices, and hence on firm's value, and on the attitude of various decision-makers (Abarbanell and Bernard, 1992; Bushman et al., 2006; Drymiotes and Hemmer, 2013; Basu et al., 2013; Milian, 2018). These claims strongly support the informativeness definition provided by Beaver (1968, p. 69), where he claimed that "a firm's earnings report is said to have information content if it leads to a change in investors' assessments of the probability distribution of future returns … and the change must be sufficiently large to induce a change in the decision-maker's behavior". The link between accounting information and decision-makers' behaviours had been defined in the literature as "economic consequences" (Zeff, 1978), a concept that asserts that the choice of accounting methods influences firm's value. A large body of literature has been published on the association between accounting earnings and stock price. However, this is out of the scope of this thesis.

In order for financial statement users to make the most efficient decisions, they need to base those decisions on high-quality accounting information. In section 3.3.1, the quality of financial reporting has been assessed from an opportunistic earnings management perspective. Based on this perspective, earnings management practices reduce the quality of financial

reporting and the efficiency of capital markets, as investors receive inaccurate information about the real financial performance of entities. This situation could result in adverse selection problems and moral hazards (Chen et al., 2011), and it may adversely affect investors, suppliers, customers and local communities (Zahra et al., 2005; Rodriguez-Ariza et al., 2016). In this section, the quality of financial reporting is assessed from an information perspective. Under this perspective, the quality of financial reporting increases as managers disclose more accurate information, ensuring that the financial information precisely reflects the firm's future earnings and cash flow. Prior literature has assessed the quality of earnings from an information perspective using different measures. This thesis focuses on earnings persistence and predictability of cash flow, and the relationship between loan loss provisions and future loan charge-offs. Detailed review of existing literature on these measures is provided in the second empirical study (Chapter 5).

3.3.4 Summary of Empirical Studies Examining Earnings Quality in Banks

The literature reviewed above reveals that several studies have analysed the quality of banks' financial reporting in different research contexts. Tables 3.1 and 3.2 summarise the key studies in conventional banking literature and Islamic banking literature, respectively.

Table 3.1 Summary of Key Studies Examining Financial Reporting Quality in Conventional Banks (in chronological order)

Study	Research Objective(s)	Dependent Variable(s)	Independent Variables(s)	Sample	Main Findings
Ma (1988)	To determine whether U.S. banks utilise loan loss provisions as a device to smooth earnings.	Operating income growth.	Loan loss provision ratio, loan charge-offs, and problem loans.	45 largest U.S. conventional banks for the period 1980-1984.	U.S. conventional banks use loan loss provisions and charge-offs to smooth reported earnings.
Greenawalt and Sinkey (1988)	To test income smoothing practices through loan loss provisions.	Provision for loan losses.	Operating income, current liabilities, loans, and loan-loss experience.	106 U.S. bank holding companies for the period 1976-1984.	They provide evidence for income smoothing behaviour. They find that regional banks tend to engage in income smoothing more than money-centre banks.
Wahlen (1994)	To analyse banks' loans disclosures and examine the impact of this information on banks' stock prices.	Market value of common equity.	Nonperforming loans, loan loss provisions, loan charge-offs, outstanding loans, and loan loss allowance.	106 U.S. conventional banks over the period 1977-1988.	Bank managers increase discretionary loan loss provisions when future cash flow prospects improve.
Beatty et al. (1995)	To investigate how banks alter the timing and magnitude of transactions and accruals to achieve primary capital, tax, and earnings goals.	Loans charged off, loan loss provision, miscellaneous gains and losses, and pension settlement gains.	Year-end primary capital, taxable income, year-end pretax earnings, and marginal tax rate.	148 large U.S. banks over the period 1985-1989.	They find that loan charge-offs, loan loss provisions, and the decision to issue securities are used to manage capital ratios and earnings.

Study	Research Objective(s)	Dependent Variable(s)	Independent Variables(s)	Sample	Main Findings
Beaver and Engel (1996)	To examine the capital market pricing of discretionary and nondiscretionary components of loan losses allowance.	Market value of common equity.	Book value of common equity, allowance for loan losses, discretionary portion of the allowance account, and nonperforming assets.	Largest publicly traded banks in the U.S. over the period 1977-1991.	The capital market negatively prices the nondiscretionary component of the loan losses allowance, while the discretionary component is positively priced.
Liu et al. (1997)	To provide a refined analysis of the valuation implications of discretionary accruals.	Market returns (from beginning of the quarter to one day after the earnings announcement date).	Income before loan loss provisions and taxes, unexpected loan loss provision, unexpected loan write-offs, and unexpected change in nonperforming loans.	A sample of U.S. banks for the period 1983-1991.	They find that loan loss provisions are positively related to stock market reactions for "at risk" banks. While provisions are negatively related to stock market reactions for "not at risk banks" in the first, second, and third quarter.
Kim and Kross (1998)	To investigate whether changes in bank capital standards affect managerial accrual decisions.	Loan loss provisions and loans write-offs.	Gross loans, change in gross loans, nonperforming loans, change in nonperforming loans, return on assets, and bank size.	193 U.S. bank holding companies during the period 1985-1992.	They find that managers use loan loss provisions for earnings management and capital ratio management.

Study	Research Objective(s)	Dependent Variable(s)	Independent Variables(s)	Sample	Main Findings
Beatty and Harris (1998)	To examine the effects of earnings management, regulatory capital, tax, and total available securities gains on realised security gains and losses.	Realised securities gains.	Total assets, pre-tax income, tier 1 capital, and total reported unrealised securities gains.	A size-matched sample of 297 public and 553 private bank year observations during 1991-1992.	They find that public banks engage in earnings management through realisation of securities gains and losses more than private banks.
Beatty et al. (2002)	The study compares small changes in earnings for publicly and privately held bank holding companies to examine whether these changes are attributable to earnings management.	A dummy variable for small increases in returns on assets, loan loss provisions, and realised security gains and losses.	Bank type (public or private), total assets, change in cash flows, change in loans, and change in nonperforming loans.	A sample of 707 public banks and 1,160 private banks during the period 1988-1998.	They find that public banks use discretionary loan loss provisions and security gains and losses to avoid earnings declines. While private banks have lesser propensity to avoid reporting earnings declines.
Anandarajan et al. (2003)	To examine whether and how loan loss provisions are used for capital management, earnings management, and signalling.	Loan loss provisions and future change in earnings before provisions and taxes.	Change in loan losses, change in unemployment rates, tier 1 capital ratio, earnings before taxes and provisions, and total assets.	490 convntional banks and 480 saving banks observations from Spain during the period 1986-1995.	The results indicate that loan loss provisions were not used as a tool for managing capital or signalling. However, banks adopt a more aggressive earnings management strategy.

Study	Research Objective(s)	Dependent Variable(s)	Independent Variables(s)	Sample	Main Findings
Kanagaretnam et al. (2003)	To examine the motivations behind bank managers' use of discretionary loan loss provisions to smooth income.	Loan loss provisions.	Nonperforming loans, change in nonperforming loans, realised security gains and losses, total loans, total assets, and capital ratio.	4,166 bank-quarter observations for U.S. bank holding companies over the period 1987-2000.	They find that banks with good current performance and expected poor future performance tend to use loan loss provisions to reduce current income.
Shrieves and Dahl (2003)	To examine the discretionary accounting practices by banks during a period of financial duress.	Change in total loans, securities gains and losses, provision for loan losses, and net dividends.	Total assets, total loans, total liabilities, nondiscretionary earnings, regulatory capital, loan reserves, and bank type.	A sample of Japanese banks during the period 1989-1996.	They find that Japanese banks utilise accounting discretion to manage earnings and regulatory capital.
Yasuda et al. (2004)	To examine the relationship between the discretionary accruals and the level of bank risk.	The level of bank risk.	Discretionary accruals, total assets, shares trading volume, and managerial ownership.	48 regional banks in Japan over the period 1990-1999.	They find that the bank risk is negatively associated with discretionary accruals. The findings indicate that investors misinterpret high earnings as favourable information about the bank financial position.

Study	Research Objective(s)	Dependent Variable(s)	Independent Variables(s)	Sample	Main Findings
Hazera (2005)	To examine whether banks manage their earnings and capital by delaying recognition of loan losses.	Income before loan loss provisions.	Loan loss provision, loan loss reserves, past-due loans, and regulatory capital	The largest three banks in Mexico from the final quarter of 1997 to the final quarter of 2000.	The results provide evidence that bank managers exploit the weaknesses in financial reporting standards to delay recognition of loan losses.
Anandarajan et al. (2007)	To examine whether banks use loan loss provisions for earnings management, capital management, and signalling.	Loan loss provisions and earnings before taxes and provisions.	Change in loan losses, change in gross domestic product, regulatory capital, total assets, and bank type,	50 conventional banks in Australia during the period 1991-2001.	They find evidence that banks use loan loss provisions for capital and earnings management, but not for signalling.
Pérez et al. (2008)	To examine whether loan loss provisions are used to smooth income and to manage capital.	Loan loss provisions.	Nonperforming loans, total loans, GDP growth, capital ratio, income before provisions, and total assets.	A sample of Spanish banks in the period 1986-2002.	The banks use loan loss provisions to manage earnings, but no evidence is found for capital management.
Barth et al. (2017)	To examine the use of realised security gains and losses to manage regulatory capital and earnings	Realised security gains and losses.	Net income before taxes, regulatory capital ratio, unrealised security gains and losses, and total assets.	A sample of U.S. conventionl banks over the period 1996-2011.	Banks use security gains and losses to manage regulatory capital and to smooth earnings.

Table 3.2 Summary of Key Studies Examining Financial Reporting Quality in Islamic Banks (in chronological order)

Study	Research Objective(s)	Dependent Variable(s)	Independent Variables(s)	Sample	Main Findings
Ismail and Be Lay (2002)	To develop a model for loan loss provision to determine the factors that influence the provision.	Loan loss provisions.	Gross loans, nonperforming loans, loans written-off, earnings before taxes and provision, and total capital.	34 Islamic banks in Malaysia for the period 1997-1999.	They find evidence for the use of loan loss provisions for capital and earnings management.
Zoubi and Al-Khazali (2007)	To investigate the factors affecting loan loss provisions.	Loan loss provisions.	Earnings before tax and loan loss provision, gross loan, debt to common equity, total assets, and bank type.	134 banks in the GCC region for the period 2000-2003.	Banks use loan loss provisions to smooth income, regardless of the type of the bank.
Taktak et al. (2010)	To examine income smoothing practices in Islamic banks.	Loan loss provisions.	Total loans, nonperforming loans, earnings before taxes and provisions, capital adequacy ratio, and total assets.	66 Islamic banks from 19 countries over the period 2001-2006.	Islamic banks do not use loan loss provisions to manage or smooth their earnings.
Taktak (2011)	To investigate the nature of income smoothing practices by Islamic banks.	Net income.	Total revenue, non-interest revenue, and interest income.	79 Islamic banks across 19 countries during 2001-2006.	Islamic banks do not exercise their discretion to smooth their earnings. However, their smooth earnings originates from stable and steady activities.

Study	Research Objective(s)	Dependent Variable(s)	Independent Variables(s)	Sample	Main Findings
Hamdi and Zarai (2012)	To investigate whether Islamic banks manage their reported earnings.	Earnings scaled by total assets.	Annual net distributable earnings changes.	125 Islamic banks across 27 countries for the period 2000-2009.	Islamic banks manage earnings to avoid reporting losses and earnings deceases, but not as well as non-Islamic banks. Additionally, Islamic banks above the earnings threshold are found to be risk averters.
Quttainah et al. (2013)	To examine whether Islamic banks are less likely to manage earnings than non-Islamic banks.	Income before taxes and loan loss provisions.	Bank type, Shari'ah supervisory board size, Shari'ah supervisory board interlock, total assets, nonperforming loans and total loans.	84 Islamic banks and 80 non-Islamic banks from 15 countries over the period 1993-2008.	Islamic banks are less likely to engage in earnings management measured by loss avoidance and abnormal loan loss provisions.
Ben Othman and Mersni (2014)	To examine earnings management practices in Islamic and conventional banks.	Discretionary loan loss provisions.	Earnings before taxes and provisions, capital adequacy ratio, total loans, total assets, and bank type.	21 Islamic banks, 18 conventional banks with Islamic windows, and 33 conventional banks.	Banks use discretionary loan loss provisions to manage earnings and capital, regardless of bank type.

Study	Research Objective(s)	Dependent Variable(s)	Independent Variables(s)	Sample	Main Findings
Elnahass et al. (2018)	To assess the impact of different banking business models on capital and earnings management practices.	Loan loss provisions.	Tier1 capital, earnings before taxes and provisions, nonperforming loans, total loans, listing status of the bank, leverage ratio, GDP growth rate, and bank type.	29 Islamic banks and 34 conventional banks from Bahrain, Jordan and Qatar for the period 2007-2013.	The study provide evidence for capital and earnings management practices in conventional banks. However, Islamic banks tend not to use loan loss provisions in either capital or earnings management.

The summary of the prior studies presented in Table 3.1 and Table 3.2 reveals that the issues relating to financial reporting quality in banking have been discussed extensively within the conventional banking context. Investigation on the relevance of bank type and different institutional characteristics on the quality of financial reporting is still lacking. Accordingly, this thesis aims to address this gap in the literature by comparing financial reporting practices in conventional banks with that in Islamic banks, in addition to examining the role of different governance mechanisms in enhancing the quality of financial reporting.

3.4 Different Governance Mechanisms and Financial Reporting Quality

The earlier discussions presented in sections 3.2 and 3.3 defined and illustrated the concept and definitions of financial reporting quality and reviewed the different measures used in the literature to assess the quality of financial reporting. This section aims to review the literature related to corporate governance - one of the main factors that influence financial reporting practices and constrain managerial opportunistic behaviour.

According to the agency theory, which has been presented in detail in Chapter 2, the importance of effective corporate governance systems stems from the growth of modern corporations and the separation of ownership and control in the current business environment. Despite the extensive research on corporate governance, there is a lack of consensus on its definition (Solomon and Solomon, 2004). Recalling the discussions in Chapter 2, one of the most common definitions of corporate governance is offered by the Cadbury Committee (1992), where corporate governance is viewed as the system by which firms are directed and controlled. Similarly, Turnbull (1997) views corporate governance as all the forces affecting the institutional functions in a corporation. From a financial view, Shleifer and Vishny (1997, p. 737) claim that "corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investments". However, this definition focuses on the protection of shareholders and investors but overlooks the rights of other stakeholders. A more comprehensive definition of corporate governance is presented by the Organization of Economic Co-operation and Development (OECD) in 2004, in its document, the OECD Principles of Corporate Governance. It illustrates that "Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined" (Organization for Economic Co-operation and Development, 2004, p. 11).

The above definitions highlight the crucial role of corporate governance in controlling organisations and facilitating effective monitoring in order to enhance the confidence of investors in business organisations and in capital markets in general. Mallin (2001) also argues that "Corporate governance goes hand in hand with increased transparency and accountability" (Mallin, 2001, p. 77).

In line with the agency theory, prior studies have established that agency problems, managerial self-serving, and opportunistic behaviour can all be limited by establishing formal mechanisms of corporate governance. The agency theory considers corporate governance mechanism(s) as one of the classical cures in controlling conflicts of interests between agents and principals (Shleifer and Vishny, 1997; Ingley and Van der Walt, 2004; Brennan, 2006; Dey, 2008; Chen et al., 2012). One strand of literature examines the impact of effective corporate governance structures on firms' financial performance (Lehmann and Weigand, 2000; Drobetz et al., 2004; Brown and Caylor, 2006; Bhagat and Bolton, 2008; Liu et al., 2012; Rossi and Nerino, 2015). Another strand of literature argues that effective corporate governance enhances the quality of corporate financial reporting (Becker et al., 1998; Cohen et al., 2007; Kelton and Yang, 2008; Siagian et al., 2013; Bonetti et al., 2016).

Following the major accounting scandals and the collapse of highly reputed corporations at the beginning of the twenty-first century, more attention has been directed to the role of different elements of corporate governance in controlling and monitoring managerial behaviour (Hart, 1995). Prior empirical research provides evidence for the impact of different corporate governance mechanisms on financial reporting quality. Among these mechanisms are: the board of directors and its sub-committees, ownership structure, internal controls, internal and external audit functions (Goncharov, 2005).

Since the aim of this thesis is to examine the role of three important corporate governance mechanisms (i.e., the board of directors, the audit committee, and the Shari'ah supervisory board) in enhancing the financial reporting quality, the literature related to these three mechanisms will be reviewed below.

3.4.1 The Board of Directors

In the corporate form of organisations, shareholders delegate decision making and internal control authority to the board of directors (Grossman and Hart, 1980). This delegation gives the board the ultimate control over top management and makes it responsible for the overall supervision of the corporation to ensure that top managers act in the best interests of

shareholders. It is also responsible for approving primary business strategies (Beasley, 1996; Cerbioni and Parbonetti, 2007; John et al., 2016). Hence, the board of directors is widely recognised as one of the most important internal governance mechanisms (Fama and Jensen, 1983).

The board of directors is also responsible for establishing necessary governance mechanisms that help with controlling agency conflicts, whether between owners and managers or between majority and minority shareholders (González and García-Meca, 2014). In order to reduce conflicts of interests arising from agency relationships, the board of directors has the responsibility to ensure that high-quality corporate financial information is available to all stakeholders (Beasley, 1996).

Given the essential role of the board of directors in monitoring and controlling managerial behaviour and ensuring that shareholders' interests are protected, numerous empirical studies have examined the role of the board of directors in enhancing the quality of financial reporting. However, the greater part of this literature either views the financial reporting quality from an opportunistic earnings management perspective or it excludes banks and financial institutions from examinations.

Previous research has documented that effective governance through the board of directors results in better monitoring of managerial performance and better control over managerial discretionary decisions (Beasley, 1996). Thus, a considerable number of studies have investigated the role of the board of directors in enhancing financial reporting quality through curtailing opportunistic earnings management practices. Previous literature has established that the effectiveness of the board of directors in monitoring and controlling managerial opportunistic behaviour depends on its characteristics and attributes. Among these characteristics, prior research has focused on the size and the composition of the board of directors.

The size of the board is a significant element in determining the board's effectiveness in monitoring and controlling the firm. When examining the association between the board's size and financial reporting quality, prior literature bases the discussions on either the agency theory or the resource dependence theory.

On one 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 that hinder the decision-making process (Jensen, 1993). Consistent with this view, several studies find that the size of the board negatively affects the financial reporting quality. On the other

hand, according to the resource dependence theory, a larger board is "a provider of resources, such as legitimacy, advice and counsel, and links to other organisations, etc." (Hillman and Dalziel, 2003, p. 383). Therefore, a larger board results in enhanced skills, expertise, and the knowledge needed to exert effective monitoring over financial reporting in general, and earnings management practices in particular (Zahra and Pearce, 1989; John and Senbet, 1998; Dalton et al., 1999). In line with this view, a number of studies find that the size of the board is positively associated with the quality of financial reporting. Both strands of the literature are reviewed below.

In a study examining the role of the board of directors in constraining earnings management, Xie et al. (2003) investigate the relationship between board size and earnings management for a sample of 110 U.S. firms for the years 1992, 1994, and 1996. They find evidence for a significant negative association between the board size and discretionary accruals. Their results indicate that larger boards are more effective in monitoring and controlling earnings management than smaller boards.

Bradbury et al. (2006) investigate the association between the board of directors' characteristics and accounting quality measured by abnormal accruals. For a sample of Malaysian and Singaporean firms (excluding financial firms), they find that the board size is negatively associated with abnormal working capital accruals.

In addition, Kang and Kim (2012) examine whether the board of directors has a role in real activity-based earnings management in a sample of Korean non-financial firms. They find that large boards result in reduced levels of real earnings management.

The above studies support the arguments of the resource dependence theory. They claim that as boards of directors become larger, they develop better governance capabilities over top management actions, and this results in reduced managerial opportunistic behaviour and higher financial reporting quality.

On the other side, there exist a number of studies supporting the agency theory, which argue that large boards of directors tend to be less effective in monitoring management, due to the problem of coordination and communication. In line with this argument, Kao and Chin (2004) provide evidence for a positive association between board size and the extent of earnings management. They examine a sample of Taiwanese non-financial firms, and they find that the larger the board size the higher the extent of earnings management, as measured by discretionary accruals.

Ching et al. (2006) also examine the use of discretionary accruals around SEO announcements. For a sample of SEO firms in Hong Kong over the period 1993-2000, they find evidence for the use of discretionary accruals to manage earnings prior to the SEO and they illustrate that SEO firms with large boards are more likely to engage in earnings management practices around SEOs. Hashim and Devi (2008) also find that the board size negatively affects the quality of earnings – as measured by accruals quality, in a sample of Malaysian non-financial firms.

However, few previous studies on the relation between boards' characteristics and financial reporting quality find that the size of the board is not related to earnings quality (Vafeas, 2005; Jaggi et al., 2009; Iqbal and Strong, 2010; Gulzar and Wang, 2011).

Another important element that determines the effectiveness of the board of directors in monitoring managerial behaviour and the financial reporting process is the proportion of independent directors on the board (John and Senbet, 1998). Typically, the board of directors is composed of inside directors (executives) representing top company officers and outside (independent) directors appointed by the shareholders, and they are expected to act in their best interests.

Although executive directors have valuable information about the firm's operations and activities, the presence of independent directors enhances the effectiveness of the board's governance role, as they are capable of exercising sovereign judgement to protect shareholders' interests when an agency conflict is present (Jensen and Meckling, 1976; Beasley, 1996; Cheng and Courtenay, 2006). In addition, 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; Linck et al., 2008; Pathan and Skully, 2010), boards dominated by independent directors are in a better position to monitor and control managers' activities (Fama and Jensen, 1983).

In line with these arguments, numerous studies in the literature provide evidence for a positive association between board independence and financial reporting quality. From a fraudulent financial reporting perspective, Beasley (1996) examines whether the inclusion of larger proportions of outside members on the board reduces the likelihood of financial statement fraud, and finds that non-fraudulent firms have boards with significantly higher percentages of outside members than those of fraudulent firms. Dechow et al. (1996) use a sample of firms subject to Securities and Exchange Commission enforcement actions between 1982 and 1992 in order to investigate firms alleged to have violated the Generally Accepted Accounting

Principles (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. It is worth mentioning that the two studies (i.e. Beasley (1996) and Dechow et al. (1996)) emerged from the seminal paper by Feroz et al. (1991). In their study of the financial effects of the Securities and Exchange Commission's (SEC) accounting enforcement program, Feroz et al. (1991) emphasise that the SEC's enforcement programme aims to maintain the credibility and integrity of the disclosure system and preventing the erosion of accounting principles. This is partially achieved through pursuing disclosure violations related to premature revenue recognition and delayed write-offs.

Klein (2002) examines whether the characteristics of boards of directors and audit committees affect earnings management, as measured by the magnitude of abnormal accruals. For a sample of U.S. firms listed on the S&P 500 from 1991 to 1993, she finds that the magnitude of abnormal accruals is negatively associated with the proportion of outside directors on the board. However, her examination excludes banks and insurance companies, due to difficulty in defining accruals for financial institutions.

Peasnell et al. (2005) examine whether earnings management practices depend on boards' monitoring. As a proxy for earnings management, they use abnormal accruals estimated by the modified Jones model. For a sample of UK firms over the period from 1993 to 1996, they find that the proportion of outside members on the board is negatively related to the managers' use of abnormal accruals to avoid earnings decreases and losses. Their findings suggest that the board's independence improves the integrity and quality of financial reporting, as predicted by the agency theory.

In an Australian context, Davidson et al. (2005) investigate the role of internal corporate governance mechanisms in constraining earnings management. Using discretionary accruals as a measure of earnings management, they provide evidence that earnings management is negatively associated with the proportion of non-executive directors on the board. However, their study excludes firms in the financial sector, due to their unique capital structures.

Dimitropoulos and Asteriou (2010) examine whether the board of directors' composition affects the informational quality of earnings in a country characterised by poor financial and governance indicators – Greece. They measure the informational quality of accounting earnings by considering the relationship between earnings per share and stock prices, the relationship between earnings timeliness and earnings conservatism, and abnormal accruals.

They find that the proportion of independent directors on the board positively affects the informational quality of earnings.

The empirical studies reviewed above have all focused on Anglo-Saxon countries (i.e., the U.S., the UK, and Australia). Relatively little research has been carried out in the Latin American context. One of these attempts is the study conducted by González and García-Meca in 2014. For a sample of Latin American non-financial firms during the period from 2006 to 2009, they analyse the relation between internal corporate governance mechanisms and earnings management. They find that board independence is negatively related to the absolute value of discretionary accruals.

Another important aspect determining the independence of the board of directors is whether the positions of the chief executive officer (CEO) and chairman are separated. According to the agency theory, the board's chairman should be independent of the entity's affairs in order to ensure effective monitoring of managerial acts (Jensen, 1993; Blackburn, 1994). In addition, combining the decision-making process with the decision-control process exacerbates agency conflicts and leads to concentration of power (Pi and Timme, 1993; Beasley, 1996). Prior studies have demonstrated that CEO duality impedes effective monitoring and could be linked with higher managerial opportunism (Dechow et al., 1996; Klein, 2002).

Persons (2006) investigates corporate governance characteristics that can influence the likelihood of non-financial reporting fraud. For a sample of U.S. firms with revelations of non-financial reporting fraud over the period from 1991 to 2000, she provides evidence that the likelihood of fraud is lower if the positions of the CEO and the board chairman are separated.

Lo et al. (2010) investigate the relation between corporate governance characteristics and earnings manipulations for a sample of Chinese non-financial firms. They find that CEO duality is positively related to earnings manipulations via transfer pricing decisions. Their results indicate that CEO duality leads to concentration of power, which limits the boards' capabilities to effectively monitor managerial behaviour.

Furthermore, Kamarudin et al. (2012) examine the role of CEO duality in earnings quality in a sample of Malaysian firms during the period from 2005 to 2010. They find that audit committee independence positively affects earnings quality, as measured using accruals quality estimated by the McNichols (2002) model. More importantly, they find that CEO duality weakens the association between audit committee independence and earnings quality,

which in turn results in the audit committee being less effective in monitoring the financial reporting process.

The above studies support the argument that CEO duality compromises the fiduciary duty of the board of directors to monitor and control corporate financial reporting. However, several studies have failed to show a consistent association between CEO duality and financial reporting quality (Abdul Rahman and Ali, 2006; Ebrahim, 2007, Ghosh et al., 2010; González and García-Meca, 2014).

3.4.2 The Audit Committee

Although the board of directors has the responsibility of setting overall policy for the corporation and monitoring management, it delegates to the audit committee the responsibility of monitoring the financial reporting process. According to Joshi and Wakil (2004), the audit committee's role involves oversight over financial reporting, internal control, and external auditing activity. Hence, 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 is achieved through strengthening governance, promoting conservatism (Krishnan and Visvanathan, 2008), and reducing opportunistic earnings management (Xie et al., 2003; Bédard et al., 2004; Sharma and Kuang, 2014). Audit committees are also associated with oversight over risk management and internal control systems (Chambers and Weight, 2008).

If the board of directors' primary role is to protect shareholders' interests, and it may also play a role in constraining opportunistic earnings management, then the audit committee has a more direct role in controlling earnings management. Several studies have investigated the role of audit committees in constraining earnings management. However, most of these studies were conducted on non-financial firms. Prior studies mainly focus on three characteristics of the audit committee: its size, independence, and financial expertise.

Borrowing from the resource dependence theory, it is argued that 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. Accordingly, several studies provide evidence of a negative association between the size of the audit committee and earnings management practices. Yang and Krishnan (2005) examine the association between audit committee characteristics and quarterly earnings management in a sample of 250 U.S. publicly traded firms (excluding financial institutions and regulated utility companies). Their

findings provide evidence of the negative association between the size of the audit committee and quarterly earnings management, as measured by discretionary accruals estimated using the Jones (1991) model.

From another perspective of earnings quality, Lin et al. (2006) examine the role of the audit committee in earnings restatement, as a proxy for earnings management. They argue that restatements relate to financial reporting frauds, which may lead to future bankruptcy. They analysed a sample of 212 U.S. firms that restated their earnings for the year 2000, and they find that audit committee size is negatively related to the occurrence of earnings restatement. Their findings support the view that a large audit committee provides greater oversight of the financial reporting process.

For a sample of Australian companies, Kent et al. (2010) investigate the relationship between governance mechanisms and accruals quality. They distinguish between two components of accruals quality: the discretionary component that results from intentional manipulation of accruals, and the innate component that arises due to unintentional estimation errors. They find that a larger audit committee is associated with higher discretionary accruals quality.

In a Spanish context, García et al. (2012) study the association between audit committee characteristics and earnings management in a sample of firms listed on the Madrid Stock Exchange. They find a negative relation between audit committee size and earnings management, as measured by discretionary accruals. This result suggests that a larger number of members serving on the audit committee enables them to detect financial reporting manipulations.

However, proponents of the agency theory argue that large committees tend to be less efficient in their governance role, as a result of coordination and communication problems. In line with this argument, a number of studies find a positive association between audit committee size and the degree of earnings management (Alonso et al., 2000; Hoitash et al., 2009; Gulzar and Wang, 2011).

On the other side, some studies have demonstrated that the size of the audit committee is not related to earnings management (Abbott et al., 2004; Bédard et al., 2004; Baxter and Cotter, 2009; Habbash et al., 2013).

Prior studies examining the role of audit committees in financial reporting quality have also considered the proportion of independent members serving on the committee. According to the agency theory, independent directors provide more effective governance capabilities over

managerial behaviour, as they are able to make independent judgements separate from management's influence (Fama and Jensen, 1983). Against this background, a considerable number of studies provide evidence for the positive role of audit committee independence in enhancing the quality of financial reporting.

Benkel et al. (2006) investigate whether independent directors on the audit committee are associated with reduced levels of earnings management. They analyse a sample of Australian companies over the years 2001, 2002, and 2003. They find that audit committees comprising a higher proportion of independent directors are associated with lower levels of discretionary accruals, estimated using the DeAngelo (1986) model.

Chang and Sun (2009) investigate whether the provisions of the Sarbanes-Oxley Act (SOX) improve the effectiveness of corporate governance in monitoring and enhancing the quality of earnings in cross-listed foreign firms. They compare the relationships between corporate governance structures and earnings quality in the pre-SOX period with the post-SOX period. They use earnings informativeness and earnings management to measure the quality of earnings. They find that audit committee independence is significantly associated with both earnings informativeness and earnings management in the post-SOX period. However, such associations were not found in the pre-SOX period. Their findings suggest that the provisions of SOX improve the effectiveness of an independent audit committee in enhancing the quality of earnings. Similar evidence is also provided by Chang and Sun (2010) for a sample of U.S. publicly traded firms, excluding foreign firms, utility companies, and financial firms.

In a Chinese context, Chen and Zhang (2014) investigate the impact of corporate governance reforms in China on earnings management. For a sample of 447 non-financial Chinese listed companies, they find that the earnings management practices through discretionary accruals reduced significantly after the implementation of the Code of Corporate Governance for Listed Companies in China in 2002. Specifically, they find that the introduction of independent non-executive directors to the audit committee results in reduced earnings management activities.

Inaam and Khamoussi (2016), in their meta-analysis, provide consistent evidence on the influence of the audit committee on earnings management. Their analysis demonstrates a significant negative relationship between the independence of the audit committee and earnings management.

The positive role of audit committees in enhancing the quality of financial reporting has been documented in a large number of studies (Klein, 2002, Bédard et al., 2004; Davidson et al.,

2005; Lin and Hwang, 2010). However, some studies find that audit committee independence has no influence on financial reporting quality (Xie et al., 2003; Yang and Krishnan, 2005; Abdul Rahman and Ali, 2006; Baxter and Cotter, 2009; García et al., 2012; Habbash et al., 2013).

Furthermore, previous studies have assessed the effectiveness of the audit committees in enhancing the financial reporting quality by examining the impact of the financial expertise of the audit committee members. Since the primary role of the audit committee is to monitor the financial reporting process, then members of the committee are expected to have financial or accounting knowledge. Such knowledge will assist the audit committee members in dealing with complex financial reporting issues and it will enable them to detect opportunistic earnings management practices. Several studies have provided evidence supporting this argument and have shown that the financial expertise of the audit committee is negatively associated with opportunistic earnings management.

Abbott et al. (2004) investigate the role of audit committees in improving the quality of financial reporting, as measured by financial restatements. They analyse a sample of U.S. firms that restated their financial statements during the period 1991 to 1999. They find a significant negative relationship between an audit committee that has financial expertise and financial restatement.

Chen et al. (2007) assess whether corporate governance characteristics influence the absolute value of discretionary accruals, as a measure for earnings management. For a sample of companies listed in Taiwan, they find that audit committee members with financial expertise are associated with lower discretionary accruals. These findings suggest that financial expertise enables audit committee members to effectively monitor the financial reporting process and detect financial misstatements.

Qi and Tian (2012) provide empirical evidence of the influence of audit committees' characteristics on earnings management practices for a sample of Chinese firms during the period 2004-2010. They use the performance-matched discretionary accruals to measure earnings management, and find that audit committee members with financial experience can effectively constrain earnings management practices.

Kusnadi et al. (2016) investigate whether audit committee characteristics affect financial reporting quality for a sample of listed companies in Singapore. They find that the audit committee’s financial and accounting expertise results in better monitoring over the financial reporting process.

On the other side, few studies have failed to find a significant association between the audit committee's financial expertise and financial reporting quality (Abdul Rahman and Ali, 2006; Chang and Sun, 2009; Kent et al., 2010; Al-Thuneibat et al., 2016).

The literature reviewed above reveals that the role of boards of directors and audit committees in enhancing the reliability of the financial reporting process has been extensively documented. Table 3.3 presents a summary of the corporate governance characteristics that have been previously studied in relation to financial reporting quality. However, all of the studies reviewed in the above sections have assessed the quality of financial reporting from an opportunistic earnings management perspective and with regard to earnings restatements. In addition, the above studies have analysed non-financial firms and excluded financial institutions from their analysis. Recently, the global financial crisis has motivated research on banks' corporate governance structures. This limited literature will be reviewed in section 3.4.4. Before this review, a discussion of the role of the Shari'ah supervisory board will be presented next.

Table 3.3 Summary of Studies Investigating Corporate Governance Mechanisms in Relation to Financial Reporting Quality

Corporate Governance Characteristics	Empirical Studies
Board of directors size	Xie et al. (2003), Kao and Chin (2004), Vafeas (2005), Bradbury et al. (2006), Ching et al. (2006), Abdul Rahman and Ali (2006), Hashim and Devi (2008), Jaggi et al. (2009), Iqbal and Strong (2010), Gulzar and Wang (2011), Kang and Kim (2012).
Board of directors independence	Beasley (1996), Dechow et al. (1996), Klein (2002), Xie et al. (2003), Peasnell et al. (2005), Davidson et al. (2005), Benkel et al. (2006), Abdul Rahman and Ali (2006), Chang and Sun (2009), Dimitropoulos and Asteriou (2010), Iqbal and Strong (2010), González and García-Meca (2014), Chen and Zhang (2014).
CEO duality	Dechow et al. (1996), Klein (2002), Persons (2006), Abdul Rahman and Ali (2006), Chen et al. (2006), Ebrahim (2007), Lo et al. (2010), Ghosh et al. (2010), Iqbal and Strong (2010), Kamarudin et al. (2012), González and García-Meca (2014).
Audit committee size	Alonso et al. (2000), Xie et al. (2003), Abbott et al. (2004), Bédard et al. (2004), Yang and Krishnan (2005), Lin et al. (2006), Hoitash et al. (2009), Baxter and Cotter (2009), Kent et al. (2010), Gulzar and Wang (2011), García et al. (2012), Habbash et al. (2013).
Audit committee independence	Klein (2002), Xie et al. (2003), Bédard et al. (2004), Davidson et al. (2005), Yang and Krishnan (2005), Benkel et al. (2006), Abdul Rahman and Ali (2006), Chang and Sun (2009), Baxter and Cotter (2009), Chang and Sun (2010), Lin and Hwang (2010), García et al. (2012), Habbash et al. (2013), Chen and Zhang (2014), Inaam and Khamoussi (2016).
Audit committee financial expertise	Abbott et al. (2004), Abdul Rahman and Ali (2006), Chen et al. (2007), Chang and Sun (2009), Kent et al. (2010), Qi and Tian (2012), Kusnadi et al. (2016), Al-Thuneibat et al. (2016).

3.4.3 The Shari'ah Supervisory Board

A unique characteristic that differentiates the corporate governance systems of Islamic banks from those of conventional banks is the presence of the Shari'ah supervisory board, as part of their governance structures.

As discussed in Chapter 2, Islamic banks differ from conventional banks in terms of orientation and business models (Saif Alnasser and Muhammed, 2012; Beck et al., 2013), and in structures of transactions (Abdallah, 1987; Hasan and Dridi, 2011). A crucial foundation of Islamic banking is the compliance to the Islamic Shari'ah principles. Hence, to ensure that Islamic banks' activities are in compliance with the principles of Shari'ah, there is an immense need for an independent body of specialist members to monitor each bank's operations and transactions. For this, Shari'ah supervisory boards were established. They constitute an extra layer of governance, beside the traditional governance mechanisms (i.e. board of directors and audit committee). In fact, the establishment of a Shari'ah supervisory board is a principal means by which financial institutions incorporate Islamic religious beliefs into their operations and decision making (Mollah and Zaman, 2015).

In order to understand the role of the Shari'ah supervisory board, it is essential to review its definition. The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) defines the Shari'ah supervisory board as:

> "An independent body of specialized jurists in fiqh al-mu'amalat (Islamic commercial jurisprudence). However, the Shari'ah supervisory board may include a member other than those specialized in fiqh al-mu'amalat, but he should be an expert in the field of Islamic financial institutions and have knowledge of fiqh al-mu'amalat. The Shari'ah supervisory board is entrusted with the duty of directing, reviewing and supervising the activities of the Islamic financial institution to ensure that it is in compliance with Islamic Shari'ah rules and principles." (AAOIFI, 2010)

The AAOIFI's definition of the Shari'ah supervisory board highlights that its primary role is to reassure stakeholders that the Islamic bank's activities are in compliance with the principles of Shari'ah. In this regard, Grais and Pellegrini (2006) divided the duties of the Shari'ah board into five categories: issuance of fatwas[4] to certify the permissibility of a new product developed by the Islamic bank, to verify that future transactions and activities comply with

[4] A fatwa refers to an Islamic legal resolution. In this thesis, a fatwa relates to issues regarding Islamic finance.

the previously issued fatwas, calculation of Zakat payments, advising the bank on income distribution, and ensuring that non-Shari'ah earnings are disposed.

The role of the Shari'ah supervisory board can be categorised as both an advisory role and a review role (Briston and El-Ashker, 1986; Ginena and Hamid, 2015). On one side, the Shari'ah supervisory board is responsible for advising the Islamic bank on Shari'ah-related issues, such as developing new products and services (Ahmed, 2006), developing Shari'ah-compliant policies and procedures (Safieddine, 2009), and providing necessary training on Shari'ah guidelines to the Islamic bank's staff (Grais and Pellegrini, 2006). On the other side, the review role requires the Shari'ah supervisory board to monitor and assess the implementation of decisions made at the advisory phase (Sheikh Hassan, 2012). In other words, the review role is required to assure investors and stakeholders that the Islamic bank's products, activities and profits earned are in compliance with the principles of Shari'ah.

The advisory role of the Shari'ah supervisory board has been emphasised by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), where it outlines in its governance standards that the Shari'ah board is the authority "entrusted with the duty of directing, reviewing and supervising the activities of the Islamic financial institutions in order to ensure that they are in compliance with Islamic Shari'ah Rules and Principles" (AAOIFI, 2010). Moreover, AAOIFI standards on Shari'ah supervisory board establish that this board "shall assist the management by providing guidance, advice, and training relating to compliance with the Shari'ah" (AAOIFI, 2010). Prior literature on the advisory role of the Shari'ah supervisory board explains that this role involves advising the bank on strategic issues (Alhabshi and Bakar, 2008); providing advice on Islamic financial products and services (Ahmed, 2006; Ahmed, 2011), and providing overall monitoring to ensure good reputation and organisational image (Grassa, 2016). Considering all of these roles, the general task of the Shari'ah supervisory board is to ensure that the application of Shari'ah principles remains dominant in Islamic banks. The Shari'ah principles explicitly emphasise ethical and moral values (i.e. transparency, honesty, integrity, and truthfulness), which are expected to inhibit individuals (i.e. managers) from engaging in ethically questionable activities, such as opportunistic earnings management.

Hence, members of the Shari'ah supervisory board act as investigators in conducting their independent audit, and issue a separate report, as part of the Islamic bank's annual report, to certify that the bank's operations are free from any element prohibited by Islamic principles (Grais and Pellegrini, 2006). Moreover, Shari'ah supervisory board members may also have to review additional information and reports, such as operating and financial reports and

policies (Abdul Rahman and Bukair, 2013). In this regard, Abdel Karim (1995) asserted that this responsibility of the Shari'ah supervisory board is similar to the authority of external independent auditors. Accordingly, the presence of the Shari'ah supervisory board gives legitimacy to Islamic financial institutions (Siddiqi, 2006), and plays a catalytic role in promoting public acceptance of the Islamic banking industry.

It is the responsibility of the Islamic bank's board of directors to appoint an independent Shari'ah supervisory board and to assure its competence. Regarding the characteristics of the Shari'ah supervisory board, there is no specific requirement for the size of this board (Ginena and Hamid, 2015). However, the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) standards recommend that a Shari'ah board should comprise at least three scholars (AAOIFI, 2010). According to Ginena and Hamid (2015), defining an optimal number of Shari'ah scholars to serve on the Shari'ah supervisory board is impractical, as situations differ from one bank to another.

Another characteristic determining the effectiveness of the Shari'ah board in fulfilling its advisory and review roles is its competence and qualifications. Despite that, there is a lack of agreement in the Islamic banking industry on the specific qualifications required for Shari'ah supervisory board members. According to the Islamic Financial Services Board (IFSB), a Shari'ah supervisory board member is expected to hold a bachelor's degree in the sciences of Shari'ah, and to have adequate understanding of finance in general and Islamic finance in particular. Due to the complex nature of Islamic banks' activities, Shari'ah supervisory board members should not only be knowledgeable in Islamic commercial jurisprudence, but they should also be equipped with relevant expertise in modern business disciplines, economic developments, accounting and financial practices, and armed with adequate training and continuing education. Khalaf (2007) highlighted that a graduating Shari'ah scholar, who lacks financial knowledge, may not be sufficiently competent to perform Shari'ah supervisory board duties. However, in practice, most regulatory authorities have been vague on the required qualifications for Shari'ah scholars. For example, the regulations of GCC countries such as Bahrain, Qatar, Kuwait and Emirates do not stipulate requisite qualifications for Shari'ah supervisory board members. Table 3.4 details the financial qualification requirements for Shari'ah supervisory board members in some countries.

Table 3.4 Financial Qualification Requirements for Shari'ah Scholars in some Countries

Country	Qualification Requirements for Shari'ah Scholars
Bahrain	Regulatory guidelines require Islamic banks to establish Shari'ah supervisory boards; however, there are no specific qualifications stipulated for Shari'ah scholars.
Qatar	The rules require that "members appointed to the Shari'ah supervisory board are competent to perform their functions as Shari'ah supervisory board members taking into account their qualifications and pervious experience".
Kuwait	The law requires Islamic financial institutions to devise Shari'ah supervisory boards, but does not detail competency requirements for members.
Saudi Arabia	Regulators have adopted a hands-off approach to Shari'ah governance; hence, there are no specific qualification requirements for Shari'ah supervisory board members.
United Arab Emirates	Regulatory guidelines do not stipulate specific financial qualifications for Shari'ah scholars.
Oman	The regulations provide the following "fit and proper" criteria for Shari'ah scholars: Members with Shari'ah background must be holders of academic qualifications in the field of Shari'ah (minimum of bachelor's degree). Members other than Shari'ah scholars must be individuals generally recognised for their expertise in their respective field (e.g. economics, law, banking, accounting, finance, etc.). They should hold a minimum of master's degree.
Malaysia	The law requires the majority of members in the Shari'ah committee to at least hold bachelor's degree in Shari'ah. The Shari'ah committee may comprise experts from relevant background such as finance and law, which could support the depth and breadth of the Shari'ah deliberations.
Pakistan	Regulations require a Shariah scholar to have "knowledge of or at-least be familiar with the banking industry. Minimum qualification is bachelor's degree. Higher education like M.A. in Islamic studies, economics or in the discipline of banking and finance may be an added qualification".

Finally, the competence of the Shari'ah scholars may also be determined by the multiple memberships they hold. On the one hand, multiple memberships held by Shari'ah scholars in many Islamic banks can promote knowledge and expertise within the Shari'ah supervisory board, as they are exposed to more diverse experiences (Harris and Shimizu, 2004). Additionally, holding multiple memberships represents a proxy for a scholar's reputation in the external labour market (Shivdasani, 1993; Vafeas, 1999). Accordingly, the diverse knowledge and expertise of reputable Shari'ah scholars are predicted to enhance their ability in advising and supervising Islamic banks' activities. On the other hand, performing the consultative and supervisory functions of the Shari'ah supervisory board requires significant effort and time from the members. Thus, members holding multiple memberships may not be able to conduct their roles effectively, as these multiple memberships will distract the scholars from their responsibilities to supervise and monitor banks' activities. In practice, the reputation resource of existing Shari'ah scholars and the scarcity of experts in Islamic finance have led to the busyness of the Shari'ah supervisory boards in Islamic banks (Al Mannai and Ahmed, 2018; Trinh et al., 2019). Supporting statistics and graphs are presented in Appendix 3.

To date, several studies investigating the role of the Shari'ah supervisory board have been conducted; however, most of these studies occurred within the context of corporate social responsibility disclosure, bank risk-taking and performance. Farook et al. (2011) examined the association between Shari'ah supervisory board characteristics and corporate social responsibility disclosure for a cross-country sample of Islamic banks, and concluded that Shari'ah scholars with cross-memberships and international reputation are associated with higher levels of such disclosures. Abdul Rahman and Bukair (2013) also found similar results for Islamic banks operating in the GCC countries.

Mollah and Zaman (2015) examined whether Shari'ah supervisory boards, representing an additional layer of governance, are associated with performance in Islamic banks. In a sample of 86 Islamic banks and 86 conventional banks from 25 countries, they found that the extended governance structures in Islamic banks enhance their financial performance, relative to their conventional counterparts. This study provided evidence of the positive effect of Shari'ah supervisory boards on the financial performance of Islamic banks. In the same vein, Mollah et al. (2017) investigated whether the difference in governance structures between Islamic banks and conventional banks affects their risk-taking and performance. They discovered that the unique governance structures in Islamic banks lead to a lower risk-taking profile and better performance. A recent study by Almutairi and Quttainah (2017) investigated

the impact of Shari'ah supervisory boards on Islamic banks' financial performance. The study also examined whether the characteristics of the Shari'ah boards are related to financial performance. In a sample of 82 Islamic banks from 15 countries, the study found that the presence of Shari'ah boards within Islamic banks improves their financial performance. In addition, the study provided significant evidence for positive associations between the financial performance of Islamic banks and Shari'ah supervisory board characteristics, such as size, financial expertise and education level.

Although previous studies have demonstrated the crucial role of Shari'ah supervisory boards in enhancing the corporate social responsibility disclosure, performance, and attitude to risk-taking in Islamic banks, investigation of the impact of Shari'ah boards in enhancing financial reporting quality and mitigating opportunistic earnings management is still lacking.

The link between religiosity[5] and corporate financial reporting decisions has been documented in some recent studies (Dyreng et al., 2012; McGuire et al., 2012; Du et al., 2015; Abdelsalam et al., 2017). These studies have demonstrated that religiosity acts as an essential monitoring mechanism to constrain opportunistic managerial behaviour, and in turn mitigates earnings management, risk-taking and risk-shifting behaviours. Furthermore, religion promotes ethics and accountability in organisations (Ali and Al-Aali, 2015). It has been argued in Chapter 2, that Islamic banks exemplify ethically and religiously oriented organisations, which are assumed to operate in compliance with Shari'ah rulings and with the social norms underlying these rulings. Among the moral and ethical values stressed in Islamic principles are honesty, transparency and truthfulness (Ali and Al-Owaihan, 2008), which are all expected to result in enhanced financial reporting quality.

Given the imperative role of religiosity in corporate financial reporting decisions, it is plausible to predict a similar role for the Shari'ah supervisory board, which is sometimes referred to as a religious board (Abdel Karim, 1990; Jobst, 2007; Venardos, 2010). The only study, to the best of my knowledge, which investigates the association between the characteristics of the Shari'ah supervisory board and financial reporting quality was conducted by Quttainah et al. (2013). In a sample of Islamic banks operating during 1993-2008, they found that the presence of a large Shari'ah board, and having Shari'ah scholars who are affiliated with the Accounting and Auditing Organization for Islamic Financial Institutions, can contribute to lowering earnings management. However, this study did not

[5] Religiosity (or religiousness) is defined as the strength of individuals' connection with, or adherence to, their religion to the extent that they take part in religious activities and services (King Jr., 2008). It is also defined as the extent of adhering to prevailing religious codes and promulgations.

examine the joint impact of other internal governance mechanisms, such as the board of directors and audit committee, nor did it investigate the role of other important Shari'ah supervisory board attributes.

3.4.4 Financial Reporting Practices in Banking

Financial institutions in general, and banks in particular, have a significant collective role in boosting economic and financial growth in communities. However, some banks have exhibited unethical attitudes and acted with great opacity, indulging in activities such as aggressive earnings management and fraudulent financial reporting (Grougiou et al., 2014)[6]. The complexity of banking transactions and financial instruments leads to substantial information asymmetries, and therefore, both the corporate governance mechanisms and related financial reporting in the banking industry are still questionable.

The prior literature reviewed in sections 3.4.1 and 3.4.2 has provided extensive evidence on the role of different corporate governance mechanisms in enhancing financial reporting quality. However, the greater part of this literature has excluded banking and financial institutions. Since the global financial crisis of 2007-2009, banks' governance structures have been subject to stricter oversight by regulators (Elyasiani and Zhang, 2015), as the financial crisis revealed that the corporate governance structures in banks were inadequate, and led to calls for reforms to strengthen information quality and corporate governance systems in banks (Leventis and Dimitropoulos, 2012). Given the significance of the role played by banks in the stability of the payment system and the functioning of economic systems (Andres and Vallelado, 2008), an investigation of the role of different corporate governance mechanisms in financial reporting quality in banks is warranted.

Although the quality of financial reporting has long been investigated in prior banking studies (Wahlen, 1994; Beatty and Harris, 1998; Kanagaretnam et al., 2003; Pérez et al. 2008; Barth et al., 2017), less focus has been placed on examining the factors determining financial reporting quality in banks. Shen and Chih (2005) presented one of the earliest attempts in this context, studying earnings management behaviour in a cross-country sample of banks. Firstly, they provided a graphical evidence and statistical evidence for earnings management practices in most of the countries sampled. Secondly, they found that banks' earnings management practices are negatively associated with investor protection and accounting disclosure requirements. Although this study explained the variations of earnings management across

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

countries from an investor protection perspective, it did not consider the role of other corporate governance mechanisms.

Some banking studies have examined the role of institutional factors in enhancing the quality of earnings (Kanagaretnam et al., 2014a; García-Sánchez and García-Meca, 2017). Kanagaretnam et al. (2014a) investigated whether variations in country-wide institutional factors result in cross-country differences in earnings quality. To assess the quality of earnings, they used five different measures: income-increasing discretionary loan loss provisions, bench-mark beating, earnings persistence, future cash flows predictability and future loan charge-offs. They concluded that institutional factors are strongly related to all of the earnings quality measures. Furthermore, they provided evidence on the role of the legal system, judicial system and economic system in controlling opportunistic earnings management behaviour and in enhancing the information value of bank earnings. In the same vein, García-Sánchez and García-Meca (2017) studied the relationship between corporate social responsibility practices and earnings quality in banks, examining institutional factors as moderators in this relationship. They found that commitments to corporate social responsibility practices positively affect cash flow predictability and earnings persistence. They also discovered that this effect is stronger in countries with greater bank regulation and higher investor protection.

In addition to the role of institutional factors in financial reporting quality, some studies have considered the role of internal and external audit. Kanagaretnam et al. (2010) examined the association between external auditor reputation and earnings management in banks. In a sample of banks from 29 countries for the period 1993-2006, they found that auditor reputation constrains loss-avoidance and income-increasing earnings management. Their findings highlighted the role of independent auditors as an important monitoring mechanism that controls opportunistic earnings management behaviour in banks. In another study, Gras-Gil et al. (2012) examined the role of internal audit function in financial reporting quality. In a sample of Spanish banks, they revealed that the involvement of the internal audit function in the financial reporting process leads to higher financial reporting quality.

Another strand of literature focused on the role of religiosity in enhancing financial reporting quality. Kanagaretnam et al. (2015) examined the effects of religion, which is a principal source of morals and ethics, on financial reporting quality in banks. In an international sample of banks, they found that religiosity is negatively related to earnings management measures, and positively related to earnings persistence and cash flow predictability. Although they did not test with regard to a particular religion, they provided evidence for the role of informal

institutions such as religion in financial reporting quality. A few empirical studies have focused on the influence of a specific religion (i.e. Islam) (Quttainah et al., 2013; Abdelsalam et al., 2016; Elnahass et al., 2018). Quttainah et al. (2013) investigated whether Islamic banks are less likely to engage in earnings management than other types of banks, and whether the characteristics of the Shari'ah supervisory board affect earnings management behaviour in Islamic banks. In a sample of Islamic and conventional banks, they discovered that Islamic banks are less likely to manage their earnings through loss-avoidance techniques and abnormal loan loss provisions. Additionally, they provided evidence of a negative association between the size of the Shari'ah board and earnings management.

Abdelsalam et al. (2016) studied the influence of organisational religious norms on the financial reporting quality of banks. Their comparison of Islamic banks with conventional banks revealed that Islamic banks adopt more conservative accounting policies, and are less likely to manage their earnings than their conventional counterparts. While Abdelsalam et al. (2016) theoretically attributed their findings to the possible effect of double-governance mechanisms on lowering managerial opportunism in Islamic banks, they did not assess the impact of different layers of internal governance in curbing earnings management behaviour within the two bank types, nor did they test for any specific characteristics of Shari'ah supervisory boards in earnings management within Islamic banks. Likewise, Elnahass et al. (2018) investigated the effect of applying different financial reporting regulatory systems (e.g. International Financial Reporting Standards versus Islamic accounting standards) on accounting opportunism across the two bank types within three countries: Bahrain, Jordan and Qatar. They found that Islamic banks (using expected loan loss models) have higher quality financial reporting than conventional banks, which employ incurred loan loss models. However, their study did not control for internal governance attributes.

With regard to the role of internal governance mechanisms, limited evidence is available within conventional banking literature on the effect of internal corporate governance on controlling earnings management practices. Cornett et al. (2009) studied earnings management behaviour at large bank holding companies, and investigated the role of corporate governance mechanisms in controlling this behaviour. Their findings provided evidence for income smoothing behaviour through loan loss provisions and securities gains and losses. They also found that an independent board of directors limits opportunistic earnings management behaviour in banks. Similarly, using a corporate governance index, Leventis and Dimitropoulos (2012) concluded that U.S. banks with efficient corporate

governance are less likely to engage in aggressive earnings management practices than poorly governed banks.

From another perspective of financial reporting quality, Leventis et al. (2013) examined the association between corporate governance effectiveness and accounting conservatism. To measure the effectiveness of corporate governance, they used the Corporate Governance Quotient, an index determined by the RiskMetrics Group Inc. Their findings provided evidence that banks with effective governance structures are more likely to engage in conservative financial reporting practices.

In a recent study, García-Sánchez et al. (2017) investigated the effect of gender diversity on boards of directors and financial expertise within audit committees on accounting quality, measured by conservatism and earnings persistence. Using a cross-country sample of 159 banks, they provided evidence of the positive effect of females and financial experts on the quality of earnings in banks. Furthermore, Delis et al. (2018) examined the role of regulatory intervention in enhancing bank accounting quality. They assessed accounting quality using six different measures: earnings smoothing, big-bath accounting, timely recognition of loan losses, earnings persistence, cash flow predictability, and the relationship between loan loss provisions and future loan charge-offs. Using a sample of U.S. banks with enforcement action issued to them, they provided evidence of the positive impact of regulatory interventions in enhancing banks' accounting quality.

This review of literature shows that a number of studies have been conducted to assess the quality of financial reporting in banks, and they have investigated different factors determining it. Table 3.5 presents a summary of the key prior studies that have been reviewed in this section and these studies are grouped based on the independent variables being tested.

Table 3.5 Summary of Key Studies Examining Factors Determining Financial Reporting Quality in Banks (grouped based on independent variables)

(A) Studies considering legal institutions and other institutional characteristics

Study	Research Objective(s)	Dependent Variable(s)	Independent Variable(s)	Sample	Main Findings
Shen and Chih (2005)	To examine earnings management behaviour in banks and to investigate factors explaining cross-county variations in earnings management.	Distributions of annual earnings scaled by common equity.	Investor protection factors including director rights and legal enforcement, accounting disclosure index, and insider trading index.	A sample of 70,955 bank-observations for the period 1993-1999 across 48 countries.	More than two-thirds of the banks sampled have managed their earnings. They also find that banks' earnings management practices are negatively associated with investor protection and accounting disclosure requirements.
Kanagaretnam et al. (2014a)	To study the association between cross-country legal, extra-legal, and political institutions and earnings quality.	Earnings persistence and predictability of cash flows, loan loss provisions and future loan charge-offs, income before taxes, abnormal loan loss provisions.	Legal variables (legal and judicial system), extra-legal variables (competition between banks and tax compliance), political variables (state ownership and cost of starting a business).	An international sample of banks from 35 countries.	They provide evidence for a significant association between country-wide legal, extra-legal, and political institutions and all measures of earnings quality.

Study	Research Objective(s)	Dependent Variable(s)	Independent Variable(s)	Sample	Main Findings
Delis et al. (2018)	To investigate the role of enforcement actions enacted on banks in enhancing accounting quality.	Earnings smoothing, big-bath accounting, timely recognition of future loan losses, loss avoidance using discretionary loan loss provisions, cash flow predictability and earnings persistence, and the association between loan loss provisions and future charge-offs.	Risk-related enforcement actions, accounting-related enforcement actions, change in cash flows, loan charge-offs, earnings before taxes, assets growth, loan loss allowances, loan loss provisions, nonperforming loans, bank size, and total loans.	A sample of U.S. banks with enforcement actions enacted on them over the period 1997-2013.	They find that risk-related and accounting-related enforcement actions result in improved accounting quality.
Elnahass et al. (2018)	To examine the impact of different institutional characteristics on capital and earnings management behaviour.	Loan loss provisions.	Tier 1 capital, earnings before taxes and loan loss provisions, change in nonperforming loans, change in total loans, listing status, and leverage ratio.	A sample of Islamic banks and conventional banks from Bahrain, Jordan, and Qatar.	They find evidence of capital and earnings management practices in conventional banks. However, such evidence is not found in Islamic banks.

(B) Studies considering external and internal audit

Study	Research Objective(s)	Dependent Variable(s)	Independent Variable(s)	Sample	Main Findings
Kanagaretnam et al. (2010)	To investigate the relation between auditor reputation and earnings management.	Income before taxes scaled by total assets.	Auditor type (whether a Big 5 auditor), auditor industry specialization, total assets, growth in total assets, total loan, leverage, allowance for loan losses, law enforcement index, official supervisory power index, and private monitoring index.	International sample of banks from 29 countries for the period 1993-2006.	They find that auditor type and auditor expertise moderate earnings management behaviour in banks.
Gras-Gil et al. (2012)	To examine the association between internal audit function and financial reporting quality.	Financial reporting quality measured by two types of deficiencies: qualified audit report and presence of additional report to the annual accounts.	Frequency of meetings and collaboration between external and internal auditors and internal auditors' specialization.	A sample of 72 Spanish banks.	They find that greater collaboration between internal and external auditors and greater involvement of internal audit in reviewing financial reports result in enhanced quality financial reporting.

(C) Studies considering Shari'ah governance

Study	Research Objective(s)	Dependent Variable(s)	Independent Variable(s)	Sample	Main Findings
Quttainah et al. (2013)	To examine whether Islamic banks employ less earnings management and whether Shari'ah supervisory board (SSB) characteristics affect earnings management.	Income before taxes scaled by total assets and abnormal loan loss provisions.	Bank type, SSB size, and SSB interlock.	A sample of 82 Islamic banks and 82 conventional banks from 15 countries for the period 1993-2008.	They find that Islamic banks are less likely to manage their earnings. They also find evidence of negative association between SSB size and earnings management.

(D) Studies considering corporate governance

Study	Research Objective(s)	Dependent Variable(s)	Independent Variable(s)	Sample	Main Findings
Cornett et al. (2009)	To examine earnings management practices at banks and to investigate whether corporate governance mechanisms affect these practices.	Earnings management measured as the difference between discretionary realised security gains and losses and loan loss provisions.	Board of director independence, capital adequacy, CEO duality, board of director stock ownership, number of board meetings per year, market-to-book ratio of equity, and asset size.	A sample of bank holding companies head-quartered in the U.S. during the period 1994-2002.	Evidence of earnings smoothing is found. They also find that performance, board independence, and capital are negatively related to earnings management.
Leventis and Dimitropoulos (2012)	To investigate the role of corporate governance in earnings management behaviour.	Net income deflated by lagged total assets, the difference between discretionary realised security gains and losses and discretionary loan loss provisions, and discretionary accruals.	Earnings before taxes, corporate governance quotient, total assets, ratio of market-to-book value of equity, leverage, audit quality, and regulatory capital.	A sample of 315 U.S. conventional banks for the period 2003-2008.	They provide evidence that efficient corporate governance mechanisms result in lower aggressive earnings management behaviour.

Study	Research Objective(s)	Dependent Variable(s)	Independent Variable(s)	Sample	Main Findings
Leventis et al. (2013)	To examine the association between corporate governance and accounting conservatism.	Accounting conservatism.	Corporate governance composite index (corporate governance quotient) and corporate governance quotient sub-indices (board of director, audit, executive compensation, ownership and antitakeover provisions).	A sample of U.S. conventional banks during the period 2003-2009.	They find that banks with effective governance structures engage in higher levels of conservative accounting.
Abdelsalam et al. (2016)	To examine the role of religious norms in earnings quality.	Accounting conservatism, earnings management measured by: small positive increases in income, difference between realised security gains & loan loss provisions, and discretionary accruals.	CEO duality, board independence, state ownership, foreign ownership, bank type, bank size, leverage, capital adequacy ratio, market-to-book ratio, audit quality, cash flow from operating activities, and level of corruption.	A sample of 24 Islamic banks and 76 conventional banks from 12 MENA countries during the period 2008-2013.	They provide evidence that Islamic banks are less likely to manage their earnings compared to conventional banks and they adopt more conservative accounting policies.

Study	Research Objective(s)	Dependent Variable(s)	Independent Variable(s)	Sample	Main Findings
García-Sánchez et al. (2017)	To examine the impact of gender diversity and financial expertise on accounting conservatism and earnings quality.	Accounting conservatism and earnings quality measured by earnings persistence.	Gender diversity on board, financial expertise on audit committee, board independence, official supervisory power, investor protection, and total assets.	A sample of 159 banks from 9 countries over the period 2004-2010.	They provide evidence for the positive role of females and financial experts on earnings quality and accounting conservatism.

(E) Studies considering other variables

Study	Research Objective(s)	Dependent Variable(s)	Independent Variable(s)	Sample	Main Findings
Kanagaretnam et al. (2015)	To investigate whether and how religious differences across countries influence earnings management.	Income before taxes scaled by total assets and discretionary loan loss provisions.	Religiosity measure, total assets, growth in total assets, leverage, allowance for loan losses, total loans, net loan charge-offs, and nonperforming loans.	An international sample of banks from 29 countries for the period 1995-2006.	They find that religiosity is negatively related to both benchmark-beating behaviour and income-increasing behaviour through abnormal loan loss provisions.
García-Sánchez and García-Meca (2017)	To study the relation between commitment to corporate social responsibility activities and earnings quality.	Two measures of earnings quality: earnings persistence and ability of current earnings to predict future cash flow.	Corporate social responsibility performance (environmental index, social index, and ethical index), total assets, total deposits, loans growth rate, board independence, board diversity, and the level of investor protection.	A sample of 159 banks from 9 countries over the period 2004-2010.	They provide evidence for a positive association between earnings persistence and cash flow predictability and commitment to corporate social responsibility practices. They also find that this association is stronger in countries with higher investor protection.

The studies reviewed above in Table 3.5 demonstrates the lack of empirical attempts that test for the effect of bank type on the relation between corporate governance mechanisms and financial reporting quality. Most of the banking studies that consider corporate governance variables do not investigate the joint impact of traditional and additional governance mechanisms, nor do they test for the effect of bank type on financial reporting quality. In order to fill this gap in the literature, this thesis comparatively examines the role of different governance mechanisms employed across conventional and Islamic banks in improving the quality of financial reporting.

3.5 Summary

This chapter has reviewed the prior literature on the role of different corporate governance mechanisms in enhancing the quality of financial reporting. These corporate governance mechanisms (i.e. board of directors and audit committees) have been considered by the agency theory to represent one of the classical cures in controlling conflicts of interest between agents and principals (Shleifer and Vishny, 1997; Brennan, 2006). Prior studies have extensively investigated the roles of boards of directors and audit committees in enhancing the quality of corporate financial reporting. However, the greater part of this literature has focused on non-financial institutions, excluding banks and other financial institutions from investigation. In addition, most of the studies examining the role of corporate governance mechanisms in financial reporting quality have assessed the quality of financial reporting from an opportunistic earnings management perspective. A relatively limited amount of literature has examined financial reporting quality from an information perspective.

Moreover, previous studies examining financial reporting quality in banks did not explicitly examine the effect of different bank types, nor did they distinguish between the unique internal governance mechanisms employed across the different banking sectors. Therefore, this thesis aims to bridge this gap in the literature by comparatively examining the role of corporate governance mechanisms employed by Islamic versus conventional banks in enhancing financial reporting quality. The quality of banks' financial reporting will be assessed from two perspectives: the opportunistic earnings management perspective and the information perspective. The examination will involve traditional governance mechanisms (i.e. board of directors and audit committees), as well as additional mechanisms unique to Islamic banks (i.e. Shari'ah supervisory boards).

Chapter Four: Internal Governance Mechanisms and Earnings Management: Evidence from Alternative Banking Systems

4.1 Introduction

Extensive research has focused on the quality of financial reporting and opportunistic earnings management practices as factors having broad implications for various stakeholders (Elias, 2002; Prior et al., 2008; Vladu et al., 2017). Earnings management is one of the most important ethically questionable practices, which could have substantial detrimental economic and societal consequences (Merchant and Rockness, 1994; Dechow et al., 1996; Leuz et al., 2003). Corporate scandals during the twenty-first century (e.g., Enron and WorldCom) have affirmed the presence of opportunistic managerial behaviour and have raised serious concerns about the credibility of financial reporting (Karamanou and Vafeas, 2005; González and García-Meca, 2014).

A large body of literature has established that effective corporate governance mechanisms have a role in controlling managerial opportunistic behaviour, and in turn can limit earnings management practices (Becker et al., 1998; Klein, 2002; Xie et al., 2003; Vafeas, 2005; Chen and Zhang, 2014). However, most studies in this field have been focusing on non-financial firms.

Given the eminent position of banking institutions in global economies, understanding the role of corporate governance in banks' earnings management is vitally important. In addition, the global financial crisis of 2007-2009 has revealed that the corporate governance structures in banks are inadequate, and has called for reforms to strengthen corporate governance mechanisms and information quality in banks (Leventis and Dimitropoulos, 2012; Mollah and Zaman, 2015). Earnings management practices in banks have mainly been addressed within the context of conventional banks (Shrieves and Dahl, 2003; Shen and Chih, 2005; Anandarajan et al., 2007; Kanagaretnam et al., 2010; 2015), but much less is known about the role of internal governance mechanisms in mitigating opportunistic earnings management practices across different bank types. Therefore, an ideal setting for such an investigation is the unique systems of governance in Islamic versus conventional banks. Accordingly, this chapter empirically investigates whether internal corporate governance mechanisms curb opportunistic earnings management practices in conventional and Islamic banks. Thus, this chapter is organised as follows. Section 4.2 presents the theoretical framework and the

hypotheses development. Section 4.3 discusses the research methodology. Section 4.4 presents and discusses the empirical results. Finally, section 4.5 concludes.

4.2 Theoretical Framework and Hypotheses Development

A long-accepted argument is that managers are driven merely by self-interest and that agency conflicts are likely to arise from the separation of ownership and control of a corporation (Jensen and Meckling, 1976; Fama and Jensen, 1983). In line with the agency theory, managerial self-interest and opportunistic behaviour can be limited by establishing formal mechanisms of corporate governance, that are considered to be classical approaches for controlling conflict of interests between agents and principals.

Despite the predominance of the agency theory in the corporate governance field, it has been criticised for focusing primarily on managerial self-interest and ignoring important intrinsic rewards, such as ethical conduct and self-satisfaction (Cohen et al., 2007). Prior literature has documented the impact of social norms on managerial behaviour. According to the social norms theory, religiosity, which is an example of social norms, has a role in shaping individuals' behaviours and decision making (Dyreng et al., 2012). Because deviation from socially acceptable norms leads to sanctions from social networks, religiosity is expected to promote anti-fraudulent and anti-manipulative ethos and to encourage ethical conduct (McGuire et al., 2012; Callen and Fang, 2015). Accordingly, corporate managers' behaviours are shaped by their informal beliefs and values, in addition to formal governance structures and mechanisms.

Having reviewed the theoretical framework above, the following section discusses the development of the research hypotheses that will be tested in this chapter.

4.2.1 Board of Directors and Opportunistic Earnings Management

As has been mentioned in Chapter 3, the board of directors is widely recognised as one of the most important internal governance mechanisms (Fama and Jensen, 1983). Accordingly, several studies have examined the role of board of directors in controlling opportunistic managerial behaviour and hence, curtailing opportunistic earnings management practices. It has been established that the effectiveness of the board of directors in controlling opportunistic earnings management behaviour depends on its characteristics. In this research, three characteristics will be considered; board of directors size, independence, and CEO duality.

The literature reviewed in Chapter 3 on the association between board of directors size and earnings management practices provides mixed evidence. On one side, some studies provide evidence supporting the agency theory as they find that the size of the board is positively related to the level of opportunistic earnings management (Kao and Chin, 2004; Ching et al., 2006; Hashim and Devi, 2008; Hoitash et al., 2009; Gulzar and Wang, 2011). On the other side, some studies provide evidence consistent with the resource dependence theory as they find that board of directors size is negatively related to opportunistic earnings management (Xie et al., 2003; Bradbury et al., 2006; Kang and Kim, 2012; Obigbemi et al., 2016).

Within the context of Islamic banks, the role of the board of directors in controlling agency problems should be similar to that in conventional banks (Safieddine, 2009). However, it is expected that for Islamic banks, operating on a complex and constrained banking model, the role of the board of directors in controlling agency problems to be more visible compared with that in conventional banks. Moreover, with expectations that social norms in these religious organisations dominant, effective scrutiny by the board of directors plays an executive role and tends to enforce the authority of the Shari'ah supervisory board to perform either supervisory or advisory roles, or both. Hence, the size of the boards of directors in Islamic banks can substantially influence its monitoring and controlling capabilities over managerial opportunism.

Given the mixed prior evidence on the association between board size and earnings management, a directional hypothesis is difficult to state. Accordingly, no prediction is provided on the direction of the association between board size and the measures of earnings management for both conventional and Islamic banks. Hence, the first hypothesis is stated in alternative form as follows:

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

It is expected that the above relationship to be more significant in Islamic banks relative to conventional banks.

In addition to the board size, the board's effectiveness is determined by its independence (John and Senbet, 1998). According to the agency theory, independent directors are more effective in monitoring and controlling managerial behaviour than executive directors. Consistent with this view, several studies have provided evidence for a negative association between board independence and earnings management practices (Klein, 2002; Peasnell et al., 2005; Davidson et al., 2005; Chen and Zhang, 2014; González and García-Meca, 2014).

Accordingly, it is predicted that independent boards are more effective in monitoring and mitigating managerial opportunism. Similar to predictions made in the first hypothesis; the role of independent boards of directors in controlling managerial behaviour is expected to be more noticeable in Islamic banks than in conventional banks, under the assumed dominance of religious norms in Islamic banking. This leads to the next hypothesis, stated in alternative form as follows:

$\boldsymbol{H_{1b}}$: A negative relationship exists between the board of directors' independence and the level of earnings management practices.

In line with predictions, this relationship is expected to be more significant in Islamic banks relative to conventional banks.

Finally, the CEO duality also determines the independence of the board of directors. Several studies have empirically documented that CEO duality hinders effective monitoring and could be associated with higher opportunistic behaviour by managers in nonfinancial firms (Klein, 2002; Lo et al., 2010; Kamarudin et al., 2012), as well as financial institutions (Cornett et al., 2009; Abdelsalam et al., 2016).

In line with these studies, the following hypothesis is developed, stated in alternative form:

$\boldsymbol{H_{1c}}$: A positive relationship exists between the CEO duality and the level of earnings management practices.

In line with the social norms theory, it is expected that the above relationship be more significant in Islamic banks relative to conventional banks.

4.2.2 Audit Committee and Opportunistic Earnings Management

Prior studies reviewed in Chapter 3 have argued that, relative to the board of directors, audit committee may play a more direct role in constraining opportunistic earnings management behaviour. Previous studies have considered the size and the independence of the audit committee in relation to earnings management practices. As with the size of the board of directors, the literature on the association between the size of the audit committee and earnings management behaviour provide inconclusive evidence. Some studies document positive associations between audit committee size and earnings management practices (Alonso et al., 2000; Hoitash et al., 2009, Gulzar and Wang, 2011). However, in line with the resource dependence theory, other studies find negative associations between the size of the

audit committee and opportunistic earnings management behaviour (Yang and Krishnan, 2005; Lin et al., 2006; Kent et al., 2010; García et al., 2012; Chen and Zhang, 2014).

Given the inconclusive evidence provided by prior literature, no prediction is made on the direction of the association between audit committee size and earnings management practices. This leads to the development of the following hypothesis, stated in alternative form:

$\boldsymbol{H_{2a}}$: A significant (positive/ negative) relationship exists between the audit committee size and the level of earnings management practices.

In line with prior prediction on the role of board of directors in Islamic banks, it is expected that the association between audit committee size and earnings management to be stronger in Islamic banks than in conventional banks.

The effectiveness of audit committee in monitoring the financial reporting process is also determined by its independence. Prior studies have argued that independent members in the audit committee are able to make independent judgements apart from the influence of the management (Fama and Jensen, 1983). Consistent with this argument, several studies have documented negative association between audit committee independence and opportunistic earnings management practices (Benkel et al., 2006; Chang and Sun, 2009; Lin and Hwang 2010; Chen and Zhang, 2014).

Consistent with the findings of these studies, the next hypothesis, stated in alternative form, is developed as follows:

$\boldsymbol{H_{2b}}$: A negative relationship exists between the audit committee independence and the level of earnings management practices.

4.2.3 Shari'ah Supervisory Board and Opportunistic Earnings Management

This chapter also investigates whether the existence and the characteristics of the Shari'ah supervisory boards have a role in limiting earnings management practices in Islamic banks. The limited studies that have been reviewed in Chapter 3 on the role of Shari'ah supervisory boards reveal that most of them were carried out within the context of corporate social responsibility disclosure, bank risk-taking, and performance. Investigation of the role of Shari'ah supervisory boards in financial reporting quality and in constraining opportunistic earnings management behaviour is still lacking.

It has been highlighted in Chapter 3 that through the extra layer of governance (i.e. Shari'ah supervisory boards), Islamic banks incorporate Islamic religious beliefs into their operations and decision making. As the primary role of the Shari'ah supervisory board is to reassure stakeholders that the activities of the Islamic bank are in compliance with the principles of Shari'ah, Shari'ah scholars act as investigators in conducting their independent audit. Shari'ah boards are responsible for issuing a separate report, as part of the Islamic banks' annual reports, to certify that the banks' operations are free from elements prohibited in Islam (Grais and Pellegrini, 2006). In carrying out this responsibility, Shari'ah board members may have to review additional information and reports, such as financial reports (Abdul Rahman and Bukair, 2013), where they get exposed to irregular financial reporting practices and opportunistic earnings management behaviour.

Studies examining the role of Shari'ah boards have focused on their characteristics. In particular, they considered the size of the Shari'ah board, its financial qualification, and the multiple memberships held by its members.

For the Shari'ah supervisory board size, although there is no explicit requirement, the standards issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) recommend that at least three members serve on the Shari'ah supervisory board (AAOIFI, 2010). Ginena and Hamid (2015) claimed that defining an optimal number of Shari'ah board members is impractical, because situations differ from one bank to another. Given the relative lack of empirical research on the characteristics of the Shari'ah boards, we base our prediction on the findings of Farook et al., (2011), Abdul Rahman and Bukair (2013), and Quttainah et al. (2013). These studies argue that a large Shari'ah board enables members to share their experience and benefit from the diverse knowledge. As the Shari'ah supervisory board become larger, it will be able to allocate its duties and functions (i.e. the workload) across more scholars, whether relating to advisory or review role. This will result in enhanced capacity to monitor the Islamic banks' compliance with the Shari'ah rules and principles. In line with the findings of these studies, and supported by the resource dependence theory, a larger Shari'ah supervisory board is expected to provide more effective monitoring and hence, limits opportunistic earnings management in Islamic banks.

The arguments and findings of the above studies lead to the development of the following hypothesis, stated in alternative form:

$\boldsymbol{H_{3a}}$: A negative relationship exists between the Shari'ah supervisory board size and the level of earnings management practices in Islamic banks.

In addition to the size, the effectiveness of the Shari'ah supervisory board is likely to be determined by the scholars' financial qualification. It has been highlighted in Chapter 3 that graduating Shari'ah scholars who lack financial qualification may not be sufficiently competent to carry out Shari'ah board duties, especially with the complex nature of banking activities in Islamic banks. Hence, Shari'ah supervisory board members should possess a certain level of capabilities and competencies. In accordance with the Islamic Financial Services Board (IFSB), a Shari'ah scholar is expected to hold an academic degree in Shari'ah, in addition to comprehensive knowledge in accounting, banking and Islamic finance. Despite the importance of financial qualifications for Shari'ah scholars, most regulatory authorities have been vague on the required qualifications for Shari'ah supervisory board members. The financial qualification of a Shari'ah scholar (college/university undergraduate or postgraduate degree in finance, accounting, or Islamic finance, or professional qualifications, for example CPA, ACCA, CFA, or CIA) is expected to enable him/her to understand complex financial reporting practices, monitor the financial reporting process, and detect opportunistic managerial acts. Hence, the next hypothesis, stated in alternative form, is as follows:

$\boldsymbol{H_{3b}}$: A negative relationship exists between the Shari'ah supervisory board financial qualification and the level of earnings management practices in Islamic banks.

Finally, the competence of the Shari'ah board in carrying out its duties is also influenced by the multiple memberships held by its members. It has been discussed in Chapter 3 that the scarcity of experts in Islamic finance and the reputation resource of existing Shari'ah scholars led to the busyness of the Shari'ah supervisory board in Islamic banks, where Shari'ah scholars hold a multiple of memberships in different banks at the same time. Multiple memberships held by Shari'ah board members may enrich their knowledge and expertise, as they are exposed to more diverse experiences (Harris and Shimizu, 2004). Additionally, multiple memberships are proxy for the scholars' reputation in the external labour market (Shivdasani 1993; Vafeas, 1999). Accordingly, the diverse knowledge and expertise of reputable Shari'ah scholars are predicted to enhance their ability to monitor and control managerial behaviour. However, performing the consultative and supervisory functions of the Shari'ah board requires significant efforts and time from the members. Thus, holding multiple memberships at the same time may distract the Shari'ah board members from their supervisory responsibilities and will negatively affect their ability to monitor and control managerial performance. Given the possible validity of both arguments, it is difficult to

develop a directional hypothesis. This leads to the following hypothesis, stated in alternative form:

$\boldsymbol{H_{3c}}$: A significant (positive/ negative) relationship exists between the Shari'ah supervisory board members' multiple memberships and the level of earnings management practices in Islamic banks.

4.3 Research Methodology

4.3.1 Sample Selection

The multi-country sample covers the period from 2007 to 2015. The relevance of this sample period is that the Basel II Capital Adequacy framework (Basel Committee on Banking Supervision, 2006) became mandatory for Islamic banks in 2007 (see 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).

An initial list of all conventional and Islamic banks was retrieved from the *BankScope* database. Initially, there were 486 conventional banks and 145 Islamic banks from 23 countries. The distribution of the initial sample across countries and across the two bank types is presented below in Table 4.1.

Table 4.1 Distribution of Initial Sample by Country and Bank Type

Country	Conventional Banks	Islamic Banks
Algeria	17	0
Bahrain	12	19
Bangladesh	40	8
Egypt	23	3
Indonesia	101	10
Iraq	13	7
Islamic Republic of Iran	1	17
Jordan	11	3
Kuwait	6	11
Lebanon	49	3
Libya	10	0
Malaysia	37	18
Morocco	16	0
Oman	6	2
Pakistan	22	9
Palestine	3	2
Qatar	7	6
Saudi Arabia	10	5
Syrian Arab Republic	13	2
Tunisia	17	0
Turkey	46	6
United Arab Emirates	21	10
Yemen	5	4
Total	**486**	**145**

Notes: This table presents the distribution of the initial sample across countries and across the two bank types (retrieved from *BankScope*).

Following Beck et al. (2013) and Mollah et al. (2017), three sample criteria were applied: (1) countries having both types of banks (conventional and Islamic); (2) the availability of corporate governance data for both types of banks; and (3) the availability of at least three consecutive years of bank data.

Moreover, the sample excludes conventional banks with Islamic windows. These refer to traditional conventional banks that provide products that are compliant with Shari'ah (Beck et al., 2013). The conventional banks with Islamic windows are excluded as they do not provide separate financial data that allow for the distinguishing between these windows and the full

conventional banks (Čihák and Hesse, 2010). In addition, the supervisory issues and capital adequacy requirements for those windows are different from Islamic banks (IFSB, 2005).

Application of the above sampling criteria results in a final sample of 729 bank-year observations (100 banks) including 469 bank-year observations of conventional banks (61 banks) and 260 bank-year observations of Islamic banks (39 banks), across 16 countries[7].

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 4.2 presents the final sample distribution across countries and the two bank types.

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

Table 4.2 Distribution of Final Sample 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	56
Bangladesh	6	22	6	34	12	61
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	67
Lebanon	0	0	4	32	4	29
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
Tunisia	0	0	3	18	3	18
Turkey	2	17	7	61	9	78
United Arab Emirates	3	18	2	13	5	31
Banks	39		61		100	
Observations		260		469		729

Notes: This table presents the distribution of the final sample across countries and across the two bank types, after applying the previously discussed sample criteria.

4.3.2 Earnings Management Models

To examine earnings management practices in banks, three different models are employed to measure earnings management in the two banking sectors. The first model is based on managers' motivation to maintain a pattern of increasing earnings and avoid reporting losses. This motivation stems from "the psychological important distinction between positive numbers and negative numbers (or zero)" (Degeorge et al., 1999, p. 2). The importance of reporting positive earnings is documented in several studies. For example, DeAngelo et al. (1996) demonstrated that firms that break a pattern of earnings increases suffer negative stock returns.

Several lines of evidence suggest that corporate managers endeavour to report small positive earnings and avoid negative earnings. Hence, the frequency of small positive net income has been used as a measure of earnings management (Burgstahler and Dichev, 1997; Degeorge et al., 1999).

Lezu et al. (2003) examine systematic differences in earnings management behaviour across 31 countries. They use the frequency of small positive earnings as a measure for earnings management, and they find that economies with large stock markets and strong investor protection exhibit lower levels of earnings management.

Furthermore, Barth et al. (2008) investigate whether the application of International Accounting Standards (IAS) positively affects accounting quality. They use the frequency of small positive earnings as a measure for earnings management, and they find that firms applying IAS from 21 countries generally evidence less earnings management.

Recent empirical banking studies also use the frequency of small positive earnings as an earnings management measure. Leventis and Dimitropoulos (2012) investigated the role of corporate governance in earnings management behaviour by US conventional banks. They provide evidence that banks with efficient corporate governance mechanisms report small positive income less frequently than banks with weak governance mechanisms.

In a more recent study that investigates the impact of organisational religiosity on the earnings quality, Abdelsalam et al. (2016) find that Islamic banks are less likely to report small positive incomes than conventional banks. Their results suggest that religious norms have a significant impact on financial reporting quality.

Following Burgstahler and Dichev (1997), Leuz et al. (2003), and Barth et al. (2008), the frequency of small positive net income is used as a proxy for earnings management. The

notion is that managers avoid reporting losses by reporting small positive net income. Accordingly, an indicator variable for loss avoidance (LOSS_AVOID) is introduced, 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). The 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 = a vector of internal governance variables

IB = an indicator variable taking 1 if the bank is Islamic, and 0 otherwise

Control = a vector of control variables

ε = 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 hence are less likely to engage in opportunistic earnings management.

The second model to measure earnings management practices in both bank types is based on the use of income-increasing discretionary accruals to manage banks' earnings. Since business transactions and events are recorded based on the accrual accounting system, the discrepancy between the timing of cash flow and the timing of the recognition of the transaction gives rise to accruals (Ronen and Yaari, 2008). Accruals refer to all accounting entries needed to adjust cash inflow and outflow to calculate a measure of financial performance for a specific period of time (Goncharov, 2005). Despite the superiority of the accrual accounting system over cash accounting, accrual accounting presents some problems. It requires management to make judgements, which gives management discretionary power that can be used opportunistically to alter reported earnings (Dechow, 1994). Accruals are divided into two elements: non-discretionary accruals (unmanaged) that arise from the normal application of accounting rules, and discretionary accruals (managed) that arise from aggressive or conservative accounting choices (Ronen and Yaari, 2008).

Previous banking studies provide evidence of bank managers using loan loss provisions to manage reported earnings (Scheiner, 1981; Ma, 1988; Greenawalt and Sinkey, 1988). According to Beaver and Engel (1996), loan loss provisions reflect the amount of adjustment needed to bring the balance of loan loss allowance to an adequate level to cover expected

future loan losses. The use of discretionary loan loss provisions as a tool for earnings management has been well documented in the U.S. banking industry (Wahlen, 1994; Liu et al., 1997; Kim and Kross, 1998). For example, Kanagaretnam et al. (2003) suggest that managers' use of loan loss provisions 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 loan loss provisions to manage earnings in several countries (Leventis et al., 2011). Prior studies in earnings management within the Islamic banking context provide inconclusive evidence for the use of loan loss provisions in earnings management by Islamic banks (Ismail and Be Lay, 2002; Zoubi and Al-Khazali, 2007; Taktak et al., 2010; Abdelsalam et al., 2016; Elnahass et al., 2018).

In addition to the use of loan loss provisions to manage earnings, the prior literature shows that banks' earnings can also be managed through realised securities gains and losses. Since Since security gains and losses are not realised until the securities are sold, it is unlikely that auditors and regulators will raise issue with such decisions. Thus, realised security gains and losses represent a relatively unaudited and unregulated managerial action (Beatty and Harris, 1998). Consequently, the use of realised security gains and losses to manage earnings has been documented by several studies (Beatty et al., 1995, 2002; Shrieves and Dahl, 2003).

For a sample of bank holding companies headquartered in the United States, Cornett et al. (2009) examined whether corporate governance mechanisms affect earnings management. Their results provide evidence of earnings smoothing. Specifically, they find that banks with higher income and capital record fewer security gains and more loan losses and vice versa for banks with lower income and capital. They also find that independent boards of directors curb income-increasing earnings management. Similarly, Leventis and Dimitropoulos (2012) investigated the role of corporate governance in earnings management for a sample of U.S. conventional banks during the era of the Sarbanes-Oxley Act (2003-2008). They found that well-governed banks were less likely to engage in aggressive earnings management practices through the use of discretionary loan loss provisions and realised security gains and losses.

Additionally, Abdelsalam et al. (2016) conducted a comparison study between Islamic banks and conventional banks in the Middle East and North Africa (MENA) region. They provided evidence for the impact of religious norms on financial reporting quality. In particular, they

found that Islamic banks were less prone to earnings management through discretionary loan loss provisions and discretionary security gains and losses.

In a recent attempt, Barth et al. (2017) investigated whether and how banks used realised security gains and losses to manage regulatory capital and earnings. For a sample of publicly listed and non-listed U.S. conventional banks over the period from 1996 to 2011, they provide evidence of the use of realised security gains and losses to smooth earnings and to increase regulatory capital.

Both loan loss provisions and realised securities gains and losses are the combination of a non-discretionary component and a discretionary component (Cornett et al., 2009). Accordingly, an additional measure of earnings management is defined, that is based on estimating the discretionary part of loan loss provisions through the following fixed-effect model, which is specified as:

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

Where

LOSS = loan loss provisions as a ratio of total loans

LnTA = natural logarithm of total assets

NPL = ratio of nonperforming loans to total loans

LLR = ratio of loan loss reserves to total loans

LOANR = ratio of real estate loans to total loans

LOANC = ratio of commercial and industrial loans to total loans

LOANI = ratio of consumer and instalment loans to total loans

ε = error term

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

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

Where

LOANS = total loans

ASSETS = total assets

To estimate the discretionary part of realised securities gains and losses, the following fixed-effect model is estimated (Cornett et al., 2009; Leventis and Dimitropoulos, 2012):

$$RSGL_{it} = a_t + b_1 LnTA_{it} + b_2 URSGL_{it} + \varepsilon_{it} \quad (c)$$

Where

RSGL = realised securities gains and losses as a ratio of total assets

LnTA = natural logarithm of total assets

URSGL = unrealised securities gains and losses

ε = error term

The error term from the regression above is the discretionary component of realised securities gains and losses (DRSGL). The estimated measure of earnings management is defined as the difference between the discretionary component of realised securities gains and losses and the discretionary component of loan loss provisions, which is specified as:

$$EM_{it} = DRSGL_{it} - DLLP_{it} \quad (d)$$

This leads to the second model for earnings management estimated using random-effect estimation[8] and specified as follows:

$$EM_{it} = a_0 + a_1 IG_{it} + a_2 IB_i + \gamma\, Control_{it} + \varepsilon_{it} \quad (2)$$

It is predicted that higher levels of earnings management correspond to understating loan loss provisions and overstating realised securities gains and losses. 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 loan loss provisions and/or realised securities gains and losses.

The second model explained above considered the disaggregated approach to measuring earnings management through discretionary accruals. This approach focuses on an individual accounting accrual that involves considerable managerial judgement (Goncharov, 2005). Focusing on a single item results in accurate estimations. However, it provides "one-choice-at-a-time analysis" (Francis, 2001, p. 314). Thus, another stream of research examines the quality of accruals using the aggregated approach, which accounts for multiple accrual accounting choices.

[8] The use of random-effect estimation is justified by the fact that corporate governance variables (board of directors and audit committee characteristics) do not vary much over time. Hence, using fixed-effect estimation would result in substantial loss of the degrees of freedom (Baltagi, 2005; Mollah and Zaman, 2015).

Hence, the third model for measuring earnings management is based on the magnitude of discretionary accruals (DACC), a measure that is widely used as a proxy for earnings management (Becker et al., 1998; Bédard et al., 2004; Lai et al., 2018). It aggregates the net effect of all accounting choices into a single measure (Watts and Zimmerman, 1990). The magnitude of accruals is viewed as an inverse measure of financial reporting quality (Sloan, 1996), in that accruals consist of non-discretionary components and discretionary portions, which can be manipulated by corporate managers.

Although the magnitude of discretionary accruals has long been examined in prior studies, the empirical literature in the banking industry is not very extensive. In one of the earliest attempts, Yasuda et al. (2004) examined the association between discretionary accruals and the level of bank risk in a sample number of Japanese banks. Their results provide evidence of the "naive investor hypothesis". In particular, they find that discretionary accruals are negatively associated with the level of bank risk, indicating that investors misinterpret high earnings inflated by discretionary accruals as being favourable information about banks' financial position, and undervalue bank risk.

The magnitude of discretionary accruals was also used by Leventis and Dimitropoulos (2012) as a measure of earnings management. They investigated the role of corporate governance in earnings management and found that well-governed banks are less likely to use discretionary accruals to manage reported earnings. Abdelsalam et al. (2016) reach the same conclusion for Islamic banks. Specifically, their results demonstrate that Islamic banks are less likely to manage earnings through discretionary accruals relative to conventional banks.

The third model for measuring earnings management in this study is based on the magnitude of discretionary accruals (DACC). This measure of discretionary accruals 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. To obtain the discretionary component of total accruals, the following regression model is estimated, following Yasuda et al. (2004):

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

Where

ACCR = total accruals calculated as the difference between net income and operating cash flows

TA = total assets

ΔOI = the change in operating income between $t-1$ to t

PPE = the bank's property, plant, and equipment

ε = error term

To reduce heteroscedasticity, all variables are deflated, including the intercept in the above model, by lagged total assets (Jones, 1991). The residuals from equation (e) are defined as the discretionary accruals (DACC), which is introduced as the dependent variable in the following regression model estimated using random-effect:

$$DACC_{it} = a_0 + a_1 IG_{it} + a_2 IB_i + \gamma\, Control_{it} + \varepsilon_{it} \quad (3)$$

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.

4.3.3 Internal Governance Measures

Prior studies are followed 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; González and García-Meca, 2014; Katmon and Al Farooque, 2017) within the two banking sectors. The board size (BODSIZE) is measured as the total absolute number of board members, the board independence (BODINDEP) is measured as the ratio of independent members over the total number of board members, and the CEO duality is measured by an indicator variable (CEODUAL) that takes 1 if the CEO is also the chairman of the board, and 0 otherwise.

For the audit committee, the size of the audit committee (ACSIZE) is measured as the total absolute number of audit committee members, and the audit committee independence (ACINDEP) is measured as the ratio of independent audit committee members over the total number of members serving in the committee (Habbash et al., 2013; He and Yang, 2014).

For the influence of the additional governance mechanisms (i.e. the Shari'ah supervisory board) on Islamic banks' earnings management practices, three characteristics of the Shari'ah supervisory board are examined in this chapter: size, financial qualification, and multiple memberships. First, the size of the Shari'ah supervisory board (SSBSIZE) is measured as the total absolute number of Shari'ah supervisory board members (Farook et al., 2011; Mollah and Zaman, 2015; Almutairi and Quttainah, 2017). Second, in line with Farook et al. (2011), the effect of the financial qualification of Shari'ah supervisory board members (SSBQUAL) is tested. This variable is measured as the ratio of Shari'ah supervisory board members with financial/accounting qualification (college/university undergraduate or postgraduate degree in finance, accounting, or Islamic finance, or professional qualifications, for example CPA, ACCA, CFA, or CIA) over the total number of Shari'ah supervisory board members. Finally, Shari'ah supervisory board multiple memberships (SSBMM) is measured as the ratio of Shari'ah supervisory board members with multiple memberships over the total number of Shari'ah supervisory board members. Following Core et al. (1999), Perry and Peyer (2005), and Elyasiani and Zhang (2015), a member with multiple memberships is defined as a member serving on at least three boards of different Islamic banks at the same time.

4.3.4 Control Variables

The empirical models additionally control for bank-specific and country-level factors that may explain variations in the earnings management models. First, banks' earnings performance is controlled for through earnings before taxes (EBT). This variable measures a bank's capacity to use its assets to generate earnings before its contractual obligations (Leventis et al., 2011). If income smoothing is an important determinant, positive relations between earnings before taxes and the three earnings management measures will be observed (Anandarajan et al., 2007). In addition, the empirical models control for the leverage (LEV), measured as the ratio of total debt to equity (Chang and Sun, 2009). Managers of highly leveraged firms tend to manage reported earnings to avoid debt covenant violation. Therefore, a positive coefficient on the leverage variable (LEV) is expected. Furthermore, following Mollah et al. (2017), the level of capital adequacy is considered, and the capital position of the bank is measured as Tier 1 capital (TIER1). According to Moyer (1990), bank managers have incentives to manage reported earnings to prop up capital levels as they decline relative to regulatory requirements. On the other hand, it has been argued by Kanagaretnam et al. (2004) that well-capitalised banks are subject to less regulatory supervision, and hence, have more opportunities to manage earnings. Thus, no prediction is made on the direction of the

coefficient on Tier 1. Moreover, the empirical models control for the bank age (AGE), measured as the natural logarithm of the number of years the bank has operated in the country. Additionally, the bank size (BANK SIZE) is controlled for, where it is measured as the natural logarithm of the year-end total assets. Consistent with Cornett et al. (2009), a negative coefficient is expected on the BANK SIZE variable. Furthermore, the empirical models control for the financial performance using net cash flows (CFO) from operating activities deflated by average total assets. In line with prior studies, firms with strong financial performance are less motivated to manage reported earnings, and hence a negative coefficient is expected (Dechow et al., 1995; Becker et al., 1998). In addition, the models control for the banks' investment and growth opportunities that might affect the magnitude of discretionary accruals (Lai, 2009). Growth opportunities (GRW) are measured as the ratio of market-to-book value of equity (Cornett et al., 2009) and a negative coefficient on GRW is predicted. To control for the external audit quality, an indicator variable (BIG4) is introduced, which takes 1 if the bank's auditor is a Big Four, and 0 otherwise. Earnings management is likely to be tempered in companies audited by a highly reputable audit firm (Becker et al., 1998; Kanagaretnam et al., 2010). Therefore, a negative coefficient on the BIG4 variable is predicted. Moreover, the empirical models address the role of ownership structure in banks earnings management by controlling for government ownership (GOV_OWN), measured as the proportion of shares held by the government. Prior literature has demonstrated that government ownership is associated with poor corporate governance and opportunistic behaviours including fraud and corruption (Megginson et al., 1994; Shleifer, 1998). Accordingly, a positive coefficient on the GOV_OWN variable is expected. Moreover, because the sample period encounters the financial crisis of 2007-2008, the empirical models control for the effect of this exogenous shock by including an indicator variable (CRISIS), which takes 1 for the years 2007 and 2008, and 0 otherwise. Extant literature provides mixed evidence for the impact of economic crises on earnings management practices in banking. Prior literature documents that periods of economic stress are associated with higher levels of earnings management, either to avoid significant stock price declines (Charitou et al., 2007) or to avoid debt covenant violations (Iatridis and Kadorinis, 2009). Therefore, a positive coefficient on the CRISIS variable is expected. Regarding the country-level factors, it is controlled for the GDP annual growth rate to adjust for the impact of macroeconomic cycle (Kanagaretnam et al., 2015). To capture between-country differences in governance perceptions, a country governance index (COUNTRY_GOV) is introduced, following Čihák and Hesse (2010). This variable is measured as the average of six governance measures – control for corruption, government effectiveness, political stability, regulatory quality, the

rule of law, and voice and accountability. Finally, following Elnahass et al. (2018), an indicator variable (AAOIFI) is introduced to control for financial reporting regulatory differences across Islamic banks which apply either Accounting and Auditing Organization for Islamic Financial Institutions standards or International Financial Reporting Standards. This variable takes 1 if an Islamic bank is located in Bahrain, Jordan, or Qatar and applies AAOIFI standards, and 0 for an Islamic bank located in another country and applies IFRS.

Table 4.3 lists the dependent, independent, and control variables with their definitions.

Table 4.3 List of Variables, their Definitions, and Measures

Variables	Definitions and Measures
LOSS_AVOID	An indicator variable for loss avoidance that takes 1 if net income scaled by lagged total assets is between 0 and 0.01 for each given year, and 0 otherwise.
EM	Earnings management measure, estimated as the difference between discretionary realised securities gains and losses and discretionary loan loss provisions.
DACC	Discretionary accruals estimated as the residuals from the cross-sectional Jones (1991) model as modified by Yasuda et al. (2004).
BODSIZE	The board of directors size, measured as the total absolute number of board members.
BODINDEP	The board of directors independence, measured as the ratio of independent members over the total number of board members.
CEODUAL	An indicator variable for CEO duality that takes 1 if the CEO is also the chairman of the board, and 0 otherwise.
ACSIZE	The audit committee size, measured as the total absolute number of audit committee members.
ACINDEP	The audit committee independence, measured as the ratio of independent audit committee members over the total number of members serving in the committee.
EBT	Earnings before taxes deflated by lagged total assets.
LEV	Leverage, measured as the ratio of total debt to equity.
TIER1	Capital adequacy, measured as Tier 1 capital.
AGE	Bank age, measured as the natural logarithm of the number of years the bank has operated in the country.
BANK SIZE	Bank size, measured as the natural logarithm of the year-end total assets.
CFO	Financial performance, measured as net cash flows (CFO) from operating activities deflated by average total assets.
GRW	Growth opportunities, measured as the ratio of market-to-book value of equity.
BIG4	An indicator variable for audit quality that takes 1 if the bank's auditor is a Big Four, and 0 otherwise.

Variables	Definitions and Measures
GOV_OWN	Government ownership, measured as the proportion of shares held by the government.
CRISIS	An indicator variable for the financial crisis that takes 1 for the years 2007 and 2008, and 0 otherwise.
GDP	The country-prevailing GDP annual growth rate.
COUNTRY_GOV	A country governance index, measured as the average of six governance measures – control for corruption, government effectiveness, political stability, regulatory quality, the rule of law, and voice and accountability.
AAOIFI	An indicator variable that take 1 if the Islamic bank applies AAOIFI standards, and 0 if the Islamic bank applies IFRS.
SSBSIZE	The Shari'ah supervisory board size, measured as the total absolute number of Shari'ah supervisory board members.
SSBQUAL	The Shari'ah supervisory board financial qualification, measured as the ratio of Shari'ah supervisory board members with financial/accounting qualification over the total number of Shari'ah supervisory board members.
SSBMM	The Shari'ah supervisory board multiple memberships, measured as the ratio of Shari'ah supervisory board members with multiple memberships over the total number of Shari'ah supervisory board members.

4.4 Results

4.4.1 Descriptive Statistics and Correlations

Table 4.4 presents the descriptive statistics for the full sample (Panel A), the conventional banks sub-sample (Panel B), and the Islamic banks sub-sample (Panel C). It also presents the mean differences *t*-test, comparing means for conventional banks and Islamic banks sub-samples.

For the dependent variables, it is found that for conventional banks (Islamic banks) the mean LOSS_AVOID is 0.318 (0.285), EM is 0.002 (0.001), and DACC is -0.038 (-0.120), respectively. These results are comparable to those of Abdelsalam et al. (2016) who report similar LOSS_AVOID of 0.356 (0.264), EM of 0.002 (0.001), and DACC of -0.041 (-0.039) for conventional banks and (Islamic banks), respectively. These results indicate that Islamic banks have lower mean values across the three measures of earnings management relative to conventional banks. Reported *t*-tests show a significant difference in the third measure (i.e. DACC), implying that Islamic banks are less likely to manage their earnings through discretionary accruals relative to conventional banks.

Regarding the internal governance variables, it is found that for conventional banks (Islamic banks), the mean board of directors' size (BODSIZE) is 9.663 (10.015), board's independence (BODINDEP) is 0.368 (0.371), CEO duality is 0.038 (0.050), audit committee size (ACSIZE) is 3.660 (3.550), and audit committee independence (ACINDEP) is 0.542 (0.532), respectively.

For bank-specific variables, conventional banks have a significantly higher average for EBT of 0.020 than Islamic banks (i.e. 0.014). Results also show that Islamic banks are less leveraged, have higher capital adequacy, younger in age, smaller in size, and they hold lower cash flows which might be attributable to the restrictions on their liquidity management, as compared with conventional banks. Finally, the descriptive statistics show that 83%-88% of banks in the sample are audited by a Big Four audit firm. This high percentage might be explained by the sophisticated nature of the banking activities, which requires complex processes of risk assessment and monitoring by international audit firms.

For the Shari'ah governance indicators within Islamic banks, results show that the mean of Shari'ah supervisory board size (SSBSIZE) is 4.442. This finding is comparable to that of Mollah and Zaman (2015) who report a similar mean size of 4.171. The mean of Shari'ah supervisory board financial qualification (SSBQUAL) is 29%, indicating the relatively low percentage of financially qualified Shari'ah scholars dominating the sample. This result is

consistent with the theoretical argument of Khalaf (2007) and Mollah and Zaman (2015), identifying the scarcity of financially experienced Shari'ah scholars worldwide. Finally, the Shari'ah supervisory board multiple membership's rate is relatively high (63%) which can be explained by both the popularity and the scarcity of experts in Shari'ah legitimacy on a global basis.

Table 4.4: Descriptive Statistics

	PANEL A: FULL SAMPLE				PANEL B: CONVENTIONAL BANKS SUB-SAMPLE				PANEL C: ISLAMIC BANKS SUB-SAMPLE				Two-sample *t*-test (Two Tailed)
Variables	**Obs.**	**Mean**	**Std.**	**Median**	**Obs.**	**Mean**	**Std.**	**Median**	**Obs.**	**Mean**	**Std.**	**Median**	**T-test**
LOSS_AVOID	729	0.306	0.461	0	469	0.318	0.466	0	260	0.285	0.452	0	-0.928
EM	560	0.002	0.009	0.003	403	0.002	0.011	0.004	157	0.001	0.005	0.002	-0.911
DACC	728	-0.067	0.135	-0.044	469	-0.038	0.089	-0.028	259	-0.120	0.180	-0.106	-8.223***
BODSIZE	729	9.789	2.792	10	469	9.663	2.662	10	260	10.015	3.004	9	1.634
BODINDEP	664	0.369	0.234	0.333	424	0.368	0.229	0.333	240	0.371	0.244	0.333	0.126
CEODUAL	729	0.043	0.202	0	469	0.038	0.192	0	260	0.050	0.218	0	0.744
ACSIZE	658	3.623	0.956	3	438	3.660	0.964	3	220	3.550	0.937	3	-1.391
ACINDEP	610	0.539	0.330	0.600	421	0.542	0.329	0.500	189	0.532	0.333	0.667	-0.374
EBT	728	0.018	0.021	0.019	469	0.020	0.014	0.020	259	0.014	0.030	0.015	-3.574***
LEV	729	7.784	3.860	7.725	469	8.364	2.780	8.093	260	6.736	5.117	6.050	-5.567***
TIER1	700	16.830	8.808	14.095	446	15.286	6.500	13.670	254	19.541	11.333	15.270	6.315***
AGE	729	3.322	0.804	3.526	469	3.592	0.668	3.761	260	2.835	0.800	2.944	-13.639***
BANK SIZE	729	15.672	1.542	15.732	469	15.947	1.519	16.047	260	15.178	1.461	15.328	-6.635***
CFO	729	0.015	0.072	0.019	469	0.019	0.054	0.019	260	0.009	0.096	0.019	-1.815*
GRW	714	1.605	1.601	1.280	461	1.679	1.867	1.310	253	1.469	0.929	1.220	-1.672*
BIG4	729	0.866	0.341	1	469	0.883	0.322	1	260	0.835	0.372	1	-1.826*
GOV_OWN	729	0.076	0.132	0.008	469	0.083	0.144	0.008	260	0.063	0.104	0	-1.952*
CRISIS	729	0.130	0.337	0	469	0.143	0.350	0	260	0.108	0.311	0	
GDP	729	4.814	3.942	4.790	469	4.962	3.954	4.876	260	4.547	3.913	4.410	
COUNTRY_GOV	726	-0.165	0.478	-0.089	469	-0.169	0.462	-0.093	257	-0.157	0.506	-0.078	
AAOIFI									260	0.288	0.454	0	
SSBSIZE									260	4.442	1.753	4	
SSBQUAL									260	0.289	0.253	0.250	
SSBMM									260	0.631	0.315	0.667	

Notes: This table presents the descriptive statistics for the variables used in the empirical models. The sample period is 2007 to 2015. Panel A presents the results for the full sample including conventional and Islamic banks with 729 bank-year observations. Panel B presents the results for conventional banks sub-sample comprising 469 bank-year observations. Panel C presents the results for Islamic banks sub-sample comprising 260 bank-year observations. The last column also reports the mean differences and two-sample *t*-test (comparison of means for conventional banks and Islamic banks sub-samples).
A list of the variables, their definitions, and measures is presented in Table 5.1.
*,**,*** denote significance at the 10%, 5%, and 1% respectively.

Table 4.5 presents the Pearson correlation coefficients for the full sample. The traditional internal mechanisms (i.e. BODSIZE, BODINDEP, ACSIZE, and ACINDEP) show significant and negative correlations with the two earnings management models, LOSS_AVOID and EM. The Shari'ah governance indicators (SSBSIZE and SSBQUAL) report significant and negative correlations with the first and second earnings management models (LOSS_AVOID and EM). These results provide some preliminary insights into the role of effective governance in mitigating managerial opportunistic behaviour. All other correlations are in line with expectations, and the matrix of the correlation coefficients affirms that multicollinearity does not appear to be a serious statistical problem, except for the independence of the board of directors and audit committee (BODINDEP and ACINDEP), which have a significant positive correlation (72%). Therefore, to mitigate the problem of collinearity between the BODINDEP and ACINDEP, the individual effect of board and audit committee characteristics on earnings management are examined separately (i.e. across separate regression estimations).

In addition to the Pearson correlation coefficient analysis, the variance inflation factors (VIF) are calculated. Results of VIF tests are presented in Table 4.6. The results indicate that no predictor variable produces a VIF greater than 10. These results confirm that multicollinearity is not a problem.

Table 4.5: Pearson Correlation Matrix for the Years 2007-2015

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. LOSS_AVOID	1											
2. EM	**0.24**	1										
3. DACC	**0.11**	**0.12**	1									
4. BODSIZE	**-0.16**	**-0.27**	-0.06	1								
5. BODINDEP	**-0.27**	**-0.12**	**-0.10**	**-0.26**	1							
6. CEODUAL	0.01	-0.03	-0.05	-0.04	-0.01	1						
7. ACSIZE	**-0.29**	**-0.21**	-0.04	**0.24**	**0.22**	-0.01	1					
8. ACINDEP	**-0.33**	**-0.16**	**-0.16**	-0.05	**0.72**	0.03	**0.19**	1				
9. EBT	-0.04	**0.12**	0.06	**0.10**	**-0.18**	0.06	**0.09**	**-0.13**	1			
10. LEV	**0.11**	0.05	0.07	**0.17**	**-0.11**	**-0.08**	**0.11**	0.08	0.03	1		
11. TIER1	0.06	-0.01	-0.03	**-0.11**	**0.09**	0.02	**-0.15**	-0.04	**-0.12**	**-0.61**	1	
12. AGE	**-0.10**	-0.04	0.05	**0.13**	**-0.12**	0.03	**0.09**	0.05	**0.14**	**0.22**	**-0.41**	1
13. BANK SIZE	**-0.17**	**0.09**	0.01	0.03	**0.16**	**-0.13**	**0.09**	**0.29**	**0.24**	**0.19**	**-0.39**	**0.48**
14. CFO	0.03	0.07	0.01	-0.07	**-0.09**	**0.08**	0.01	-0.08	**0.20**	0.07	-0.05	-0.03
15. GRW	0.04	**0.11**	-0.02	-0.05	-0.01	-0.00	-0.04	-0.06	-0.02	**0.12**	0.03	-0.03
16. BIG4	**-0.08**	**0.13**	0.03	**-0.12**	**0.14**	0.02	-0.08	**0.16**	0.02	**-0.24**	0.05	**0.25**
17. GOV_OWN	**-0.07**	0.08	0.04	**-0.08**	0.06	-0.07	-0.04	0.01	0.07	-0.07	0.05	0.06
18. CRISIS	**0.15**	**0.11**	**0.09**	**-0.09**	**-0.10**	**0.08**	**-0.09**	**-0.14**	**0.20**	0.01	0.06	-0.02
19. GDP	-0.04	0.06	0.04	0.02	**-0.08**	0.04	**0.08**	-0.06	**0.21**	-0.07	-0.04	**-0.07**
20. COUNTRY_GOV	**-0.10**	**0.13**	0.04	**-0.23**	**0.18**	-0.02	-0.07	**0.13**	0.03	**-0.32**	0.01	**0.10**
21. AAOIFI	-0.01	0.11	0.10	-0.03	0.11	-0.07	**-0.26**	-0.04	0.05	**-0.49**	**0.21**	0.01
22. SSBSIZE	**-0.34**	**-0.33**	-0.11	**0.61**	-0.02	-0.12	**0.40**	0.14	0.05	**0.31**	**-0.33**	**0.14**
23. SSBQUAL	-0.10	**-0.17**	-0.05	**-0.12**	0.10	0.12	**0.13**	**0.16**	-0.01	0.02	0.05	-0.06
24. SSBMM	0.03	**0.17**	-0.02	**-0.32**	**0.25**	**-0.24**	**-0.37**	0.08	**-0.13**	**-0.19**	**0.18**	0.05

Notes: This table presents the Pearson correlation coefficients for the earnings management variables (LOSS_AVOID, EM, and DACC), internal governance variables (BODSIZE, BODINDEP, CEODUAL, ACSIZE, ACINDEP, SSBSIZE, SSBQUAL, and SSBMM), bank-specific variables (EBT, LEV, TIER1, AGE, BANK SIZE, CFO, GRW, BIG4, GOV_OWN, CRISIS), and country-specific variables (GDP and COUNTRY_GOV) included in the models. The correlations are reported for the full sample including conventional and Islamic banks with 729 bank-year observations.
Coefficients in bold indicate statistical significance at the 5% significance level or more.

Table 4.5 (continued): Pearson Correlation Matrix for the Years 2007-2015

Variables	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
13. BANK SIZE	1											
14. CFO	0.03	1										
15. GRW	0.07	**0.09**	1									
16. BIG4	**0.40**	**-0.15**	-0.06	1								
17. GOV_OWN	**0.29**	-0.02	**0.14**	**0.22**	1							
18. CRISIS	0.00	**0.08**	**0.14**	0.02	**0.08**	1						
19. GDP	0.02	-0.02	0.00	-0.05	0.04	**0.19**	1					
20. COUNTRY_GOV	**0.39**	-0.05	0.01	**0.47**	**0.30**	**0.09**	**0.12**	1				
21. AAOIFI	-0.04	-0.08	-0.10	**0.26**	**0.14**	0.03	**0.17**	**0.43**	1			
22. SSBSIZE	**0.22**	0.04	0.08	**-0.40**	-0.08	-0.08	0.05	**-0.20**	**-0.25**	1		
23. SSBQUAL	**-0.18**	-0.01	**-0.38**	0.08	**-0.19**	-0.03	0.02	0.12	-0.03	-0.03	1	
24. SSBMM	**0.19**	**-0.14**	0.12	**0.41**	**0.37**	-0.10	**-0.18**	**0.44**	**0.38**	**-0.40**	0.02	1

Notes: This table presents the Pearson correlation coefficients for the earnings management variables (LOSS_AVOID, EM, and DACC), internal governance variables (BODSIZE, BODINDEP, CEODUAL, ACSIZE, ACINDEP, SSBSIZE, SSBQUAL, and SSBMM), bank-specific variables (EBT, LEV, TIER1, AGE, BANK SIZE, CFO, GRW, BIG4, GOV_OWN, CRISIS), and country-specific variables (GDP and COUNTRY_GOV) included in the models. The correlations are reported for the full sample including conventional and Islamic banks with 729 bank-year observations.
Coefficients in bold indicate statistical significance at the 5% significance level or more.

Table 4.6: VIF Test Results		
Variables	**VIF**	**1/VIF**
BANK SIZE	4.69	0.213
COUNTRY_GOV	4.54	0.220
LEV	3.99	0.251
BODSIZE	3.46	0.289
AAOIFI	3.27	0.306
BODINDEP	3.03	0.330
ACINDEP	2.98	0.335
SSBSIZE	2.91	0.344
GOV_OWN	2.90	0.344
SSBMM	2.83	0.354
BIG4	2.82	0.355
TIER1	2.77	0.361
SSBQUAL	1.87	0.535
ACSIZE	1.80	0.556
EBT	1.78	0.561
GRW	1.71	0.584
CFO	1.68	0.595
CEODUAL	1.58	0.631
AGE	1.56	0.642
CRISIS	1.38	0.724
GDP	1.20	0.833
Mean VIF	***2.61***	
Notes: This table presents the results of the variance inflation factors (VIF) tests.		

4.4.2 Empirical Evidence on Opportunistic Earnings Management

Table 4.7 reports the results from examining the effect of traditional internal governance mechanisms in mitigating opportunistic earnings management practices for the full sample, using the three measures of earnings management (LOSS_AVOID, EM, and DACC). The three models are estimated separately for the board and audit committee characteristics. Columns 1-3 report the results for board characteristics, while columns 4-6 present the results for the audit committee. Results show that the coefficient on board of directors' size (BODSIZE) is consistently significant and negative across all three earnings management models (i.e. LOSS_AVOID, EM, and DACC). These results suggest that, banks with larger boards tend to avoid reporting losses less frequently compared with banks that have smaller

boards. Moreover, these banks are, on average, less likely to manage their earnings through either loan loss provisions or realised securities gains and losses. Banks with large boards also appear not to use discretionary accruals to manage their earnings. These findings suggest that a large board enhances bank's financial reporting quality, which benefits from the members' knowledge and expertise in mitigating accounting opportunism (Dalton et al., 1999; Xie et al., 2003; Karamanou and Vafeas, 2005).

Results for the boards' independence (BODINDEP) variable also show statistically significant and negative associations across the three earnings management models, suggesting lower earnings management practices for banks employing independent board of directors. These findings support the arguments by the agency theory that independent directors enhance monitoring and can restrain opportunistic behaviour (Fama and Jensen, 1983; Klein, 2002).

For audit committee characteristics, it was found that the coefficient on the audit committee size (ACSIZE) is significantly and negatively associated with the three earnings management measures. These findings suggest that large audit committees are associated with lower levels of earnings management. Large audit committees appear to increase the effectiveness of the committee by including members with varied expertise and consequently promote higher financial reporting quality for their banks (Bédard et al, 2004; Lin et al., 2006). For the audit committee independence (ACINDEP), results show that greater audit committee independence is associated with lower levels of earnings management, with significant and negative coefficients across the three measures of earnings management. These results are in line with prior studies suggesting that independent audit committees can effectively lessen opportunistic earnings management activities through effective monitoring (Klein, 2002; Vafeas, 2005; Benkel et al., 2006; Chang and Sun, 2009; Chen and Zhang, 2014).

Regarding the control variables, results show that the coefficient on the leverage variable (LEV) is positive and statistically significant under both the LOSS_AVOID and EM models (in columns 1-2 and 4-5). This outcome is consistent with the debt covenant hypothesis which suggests that managers in highly leveraged firms tend to manage reported earnings to reduce the probability of covenant violation in debt contracts. Results also show that the coefficient on the capital adequacy level (TIER1) is positive and significant under the LOSS_AVOID and EM models. This finding support the argument that well-capitalised banks are subject to less scrutiny by regulators, which allows for more opportunities to manage earnings (Kanagaretnam et al., 2004). Moreover, the banks' age (AGE) is found to be significantly negative with the third earnings management measure (DACC), in column 3. Additionally, results show that the financial crisis (CRISIS) is positively and significantly related to the first

measure of earnings management (LOSS_AVOID). This finding is in line with the argument that periods of economic stress are associated with higher levels of earnings management (Charitou et al., 2007; Iatridis and Kadorinis, 2009). For the macroeconomic effect of GDP, results show a positive and significant association under the DACC model (in column 6). Finally, the coefficient on the Islamic bank indicator variable (IB) is negative and significant in the DACC model only (in columns 3 and 6), indicating that Islamic banks report significantly lower discretionary accruals relative to their conventional counterparts. This result confirms initial expectations and is consistent with that of Elnahass et al. (2014).

Table 4.7: Regression Analysis of Earnings Management: Full Sample

Estimated Equations:

$$LOSS\_AVOID_{it}/\ EM_{it}/\ DACC_{it} = a_0 + a_1 IG_{it} + a_2 IB_i + \gamma\ Control_{it} + \varepsilon_{it}$$

Variables	Board of Directors			Audit Committee		
	(1) LOSS_AVOID Logistic Reg.	(2) EM Random Eff.	(3) DACC Random Eff.	(4) LOSS_AVOID Logistic Reg.	(5) EM Random Eff.	(6) DACC Random Eff.
Constant	12.3362**	0.0066	0.1005	9.2767**	0.0021	0.0167
	(2.53)	(0.81)	(1.51)	(2.14)	(0.24)	(0.24)
BODSIZE	-0.6593***	-0.0014***	-0.0063***			
	(-4.75)	(-8.21)	(-4.59)			
BODINDEP	-4.9270***	-0.0103***	-0.1124***			
	(-6.60)	(-5.90)	(-7.93)			
CEODUAL	-0.5844	-0.0016	-0.0270			
	(-0.79)	(-0.97)	(-1.06)			
ACSIZE				-1.6156***	-0.0021***	-0.0076**
				(-5.24)	(-4.81)	(-2.30)
ACINDEP				-4.5135***	-0.0039***	-0.0940***
				(-5.90)	(-2.90)	(-9.85)
EBT	2.4137	0.0388	-0.1944	4.2345	0.0372	-0.1595
	(0.29)	(1.48)	(-1.35)	(0.48)	(1.28)	(-1.11)
LEV	0.3063***	0.0005***	0.0005	0.3455***	0.0005***	0.0005
	(3.47)	(3.04)	(0.04)	(3.91)	(2.89)	(0.35)
TIER1	0.0721**	0.0001*	0.0003	0.0711**	0.0001*	0.0001
	(2.15)	(1.79)	(0.49)	(2.13)	(1.76)	(0.27)
AGE	-0.4195	-0.0007	-0.0162**	-0.2300	-0.0015	-0.0129
	(-0.81)	(-0.71)	(-2.02)	(-0.49)	(-1.38)	(-1.54)
BANK SIZE	-0.4822	0.0004	0.0010	-0.3797	0.0003	0.0039
	(-1.55)	(0.76)	(0.23)	(-1.39)	(0.56)	(0.85)
CFO	0.9278	0.0004	0.0175	2.7605	0.0060	0.0074
	(0.37)	(0.06)	(0.50)	(1.01)	(0.97)	(0.18)
GRW	0.3232	0.0002	-0.0038	-0.0798	0.0002	-0.0051*
	(1.62)	(0.60)	(-1.39)	(-0.46)	(0.55)	(-1.85)
BIG4	0.3514	0.0023	0.0118	-0.0715	0.0026	0.0113
	(0.50)	(1.56)	(1.05)	(-0.10)	(1.62)	(0.97)
GOV_OWN	-2.2201	-0.0004	-0.0283	-2.4844	0.0004	-0.0213
	(-0.76)	(-0.08)	(-0.67)	(-0.88)	(0.07)	(-0.44)
CRISIS	1.0423**	-0.0001	0.0033	0.9872**	-0.0004	-0.0061
	(2.19)	(-0.12)	(0.45)	(1.98)	(-0.36)	(-0.80)
GDP	-0.0227	0.0001	0.0008	0.0309	0.0001	0.0015**
	(-0.52)	(1.25)	(1.25)	(0.68)	(1.60)	(2.32)
COUNTRY_GOV	0.2241	0.0011	0.0070	0.8858	0.0021	0.0148
	(0.27)	(0.76)	(0.58)	(1.17)	(1.31)	(1.15)
IB	-0.0947	0.0005	-0.0768***	-0.7424	-0.0018	-0.0792***
	(-0.12)	(0.01)	(-6.51)	(-1.05)	(-1.14)	(-6.21)
Adjusted $\mathbf{R^2}$		18.24%	23.51%		12.76%	24.42%
Wald Chi2	61.01***	155.63***	155.98***	66.32***	79.98***	178.49***
Hausman Test	15.78	14.68	16.52	13.26	13.34	15.37
Observations	631	511	631	580	477	580

Notes: This table presents the regression results for three models (i.e. logistic regression for LOSS_AVOID, and random effect for both EM and DACC) examining the role of traditional internal governance mechanisms in opportunistic earnings management for the full sample. Columns 1-3 report the results for board characteristics, while columns 4-6 present the results for audit committee.

Z-statistics are between parentheses.

*,**,*** denote significance at the 10%, 5% and 1% respectively.

IB is indicator variable that takes 1 if the bank is Islamic, and 0 otherwise. All other variables are defined in Table 4.3.

The analysis is further extended to identify the effect of bank type on the association between internal governance mechanisms and opportunistic earnings management. Table 4.8 reports the results for conventional banks, using the three measures of earnings management (i.e. LOSS_AVOID, EM, and DACC) and estimating separate regressions for board characteristics (in columns 1-3) and audit committee characteristics (in columns 4-6). Results for the influence of board of directors show that conventional banks with either large or independent boards are less likely to manage their earnings, with the two variables (BODSIZE and BODINDEP) showing significant negative coefficients under all of the earnings management measures. For the effect of audit committees on earnings management, it was found that both ACSIZE and ACINDEP are negatively associated with the three measures of earnings management. These findings suggest that large and more independent audit committees can significantly mitigate opportunistic managerial behaviour.

For control variables, results show (in columns 1, 2, 4, and 5) that leverage is positively and significantly associated with the two measures of earnings management (LOSS_AVOID and EM). Additionally, capital adequacy (TIER1) is positive and significant under the second earnings management model (EM), in columns 2 and 5. These results are consistent with the results in Table 4.7. The bank's size (BANK SIZE) has a marginally significant negative association with LOSS_AVOID (in column 4), suggesting that larger banks are less likely to manage their earnings relative to smaller banks (Cornett et al., 2009; Leventis and Dimitropoulos, 2012). A significant and negative association is also found between growth opportunities (GRW) and DACC (in column 6). This result verifies earlier expectations and supports results of Leventis and Dimitropoulos (2012). Finally, GDP shows positive and significant association under the DACC model (in columns 3 and 6).

Overall findings highlight the substantial importance of traditional internal governance mechanisms in restraining managerial opportunism in conventional banks. These findings are consistent with both the agency theory and prior studies (Abed et al., 2012; Obigbemi et al., 2016).

Table 4.8: Regression Analysis of Earnings Management: Conventional Banks Sub-Sample

Estimated Equations:

$$LOSS\_AVOID_{it}/\ EM_{it}/\ DACC_{it} = a_0 + a_1 IG_{it} + \gamma\ Control_{it} + \varepsilon_{it}$$

Variables	Board of Directors			Audit Committee		
	(1) LOSS_AVOID Logistic Reg.	(2) EM Random Eff.	(3) DACC Random Eff.	(4) LOSS_AVOID Logistic Reg.	(5) EM Random Eff.	(6) DACC Random Eff.
Constant	10.0002*	0.0097	0.1999***	9.1019*	0.0026	0.1018*
	(1.77)	(0.82)	(3.53)	(1.67)	(0.22)	(1.71)
BODSIZE	-0.5479***	-0.0017***	-0.0086***			
	(-3.84)	(-6.97)	(-6.22)			
BODINDEP	-5.4698***	-0.0116***	-0.0948***			
	(-5.89)	(-4.68)	(-6.12)			
CEODUAL	0.7889	0.0007	-0.0228			
	(0.63)	(0.20)	(-1.17)			
ACSIZE				-1.7587***	-0.0025***	-0.0099***
				(-4.10)	(-4.46)	(-2.76)
ACINDEP				-4.5446***	-0.0043**	-0.0788***
				(-4.91)	(-2.52)	(-7.41)
EBT	4.2400	0.0489	-0.3289	5.7115	0.0509	-0.4399
	(0.79)	(1.31)	(-1.34)	(0.86)	(1.29)	(-1.60)
LEV	0.5201***	0.0007**	-0.0018	0.6321***	0.0009***	-0.0001
	(3.50)	(2.38)	(-1.07)	(4.12)	(3.12)	(-0.02)
TIER1	0.0289	0.0003**	-0.0014	0.0792	0.0003**	-0.0007
	(0.46)	(2.12)	(-1.60)	(1.27)	(2.51)	(-0.88)
AGE	0.0220	0.0003	0.0023	0.2477	-0.0006	-0.0012
	(0.03)	(0.18)	(0.29)	(0.35)	(-0.34)	(-0.14)
BANK SIZE	-0.5559	-0.0001	-0.0061	-0.6579*	-0.0002	-0.0027
	(-1.42)	(-0.15)	(-1.58)	(-1.78)	(-0.30)	(-0.68)
CFO	6.4629	-0.0017	-0.0191	5.8280	0.0005	-0.0114
	(1.57)	(-0.23)	(-0.37)	(1.54)	(0.06)	(-0.22)
GRW	0.1594	0.0002	-0.0044	-0.1061	0.0001	-0.0062**
	(0.76)	(0.39)	(-1.62)	(-0.53)	(0.17)	(-2.22)
BIG4	0.2642	0.0027	0.0077	0.3864	0.0033	0.0057
	(0.26)	(1.11)	(0.58)	(0.38)	(1.34)	(0.42)
GOV_OWN	-2.3559	0.0037	0.0409	-2.9001	0.0016	0.0281
	(-0.71)	(0.50)	(1.36)	(-0.95)	(0.23)	(0.87)
CRISIS	0.9371	-0.0012	0.0117	0.4610	-0.0017	-0.0007
	(1.59)	(-0.99)	(1.39)	(0.79)	(-1.32)	(-0.09)
GDP	0.0233	0.0002	0.0018**	0.0731	0.0002*	0.0020**
	(0.39)	(1.56)	(2.17)	(1.24)	(1.87)	(2.48)
COUNTRY_GOV	0.3006	0.0008	-0.0011	0.6697	0.0020	0.0073
	(0.30)	(0.36)	(-0.11)	(0.72)	(0.96)	(0.68)
Adjusted $\mathbf{R^2}$		17.21%	18.64%		13.03%	15.70%
Wald Chi2	49.48***	117.67***	100.94***	50.55***	72.40***	103.51***
Observations	403	366	403	400	365	400

Notes: This table presents the regression results for three models (i.e. logistic regression for LOSS_AVOID, and random effect for both EM and DACC) examining the role of traditional internal governance mechanisms in opportunistic earnings management for the conventional banks sub-sample. Columns 1-3 report the results for board characteristics, while columns 4-6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 4.3.

To examine whether possible differential earnings management behaviours between the two bank types can be explained by the distinct governance mechanisms (i.e. both traditional and additional governance) employed in each sector, the three earnings management models are estimated within the Islamic banks sub-sample.

Results are reported in Table 4.9, with the joint estimates of the board of directors and Shari'ah supervisory board characteristics on earnings management are presented in columns (1-3). Columns (4-6) present the results of the joint impacts of the audit committee and Shari'ah supervisory board characteristics. Results show that the coefficient on BODSIZE is significant and negatively associated with LOSS_AVOID and EM measures, while BODINDEP is significantly negative under the three earnings management models. These results highlight the important role that a large and independent board of directors plays in controlling managerial opportunism within Islamic banks. These findings are consistent with the resource dependence theory (Pfeffer and Salancik, 1978; Hillman and Dalziel, 2003) and support the notion that large boards in Islamic banks can promote valuable connections and a broad spectrum of expertise, which tends to help the board to detect possible discretionary managerial behaviour. Moreover, results show that Islamic banks with large audit committees are associated with significantly lower earnings management practices under the LOSS_AVOID model. For the ACINDEP variable, the findings provide strong evidence of significant and negative effect of having an independent audit committee in reducing managerial opportunism, particularly across the LOSS_AVOID and DACC models. These findings are similar to those for conventional banks, and suggest that having a large and independent audit committee improves internal monitoring and promotes varied expertise of committee members, leading to higher financial reporting quality (Lin and Hwang, 2010; García et al., 2012).

For control variables, results show that the leverage (LEV) is positively associated with the LOSS_AVOID measure (in columns 1 and 4) and with the EM measure (in columns 2 and 5), confirming that highly leveraged Islamic banks tend to manage their earnings more than lower leveraged banks. In addition, large Islamic banks are more likely to manage their earnings via loan loss provisions and realised securities gains and losses (in columns 2 and 5). Results also show that the bank's financial performance, measured as cash flows from operating activities (CFO), is significant and positively associated with EM (in columns 2 and 5). This finding contradicts the initial prediction for the effect of financial performance on earnings management. A plausible explanation for this outcome might be the existence of restrictions on liquidity management in the Islamic banks. Results also show significant negative

association between growth opportunities (GRW) and the second earnings management measure (EM), in column 2. Finally, consistent with the results of the full sample (in Table 4.7), the financial crisis (CRISIS) is found to have significant and positive associations with the LOSS_AVOID and EM measures (in columns 1, 2, 4, and 5).

Taken together, findings in Tables 4.8 and 4.9 indicate that no systematic differences exist among the traditional governance mechanisms within the two bank types. These findings imply that neither the dominance of religious norms in Islamic banks nor the presence of institutional differences among Islamic banks and conventional banks promotes variations in the main findings of both bank types. Moreover, Islamic banks appear to benefit from the presence of the two internal governance mechanisms (i.e. board and audit committees) in mitigating their extended agency problems under their constrained banking models. These findings are inconsistent with expectations for the stronger impacts of board and audit committee on mitigating managerial opportunism in Islamic banks relative to conventional banks. However, the results support negative associations under the first and second hypotheses for both bank types.

In Table 4.9, when examining the incremental influence of the Shari'ah supervisory board in lowering opportunistic earnings management within Islamic banks, it was found that the coefficient on the Shari'ah supervisory board size (SSBSIZE) is consistently significant and negative across all models. These findings indicate that the presence of a large Shari'ah supervisory board in fact mitigates managerial discretion in Islamic banks, and therefore reduces opportunistic earnings management practices. This result supports the argument that a large Shari'ah supervisory board enables Shari'ah scholars to share their experience and to benefit from the diverse knowledge of other scholars (Farook et al., 2011; Abdul Rahman and Bukair, 2013). Hence, this promotes effective monitoring over managers' financial reporting practices. Results also show significant and negative coefficients on SSBQUAL under the three earnings management models (i.e. tested jointly with the board of directors) and also under LOSS_AVOID when controlling for the audit committee characteristics (in column 4). This finding suggests that a financially qualified Shari'ah supervisory board plays an essential role in deterring opportunistic earnings management behaviour within Islamic banks. Moreover, it was found that the Shari'ah supervisory board multiple memberships are negatively related only to the third measure of earnings management (i.e. DACC), after controlling for board of directors' characteristics (in column 3). This provides evidence that Shari'ah scholars holding multiple memberships across several banks can promote extended

business networking and knowledge exchange, which can contribute to risk mitigation, including discretionary acts.

Overall, findings indicate that, even with the presence of effective monitoring by boards of directors and audit committees, strong Shari'ah governance can still offer substantial restrictions on opportunistic behaviour in Islamic banks. These results imply that a large Shari'ah supervisory board with financially qualified and highly reputable Shari'ah scholars is likely to promote higher financial reporting quality for this banking sector. These results also imply that the impact of Islamic social norms on lowering managerial opportunism seems to be more visible through effective Shari'ah monitoring than other traditional governance mechanisms (i.e. boards of directors and audit committees). These findings support the third group of hypotheses (H_{3a}, H_{3b}, H_{3c}), and confirm prior arguments in the literature (e.g. Abdelsalam et al., 2016; Elnahass et al., 2018) that higher financial reporting quality in Islamic banks is possibly attributable to the presence of a double layer of governance through Shari'ah supervisory boards.

Table 4.9: Regression Analysis of Earnings Management: Islamic Banks Sub-Sample

Estimated Equations:

$$LOSS\_AVOID_{it}/\ EM_{it}/\ DACC_{it} = a_0 + a_1 IG_{it} + \gamma\ Control_{it} + \varepsilon_{it}$$

Variables	Board of Directors			Audit Committee		
	(1) LOSS_AVOID Logistic Reg.	(2) EM Random Eff.	(3) DACC Random Eff.	(4) LOSS_AVOID Logistic Reg.	(5) EM Random Eff.	(6) DACC Random Eff.
Constant	6.4513	-0.0029	-0.1187	3.9148	-0.0169**	-0.1992
	(1.47)	(-0.40)	(-0.80)	(1.21)	(-1.99)	(-1.15)
BODSIZE	-1.3161**	-0.0006***	0.0002			
	(-2.16)	(-2.87)	(0.07)			
BODINDEP	-6.4594***	-0.0056***	-0.0515**			
	(-2.78)	(-4.05)	(-2.00)			
CEODUAL	-1.1383	-0.0022	-0.0178			
	(-1.34)	(-1.39)	(-1.02)			
ACSIZE				-3.1865***	-0.0003	0.0128
				(-2.61)	(-0.94)	(1.58)
ACINDEP				-5.9869***	0.0002	-0.0663***
				(-2.94)	(0.15)	(-3.36)
SSBSIZE	-5.3198***	-0.0006**	-0.0157***	-6.3236***	-0.0009***	-0.0143***
	(-7.43)	(-2.10)	(-2.71)	(-8.80)	(-3.78)	(-2.60)
SSBQUAL	-7.3237**	-0.0045***	-0.0820***	-8.0085*	-0.0001	-0.0541
	(-2.56)	(-3.09)	(-2.85)	(-1.71)	(-0.06)	(-1.53)
SSBMM	1.9244	0.0002	-0.0603**	1.6909	-0.0006	-0.0032
	(0.53)	(0.15)	(-2.41)	(0.36)	(-0.42)	(-0.11)
EBT	-6.7900	0.0049	0.0063	6.8922	0.0160	0.1006
	(-0.38)	(0.24)	(0.04)	(0.51)	(0.70)	(0.53)
LEV	0.8179**	0.0004***	0.0016	1.3531***	0.0002**	0.0037
	(2.23)	(3.40)	(0.74)	(3.34)	(2.14)	(1.48)
TIER1	0.2238*	0.0005	0.0012	0.1932	0.0004	0.0006
	(1.78)	(1.19)	(1.55)	(1.28)	(0.87)	(0.82)
AGE	-1.9082	-0.0013*	-0.0093	-2.2274	0.0003	-0.0117
	(-1.01)	(-1.84)	(-0.61)	(-1.05)	(0.34)	(-0.67)
BANK SIZE	-0.6374	0.0010**	0.0094	-0.0466	0.0012**	0.0100
	(-0.38)	(2.33)	(0.95)	(-0.03)	(2.17)	(0.86)
CFO	-3.4754	0.0112**	0.0632	-1.7873	0.0300***	-0.0044
	(-0.41)	(2.18)	(1.30)	(-0.22)	(4.68)	(-0.06)
GRW	0.8578	-0.0009**	-0.0047	-0.6378	-0.0002	0.0001
	(0.95)	(-2.10)	(-0.69)	(-0.55)	(-0.28)	(0.00)
BIG4	2.9129	0.0020	0.0311	-4.3239	0.0005	0.0098
	(1.30)	(1.03)	(0.76)	(-1.08)	(0.40)	(0.46)
GOV_OWN	-6.9961	-0.0064	-0.1336	-4.9241	0.0230	-0.5094
	(-1.04)	(-1.48)	(-1.12)	(-0.30)	(1.35)	(-1.58)
CRISIS	2.2042**	0.0026***	-0.0194	8.1261***	0.0030**	-0.0144
	(2.21)	(2.71)	(-1.24)	(3.62)	(2.48)	(-0.77)
GDP	-0.1462	0.0005	-0.0005	-0.0698	0.0001	0.0004
	(-0.91)	(0.86)	(-0.52)	(-0.42)	(1.64)	(0.34)
COUNTRY_GOV	-5.4099	0.0021	0.0037	-3.4985	0.0004	0.0166
	(-1.41)	(1.58)	(0.13)	(-0.63)	(0.26)	(0.45)
AAOIFI	1.6488	0.0013	0.0174	4.9320	-0.0018	0.0567
	(0.37)	(0.86)	(0.53)	(0.86)	(-0.76)	(1.43)
Adjusted $\mathbf{R^2}$		25.55%	10.51%		28.69%	15.74%
Wald Chi2	135.98***	161.56***	56.83***	118.64***	122.61***	39.65***
Observations	228	145	228	180	112	180

Table 4.9 (continued): Regression Analysis of Earnings Management: Islamic Banks Sub-Sample

Notes: This table presents the regression results for three models (i.e. logistic regression for LOSS_AVOID, and random effect for both EM and DACC) examining the role of traditional and additional internal governance mechanisms in opportunistic earnings management for the Islamic banks sub-sample. Columns 1-3 report the results for the joint effect of board characteristics and Shari'ah supervisory board, while columns 4-6 present the results for the joint effect of audit committee and Shari'ah supervisory board.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 4.3.

4.4.3 Sensitivity and Robustness Checks

To assess the validity of the findings, additional tests were performed. First, the definitions of several internal governance variables are changed. The size of the board of directors (BODSIZE), the size of the audit committee (ACSIZE), and the size of the Shari'ah supervisory board (SSBSIZE) are all replaced with dummy variables, taking 1 if the board/committee is larger than the sample mean, and 0 otherwise. Instead of defining the Shari'ah supervisory board financial qualification (SSBQUAL) as a ratio variable, a dummy variable is introduced, that takes 1 if there is at least one Shari'ah scholar with financial qualification, and 0 otherwise. In addition, the Shari'ah supervisory board multiple memberships (SSBMM) is replaced with a dummy variable, that takes 1 if at least 50% of the Shari'ah scholars are holding multiple memberships, and 0 otherwise. The models are re-estimated using the newly defined variables. The results are reported in Table 4.10 for the full sample, and in Table 4.11 for the Islamic banks sub-sample. The reported results show that the change in the definitions of some governance variables does not significantly change the main findings.

Table 4.10: Regression Analysis of Earnings Management: Full Sample – First Sensitivity Test

Variables	Board of Directors			Audit Committee		
	(1) LOSS_AVOID Logistic Reg.	(2) EM Random Eff.	(3) DACC Random Eff.	(4) LOSS_AVOID Logistic Reg.	(5) EM Random Eff.	(6) DACC Random Eff.
Constant	6.3743*	-0.0022	0.0654	4.4897	-0.0033	0.0018
	(1.67)	(-0.26)	(0.99)	(1.15)	(-0.39)	(0.03)
Dummy BODSIZE	-1.4645***	-0.0030***	-0.0188***			
	(-3.51)	(-3.52)	(-2.86)			
BODINDEP	-7.1101***	-0.0101***	-0.1096***			
	(-6.10)	(-5.49)	(-7.60)			
CEODUAL	-0.2669	-0.0009	-0.0239*			
	(-0.37)	(-0.52)	(-1.72)			
Dummy ACSIZE				-2.4351***	-0.0014*	-0.0017
				(-5.25)	(-1.77)	(-0.28)
ACINDEP				-4.5026***	-0.0049***	-0.0981***
				(-5.81)	(-3.57)	(-10.26)
EBT	0.9377	0.0407	-0.1979	3.0194	0.0461	-0.1357
	(0.12)	(1.48)	(-1.35)	(0.34)	(1.56)	(-0.94)
LEV	0.2520***	0.0005***	-0.0008	0.3164***	0.0006***	0.0007
	(3.31)	(3.10)	(-0.01)	(3.78)	(2.98)	(0.55)
TIER1	0.0639**	0.0001*	0.0002	0.0670**	0.0001*	0.0002
	(2.09)	(1.89)	(0.40)	(2.07)	(1.93)	(0.33)
AGE	-0.3977	-0.0011	-0.0164**	-0.1917	-0.0016	-0.0132
	(-0.92)	(-1.08)	(-2.04)	(-0.43)	(-1.49)	(-1.59)
BANK SIZE	-0.4415*	0.0002	-0.0007	-0.3564	0.0002	0.0031
	(-1.74)	(0.41)	(-0.02)	(-1.38)	(0.42)	(0.68)
CFO	2.0275	0.0043	0.0292	2.7667	0.0061	0.0031
	(0.89)	(0.74)	(0.82)	(1.02)	(0.96)	(0.08)
GRW	0.1532	0.0003	-0.0035	-0.0697	0.0003	-0.0046*
	(0.96)	(0.79)	(-1.27)	(-0.41)	(0.70)	(-1.66)
BIG4	0.5404	0.0027*	0.0152	-0.0542	0.0027	0.0120
	(0.87)	(1.76)	(1.35)	(-0.08)	(1.62)	(1.03)
GOV_OWN	-1.7832	-0.0005	-0.0270	-2.4542	0.0006	-0.0201
	(-0.75)	(-0.10)	(-0.64)	(-0.92)	(0.11)	(-0.42)
CRISIS	1.1355***	0.0003	0.0047	1.0925**	-0.0003	-0.0047
	(2.58)	(0.31)	(0.63)	(2.25)	(-0.02)	(-0.61)
GDP	-0.0146	0.0008	0.0008	0.0186	0.0001	0.0013**
	(-0.36)	(0.99)	(1.22)	(0.42)	(1.14)	(2.03)
COUNTRY_GOV	0.5863	0.0029*	0.0135	0.8301	0.0024	0.0172
	(0.85)	(1.91)	(1.12)	(1.15)	(1.53)	(1.35)
IB	-0.6656	-0.0012	-0.0837***	-0.7821	-0.0018	-0.0788***
	(-1.07)	(-0.78)	(-7.18)	(-1.16)	(-1.13)	(-6.21)
Adjusted $\mathbf{R^2}$		16.84%	23.23%		14.04%	23.99%
Wald Chi2	65.56***	90.45***	140.76***	67.48***	57.72***	171.61***
Observations	631	511	631	580	477	580

Notes: This table presents the regression results from the first sensitivity test for three models (i.e. logistic regression for LOSS_AVOID, and random effect for both EM and DACC) examining the role of traditional internal governance mechanisms in opportunistic earnings management for the full sample. Columns 1-3 report the results for board characteristics, while columns 4-6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
Dummy BODSIZE/ACSIZE is an indicator variable that takes 1 if the board/committee is larger than the sample mean, and 0 otherwise.
All other variables are defined in Table 4.3.

Table 4.11: Regression Analysis of Earnings Management: Islamic Banks Sub-Sample – First Sensitivity Test

Variables	Board of Directors			Audit Committee		
	(1) LOSS_AVOID Logistic Reg.	(2) EM Random Eff.	(3) DACC Random Eff.	(4) LOSS_AVOID Logistic Reg.	(5) EM Random Eff.	(6) DACC Random Eff.
Constant	8.4928	-0.0081	-0.1214	-0.9636	-0.0241***	-0.1733
	(0.91)	(-1.01)	(-0.80)	(-0.14)	(-3.01)	(-0.97)
Dummy BODSIZE	-2.7103**	-0.0009	0.0148			
	(-2.20)	(-1.30)	(1.13)			
BODINDEP	-6.7441***	-0.0057***	-0.0848***			
	(-2.83)	(-3.99)	(-3.25)			
CEODUAL	0.3781	-0.0001	-0.0015			
	(0.30)	(-0.12)	(-0.08)			
ACSIZE				-2.0187***	-0.0011	0.0170
				(-2.60)	(-1.45)	(1.45)
ACINDEP				-3.8512***	-0.0004	-0.0789***
				(-2.58)	(-0.02)	(-3.95)
EBT	-7.6571	0.0006	0.0184	-6.2750	0.0262	0.0994
	(-0.67)	(0.03)	(0.10)	(-1.16)	(1.08)	(0.51)
LEV	0.2500	0.0003**	-0.0005	0.1536	0.0001	0.0025
	(1.59)	(2.42)	(-0.22)	(1.57)	(1.29)	(0.99)
TIER1	0.0994*	0.0003	0.0009	0.0681*	0.0002	0.0003
	(1.78)	(0.70)	(1.15)	(1.68)	(0.51)	(0.42)
AGE	-0.2499	-0.0012	-0.0184	0.1348	0.0003	-0.0177
	(-0.31)	(-1.62)	(-1.19)	(0.25)	(0.53)	(-1.02)
BANK SIZE	-0.5903	0.0008*	0.0070	-0.0095	0.0012**	0.0084
	(-0.98)	(1.78)	(0.69)	(-0.02)	(2.52)	(0.71)
CFO	-0.4935	0.0117**	0.0556	-1.1921	0.0305***	0.0213
	(-0.13)	(2.35)	(1.09)	(-0.28)	(4.53)	(0.29)
GRW	0.0904	-0.0006	-0.0034	-0.7871*	-0.0004	-0.0008
	(0.17)	(-1.37)	(-0.47)	(-1.65)	(-0.57)	(-0.01)
BIG4	1.7904	0.0035	0.0253	0.5978	0.0025	0.0104
	(1.35)	(0.56)	(1.35)	(0.62)	(1.32)	(0.49)
GOV_OWN	-5.5641	-0.0089*	-0.1315	-4.6126	0.0081	-0.4939
	(-0.89)	(-1.87)	(-1.10)	(-0.56)	(0.51)	(-1.52)
CRISIS	2.8155**	0.0039***	-0.0135	4.5293***	0.0039***	-0.0131
	(1.99)	(3.73)	(-0.80)	(3.58)	(3.24)	(-0.67)
GDP	-0.0635	0.0002	-0.0009	-0.0344	0.0001	0.0004
	(-0.79)	(0.28)	(-0.89)	(-0.45)	(1.36)	(0.31)
COUNTRY_GOV	-0.5702	0.0030**	0.0095	-0.4654	0.0010	0.0222
	(-0.36)	(2.32)	(0.34)	(-0.41)	(0.95)	(0.60)
AAOIFI	1.2165	0.0008	0.0107	-0.0240	-0.0016	0.0564
	(0.73)	(0.05)	(0.33)	(-0.02)	(-0.80)	(1.42)
Dummy SSBSIZE	-1.2209	-0.0017**	-0.0136	0.5040	-0.0015*	-0.0070
	(-0.81)	(-2.22)	(-0.96)	(0.59)	(-1.67)	(-0.41)
Dummy SSBQUAL	-4.5462***	-0.0029***	-0.0264**	-2.0458**	0.0003	-0.0180
	(-2.60)	(-4.17)	(-2.08)	(-2.21)	(0.27)	(-1.14)
Dummy SSBMM	0.6312	0.0019	-0.0117	1.9703	0.0021	0.0120
	(0.64)	(0.38)	(-0.85)	(1.00)	(1.58)	(0.86)
Adjusted $\mathbf{R^2}$		60.77%	15.08%		61.69%	18.43%
Wald Chi2	115.66***	141.73***	32.50**	52.32***	149.74***	31.07**
Observations	228	145	228	180	112	180

Table 4.11 (continued): Regression Analysis of Earnings Management: Islamic Banks Sub-Sample – First Sensitivity Test

Notes: This table presents the regression results from the first sensitivity test for three models (i.e. logistic regression for LOSS_AVOID, and random effect for both EM and DACC) examining the role of traditional and additional internal governance mechanisms in opportunistic earnings management for the Islamic banks sub-sample. Columns 1-3 report the results for the joint effect of board characteristics and Shari'ah supervisory board, while columns 4-6 present the results for the joint effect of audit committee and Shari'ah supervisory board.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
Dummy BODSIZE/ACSIZE/SSBSIZE is an indicator variable that takes 1 if the board/committee is larger than the sample mean, and 0 otherwise. Dummy SSBQUAL is an indicator variable that takes 1 if there is at least one Shari'ah scholar with financial qualification, and 0 otherwise. Dummy SSBMM is an indicator variable that take 1 if at least 50% of the Shari'ah scholars are holding multiple memberships, and 0 otherwise.
All variables are defined in Table 4.3.

Second, additional tests examine whether the activity of the board of directors and audit committee influence the extent of earnings management practices. Prior studies suggest that active boards of directors and audit committees are better able to constrain opportunistic earnings management (Xie et al., 2003; Abbott et al., 2004; Ebrahim, 2007). Consequently, the main models are extended to control for the effect of the board of directors and audit committees' activity, which is measured by the number of meetings held in a year. The results reported in Table 4.12 show that the frequency of meetings of board of directors and audit committees is insignificant determinant of the three measures of earnings management.

Table 4.12: Regression Analysis of Earnings Management: Full Sample – Second Sensitivity Test

Variables	Board of Directors			Audit Committee		
	(1) LOSS_AVOID Logistic Reg.	(2) EM Random Eff.	(3) DACC Random Eff.	(4) LOSS_AVOID Logistic Reg.	(5) EM Random Eff.	(6) DACC Random Eff.
Constant	11.4882***	0.0049	0.0799	11.6053**	-0.0103	0.0374
	(3.20)	(0.42)	(1.10)	(2.39)	(-0.76)	(0.47)
BODSIZE	-0.6486***	-0.0018***	-0.0061***			
	(-4.26)	(-8.98)	(-4.01)			
BODINDEP	-7.6287***	-0.0079***	-0.1026***			
	(-5.32)	(-4.23)	(-6.49)			
CEODUAL	0.9907	-0.0005	-0.0055			
	(0.84)	(-0.19)	(-0.25)			
BODMEET	-0.0830	0.0001	0.0012			
	(-1.50)	(1.38)	(1.55)			
ACSIZE				-1.3491***	-0.0023***	-0.0070*
				(-4.20)	(-4.94)	(-1.93)
ACINDEP				-3.5966***	-0.0033**	-0.0918***
				(-4.24)	(-2.16)	(-8.06)
ACMEET				-0.0533	0.0007	0.0012
				(-0.99)	(0.69)	(1.58)
EBT	11.6321	0.0464*	-0.2269	6.3192	0.0514	-0.0857
	(1.03)	(1.68)	(-1.41)	(0.64)	(1.56)	(-0.53)
LEV	0.2714***	0.0007***	0.0008	0.3165***	0.0009***	0.0013
	(2.98)	(3.77)	(0.56)	(3.55)	(3.90)	(0.92)
TIER1	0.0354	0.0001*	0.0007	0.0611	0.0003***	0.0007
	(0.97)	(1.67)	(1.11)	(1.52)	(2.59)	(1.10)
AGE	0.0693	-0.0007	-0.0193**	0.0577	-0.0015	-0.0150*
	(0.13)	(-0.47)	(-2.18)	(0.12)	(-0.93)	(-1.65)
BANK SIZE	-0.8992**	0.0004	0.0008	-0.6153**	0.0008	0.0004
	(-2.55)	(0.56)	(0.16)	(-2.00)	(0.84)	(0.08)
CFO	2.6144	-0.0016	0.0471	1.6308	0.0052	0.0383
	(0.98)	(-0.32)	(1.11)	(0.55)	(0.77)	(0.80)
GRW	0.2332	-0.0002	-0.0041	-0.1414	-0.0001	-0.0048
	(1.13)	(-0.45)	(-1.39)	(-0.80)	(-0.26)	(-1.57)
BIG4	1.0343	0.0018	0.0146	-0.2430	0.0014	0.0241
	(1.26)	(1.07)	(1.11)	(-0.27)	(0.63)	(1.64)
GOV_OWN	-1.6585	0.0029	-0.0265	-2.1130	0.0047	-0.0328
	(-0.57)	(0.36)	(-0.60)	(-0.76)	(0.49)	(-0.65)
CRISIS	1.5420***	0.0003	0.0025	1.4036**	-0.0005	-0.0089
	(2.82)	(0.03)	(0.29)	(2.49)	(-0.44)	(-1.03)
GDP	0.0112	0.0006	0.0011	0.0260	0.0001	0.0017**
	(0.21)	(0.82)	(1.42)	(0.48)	(1.19)	(2.22)
COUNTRY_GOV	0.1303	-0.0005	0.0141	1.3156	0.0019	0.0190
	(0.14)	(-0.03)	(1.03)	(1.54)	(0.76)	(1.26)
IB	0.0181	0.0018	-0.0723***	-0.7325	-0.0003	-0.0762***
	(0.02)	(0.73)	(-5.58)	(-1.02)	(-0.10)	(-5.47)
Adjusted $\mathbf{R^2}$		14.41%	23.58%		21.88%	24.99%
Wald Chi2	44.91***	175.31***	121.14***	45.40***	85.37***	125.26***
Observations	513	417	513	464	378	464

Table 4.12 (continued): Regression Analysis of Earnings Management: Full Sample – Second Sensitivity Test

Notes: This table presents the regression results from the second sensitivity test for three models (i.e. logistic regression for LOSS_AVOID, and random effect for both EM and DACC) examining the role of traditional internal governance mechanisms in opportunistic earnings management for the full sample. Columns 1-3 report the results for board characteristics, while columns 4-6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
BODMEET is the board of director's activity level, measured as the number of board's meetings held in a year. ACMEET is the audit committee's activity level, measured as the number of committee's meetings held in a year.
All other variables are defined in Table 4.3.

Third, as the main results presented in Table 4.9 show a negative association between Shari'ah scholars multiple memberships and the third measure of earnings management (in column 3), additional test investigates whether or not this relationship is non-linear. This is tested using the squared term of Shari'ah supervisory board multiple memberships variable (SSBMM). The results reported in Table 4.13 show a negative coefficient on SSBMM variable (in column 3), while the coefficient on the squared term is positive. Hence, this result suggests that the multiple memberships held by Shari'ah scholars have a non-linear relationship with earnings management in Islamic banks. In other words, as Shari'ah scholars get busier due to extended multiple memberships in several banks, their ability to effectively monitor banks' activities and to mitigate opportunistic earnings management is reduced.

Table 4.13: Regression Analysis of Earnings Management: Islamic Banks Sub-Sample – Third Sensitivity Test

Variables	Board of Directors			Audit Committee		
	(1) LOSS_AVOID Logistic Reg.	(2) EM Random Eff.	(3) DACC Random Eff.	(4) LOSS_AVOID Logistic Reg.	(5) EM Random Eff.	(6) DACC Random Eff.
Constant	9.2891	-0.0016	-0.0620	10.7795	-0.0150	-0.1700
	(1.62)	(-0.21)	(-0.41)	(1.22)	(-1.64)	(-0.95)
BODSIZE	-1.2778**	-0.0006***	-0.0004			
	(-2.08)	(-2.76)	(-0.11)			
BODINDEP	-12.4786***	-0.0057***	-0.0513**			
	(-2.76)	(-4.12)	(-2.00)			
CEODUAL	-3.9190	-0.0023	-0.0214			
	(-1.16)	(-1.52)	(-1.23)			
ACSIZE				-3.2005***	-0.0002	0.0127
				(-2.75)	(-0.42)	(0.83)
ACINDEP				-12.2684***	0.0001	-0.0675***
				(-3.00)	(0.12)	(-3.40)
EBT	-8.7400	0.0036	-0.0193	12.5966	0.0155	0.0916
	(-0.51)	(0.17)	(-0.11)	(0.54)	(0.66)	(0.48)
LEV	0.7554**	0.0004***	0.0021	1.3444***	0.0003**	0.0041
	(2.12)	(3.27)	(0.95)	(3.26)	(2.13)	(1.58)
TIER1	0.2406*	0.0005	0.0012	0.1879	0.0004	0.0007
	(1.93)	(1.27)	(1.60)	(1.25)	(0.89)	(0.86)
AGE	-0.7879	-0.0015**	-0.0114	-2.2689	0.0001	-0.0122
	(-0.36)	(-1.97)	(-0.73)	(-1.06)	(0.15)	(-0.69)
BANK SIZE	-0.6801	0.0010**	0.0070	-0.1343	0.0010*	0.0086
	(-0.48)	(2.17)	(0.70)	(-0.07)	(1.76)	(0.73)
CFO	-2.7914	0.0115**	0.0614	-1.7015	0.0294***	-0.0069
	(-0.33)	(2.24)	(1.27)	(-0.21)	(4.60)	(-0.09)
GRW	0.8739	-0.0010**	-0.0063	-0.6840	-0.0001	-0.0010
	(0.93)	(-2.19)	(-0.92)	(-0.59)	(-0.19)	(-0.13)
BIG4	2.7384	0.0023	0.0320*	-3.8424	0.0003	0.0103
	(1.22)	(1.23)	(1.82)	(-1.00)	(0.28)	(0.48)
GOV_OWN	-9.5356	-0.0065	-0.1177	-6.1196	0.0239	-0.5002
	(-0.64)	(-1.42)	(-0.97)	(-0.13)	(1.23)	(-1.53)
CRISIS	6.1137**	0.0028***	-0.0189	10.9978***	0.0029**	-0.0148
	(2.22)	(2.86)	(-1.21)	(3.82)	(2.31)	(-0.79)
GDP	-0.1377	0.0005	-0.0003	-0.0711	0.0001	0.0005
	(-0.87)	(0.85)	(-0.31)	(-0.43)	(1.38)	(0.44)
COUNTRY_GOV	-4.2925	0.0020	0.0013	-3.2616	0.0006	0.0193
	(-1.15)	(1.48)	(0.04)	(-0.63)	(0.38)	(0.52)
AAOIFI	-0.3647	0.0011	0.0179	4.5892	-0.0019	0.0551
	(-0.06)	(0.70)	(0.53)	(0.76)	(-0.68)	(1.37)
SSBSIZE	-4.9612***	-0.0006*	-0.0144**	-6.1273***	-0.0009***	-0.0141**
	(-7.27)	(-1.94)	(-2.45)	(-9.23)	(-3.68)	(-2.55)
SSBQUAL	-12.1631**	-0.0044***	-0.0761***	-9.9457*	-0.0008	-0.0527
	(-2.53)	(-2.89)	(-2.64)	(-1.78)	(-0.37)	(-1.49)
SSBMM	-1.9635	-0.0034	-0.1794**	2.3941	0.0013	-0.0571
	(-0.18)	(-0.93)	(-2.50)	(0.18)	(0.31)	(-0.69)
$SSBMM^2$	3.0303	0.0035	0.1093*	-0.9203	-0.0016	0.0486
	(0.33)	(1.05)	(1.78)	(-0.09)	(-0.42)	(0.69)
Adjusted $\mathbf{R^2}$		65.92%	12.36%		63.09%	17.32%
Wald Chi2	113.29***	157.98***	60.97***	142.02***	100.86***	40.12***
Observations	228	145	228	180	112	180

Table 4.13 (continued): Regression Analysis of Earnings Management: Islamic Banks Sub-Sample

Notes: This table presents the regression results from the third sensitivity test for three models (i.e. logistic regression for LOSS_AVOID, and random effect for both EM and DACC) examining the role of traditional and additional internal governance mechanisms in opportunistic earnings management for the Islamic banks sub-sample and investigating whether the relationship between Shari'ah scholars multiple memberships and earnings management is non-linear. Columns 1-3 report the results for the joint effect of board characteristics and Shari'ah supervisory board, while columns 4-6 present the results for the joint effect of audit committee and Shari'ah supervisory board.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
$SSBMM^2$ is the squared term of Shari'ah supervisory board multiple memberships.
All other variables are defined in Table 4.3.

Fourth, to address the “unbalanced” nature of the sample, additional tests were performed. Table 4.2 shows some countries with zero observations related to Islamic banks (i.e. Lebanon and Tunisia). Although all the sampled counties operate a dual banking system, no information was available about the Islamic banks operating in Lebanon and Tunisia. Hence, the tests examining the effect of traditional internal governance mechanisms in mitigating opportunistic earnings management practices are re-estimated for only the countries that have observations on both types of banks. The results from this additional test are reported in Table 4.14. Although the significance level of some variables differs, the results for the main test variables (BODSIZE, BODINDEP, ACSIZE, and ACINDEP) remain unchanged.

Table 4.14: Regression Analysis of Earnings Management: Full Sample – Fourth Sensitivity Test

Variables	Board of Directors			Audit Committee		
	(1) LOSS_AVOID Logistic Reg.	(2) EM Random Eff.	(3) DACC Random Eff.	(4) LOSS_AVOID Logistic Reg.	(5) EM Random Eff.	(6) DACC Random Eff.
Constant	13.7582***	-0.0064	0.0909	9.8665**	-0.0102	0.0070
	(2.63)	(-0.69)	(1.31)	(2.17)	(-1.08)	(0.10)
BODSIZE	-0.6895***	-0.0015***	-0.0061***			
	(-4.72)	(-7.86)	(-4.36)			
BODINDEP	-8.9025***	-0.0098***	-0.1097***			
	(-6.40)	(-5.09)	(-7.61)			
CEODUAL	-0.5842	-0.0012	-0.0282			
	(-0.79)	(-0.66)	(-1.07)			
ACSIZE				-1.5754***	-0.0028***	-0.0074**
				(-5.05)	(-5.91)	(-2.23)
ACINDEP				-4.7429***	-0.0033**	-0.0942***
				(-5.87)	(-2.21)	(-9.62)
EBT	-1.2938	0.0579*	-0.3110	1.7113	0.0422	-0.2617
	(-0.09)	(1.71)	(-1.40)	(0.11)	(1.17)	(-1.18)
LEV	0.2871***	0.0008***	0.0002	0.3299***	0.0008***	0.0006
	(3.24)	(4.32)	(0.15)	(3.75)	(3.87)	(0.47)
TIER1	0.0634*	0.0002***	0.0003	0.0668**	0.0002**	0.0002
	(1.84)	(2.61)	(0.59)	(1.97)	(2.43)	(0.44)
AGE	-0.4284	-0.0009	-0.0163**	-0.2509	-0.0017	-0.0127
	(-0.82)	(-0.81)	(-2.00)	(-0.54)	(-1.50)	(-1.49)
BANK SIZE	-0.5435	0.0010*	0.0012	-0.4045	0.0010*	0.0041
	(-1.64)	(1.69)	(0.26)	(-1.41)	(1.72)	(0.84)
CFO	1.1716	0.0005	0.0201	2.9900	0.0069	0.0096
	(0.47)	(0.08)	(0.58)	(1.08)	(1.06)	(0.24)
GRW	0.3667*	0.0004	-0.0030	-0.0587	0.0007	-0.0044
	(1.77)	(0.12)	(-1.07)	(-0.33)	(0.18)	(-1.58)
BIG4	0.1354	0.0034	0.0175	-0.3112	0.0038	0.0158
	(0.18)	(1.09)	(1.52)	(-0.40)	(1.21)	(1.32)
GOV_OWN	-1.4391	-0.0015	-0.0333	-1.6757	-0.0012	-0.0220
	(-0.48)	(-0.25)	(-0.76)	(-0.58)	(-0.19)	(-0.44)
CRISIS	0.9990**	0.0002	0.0047	0.9585*	-0.0005	-0.0047
	(2.06)	(0.25)	(0.64)	(1.89)	(-0.05)	(-0.61)
GDP	-0.0213	0.0007	0.0006	0.0323	0.0001	0.0014**
	(-0.47)	(0.83)	(0.95)	(0.69)	(1.18)	(2.14)
COUNTRY_GOV	0.4950	-0.0002	0.0049	1.1569	0.0004	0.0132
	(0.57)	(-0.14)	(0.38)	(1.43)	(0.22)	(0.97)
IB	0.1723	0.0004	-0.0781***	-0.5295	-0.0018	-0.0791***
	(0.21)	(0.22)	(-6.39)	(-0.74)	(-1.06)	(-5.99)
Adjusted $\mathbf{R^2}$		16.63%	23.39%		17.05%	24.21%
Wald Chi2	57.27***	149.18***	146.05***	64.25***	96.33***	169.17***
Observations	606	492	606	555	458	555

Notes: This table presents the regression results for three models (i.e. logistic regression for LOSS_AVOID, and random effect for both EM and DACC) examining the role of traditional internal governance mechanisms in opportunistic earnings management for the full sample (including only countries that have observations on both types of banks). Columns 1-3 report the results for board characteristics, while columns 4-6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 4.3.

Fifth, to address the issue of insignificant variables, additional tests were performed to examine whether the signs and values of significant variables change when the insignificant variables are dropped from the analysis. The main results presented in Table 4.7 show that some control variables have insignificant values (i.e. BANK SIZE, CFO, BIG4, GOV_OWN, and COUNTRY_GOV). Consequently, the tests examining the effect of traditional internal governance mechanisms in mitigating opportunistic earnings management practices are re-estimated excluding the insignificant variables. The results from these additional tests are reported in Table 4.15. The reported results show that the results for the main variables (board size, board independence, audit committee size, audit committee independence) remain unchanged after dropping insignificant control variables.

Finally, to mitigate potential endogeneity between corporate governance variables and opportunistic earnings management, Two-step system generalised method of moments (GMM) and Three-stage least squares (3SLS) were used. The GMM approach, adopted by Arellano and Bover (1995) and Blundell and Bond (1998), allows to treat all explanatory variables as endogenous and use their lag values as instrumental variables. Furthermore, 3SLS estimations are utilised to mitigate potential endogeneity problem from simultaneity bias. Unreported results show that, after controlling for dynamic endogeneity, unobserved heterogeneity and simultaneity, using GMM and 3SLS, the results on the role of corporate governance mechanisms in earnings management are similar to the main findings presented in Table 4.7.

Table 4.15: Regression Analysis of Earnings Management: Full Sample – Fifth Sensitivity Test

Variables	Board of Directors			Audit Committee		
	(1) LOSS_AVOID Logistic Reg.	(2) EM Random Eff.	(3) DACC Random Eff.	(4) LOSS_AVOID Logistic Reg.	(5) EM Random Eff.	(6) DACC Random Eff.
Constant	6.1279***	0.0115**	0.1238***	3.9264*	0.0067	0.0744**
	(2.58)	(2.10)	(3.61)	(1.81)	(1.16)	(2.05)
BODSIZE	-0.6391***	-0.0016***	-0.0065***			
	(-4.75)	(-7.83)	(-4.90)			
BODINDEP	-9.0931***	-0.0106***	-0.1102***			
	(-6.83)	(-5.06)	(-7.98)			
CEODUAL	-0.3863	-0.0016	-0.0278			
	(-0.52)	(-0.81)	(-1.04)			
ACSIZE				-1.5795***	-0.0026***	-0.0080**
				(-5.24)	(-4.97)	(-2.44)
ACINDEP				-4.6297***	-0.0034**	-0.0906***
				(-6.16)	(-2.14)	(-9.71)
EBT	-6.4143	0.0644*	-0.3064	-2.1219	0.0593	-0.2531
	(-0.46)	(1.73)	(-1.41)	(-0.15)	(1.48)	(-1.16)
LEV	0.2848***	0.0006***	-0.0003	0.3143***	0.0006***	-0.0003
	(3.59)	(3.32)	(-0.26)	(4.04)	(2.78)	(-0.22)
TIER1	0.0746**	0.0001*	0.0010	0.0741**	0.0001	-0.0005
	(2.23)	(1.76)	(0.19)	(2.29)	(1.56)	(-0.10)
AGE	-0.7428	0.0002	-0.0137**	-0.4474	-0.0007	-0.0075
	(-1.61)	(0.16)	(-1.96)	(-1.07)	(-0.58)	(-0.99)
GRW	0.3166	0.0005	-0.0040	-0.0671	0.0001	-0.0051*
	(1.56)	(0.12)	(-1.45)	(-0.39)	(0.28)	(-1.83)
CRISIS	1.1163**	-0.0005	0.0032	1.0471**	-0.0006	-0.0059
	(2.41)	(-0.48)	(0.44)	(2.18)	(-0.51)	(-0.79)
GDP	-0.0183	0.0001	0.0008	0.0344	0.0002	0.0016**
	(-0.43)	(1.34)	(1.33)	(0.77)	(1.64)	(2.51)
IB	-0.0781	0.0010	-0.0763***	-0.6693	-0.0014	-0.0794***
	(-0.10)	(0.55)	(-6.65)	(-0.98)	(-0.75)	(-6.31)
Adjusted $\mathbf{R^2}$		12.13%	23.54%		14.21%	23.90%
Wald Chi2	62.78***	126.52***	154.49***	66.94***	64.35***	172.47***
Observations	631	511	631	580	477	580

Notes: This table presents the regression results from the first sensitivity test for three models (i.e. logistic regression for LOSS_AVOID, and random effect for both EM and DACC) examining the role of traditional internal governance mechanisms in opportunistic earnings management for the full sample. Columns 1-3 report the results for board characteristics, while columns 4-6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
Dummy BODSIZE/ACSIZE is an indicator variable that takes 1 if the board/committee is larger than the sample mean, and 0 otherwise.
All other variables are defined in Table 4.3.

4.5 Conclusion

The issue of earnings management and the impact of effective corporate governance mechanisms in controlling managerial opportunism have received considerable attention from regulators and market participants during the last decade. However, the investigation of the role of corporate governance in opportunistic earnings management in banking is still lacking, particularly across alternative banking models (i.e. conventional versus Islamic banks). This study attempts to bridge this gap in the literature by investigating whether internal governance mechanisms have a role in mitigating opportunistic earnings management practices in conventional and Islamic banks. This study examines both traditional (i.e. boards of directors and audit committees) and non-traditional (i.e. Shari'ah supervisory boards) corporate governance mechanisms.

The multi-country sample of listed banks' results provide strong evidence that effective traditional governance mechanisms play a significant role in mitigating earnings management for the whole sample of banks. In particular, the results show that having large and independent boards of directors and audit committees significantly reduces opportunistic earnings management within both conventional and Islamic banks. The mitigation in opportunistic earnings management is identified through less frequent loss avoidance practices and lower discretionary accruals. The boards of directors and audit committees constitute traditional internal governance mechanisms, relative to the extra (additional) layer of governance in Islamic banks (i.e. Shari'ah supervisory boards). These findings suggest that, despite the institutional differences across the two bank types, no structural differences exist between conventional and Islamic banks in terms of the role of the traditional governance mechanisms in earnings management. When examining the effect of the extended layer of governance within Islamic banks through the Shari'ah supervisory board, results show that having a large Shari'ah board with financially qualified and highly reputed Shari'ah scholars can significantly mitigate earnings management practices in Islamic banks. These findings support the notion that additional mechanisms of banking governance are important to preserve public confidence in the Islamic banking industry and to maintain higher financial reporting quality.

To summarise the main findings of this study, the results provide evidence that, within conventional banks, banks with larger and independent boards of directors and audit committees are less likely to engage in opportunistic earnings management practices. Moreover, within Islamic banks, banks with large and financially qualified Shari'ah boards

exhibit less opportunistic earnings management behaviour, relative to banks with small and less financially qualified Shari'ah boards.

The findings of this study offer new insights toward an ongoing debate about the need to reconsider double mechanisms of governance, including the traditional and extended system of governance in the global banking business models. Both conventional and Islamic banks should consider factors affecting the effectiveness of different internal governance mechanisms in monitoring managerial behaviour. Additionally, Islamic banks should ensure effective Shari'ah governance by employing highly qualified/ reputable Shari'ah scholars in order to maintain and promote public confidence in the Islamic banking industry. This raises a call to regulators of Islamic banks to promote effective Shari'ah governance by establishing academic and professional institutions to provide education, training, and continued development courses to Shari'ah scholars. Finally, banks regulatory authorities and independent auditors should consider the role of different layers of governance in improving the quality of financial reporting.

Chapter Five: Internal Governance Mechanisms and Information Value of Banks Earnings: Evidence from Alternative Banking Systems

5.1 Introduction

Corporate financial reports serve as the primary source of accounting information. Financial reports provide information about firms' financial position and performance. Such information is highly influential for decision-making by managers, investors, creditors, regulators, and other stakeholders (Francis et al., 2004; Beyer et al., 2010; Chen et al., 2018).

As has been mentioned in Chapter 3, the importance of accounting information arises from its dual role; informativeness and stewardship (Feltham et al., 2006; Cascino et al., 2014). The informativeness role emerges as users demand information that enables them to assess their risk and predict future cash flows.

Given the important role of accounting numbers, high quality accounting information is crucial for well-functioning markets, as it reduces information asymmetry between managers and capital providers (Biddle and Hilary, 2006), reduces the risks of moral hazards and adverse selection (Li, 2008), and enhances the efficiency of capital allocation (Bhattacharya et al., 2003).

A considerable literature investigates the concept of financial reporting generally, and earnings quality specifically. Part of these studies have focused on defining and measuring the quality of earnings (Schipper and Vincent, 2003; Ball and Shivakumar, 2005; Dechow et al. 2010). Other studies have considered the determinants of earnings quality (Francis et al., 2005; Doyle et al., 2007; He, 2015), and its consequences (Gong et al., 2008; Rodriguez-Ariza et al., 2016). However, corporate financial scandals over the last decade (like Enron and WorldCom) have brought criticisms and raised attention to the role for different corporate governance mechanisms in ensuring high-quality financial reporting. Furthermore, the failure of world's leading financial institutions such as Lehman Brothers and Bear, Stearns and Co., have raised regulators' interest in banking governance. Effective governance in banks enhances the quality of reported earnings, and thereby increases financial transparency.

The greater part of the literature on the role of corporate governance in enhancing information quality and transparency assesses the quality of financial reporting from an opportunistic earnings management perspective and considers only nonfinancial institutions. This empirical study aims to bridge this gap in the literature by investigating the role of internal governance

mechanisms (i.e. board of directors and audit committee) in enhancing the information value of bank earnings. It also examines the possible impact of different institutional bank characteristics on the association between corporate governance and information value of earnings. Thus, this study is among the early attempts to examine the relation between banks governance and financial reporting quality from an informational perspective. Accordingly, this chapter is organised as follows. Section 5.2 demonstrates the theoretical framework and the hypotheses development. Section 5.3 describes the research methodology. Section 5.4 discusses the empirical results. Finally, section 5.5 concludes.

5.2 Theoretical Framework and Hypotheses Development

It has long been established by the agency theory that formal governance mechanisms and tools play a primary role in controlling agency problems between principals and managers (Shleifer and Vishny, 1997; Brennan, 2006). It has been detailed in Chapter 3 that effective governance mechanisms can also reduce conflicts of interests resulting from agency relationships, as the role of such mechanisms involves monitoring and controlling the management in order to maximise the benefit for all the parties involved. Several empirical studies have argued that internal governance mechanisms can lessen information asymmetry, and in turn promote financial information transparency (Mallin, 2002; Arnold and De Lange, 2004; Ronen and Yaari, 2008; Haß et al., 2014). Among the internal governance mechanisms that have been examined are the board of directors and audit committee.

5.2.1 Board of Directors and Information Value of Earnings

According to the agency theory, board of directors is considered as a primary governance mechanism employed to address conflicts of interests arising from agency relationships. Beasley (1996) claims that the board of directors is responsible for ensuring that high-quality financial information is available to all stakeholders. Prior studies have provided evidence that effective board of directors enhances the quality of financial reporting. However, these studies have assessed the quality of financial reporting from an opportunistic earnings management perspective. The impact of board of directors' effectiveness on the information value of earnings has not been broadly investigated.

From an information perspective, the quality of financial reporting increases as managers disclose more accurate information and ensure that the financial information precisely reflect the firms' future earnings and cash flows. This informativeness role of accounting information

has been highlighted by the conceptual framework for financial reporting developed by the International Accounting Standards Board (IASB) where it illustrates that the objective of financial reporting is to provide useful information about the reporting entity to existing and potential investors, lenders and other creditors. Those users rely on financial statements to help them assess the risks and prospects for future cash flow to the entity (International Financial Reporting Standards, 2018). Given that the board of directors is responsible to ensure that high-quality accounting information is available to all users (Beasley, 1996), effective governance through the board is expected to enhance the information value of reported earnings.

Prior studies investigating information value of earnings have examined it in relation to improvements in internal control (Altamuro and Beatty, 2010), legal, extra-legal, and political institutional factors (Kanagaretnam et al., 2014a), corporate social responsibility practices (García-Sánchez and García-Meca, 2017), and regulatory enforcement actions (Delis et al., 2018). Examination of information value of earnings in relation to internal governance mechanisms is still lacking.

Borrowing from the resource dependence theory and the agency theory, an effective board of directors, that is large and more independent, is expected to enhance the information value of bank earnings (Xie et al., 2003; Davidson et al., 2005; Kang and Kim, 2012; González and García-Meca, 2014). A large board of directors is capable of bringing enhanced skills, knowledge, and expertise to exert effective monitoring over financial reporting. Furthermore, an independent board can exercise autonomous judgement to protect shareholders' interests when an agency conflict rises. Such association is expected to be stronger under strict and more extended institutional environments (i.e. Islamic banks).

This leads to the development of the following hypothesis, stated in alternative form:

$\boldsymbol{H_1}$: Effective board of directors (large and independent) increases the information value of bank earnings.

5.2.2 Audit Committee and Information Value of Earnings

As had been mentioned earlier in Chapter 3, the board of directors delegates to the audit committee the duty of monitoring and controlling the financial reporting process, as the role of the audit committee involves oversight over financial reporting, internal control, and external audit activity (Joshi and Wakil, 2004). Prior literature has established that an effective audit committee represents a governance device that aids the board of directors in its

monitoring role and, thus, enhances financial reporting quality (Pomeroy and Thornton, 2008; Beasley et al., 2009). The role of audit committee in enhancing the quality of financial reporting has been extensively examined. Prior studies in this context have assessed the quality of financial reporting from opportunistic earnings management perspective (Yang and Krishnan, 2005; Baxter and Cotter, 2009; García et al., 2012; Chen and Zhang, 2014), financial restatements perspective (Abbott et al., 2004; Srinivasan, 2005; Carcello et al., 2011), and conservative accounting (Krishnan and Visvanathan, 2008; Sultana, 2015). Examination of financial reporting quality from an information value perspective is still lacking. One exception is the study of García-Sánchez et al., (2017), where they examine the role of gender diversity on board and financial expertise on audit committee in enhancing bank's earnings quality. For a cross-country sample of banks, their results illustrate that women and financial expert directors improve earnings persistence and ability to predict future cash flows in banks.

Based on the resource dependence theory and the agency theory, an effective audit committee, that is large and composed of independent directors, is expected to enhance the information value of bank earnings. Such association is expected to be stronger under strict and more extended institutional environments (i.e. Islamic banks).

Consistent with the resource dependence and agency theories, and in line with the findings of previous studies, the next hypothesis, stated in alternative form, is developed as follows:

$\boldsymbol{H_2}$: Effective audit committee (large and independent) increases the information value of bank earnings.

5.3 Research Methodology

5.3.1 Sample Selection and Data

The multi-country sample comprises 729 bank-year observations of 100 listed banks between years 2007 and 2015. Initially, there were 486 conventional banks and 145 Islamic banks from 23 countries. Then, three sample criteria were applied, following Beck et al. (2013): (1) countries having both, Islamic and conventional banking systems; (2) availability of governance data; and (3) availability of at least three consecutive years of bank data. The final sample represents observations from 61 conventional banks and 39 Islamic banks.

Financial data are collected from DataStream, Bloomberg, and BankScope. Country-specific macroeconomic data are obtained from the World Bank's World Development Indicators. Corporate and Shari'ah governance data are hand-collected from banks' annual reports.

The final sample distribution across countries and the two bank types is presented in Table 5.1.

Table 5.1 Distribution of Final Sample 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	56
Bangladesh	6	22	6	34	12	61
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	67
Lebanon	0	0	4	32	4	29
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
Tunisia	0	0	3	18	3	18
Turkey	2	17	7	61	9	78
United Arab Emirates	3	18	2	13	5	31
Banks	39		61		100	
Observations		260		469		729

Notes: This table presents the distribution of the final sample across countries and across the two bank types, after applying the previously discussed sample criteria.

5.3.2 Measuring the Information Value of Earnings

The main assumption in this study is that the various internal governance mechanisms employed in banks affect their financial reporting quality. Unlike most of the previous attempts in the literature that examine earnings quality from an opportunistic earnings management perspective, this empirical study uses three measures of earnings quality that particularly reflect the information enhancing role of earnings. These measures are earnings persistence, ability of current earnings to predict future cash flows, and future loan write-offs.

5.3.2.1 Earnings persistence and predictability of future cash flows

Earnings quality is examined using two related but distinct accounting-based attributes: earnings persistence, and predictive ability of earnings. These two attributes relate to the time-series properties of earnings. According to the time-series perspective, earnings can be classified into two elements: a permanent element and a transitory (temporary) element (Easton et al., 2000). Permanent earnings are the product of business transactions that generate earnings that will continue in the future. Transitory earnings represent irregular (non-recurring) items recorded in the income statement (Goncharov, 2005; Pan, 2007).

Earnings persistence refers to the extent to which current earnings prevail in the earnings series (Dechow and Schrand, 2004), thus, it is associated with recurrence of earnings over time. Persistent earnings are considered desirable as they are permanent, less transitory, and therefore more useful for future earnings forecasts (Schipper and Vincent, 2003; Frankel and Litov, 2009; Parte-Esteban and García, 2014; García-Sánchez et al., 2017). Earnings persistence has been used in prior literature as a measure for earnings quality, as it contributes to the value relevance of information and it is considered a good input for equity valuation models (Ali and Zarowin, 1992; Ramakrishnan and Thomas, 1998; Dechow et al., 2010). The persistence of earnings is determined by the firm's fundamental performance and the accounting measurement system used to evaluate the performance (García-Sánchez et al., 2017). Following Kanagaretnam et al. (2014a), earnings persistence is estimated as the coefficient on current period earnings (EBT) in a regression of future earnings on current earnings.

The second accounting-based attribute is earnings predictability, which refers to "the ability of past earnings to predict future earning" (Lipe, 1990, p. 50). It will be recollected that financial statement users rely on accounting information in order to make decisions regarding capital provisions. This process requires assessing firms' risks and future cash flow. Earnings

with high predictive power enable users to make the most accurate assessments for future performance and cash flow. Consequently, predictable earnings are considered high-quality earnings.

It has been claimed that "Persistence and predictability are desired outcomes of financial reporting from the valuation perspective. Earnings that are highly predictable and persistent are easier to predict" (Goncharov, 2005, p. 8). Hence, several empirical studies have used earnings persistence and predictability as measures of financial reporting quality (Francis et al., 2004; Doyle et al., 2007; Gaio, 2010; Givoly et al., 2010; Parte-Esteban and García, 2014; Latif et al., 2017). However, these studies exclude banks and financial institutions from their analysis because of the unique regulatory environment of these institutions.

The use of earnings persistence and predictability as measures for earnings quality has recently been documented in banking literature. Altamuro and Beatty (2010) examined the effect of internal control provisions mandated by the Federal Depository Insurance Corporation Improvement Act (FDICIA) on banks' financial reporting quality. In particular, they compared financial reporting of banks affected by the FDICIA's internal control provisions to that of unaffected banks. They found that improvements in internal control monitoring increased earnings persistence and predictability of cash flow, indicating an enhanced quality of financial reporting in the banking industry.

Kanagaretnam et al. (2014a) examined the relationship between legal, extra-legal and political institutional factors and earnings quality of banks across 48 countries. To measure the information value of bank financial reporting, they used earnings persistence and the ability of current earnings to predict the next period's cash flow. They provided evidence that stronger legal, extra-legal and political institutions are associated with higher levels of earnings persistence and cash flow predictability.

Another two cross-country studies by García-Sánchez and García-Meca (2017), and García-Sánchez et al. (2017) use earnings persistence and the ability of earnings to predict future cash flow as measures for earnings quality in a sample of banks from nine countries. García-Sánchez and García-Meca (2017) found that banks' commitment to corporate social responsibility practices enhance the persistence of earnings and the predictability of cash flow. Moreover, García-Sánchez et al. (2017) examined the role of gender diversity on boards and financial expertise on audit committees in enhancing banks' earnings quality. Their results illustrate that women and financial expert directors improve earnings persistence and ability to predict future cash flow in banks.

In a very recent study that uses cash flow predictability and earnings persistence as measures for accounting quality, Delis et al. (2018) investigated whether and how regulatory enforcement actions issued on banks for violations of rules and regulations improved earnings quality of the punished banks. They found that both the risk-related and the accounting-related enforcement actions significantly improve cash flow predictability and earnings persistence in a sample of US banks that have been subject to enforcement actions between 2000 and 2010.

To investigate the effect of internal corporate governance mechanisms on earnings persistence and predictability, the following regression models are estimated:

$$EBT_{t+1} = \beta_0 + \beta_1 EBT_{it} + \beta_2 GOVERNANCE_{it} + \beta_3 GOVERNANCE_{it} * EBT_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 BIG4_{it} + \beta_7 CEODUAL_{it} + \beta_8 CAP_{it} + \beta_9 GDP + \beta_{10} COUNTRY_{GOV} + \beta_{11} \sum_{t=2015}^{2007} T_t + \varepsilon_{it} \quad (1)$$

$$EBTLLP_{t+1} = \beta_0 + \beta_1 EBT_{it} + \beta_2 GOVERNANCE_{it} + \beta_3 GOVERNANCE_{it} * EBT_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 BIG4_{it} + \beta_7 CEODUAL_{it} + \beta_8 CAP_{it} + \beta_9 GDP + \beta_{10} COUNTRY\_GOV + \beta_{11} \sum_{t=2015}^{2007} T_t + \varepsilon_{it} \quad (2)$$

Where

EBT_{t+1}	=	earnings before taxes during year *t*+1 deflated by lagged total assets
$EBTLLP_{t+1}$	=	earnings before taxes and loan loss provisions during year *t*+1 deflated by lagged total assets
GOVERNANCE	=	the two principal components of internal governance system represented by the board of directors (size and independence) and audit committee (size and independence)
GOVERNANCE* EBT	=	interaction variable used to examine the role of internal governance mechanisms in enhancing the persistence and predictability of earnings
SIZE	=	bank size, measured as the natural logarithm of the year-end total assets

AGE	=	bank age, measured as the natural logarithm of the number of years the bank has operated in the country
BIG4	=	an indicator variable for audit quality that takes 1 if the bank's auditor is a Big Four, and 0 otherwise
CEODUAL	=	an indicator variable for CEO duality that takes 1 if the CEO is also the chairman of the board, and 0 otherwise
CAP	=	capital adequacy, measured as Tier 1 capital
GDP	=	the country-prevailing GDP annual growth rate
COUNTRY_GOV	=	a country governance index, measured as the average of six governance measures – control for corruption, government effectiveness, political stability, regulatory quality, the rule of law, and voice and accountability
ε	=	error term

Following earlier studies (Gaio, 2010; Altamuro and Beatty, 2010; Wang and Campbell, 2012; García-Sánchez et al., 2017), the empirical models control for bank-specific factors such as bank size (SIZE), bank age (AGE), and capital adequacy level (CAP). Prior literature also finds that financial reporting quality differs depending on some other corporate governance characteristics such as the external audit quality (Abdelsalam et al., 2016) and whether the CEO is also the chairman of the board (Cornett et al., 2009). Accordingly, the models control for the quality of the external audit by introducing an indicator variable (BIG4) for banks audited by a Big Four audit firm. An indicator variable (CEODUAL) is also introduced to reflect CEO duality.

The empirical models control for country-level factors that may explain variations in financial reporting quality. These include the annual growth rate of GDP to account for macroeconomic conditions. Additionally, to account for the effect of different country-governance measures on the information value of earnings, country governance indicator (COUNTRY_GOV) is introduced.

In the above models (1) and (2), the coefficient of interest is the coefficient on the interaction variable GOVERNANCE*EBT, which is expected to have a positive sign, in line with the claim that effective corporate governance mechanisms enhance the persistence of earnings and their predictability of future cash flows.

5.3.2.2 The relationship between loan loss provisions and future loan charge-offs

Although the main purpose of loan loss provisions is to reflect expected future loan losses, prior studies provide evidence that managers may use loan loss provisions to pursue other objectives. These objectives range from earnings management (Beatty et al., 2002; Agarwal et al., 2007), capital management (Ahmed et al., 1999; Anandarajan et al., 2007), to signalling (Kanagaretnam et al., 2005; Leventis et al., 2012). A weaker association between current period's loan loss provisions and future loan charge-offs implies the existence of managerial discretionary practices. If effective corporate governance mechanisms enhance the validity of loan loss provision, then it is expected to observe a larger association between current period's loan loss provisions and next period's loan charge-offs. To test this argument, the following regression model is estimated:

$$CHGOFF_{t+1} = \beta_0 + \beta_1 LLP_{it} + \beta_2 GOVERNANCE_{it} + \beta_3 GOVERNANCE_{it} * LLP_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 BIG4_{it} + \beta_7 CEODUAL_{it} + \beta_8 CAP_{it} + \beta_9 GDP + \beta_{10} COUNTRY\_GOV + < Year\ Controls > + \varepsilon_{it} \quad (3)$$

Where

$CHGOFF_{t+1}$	=	the loan charge offs during year *t*+1 deflated by lagged total assets
LLP	=	the loan loss provisions during year *t* deflated by lagged total assets
GOVERNANCE *LLP	=	interaction variable used to examine the role of internal governance mechanisms in enhancing the validity of loan loss provision

All other variables are as defined earlier.

The coefficient of interest in model (3) is the coefficient on the interaction variable GOVERNANCE*LLP, which is expected to have a positive sign in line with the claim that effective corporate governance mechanisms enhance the validity of loan loss provisions in anticipating next period's loan charge-offs.

5.3.2.3 Estimation method

In this study, the random-effect GLS estimation technique is used, based on the results from the Hausman Tests[9]. The use of random-effect estimation method is also justified by the fact that corporate governance variables (board of directors and audit committee characteristics) do not vary much over time. Thus, using fixed-effect estimations would result in massive loss of the degrees of freedom (Baltagi, 2005; Mollah and Zaman, 2015).

Table 5.2 lists the dependent, independent, and control variables with their definitions.

[9] Results of Hausman Tests are reported in Tables 5.5, 5.6, and 5.7.

Table 5.2: List of variables, their Definitions, and Measures

Variables	Definitions and Measures
EBT_{t+1}	Earnings before taxes during year *t*+1 deflated by lagged total assets.
$EBTLLP_{t+1}$	Earnings before taxes and loan loss provisions during year *t*+1 deflated by lagged total assets.
$CHGOFF_{t+1}$	Loan charge offs during year *t*+1 deflated by lagged total assets.
LLP	Loan loss provisions during year *t* deflated by lagged total assets.
GOVERNANCE	The two principal components of internal governance system represented by the board of directors (BOD) and audit committee (AC).
BOD	An index for the structure of the board of directors, measured by combining its size (BODSIZE) and independence (BODINDEP).
AC	An index for the structure of the audit committee, measured by combining its size (ACSIZE) and independence (ACINDEP).
GOVERNANCE*EBT	An interaction variable used to examine the role of internal governance mechanisms in enhancing the persistence and predictability of earnings.
GOVERNANCE*LLP	An interaction variable used to examine the role of internal governance mechanisms in enhancing the validity of loan loss provision.
SIZE	Bank size, measured as the natural logarithm of the year-end total assets.
AGE	Bank age, measured as the natural logarithm of the number of years the bank has operated in the country.
BIG4	An indicator variable for audit quality that takes 1 if the bank's auditor is a Big Four, and 0 otherwise.
CEODUAL	An indicator variable for CEO duality that takes 1 if the CEO is also the chairman of the board, and 0 otherwise.
CAP	Capital adequacy, measured as Tier 1 capital.
GDP	The country-prevailing GDP annual growth rate.

Variables	Definitions and Measures
COUNTRY_GOV	A country governance index, measured as the average of six governance measures – control for corruption, government effectiveness, political stability, regulatory quality, the rule of law, and voice and accountability

5.4 Results

5.4.1 Descriptive Statistics and Correlations

Table 5.3 presents the descriptive statistics for the full sample (in Panel A), the conventional banks (in Panel B), and the Islamic banks (in Panel C). In addition, the two-sample *t*-tests (comparing means for conventional banks and Islamic banks) are reported in the last column.

The mean values of the current reported earnings (EBT_t) are 0.019 and 0.014 for conventional and Islamic banks, respectively. This finding indicates that conventional banks report significantly higher earnings relative to Islamic banks (two-sample *t*-test of -3.603). These results are comparable to those of Abdelsalam et al. (2016) who report similar EBT of 0.018 and 0.014 for conventional banks and Islamic banks, respectively. Regarding the loan loss provisions and the (loan charge-offs), conventional banks and Islamic banks report comparable figures of 0.006 (0.004) and 0.006 (0.005), respectively. With respect to the internal governance variables, results show that for conventional banks (Islamic banks), the mean board of directors' size (BODSIZE) is 9.655 (10.023), board's independence (BODINDEP) is 0.369 (0.372), audit committee size (ACSIZE) is 3.661 (3.553), and audit committee independence (ACINDEP) is 0.544 (0.534), respectively.

For bank-specific variables, results show that Islamic banks are significantly smaller in size, younger in age, and they have significantly higher capital adequacy than conventional banks. It was also found that, on average, 83%-86% of the banks in the sample are audited by a Big Four audit firm. This high percentage might be due to the complex nature of the banking activities.

Table 5.3: Descriptive Statistics

	PANEL A: FULL SAMPLE				PANEL B: CONVENTIONAL BANKS SUB-SAMPLE				PANEL C: ISLAMIC BANKS SUB-SAMPLE				Two-sample *t*-test (Two Tailed)
Variables	**Obs.**	**Mean**	**Std.**	**Median**	**Obs.**	**Mean**	**Std.**	**Median**	**Obs.**	**Mean**	**Std.**	**Median**	**T-test**
EBT	723	0.017	0.021	0.019	466	0.019	0.014	0.020	257	0.014	0.029	0.015	-3.603***
EBT_{t+1}	723	0.016	0.015	0.018	466	0.018	0.013	0.019	257	0.013	0.018	0.014	-5.020***
$EBTLLP_{t+1}$	721	0.024	0.015	0.023	465	0.026	0.012	0.024	256	0.020	0.019	0.020	-4.674***
$CHGOFF_{t+1}$	722	0.004	0.009	0.002	465	0.004	0.010	0.002	257	0.005	0.006	0.003	0.766
LLP	723	0.006	0.009	0.005	466	0.006	0.010	0.004	257	0.006	0.007	0.005	0.460
BODSIZE	723	9.786	2.801	10	466	9.655	2.669	10	257	10.023	3.018	9	1.697*
BODINDEP	661	0.370	0.234	0.333	422	0.369	0.228	0.333	239	0.372	0.244	0.333	0.130
ACSIZE	655	3.624	0.958	3	436	3.661	0.966	3	219	3.553	0.939	3	-1.363
ACINDEP	607	0.541	0.329	0.333	419	0.544	0.328	0.571	188	0.534	0.332	0.667	-0.345
SIZE	723	15.672	1.532	15.732	466	15.934	1.515	16.019	257	15.197	1.449	15.345	-6.355***
AGE	723	3.291	0.787	3.497	466	3.546	0.677	3.714	257	2.828	0.762	2.944	-13.046***
BIG4	723	0.851	0.357	1	466	0.863	0.345	1	257	0.829	0.377	1	-1.222
CEODUAL	723	0.100	0.300	0	466	0.120	0.326	0	257	0.062	0.242	0	-2.497**
CAP	714	16.496	13.565	14.060	460	15.136	6.383	13.670	254	18.959	20.861	15.270	3.635***
GDP	723	4.785	3.942	4.790	466	4.930	3.946	4.876	257	4.522	3.928	4.396	
COUNTRY_GOV	723	-0.165	0.478	-0.089	466	-0.166	0.462	-0.093	257	-0.165	0.508	-0.083	

Notes: This table reports the descriptive statistics. The sample period is 2007 to 2015. Panel A presents the results for the full sample including conventional and Islamic banks with 723 bank-year observations. Panel B presents the results for conventional banks sub-sample comprising 466 bank-year observations. Panel C presents the results for Islamic banks sub-sample comprising 257 bank-year observations. The last column also reports the mean differences and two-sample *t*-test (comparison of means for conventional banks and Islamic banks sub-samples).
*,**,*** denote significance at the 10%, 5%, and 1% respectively.
A list of the variables, their definitions, and measures is presented in Table 5.1.

Table 5.4 presents the Pearson correlation matrix for the full sample. Panel (A) presents the correlation coefficients for the variables used in the persistence and cash flow predictability models, while Panel (B) presents the correlation coefficients for the variables used in the third model (i.e. loan loss provision and future loan charge-offs). Panel (A) reveals significant positive correlations between current earnings (EBT_t) and both one-period-ahead earnings before taxes and earnings before taxes and loan loss provisions. Panel (B) also reveals significant positive correlation between current period loan loss provisions and one-period-ahead loan charge-offs. The Pearson correlation matrix presented in Table 5.4 affirms that multicollinearity does not appear to be a statistical problem.

Table 5.4: Pearson Correlation Matrix for the Years 2007-2015

Panel (A): Pearson correlation matrix for variables used in persistence and cash flow predictability models.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. EBT_{t+1}	1											
2. $EBTLLP_{t+1}$	**0.80**	1										
3. EBT_t	**0.68**	**0.71**	1									
4. BOD	**0.13**	**0.13**	**0.12**	1								
5. AC	0.01	**0.11**	0.04	**0.22**	1							
6. SIZE	**0.25**	**0.28**	**0.24**	0.04	**0.17**	1						
7. AGE	**0.21**	**0.21**	**0.15**	**0.12**	0.05	**0.45**	1					
8. BIG4	**0.09**	**0.08**	0.06	**-0.14**	-0.07	**0.42**	**0.25**	1				
9. CEODUAL	**0.10**	0.06	0.02	-0.01	-0.06	-0.02	**0.12**	**0.10**	1			
10. CAP	**-0.15**	**-0.13**	-0.06	-0.03	**-0.12**	**-0.19**	**-0.31**	**0.12**	-0.02	1		
11. GDP	**0.17**	**0.17**	**0.21**	0.00	0.03	0.01	**-0.08**	-0.07	0.03	-0.07	1	
12. COUNTRY_GOV	-0.00	0.04	0.04	**-0.19**	-0.03	**0.41**	**0.08**	**0.50**	**-0.19**	0.06	**0.12**	1

Panel (B): Pearson correlation matrix for variables used in loan loss provisions and future loan charge-offs model.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. $CHGOFF_{t+1}$	1										
2. LLP	**0.48**	1									
3. BOD	-0.04	-0.06	1								
4. AC	0.08	**0.09**	**0.22**	1							
5. SIZE	-0.06	-0.01	0.04	**0.17**	1						
6. AGE	-0.05	0.01	**0.12**	0.05	**0.45**	1					
7. BIG4	**-0.07**	-0.04	**-0.14**	-0.07	**0.42**	**0.25**	1				
8. CEODUAL	**-0.12**	**-0.09**	-0.01	-0.06	-0.02	**0.12**	**0.10**	1			
9. CAP	-0.07	-0.05	-0.03	**-0.12**	**-0.19**	**-0.31**	**0.12**	-0.02	1		
10. GDP	**-0.12**	**-0.18**	0.00	0.03	0.01	**-0.08**	-0.07	0.03	-0.07	1	
11. COUNTRY_GOV	0.03	0.05	**-0.19**	-0.03	**0.41**	**0.08**	**0.50**	**-0.19**	0.06	**0.12**	1

Notes: This table presents the Pearson correlation coefficients for the full sample. Panel (A) presents the correlation coefficients for the variables used in persistence and cash flow predictability models. Panel (B) presents the correlation coefficients for the variables used in the loan loss provision and future loan charge-offs model.
Coefficients in bold indicate statistical significance at the 5% significance level or more.

5.4.2 Earnings Persistence and Cash Flow Predictability Tests

Table 5.5 reports the results for the earnings persistence test for the full sample (in Panel A), conventional banks sample (in Panel B), and Islamic banks sample (in Panel C). It is expected that effective corporate governance mechanisms (i.e. board of directors and audit committee) enhance the information value of banks earnings, through more persistent earnings.

In Panel A, the two models separately test for the role of board of directors (BOD) and audit committee (AC) where BOD includes the size and the independence of the board and AC includes the size and the independence of the committee. In all the models, current EBT is positively and significantly associated with future EBT. These findings indicate that, earnings reported by conventional banks and Islamic banks are relatively persistent. Of primary concern is the coefficient on the interaction variable GOV*EBT. Positive and significant coefficients in models (1), (2), (5), and (6) indicate that effective board of directors and audit committee (i.e. large and more independent) enhance the persistence of earnings in the full sample and the Islamic banks sample. These results support the resource dependence theory and the agency theory, and they are consistent with prior literature claiming that larger boards and audit committees can benefit from the member's knowledge and expertise to enhance the quality of reported earnings (Dalton et al., 1999; Xie et al., 2003; Chang and Sun, 2009; Chen and Zhang, 2014).

However, in model (3), the coefficient on the interaction variable GOV*EBT is not significant, implying that board of directors characteristics (i.e. size and independence) have no role in enhancing conventional banks earnings persistence. In addition, the coefficient on the interaction variable GOV*EBT is positive and marginally significant in model (4), implying a marginal role for the audit committee in enhancing the persistence of earnings in conventional banks. The difference in the results between Islamic banks and conventional banks may be due to the unique institutional characteristics distinguishing Islamic banks from conventional banks, as prior literature supports the view that strong institutional environment enhances the quality of financial reporting (McGuire et al., 2012; Kanagaretnam et al., 2015). These results also indicate that effective audit committee (larger and more independent) is more able to positively influence the information value of earnings, relative to the board of directors.

The above results support the first and second hypotheses on the association between board's and audit committee's effectiveness and earnings persistence, although such association is more evident for the audit committee, given its direct involvement in the financial reporting process.

Table 5.5: Regression Results for the Corporate Governance and Earnings Persistence Test

Estimated Equations:

$$EBT_{t+1} = \beta_0 + \beta_1 EBT_{it} + \beta_2 GOVERNANCE_{it} + \beta_3 GOVERNANCE_{it} * EBT_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 BIG4_{it} + \beta_7 CEODUAL_{it} + \beta_8 CA$$
$$+ \beta_9 GDP + \beta_{10} COUNTRY_{GOV} + \beta_{11} \sum_{t=2015}^{2007} T_t + \varepsilon_{it}$$

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	-0.0078	-0.0071	-0.0046	-0.0012	-0.0097	-0.0329
	(-0.91)	(-1.06)	(-0.60)	(-0.21)	(-0.42)	(-1.52)
EBT	0.4184***	0.1828***	0.7448***	0.6160***	0.2174**	0.2009**
	(3.48)	(3.68)	(6.03)	(7.78)	(2.09)	(2.00)
GOV	0.0003	-0.0108***	0.0002	-0.0054**	0.0004	-0.0022
	(1.18)	(-4.37)	(0.91)	(-1.97)	(0.90)	(-1.23)
GOV * EBT	0.5088**	0.5366***	0.0873	0.1977*	1.5516***	1.5632**
	(2.25)	(5.47)	(1.30)	(1.67)	(2.68)	(2.42)
SIZE	0.0006	0.0009**	0.0001	0.0006	0.0017	0.0038***
	(1.24)	(2.09)	(0.42)	(0.17)	(1.32)	(2.72)
AGE	0.0009	0.0010	-0.0010	-0.0003	0.0021	0.0031
	(0.88)	(1.31)	(-1.59)	(-0.37)	(0.91)	(1.09)
BIG4	0.0034	0.0020	0.0054*	0.0050***	0.0003	-0.0027
	(1.29)	(1.19)	(1.90)	(3.36)	(0.09)	(-0.81)
CEODUAL	0.0025	0.0022	-0.0004	-0.0012	0.0028	0.0083*
	(1.06)	(1.20)	(-0.23)	(-0.84)	(0.97)	(1.85)
CAP	-0.0001**	-0.0001***	-0.0003	-0.0009	-0.0001**	-0.0001*
	(-2.33)	(-3.51)	(-0.35)	(-0.14)	(-2.28)	(-1.89)
GDP	0.0001	0.0001	0.0003	0.0007	-0.0003	-0.0004
	(0.56)	(0.74)	(0.29)	(0.60)	(-0.10)	(-1.29)
COUNTRY_GOV	-0.0032**	-0.0028**	-0.0028***	-0.0027**	-0.0061**	-0.0098**
	(-2.41)	(-2.00)	(-2.66)	(-2.52)	(-1.98)	(-2.57)
EBT + GOV*EBT	0.9272***	0.7193***	0.8321***	0.8137***	1.7690***	1.7641***
	(6.45)	(12.04)	(13.62)	(14.37)	(3.40)	(3.05)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	56.42%	56.19%	67.98%	66.90%	55.53%	54.08%
Wald Chi2	239.80***	555.74***	315.08***	743.80***	258.69***	462.40***
Hausman Test	18.79	14.91	12.00	16.70	15.52	17.45
Observations	654	604	418	387	236	187

Table 5.5 (continued): Regression Results for the Corporate Governance and Earnings Persistence Test

Notes: This table presents the regression results for the first model (i.e. earnings persistence), examining the role of internal governance mechanisms in enhancing earnings persistence for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses. *,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

Table 5.6 reports the regression results for the cash flow predictability test for the full sample (in Panel A), conventional banks sample (in Panel B), and Islamic banks sample (in Panel C). The premise is that effective corporate governance mechanisms can enhance the information value of earnings through enhancing the ability of current earnings to predict future cash flows.

In all the models, results show that current EBT is positively and significantly associated with future cash flows (EBTLLP). This finding suggests that in both conventional banks and Islamic banks, current earnings are able to predict future cash flows. Of primary interest is the coefficient on the interaction variable GOV*EBT. Positive and significant coefficients in models (1), (2), (5), and (6) illustrate that effective boards of directors and audit committees have a role in enhancing the ability of current earnings to predict future cash flows in the full sample and in Islamic banks. However, the coefficients on the interaction variable GOV*EBT are not significant in models (3) and (4). These results indicate that although current earnings in conventional banks are able to predict future cash flows, the boards of directors and audit committees have no impact on this predictive power. Relative to the findings in Islamic banks, the lack of significant results on the boards of directors and audit committees may be justified by the fact that internal governance mechanisms are effective in enhancing the information value of earnings only under strong and extended institutional environments.

The above findings support the earlier hypotheses, and highlight the important role played by the traditional internal governance mechanisms in enhancing the information value of banks reported earnings, through enhancing the persistence and predictive ability of earnings. However, this role is more obvious under strict and extended institutional environments.

Table 5.6: Regression Results for the Corporate Governance and Cash Flow Predictability Test

Estimated Equations:

$$EBTLLP_{t+1} = \beta_0 + \beta_1 EBT_{it} + \beta_2 GOVERNANCE_{it} + \beta_3 GOVERNANCE_{it} * EBT_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 BIG4_{it} + \beta_7 CEODUAL_{it} + \beta_8 CAP_{it} + \beta_9 GDP + \beta_{10} COUNTRY\_GOV + \beta_{11} \sum_{t=2015}^{2007} T_t + \varepsilon_{it}$$

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	0.0002	0.0021	0.0048	0.0105	-0.0101	-0.0147
	(0.01)	(0.25)	(0.38)	(0.90)	(-0.63)	(-0.74)
EBT	0.3061***	0.1988**	0.5260***	0.5364***	0.2958***	0.2303***
	(3.54)	(2.20)	(7.79)	(7.79)	(7.47)	(5.18)
GOV	0.0002	-0.0012**	0.0001	-0.0006	0.0008**	0.0001
	(1.00)	(-2.11)	(0.30)	(-0.02)	(1.97)	(0.12)
GOV * EBT	0.5243**	0.0432**	0.1152	0.1717	1.1031***	1.3795***
	(2.16)	(1.97)	(1.07)	(1.59)	(2.73)	(2.70)
SIZE	0.0009	0.0009	0.0008	0.0005	0.0014	0.0022*
	(1.15)	(1.50)	(1.34)	(0.92)	(1.38)	(1.69)
AGE	0.0010	0.0014	-0.0005	-0.0008	0.0034**	0.0056**
	(0.76)	(1.30)	(-0.53)	(-0.83)	(1.99)	(2.50)
BIG4	0.0015	0.0017	0.0015	0.0022	0.0046	0.0034
	(0.63)	(0.93)	(0.38)	(0.50)	(1.35)	(0.89)
CEODUAL	0.0012	0.0021	-0.0008	-0.0006	0.0063*	0.0020
	(0.54)	(1.12)	(-0.39)	(-0.36)	(1.81)	(0.40)
CAP	-0.0007	-0.0005	-0.0003*	-0.0002*	-0.0008	-0.0006
	(-1.16)	(-1.35)	(-1.93)	(-1.73)	(-1.64)	(-1.00)
GDP	-0.0002	0.0005	-0.0003	-0.0005	0.0006	-0.0002
	(-0.18)	(0.51)	(-0.21)	(-0.40)	(0.23)	(-0.49)
COUNTRY_GOV	-0.0032*	-0.0024	-0.0022	-0.0022	-0.0051	-0.0095**
	(-1.90)	(-1.43)	(-1.16)	(-1.14)	(-1.62)	(-2.52)
EBT + GOV*EBT	0.8303***	0.2419***	0.6413***	0.7081***	1.3989***	1.6098***
	(4.63)	(3.50)	(7.11)	(8.81)	(3.58)	(3.24)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	51.66%	51.41%	59.91%	58.67%	56.46%	52.85%
Wald Chi2	309.97***	365.07***	633.23***	446.41***	215.88***	135.62***
Hausman Test	13.71	17.26	15.03	16.27	14.86	16.00
Observations	653	601	417	414	236	187

Table 5.6 (continued): Regression Results for the Corporate Governance and Cash Flow Predictability Test

Notes: This table presents the regression results for the second model (i.e. cash flow predictability), examining the role of internal governance mechanisms in enhancing the predictive power of earnings for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

5.4.3 Loan Loss Provisions and Future Loan Charge-Offs

The results for the loan loss provisions and future loan charge-offs tests are reported in Table 5.7. Panel (A) reports the results for the full sample, Panel (B) reports the results for the conventional banks, while the results for the Islamic banks are reported in Panel (C).

In Panel (A), the coefficient on the current loan loss provisions (LLP) is positive and significant in models (1) and (2). This indicates that current loan loss provisions reported by banks are positively associated with future loan charge-offs. These findings are consistent with prior studies (Altamuro and Beatty, 2010; Kanagaretnam et al., 2014a). More importantly, results show positive and significant coefficients on the interaction variable GOV*LLP in both models. This finding emphasizes the role of boards of directors and audit committees in monitoring the financial reporting process, and ensuring its reliability (Pomeroy and Thornton, 2008; Beasley et al., 2009).

However, the results in Panel (B) fail to provide support to the initial expectation on the role of boards of directors and audit committees in enhancing the validity of loan loss provisions in conventional banks. Although results show that current loan loss provisions in conventional banks are significantly and positively associated with future loan charge-offs, it seems that this association is not influenced neither by the board of directors nor the audit committee.

In Panel (C), results show that the coefficient on current loan loss provisions is positive and significant in models (5) and (6). These results are consistent with those for the full sample, confirming the validity of loan loss provisions in Islamic banks, as current reported provisions reflect future losses on loans. The coefficient of interest is the interaction variable GOV*LLP. Results show significant positive effect of boards of directors and audit committees in enhancing the validity of loan loss provisions. These results are in line with the resource dependence theory as they support prior arguments that large and independent boards and audit committees are effective monitors over the financial reporting process and contribute to higher quality financial reporting.

Table 5.7: Regression Results for the Corporate Governance and Future Loan Charge-Offs Test

Estimated Equations:

$$CHGOFF_{t+1} = \beta_0 + \beta_1 LLP_{it} + \beta_2 GOVERNANCE_{it} + \beta_3 GOVERNANCE_{it} * LLP_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 BIG4_{it} + \beta_7 CEODUAL_{it} + \beta_8 CAP_{it} + \beta_9 GDP + \beta_{10} COUNTRY\_GOV + < Year\ Controls > + \varepsilon_{it}$$

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	0.0117**	0.0082***	0.0249***	0.0244***	-0.0034	-0.0007
	(2.56)	(2.86)	(3.15)	(3.20)	(-0.78)	(-0.15)
LLP	0.2721***	0.3150***	0.1883***	0.1038**	0.4839***	0.5599***
	(7.30)	(12.26)	(3.91)	(2.12)	(7.38)	(11.01)
GOV	-0.0131***	0.0003	-0.0004*	-0.0003	0.0002*	0.0007**
	(-3.75)	(1.29)	(-1.75)	(-0.78)	(1.68)	(2.07)
GOV * LLP	1.4755***	0.4694**	0.0923	0.3258	0.3932**	0.4274*
	(4.57)	(2.24)	(0.15)	(0.52)	(2.14)	(1.71)
SIZE	-0.0003	-0.0002	-0.0006	-0.0007	0.0004	-0.0001
	(-0.87)	(-1.21)	(-1.24)	(-1.31)	(0.16)	(-0.52)
AGE	-0.0005	-0.0006*	-0.0007	-0.0010	0.0007	-0.0001
	(-0.82)	(-1.79)	(-0.60)	(-1.02)	(0.12)	(-0.30)
BIG4	-0.0016	-0.0012	-0.0036	-0.0036	0.0019***	0.0019**
	(-1.38)	(-0.67)	(-0.92)	(-0.97)	(2.64)	(2.03)
CEODUAL	-0.0016	-0.0009	-0.0004	-0.0008	-0.0031**	-0.0015
	(-1.37)	(-1.12)	(-0.22)	(-0.44)	(-2.04)	(-1.09)
CAP	-0.0004	-0.0003*	-0.0001*	-0.0002**	-0.0002	-0.0002
	(-1.44)	(-1.85)	(-1.72)	(-1.99)	(-1.17)	(-1.30)
GDP	-0.0009	0.0001	-0.0001	-0.0002	0.0001	0.0001
	(-1.12)	(0.03)	(-0.92)	(-0.13)	(1.49)	(1.09)
COUNTRY_GOV	0.0020**	0.0003	0.0031**	0.0029**	-0.0008	-0.0003
	(2.10)	(0.51)	(2.06)	(1.98)	(-1.00)	(-0.32)
LLP + GOV*LLP	1.7477***	0.7844***	0.2806	0.4296	0.8771***	0.9872***
	(5.69)	(3.83)	(0.44)	(0.70)	(5.15)	(4.32)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	27.30%	34.40%	18.23%	13.20%	52.60%	64.78%
Wald Chi2	171.45***	225.93***	48.22***	33.20**	146.15***	275.21***
Hausman Test	9.57	12.08	11.39	13.07	10.41	12.49
Observations	713	601	417	414	236	187

Table 5.7 (continued): Regression Results for the Corporate Governance and Future Loan Charge-Offs Test

Notes: This table presents the regression results for the third model (i.e. loan loss provisions and future loan charge-offs), examining the role of internal governance mechanisms in enhancing the validity of loan loss provisions for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

5.4.4 Additional Tests on the Role of Shari'ah Governance

For Islamic banks, additional tests are conducted to examine the role of Shari'ah supervisory boards in enhancing the information value of earnings. Specifically, the models test for the size, financial qualification, and multiple directorships of Shari'ah supervisory board.

Table 5.8 reports the regression results for the earnings persistence (Panel A), cash flow predictability (Panel B), and the relationship between loan loss provisions and future loan charge-offs (Panel C).

The results show that the coefficient on current EBT is positive and significant (0.5012) and (0.5754) in Panels (A) and (B), respectively. These results indicate that current earnings reported by Islamic banks are persistent and can predict future cash flows. In addition, Panel (C) shows that the coefficient on current loan loss provisions (LLP) is positive and significant at the 1% level (0.3896), suggesting that current provisions reported by banks reflect expected future loan losses. These findings provide evidence that the financial reporting in Islamic banks is of good quality.

However, when examining whether Shari'ah supervisory boards have a role in enhancing the information value of earnings, results do not provide evidence on the role of Shari'ah boards in this aspect. The coefficients on the interaction variables SSB*EBT and SSB*LLP are not significant across Panels (A), (B), and (C), where SSB is an index for the structure of the Shari'ah supervisory board, measured by combining its size, its financial qualification, and the multiple memberships held by its members. The lack of evidence on the role of Shari'ah boards in enhancing the information value of earnings may be due to the limited direct role played by Shari'ah scholars in the financial reporting process. Moreover, the complex nature of Islamic bank's activities and financial reporting issues require accounting and financial expertise to effectively monitor managerial financial reporting decisions. These claims support Khalaf's (2007) argument that graduating Shari'ah scholars, who lack financial education may not sufficiently be competent to perform their duties with regard to monitoring the financial reporting process.

Table 5.8: Regression Results for the Additional Tests on Shari'ah Supervisory Boards in Islamic Banks

Panel (A) Earnings Persistence		Panel (B) Cash Flow Predictability		Panel (C) LLP and Future Loan Charge-Offs	
Constant	-0.0359**	Constant	-0.0192	Constant	0.0011
	(-2.26)		(-1.19)		(0.22)
EBT	0.5012***	EBT	0.5754***	LLP	0.3896***
	(4.13)		(4.74)		(2.71)
SSB	-0.0006	SSB	0.0017**	SSB	0.0002
	(-0.08)		(2.16)		(0.52)
SSB * EBT	-0.0370	SSB * EBT	-0.0383	SSB * LLP	0.0335
	(-1.45)		(-1.51)		(1.28)
SIZE	0.0034***	SIZE	0.0017	SIZE	-0.0001
	(3.13)		(1.57)		(-0.30)
AGE	0.0013	AGE	0.0028	AGE	-0.0005
	(0.80)		(1.64)		(-0.84)
BIG4	-0.0018	BIG4	0.0042	BIG4	0.0018
	(-0.49)		(1.16)		(1.55)
CEODUAL	0.0056	CEODUAL	0.0079**	CEODUAL	-0.0030***
	(1.60)		(2.27)		(-2.71)
CAP	-0.0008*	CAP	-0.0003	CAP	-0.0002
	(-1.72)		(-0.60)		(-1.21)
GDP	0.0009	GDP	0.0008	GDP	0.0001
	(0.37)		(0.34)		(1.51)
COUNTRY_GOV	-0.0076**	COUNTRY_GOV	-0.0042	COUNTRY_GOV	-0.0008
	(-2.27)		(-1.22)		(-0.77)
AAOIFI	0.0044	AAOIFI	-0.0003	AAOIFI	0.0007
	(1.42)		(-0.00)		(0.71)
Year Dummies	YES	Year Dummies	YES	Year Dummies	YES
Adjusted $\mathbf{R^2}$	54.32%	Adjusted $\mathbf{R^2}$	57.64%	Adjusted $\mathbf{R^2}$	56.32%
Wald Chi2	215.09***	Wald Chi2	286.10***	Wald Chi2	215.53***
Observations	254	Observations	254	Observations	254

Notes: This table presents the regression results for the additional tests, examining the role of Shari'ah supervisory board in enhancing the information value of earnings, through enhancing earnings persistence (Panel A), enhancing cash flow predictability (Panel B), and enhancing the validity of loan loss provisions (Panel C).
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.

5.4.5 Robustness Checks

To assess the credibility of the main findings, additional tests were performed. First, to account for the "unbalanced" nature of the study sample, all tests examining the role of internal governance mechanisms in enhancing the information value of earnings are re-estimated for only the countries with observations on both types of banks (conventional and Islamic). The results from these additional tests are reported in Tables 5.9, 5.10, and 5.11. The results reported support the main findings in Tables 5.5, 5.6, and 5.7. These results provide evidence for the role of boards of directors and audit committees in enhancing earnings persistence, cash flow predictability, and reliability of loan loss provisions. However, the results show more evidence for such role under strict and extended institutional environments (i.e. Islamic banks).

Table 5.9: Regression Results for the Corporate Governance and Earnings Persistence Test – First Sensitivity Test

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	-0.0066	-0.0074	-0.0025	0.0005	-0.0097	-0.0329
	(-0.83)	(-1.13)	(-0.34)	(0.08)	(-0.42)	(-1.52)
EBT	0.4094***	0.1853***	0.7196***	0.6009***	0.2174**	0.2009**
	(3.48)	(3.67)	(5.45)	(7.21)	(2.09)	(2.00)
GOV	0.0003	-0.0099***	0.0002	-0.0049*	0.0004	-0.0022
	(1.18)	(-3.89)	(0.96)	(-1.69)	(0.90)	(-1.23)
GOV * EBT	0.4731**	0.5108***	0.0743	0.1966	1.5516***	1.5632**
	(2.19)	(5.10)	(1.05)	(1.59)	(2.68)	(2.42)
SIZE	0.0010*	0.0013***	0.0004	0.0003	0.0017	0.0038***
	(1.83)	(2.83)	(1.03)	(0.73)	(1.32)	(2.72)
AGE	0.0008	0.0010	-0.0011*	-0.0004	0.0021	0.0031
	(0.84)	(1.20)	(-1.66)	(-0.54)	(0.91)	(1.09)
BIG4	0.0046	0.0031*	0.0065**	0.0057***	0.0003	-0.0027
	(1.59)	(1.74)	(2.04)	(3.59)	(0.09)	(-0.81)
CEODUAL	0.0045	0.0050**	0.0008	0.0005	0.0028	0.0083*
	(1.60)	(2.30)	(0.41)	(0.26)	(0.97)	(1.85)
CAP	-0.0001**	-0.0001***	-0.0002	0.0001	-0.0001**	-0.0001*
	(-2.28)	(-3.28)	(-0.26)	(0.02)	(-2.28)	(-1.89)
GDP	0.0009	0.0001	0.0007	0.0001	-0.0003	-0.0004
	(0.63)	(0.81)	(0.60)	(0.86)	(-0.10)	(-1.29)
COUNTRY_GOV	-0.0002***	-0.0001***	-0.0001***	-0.0001***	-0.0061**	-0.0098**
	(-3.01)	(-2.95)	(-2.91)	(-3.00)	(-1.98)	(-2.57)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	57.50%	57.18%	68.56%	67.31%	55.53%	54.08%
Wald Chi2	241.57***	543.81***	769.27***	700.05***	258.69***	462.40***
Observations	622	576	386	359	236	187

Notes: This table presents the regression results for the first model (i.e. earnings persistence), examining the role of internal governance mechanisms in enhancing earnings persistence for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). The results reflect only countries with observations on both bank types. Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee. Z-statistics are between parentheses. *,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

Table 5.10: Regression Results for the Corporate Governance and Cash Flow Predictability Test – First Sensitivity Test

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	0.0017	0.0021	0.0052	0.0120	-0.0101	-0.0147
	(0.14)	(0.27)	(0.43)	(1.10)	(-0.63)	(-0.74)
EBT	0.3128***	0.1985**	0.5003***	0.5175***	0.2958***	0.2303***
	(3.59)	(2.15)	(7.82)	(7.74)	(7.47)	(5.18)
GOV	0.0002	-0.0013**	0.0001	-0.0005	0.0008**	0.0001
	(1.01)	(-2.13)	(0.42)	(-0.11)	(1.97)	(0.12)
GOV * EBT	0.4706**	0.0428*	0.0662	0.1321	1.1031***	1.3795***
	(1.98)	(1.91)	(0.67)	(1.34)	(2.73)	(2.70)
SIZE	0.0013	0.0013**	0.0013*	0.0009	0.0014	0.0022*
	(1.63)	(2.17)	(1.87)	(1.48)	(1.38)	(1.69)
AGE	0.0011	0.0016	-0.0005	-0.0008	0.0034**	0.0056**
	(0.85)	(1.41)	(-0.52)	(-0.81)	(1.99)	(2.50)
BIG4	0.0030	0.0033*	0.0036	0.0042	0.0046	0.0034
	(1.16)	(1.70)	(0.80)	(0.86)	(1.35)	(0.89)
CEODUAL	0.0029	0.0042**	0.0017	0.0015	0.0063*	0.0020
	(1.13)	(2.02)	(1.06)	(0.97)	(1.81)	(0.40)
CAP	-0.0006	-0.0004	-0.0002*	-0.0002*	-0.0008	-0.0006
	(-1.03)	(-1.11)	(-1.95)	(-1.75)	(-1.64)	(-1.00)
GDP	-0.0003	0.0005	-0.0003	-0.0006	0.0006	-0.0002
	(-0.20)	(0.46)	(-0.21)	(-0.47)	(0.23)	(-0.49)
COUNTRY_GOV	-0.0002***	-0.0002***	-0.0002**	-0.0002**	-0.0051	-0.0095**
	(-3.02)	(-2.87)	(-2.43)	(-2.28)	(-1.62)	(-2.52)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	53.99%	53.52%	61.35%	59.80%	56.46%	52.85%
Wald Chi2	309.45***	368.32***	629.75***	506.83***	215.88***	135.62***
Observations	621	569	385	382	236	187

Notes: This table presents the regression results for the second model (i.e. cash flow predictability), examining the role of internal governance mechanisms in enhancing the predictive power of earnings for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). The results reflect only countries with observations on both bank types. Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

Table 5.11: Regression Results for the Corporate Governance and Future Loan Charge-Offs Test – First Sensitivity Test

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	0.0084*	0.0082***	0.0213***	0.0258***	-0.0034	-0.0007
	(1.88)	(2.67)	(2.58)	(3.08)	(-0.78)	(-0.15)
LLP	0.2732***	0.3124***	0.1807***	0.0974*	0.4839***	0.5599***
	(7.07)	(11.78)	(3.59)	(1.90)	(7.38)	(11.01)
GOV	-0.0130***	0.0003	-0.0004*	-0.0004	0.0002*	0.0007**
	(-3.58)	(1.27)	(-1.71)	(-0.77)	(1.68)	(2.07)
GOV * LLP	1.4649***	0.4728**	0.1158	0.3433	0.3932**	0.4274*
	(4.39)	(2.19)	(0.17)	(0.52)	(2.14)	(1.71)
SIZE	-0.0002	-0.0002	-0.0007	-0.0007	0.0004	-0.0001
	(-0.75)	(-1.14)	(-1.21)	(-1.35)	(0.16)	(-0.52)
AGE	-0.0005	-0.0006*	-0.0006	-0.0010	0.0007	-0.0001
	(-0.78)	(-1.69)	(-0.55)	(-0.91)	(0.12)	(-0.30)
BIG4	-0.0015	-0.0012	-0.0035	-0.0035	0.0019***	0.0019**
	(-1.18)	(-1.56)	(-0.71)	(-0.77)	(2.64)	(2.03)
CEODUAL	-0.0017	-0.0009	-0.0006	-0.0009	-0.0031**	-0.0015
	(-1.26)	(-0.92)	(-0.28)	(-0.39)	(-2.04)	(-1.09)
CAP	-0.0004	-0.0003*	-0.0002*	-0.0002*	-0.0002	-0.0002
	(-1.42)	(-1.78)	(-1.73)	(-1.95)	(-1.17)	(-1.30)
GDP	-0.0009	-0.0005	-0.0001	-0.0002	0.0001	0.0001
	(-1.08)	(-0.01)	(-0.86)	(-0.18)	(1.49)	(1.09)
COUNTRY_GOV	0.0006	0.0003	0.0009*	0.0030*	-0.0008	-0.0003
	(1.58)	(0.47)	(1.68)	(1.84)	(-1.00)	(-0.32)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	26.65%	33.64%	17.39%	12.60%	52.60%	64.78%
Wald Chi2	155.08***	202.24***	39.78***	33.28**	146.15***	275.21***
Observations	671	569	385	382	236	187

Notes: This table presents the regression results for the third model (i.e. loan loss provisions and future loan charge-offs), examining the role of internal governance mechanisms in enhancing the validity of loan loss provisions for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). The results reflect only countries with observations on both bank types. Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

Second, additional tests examine whether the ownership structure in banks influence the information value of banks' earnings. Hence, the main models are extended to control for the effect of government ownership (GOV_OWN), which is measured as the proportion of shares held by the government. Existing literature has documented that government ownership is associated with poor corporate governance (Megginson et al., 1994; Shleifer, 1998), however, no evidence exists on the impact of government ownership on information value of earnings. The results reported in Tables 5.12, 5.13, and 5.14 show that the main findings remain after controlling for government ownership. The results demonstrate that government ownership does not influence the relationship between corporate governance mechanisms and information value of earnings.

Table 5.12: Regression Results for the Corporate Governance and Earnings Persistence Test – Second Sensitivity Test

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	-0.0009	-0.0026	-0.0002	0.0045	0.0007	-0.0166
	(-0.14)	(-0.42)	(-0.03)	(0.81)	(0.03)	(-0.83)
EBT	0.4030***	0.1840***	0.7437***	0.6063***	0.2120**	0.1950**
	(3.25)	(3.70)	(5.35)	(7.67)	(2.07)	(1.97)
GOV	0.0003	-0.0106***	0.0002	-0.0055**	0.0003	-0.0023
	(1.07)	(-4.31)	(0.86)	(-2.02)	(0.71)	(-1.27)
GOV * EBT	0.7344*	0.5283***	-0.0889	0.1956*	1.5494***	1.4757**
	(1.89)	(5.37)	(-0.41)	(1.66)	(2.63)	(2.17)
SIZE	0.0006	0.0009**	0.0002	-0.0003	0.0019	0.0038***
	(1.34)	(2.12)	(0.51)	(-0.07)	(1.42)	(2.74)
AGE	0.0007	0.0011	-0.0010	-0.0007	0.0020	0.0032
	(0.75)	(1.32)	(-1.57)	(-0.09)	(0.88)	(1.10)
BIG4	0.0041	0.0023	0.0057*	0.0051***	0.0008	-0.0020
	(1.50)	(1.37)	(1.88)	(3.36)	(0.24)	(-0.58)
CEODUAL	0.0020	0.0022	-0.0004	-0.0011	0.0026	0.0076*
	(0.91)	(1.18)	(-0.27)	(-0.75)	(0.88)	(1.65)
GOV_OWN	-0.0096	0.0019	0.0054	0.0041	-0.0018	-0.0080
	(-1.13)	(0.47)	(0.93)	(1.48)	(-0.16)	(-0.55)
CAP	-0.0002***	-0.0001***	-0.0002	-0.0001	-0.0001**	-0.0001**
	(-2.72)	(-3.31)	(-0.22)	(-0.21)	(-2.30)	(-2.08)
GDP	0.0006	0.0009	0.0003	0.0007	-0.0004	-0.0004
	(0.46)	(0.72)	(0.32)	(0.56)	(-0.12)	(-1.28)
COUNTRY_GOV	-0.0001**	-0.0001**	-0.0001***	-0.0001***	-0.0002**	-0.0003**
	(-2.44)	(-2.27)	(-2.68)	(-2.81)	(-1.98)	(-2.45)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	56.77%	56.29%	68.10%	67.17%	55.41%	53.74%
Wald Chi2	245.49***	554.36***	472.62***	750.94***	245.54***	827.78***
Observations	654	604	418	387	236	187

Notes: This table presents the regression results for the first model (i.e. earnings persistence), examining the role of internal governance mechanisms in enhancing earnings persistence for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses. *,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

Table 5.13: Regression Results for the Corporate Governance and Cash Flow Predictability Test – Second Sensitivity Test

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	0.0066	0.0054	0.0079	0.0133	-0.0014	0.0052
	(0.61)	(0.70)	(0.67)	(1.25)	(-0.09)	(0.27)
EBT	0.2945***	0.1987**	0.5175***	0.5271***	0.2919***	0.2282***
	(3.45)	(2.21)	(7.61)	(7.65)	(7.36)	(5.17)
GOV	0.0002	-0.0013**	0.0001	-0.0007	0.0007*	-0.0001
	(0.78)	(-2.14)	(0.31)	(-0.02)	(1.74)	(-0.11)
GOV * EBT	0.7371**	0.0427*	0.3109	0.4301*	1.1262***	1.1802**
	(2.48)	(1.95)	(1.23)	(1.77)	(2.76)	(2.26)
SIZE	0.0010	0.0010*	0.0009	0.0007	0.0015	0.0018
	(1.39)	(1.70)	(1.47)	(1.10)	(1.43)	(1.30)
AGE	0.0007	0.0014	-0.0005	-0.0008	0.0033*	0.0059***
	(0.56)	(1.26)	(-0.55)	(-0.92)	(1.92)	(2.57)
BIG4	0.0021	0.0021	0.0021	0.0028	0.0053	0.0036
	(0.88)	(1.18)	(0.51)	(0.60)	(1.48)	(0.92)
CEODUAL	0.0007	0.0019	-0.0012	-0.0010	0.0061*	0.0006
	(0.32)	(1.00)	(-0.59)	(-0.56)	(1.75)	(0.12)
GOV_OWN	-0.0150**	-0.0047	-0.0072	-0.0101	0.0006	-0.0303
	(-2.31)	(-0.77)	(-0.94)	(-1.43)	(0.01)	(-1.50)
CAP	-0.0008*	-0.0005	-0.0002*	-0.0002*	-0.0008	-0.0009
	(-1.66)	(-1.35)	(-1.87)	(-1.69)	(-1.55)	(-1.43)
GDP	-0.0003	0.0006	-0.0002	-0.0005	0.0005	-0.0010
	(-0.25)	(0.57)	(-0.18)	(-0.38)	(0.22)	(-0.30)
COUNTRY_GOV	-0.0001**	-0.0001*	-0.0010	-0.0009	-0.0002*	-0.0002*
	(-2.13)	(-1.76)	(-1.48)	(-1.39)	(-1.71)	(-1.65)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	53.12%	51.49%	60.38%	59.38%	56.43%	53.03%
Wald Chi2	324.65***	367.64***	675.47***	410.91***	212.74***	137.28***
Observations	653	601	417	414	236	187

Notes: This table presents the regression results for the second model (i.e. cash flow predictability), examining the role of internal governance mechanisms in enhancing the predictive power of earnings for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

Table 5.14: Regression Results for the Corporate Governance and Future Loan Charge-Offs Test – Second Sensitivity Test

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	0.0083*	0.0078***	0.0183**	0.0233***	-0.0016	-0.0005
	(1.95)	(2.77)	(2.39)	(3.07)	(-0.42)	(-0.13)
LLP	0.2750***	0.2891***	0.1690***	0.0820*	0.4818***	0.5572***
	(7.38)	(11.10)	(3.45)	(1.65)	(7.23)	(10.73)
GOV	-0.0128***	0.0003	-0.0004*	-0.0004	0.0002	0.0007**
	(-3.68)	(1.31)	(-1.78)	(-0.87)	(1.57)	(2.10)
GOV * LLP	1.4602***	1.1172***	1.3006	1.7558**	0.4480*	0.4234**
	(4.52)	(4.30)	(1.43)	(1.98)	(1.86)	(2.57)
SIZE	-0.0002	-0.0002	-0.0005	-0.0005	0.0004	-0.0010
	(-0.77)	(-0.88)	(-0.96)	(-1.08)	(0.14)	(-0.35)
AGE	-0.0005	-0.0006*	-0.0007	-0.0010	0.0004	-0.0001
	(-0.87)	(-1.68)	(-0.61)	(-0.98)	(0.07)	(-0.30)
BIG4	-0.0016	-0.0012	-0.0035	-0.0036	0.0020***	0.0020**
	(-1.30)	(-1.62)	(-0.86)	(-0.98)	(2.73)	(2.02)
CEODUAL	-0.0017	-0.0011	-0.0007	-0.0009	-0.0032**	-0.0014
	(-1.43)	(-1.42)	(-0.36)	(-0.50)	(-2.05)	(-0.99)
GOV_OWN	-0.0071	-0.0095***	-0.0116*	-0.0135**	-0.0015	0.0005
	(-1.33)	(-4.10)	(-1.87)	(-2.25)	(-0.47)	(0.11)
CAP	-0.0004	-0.0003**	-0.0001*	-0.0002*	-0.0002	-0.0002
	(-1.47)	(-2.17)	(-1.66)	(-1.85)	(-1.23)	(-1.04)
GDP	-0.0008	0.0002	-0.0009	0.0006	0.0001	0.0001
	(-1.05)	(0.26)	(-0.73)	(0.01)	(1.45)	(1.10)
COUNTRY_GOV	0.0006*	0.0007	0.0001	0.0034	-0.0003	-0.0002
	(1.73)	(1.23)	(1.03)	(1.33)	(-0.93)	(-0.50)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	27.18%	36.47%	18.50%	14.35%	52.75%	64.80%
Wald Chi2	169.84***	247.41***	49.71***	38.56***	145.60***	269.73***
Observations	713	601	417	414	236	187

Notes: This table presents the regression results for the third model (i.e. loan loss provisions and future loan charge-offs), examining the role of internal governance mechanisms in enhancing the validity of loan loss provisions for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

Third, additional tests were performed to address the issue of insignificant variables. These tests examine whether the signs and values of significant variables change when the insignificant variables are dropped from the analysis. The main results presented in Tables 5.5, 5.6, and 5.7 show that some control variables have insignificant values (i.e. AGE, CEODUAL, and GDP). Hence, the tests examining the role of internal governance mechanisms in enhancing earnings persistence, predictability and validity of loan loss provisions are re-estimated excluding the insignificant variables. The results from these additional tests are reported in Tables 5.15, 5.16, and 5.17. The reported results show that the results for the main variables (board size, board independence, audit committee size, audit committee independence) remain unchanged after dropping insignificant control variables.

Finally, to address the potential endogeneity problem between corporate governance variables and information value of earnings, Two-step system generalised method of moments (GMM) and Three-stage least squares (3SLS) were utilised. Unreported results for both GMM and 3SLS estimations show that the main findings presented earlier in Tables 5.5, 5.6, and 5.7 remain unchanged, after controlling for dynamic endogeneity and unobserved heterogeneity.

Table 5.15: Regression Results for the Corporate Governance and Earnings Persistence Test – Third Sensitivity Test

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	-0.0069	-0.0058	-0.0036	-0.0006	-0.0052	-0.0262
	(-0.81)	(-0.88)	(-0.48)	(-0.11)	(-0.24)	(-1.12)
EBT	0.4226***	0.1894***	0.7425***	0.6046***	0.2135**	0.1813*
	(3.45)	(3.84)	(15.60)	(7.80)	(2.01)	(1.76)
GOV	0.0003	-0.0105***	0.0002	-0.0057**	0.0004	-0.0027
	(1.26)	(-4.30)	(0.71)	(-2.11)	(0.75)	(-1.43)
GOV * EBT	0.5161**	0.5350***	0.1150	0.2171*	1.6809***	1.6981**
	(2.17)	(5.48)	(1.58)	(1.87)	(2.85)	(2.53)
SIZE	0.0007	0.0011***	-0.0009	0.0003	0.0019	0.0039**
	(1.48)	(2.66)	(-0.34)	(0.10)	(1.34)	(2.34)
BIG4	0.0041	0.0024	0.0049*	0.0043***	0.0007	-0.0015
	(1.63)	(1.51)	(1.82)	(3.17)	(0.22)	(-0.40)
CAP	-0.0002**	-0.0001***	-0.0003	-0.0008	-0.0002***	-0.0002**
	(-2.42)	(-4.08)	(-0.36)	(-0.14)	(-2.67)	(-2.19)
COUNTRY_GOV	-0.0036**	-0.0030**	-0.0026**	-0.0023**	-0.0065**	-0.0109***
	(-2.53)	(-2.29)	(-2.52)	(-2.27)	(-2.05)	(-2.65)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	55.93%	55.91%	67.77%	66.78%	54.83%	51.17%
Wald Chi2	198.47***	561.94***	187.93***	745.78***	255.72***	354.34***
Observations	654	604	418	387	236	187

Notes: This table presents the regression results for the first model (i.e. earnings persistence), examining the role of internal governance mechanisms in enhancing earnings persistence for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses. *,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

Table 5.16: Regression Results for the Corporate Governance and Cash Flow Predictability Test – Third Sensitivity Test

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	-0.0005	0.0021	0.0049	0.0102	0.0004	-0.0054
	(-0.04)	(0.25)	(0.39)	(0.89)	(0.03)	(-0.27)
EBT	0.3069***	0.2006**	0.5269***	0.5328***	0.2789***	0.2262***
	(3.46)	(2.22)	(7.93)	(8.09)	(7.28)	(5.33)
GOV	0.0003	-0.0012**	0.0008	-0.0002	0.0007*	-0.0004
	(1.04)	(-2.10)	(0.24)	(-0.05)	(1.72)	(-0.37)
GOV * EBT	0.5294**	0.0430**	0.1242	0.1825	1.4075***	1.4720***
	(2.10)	(1.96)	(1.10)	(1.61)	(3.66)	(2.93)
SIZE	0.0011	0.0012**	0.0007	0.0004	0.0016	0.0026*
	(1.55)	(2.24)	(1.21)	(0.66)	(1.48)	(1.94)
BIG4	0.0018	0.0020	0.0013	0.0020	0.0052	0.0044
	(0.75)	(1.15)	(0.32)	(0.45)	(1.50)	(1.12)
CAP	-0.0008	-0.0006*	-0.0002*	-0.0002*	-0.0001***	-0.0001**
	(-1.33)	(-1.78)	(-1.91)	(-1.71)	(-2.84)	(-2.02)
COUNTRY_GOV	-0.0036**	-0.0028*	-0.0020	-0.0021	-0.0060*	-0.0109***
	(-2.05)	(-1.72)	(-1.12)	(-1.17)	(-1.88)	(-2.79)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	51.38%	51.18%	59.79%	58.51%	53.06%	48.94%
Wald Chi2	277.42***	363.35***	581.82***	388.88***	199.58***	120.89***
Observations	653	601	417	414	236	187

Notes: This table presents the regression results for the second model (i.e. cash flow predictability), examining the role of internal governance mechanisms in enhancing the predictive power of earnings for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

Table 5.17: Regression Results for the Corporate Governance and Future Loan Charge-Offs Test – Third Sensitivity Test

Variables	(A) Full Sample		(B) Conventional Banks		(C) Islamic Banks	
	(1) GOV = BOD	(2) GOV = AC	(3) GOV = BOD	(4) GOV = AC	(5) GOV = BOD	(6) GOV = AC
Constant	0.0108**	0.0082***	0.0244***	0.0250***	-0.0040	-0.0013
	(2.41)	(2.85)	(3.09)	(3.25)	(-0.95)	(-0.31)
LLP	0.2756***	0.3025***	0.1801***	0.0889*	0.4497***	0.5341***
	(7.41)	(11.82)	(3.77)	(1.83)	(6.03)	(10.80)
GOV	-0.0129***	0.0003	-0.0004*	-0.0004	0.0003**	0.0008**
	(-3.68)	(1.30)	(-1.95)	(-0.85)	(2.21)	(2.46)
GOV * LLP	1.5200***	0.5235**	0.2073	0.5118	0.4728**	0.4624*
	(4.72)	(2.49)	(0.33)	(0.83)	(2.55)	(1.90)
SIZE	-0.0004	-0.0004**	-0.0008*	-0.0009**	0.0008	-0.0007
	(-1.30)	(-1.97)	(-1.68)	(-1.96)	(0.32)	(-0.27)
BIG4	-0.0019	-0.0017	-0.0038	-0.0042	0.0019***	0.0014
	(-0.71)	(-1.29)	(-1.11)	(-1.38)	(2.67)	(1.52)
CAP	-0.0003	-0.0002	-0.0001	-0.0002*	-0.0002*	-0.0001
	(-1.12)	(-1.34)	(-1.61)	(-1.93)	(-1.72)	(-1.01)
COUNTRY_GOV	0.0023**	0.0006	0.0031**	0.0033**	-0.0007	-0.0009
	(2.47)	(1.09)	(2.16)	(2.35)	(-0.90)	(-0.10)
Year Dummies	YES	YES	YES	YES	YES	YES
Adjusted $\mathbf{R^2}$	26.65%	33.46%	17.49%	12.12%	50.44%	63.94%
Wald Chi2	166.38***	207.03***	44.97***	59.78***	111.49***	254.40***
Observations	713	601	417	414	236	187

Notes: This table presents the regression results for the third model (i.e. loan loss provisions and future loan charge-offs), examining the role of internal governance mechanisms in enhancing the validity of loan loss provisions for the full sample (Panel A), conventional banks sample (Panel B), and Islamic banks sample (Panel C). Columns 1, 3, and 5 report the results for board characteristics, while columns 2, 4, and 6 present the results for audit committee.
Z-statistics are between parentheses.
*,**,*** denote significance at the 10%, 5% and 1% respectively.
All variables are defined in Table 5.2.

5.5 Conclusion

The empirical research in this chapter has investigated whether effective corporate governance mechanisms can enhance the information value of banks earnings. This study is among the early attempts that examine the relation between corporate governance and financial reporting quality from an information perspective.

The main findings suggest that conventional banks and Islamic banks report high quality earnings, measured from an information value perspective. The results presented in this chapter provide evidence for the influence of effective corporate governance mechanisms (i.e. large and independent boards of directors and audit committees) in enhancing the information value of earnings. However, the role of corporate governance is more evident under strict institutional environments, such as those of Islamic banks.

This empirical research contributes to the existing literature in several ways. First, the results extend prior research on the association between corporate governance and earnings quality to the banking industry. It identifies several internal governance characteristics that are associated with higher quality earnings in both conventional and Islamic banks. Second, it extends prior evidence by Quttainah et al., (2013), who compare the quality of earnings in Islamic banks with conventional banks. However, they examine earnings quality from an opportunistic earnings management perspective. This study utilises different measures of earnings quality such as earnings persistence, predictability of future cash flows, and future loan charge-offs to reflect the information enhancing role of earnings. Finally, this study tests for a comprehensive set of internal governance mechanisms employed in conventional and Islamic banks, including board of directors, audit committee and Shari'ah supervisory board. By providing evidence on the relation between internal governance mechanisms and earnings quality, the results highlight several implications for investors and regulators who seek enhanced quality earnings in both conventional and Islamic banks. The results will also help to improve the effectiveness of regulations on financial reporting for financial institutions.

Chapter Six: Conclusion and Implications

6.1 Introduction

The financial crisis that started in 2007 resulted in the collapse of many large firms including financial institutions and other banks around the world. The inadequacy of banks' governance structures was believed to be a principal factor contributing to the crisis (Isaksson and Kirkpatrick, 2009; Adams and Mehran, 2012). Consequently, the financial crisis adversely affected the profitability and the stability of the banking sector, and hence threatening the overall economy (Bernanke, 2010). In addition to the renewed focus on the effectiveness of banks' governance systems, the recent financial crisis has put exceptional emphasis on the quality of banks' financial reporting, calling for stricter initiatives for corporate governance in banks, and additional regulations to ensure high quality financial reporting by banks and other financial institutions. The use of substandard accounting practices to hide excessive risk-taking activities by well-known financial institutions, and the negative consequences of such practices have been documented and discussed (Jones and Norton, 2015).

Furthermore, the dominant role of banking institutions in the economic realm, the ramifications of specific banking activities, and the overarching repercussions may provoke severe social criticism, especially in highly religious contexts, such as Islamic banks. Therefore, this thesis sought to investigate the role of different internal governance mechanisms in enhancing the financial reporting quality in conventional and Islamic banks, through constraining opportunistic earnings management practices and improving the information value of banks' reported earnings. It examined the role of traditional internal governance mechanisms (i.e. boards of directors and audit committees) adopted by conventional banks, in addition to extended governance structures (i.e. Shari'ah supervisory boards) adopted uniquely by Islamic banks.

The investigations were conducted on a sample of 61 conventional banks and 39 Islamic banks from 16 countries. This thesis included two empirical studies. The first empirical setting employed several alternative models to measure opportunistic earnings management practices across the two bank types, including (i) loss avoidance; (ii) income increasing discretionary accruals; and (iii) magnitude of discretionary accruals. While the second empirical setting employed three measures of earnings quality that reflect the information enhancing role of earnings. These measures are (i) earnings persistence; (ii) ability of current

earnings to predict future cash flows; and (iii) the relationship between loan loss provisions and future loan charge-offs.

For the traditional internal governance mechanisms, the thesis examined both the size and independence of the board of directors and audit committee. Then the analysis was extended to examine the effect of Shari'ah supervisory board size, financial qualification, and multiple memberships held by the Shari'ah scholars.

6.2 Summary of Results

The thesis examined the role of internal governance mechanisms in enhancing the quality of financial reporting in conventional banks and Islamic banks. This examination was conducted through two empirical studies (Chapters 4 and 5).

The main findings of the first empirical study (Chapter 4) demonstrate that effective corporate governance systems that employ large boards of directors and large audit committees are associated with lower levels of opportunistic earnings management practices. These findings support the resource dependence theory, which claims that larger boards and audit committees improve their effectiveness as the members benefit from the varied knowledge and expertise (Pfeffer and Salancik, 1978; Hillman and Dalziel, 2003). These results provide support to both Hypothesis $\boldsymbol{H_{1a}}$ and $\boldsymbol{H_{2a}}$. Although these hypotheses provided non-directional expectations, these findings provided evidence for negative impact of board and audit committee size on earnings management. The findings also show that independent directors in the boards and in audit committees enhance the monitoring power and are able to restrain managerial opportunistic behaviour. These results are in line with the agency theory, which argues that independent directors are in a better position to monitor and control managerial behaviour (Fama and Jensen, 1983; Link et al., 2008; Pathan and Skully, 2010). These findings support both Hypothesis $\boldsymbol{H_{1b}}$ and $\boldsymbol{H_{2b}}$. However, the findings from the first empirical study failed to provide support to Hypothesis $\boldsymbol{H_{1c}}$, as no significant associations were found between the CEO duality and earnings management measures.

The second empirical study (Chapter 5) investigated the role of corporate governance in enhancing earnings informativeness. With regard to the information value of banks' earnings, the findings were consistent with that of the opportunistic earnings management. Specifically, the results provide evidence for a positive association between the size and independence of both, the boards of directors and audit committees and the earnings persistence. However, the results demonstrate that an effective audit committee, that is large and comprises of

independent members, is better able to improve the information value of earnings though enhancing their persistence. In addition, the results from the cash flow predictability tests provide evidence for positive association between the size and independence of both, board of directors and audit committee, and the predictive ability of earnings. These results provide support to the resource dependence theory and the agency theory, claiming that large and independent boards and audit committees can enhance the quality of financial reporting.

With reference to the relationship between loan loss provisions and future loan charge-offs, the results show that effective boards and audit committees, that are large and more independent, can positively influence the financial reporting quality in banks, by enhancing the reliability of loan loss provisions. These findings are consistent with the predictions made under Hypotheses $\boldsymbol{H_1}$ and $\boldsymbol{H_2}$ in the second empirical study (Chapter 5).

Moreover, the findings of the second empirical study show that the role of boards of directors and audit committees in enhancing the information value of earnings is more obvious under strict and stronger institutional environments (i.e. Islamic banks).

The analysis was further extended to examine the role of additional governance mechanisms in Islamic banks (i.e. Shari'ah supervisory board) in enhancing the quality of financial reporting. The results provide evidence that large Shari'ah supervisory boards, with financially qualified and highly reputed Shari'ah scholars, play a significant role in constraining opportunistic earnings management practices in Islamic banks. These results provide evidence supporting Hypotheses $\boldsymbol{H_{3a}}$, $\boldsymbol{H_{3b}}$ and $\boldsymbol{H_{3c}}$ in Chapter 4. However, when the information value of earnings is considered, the results demonstrate a lack of evidence on the role of Shari'ah supervisory boards in enhancing the earnings persistence, cash flow predictability, and the reliability of loan loss provisions. This lack of evidence may be due to the limited direct role played by the Shari'ah supervisory board in monitoring the Islamic banks' financial reporting process. In addition, the complexity of the Islamic banking activities and the sophistication of the financial reporting issues may impede the monitoring of the Shari'ah supervisory board over the financial reporting process.

To summarise the main findings on the role of internal governance mechanisms in constraining opportunistic management practices, this thesis provides twofold evidence. First, within Islamic banks, banks with Shari'ah boards that are large in size and employ financially qualified Shari'ah scholars are less likely to engage in opportunistic earnings management practices, relative to banks with small and less financially qualified Shari'ah boards. Second,

within conventional banks, banks with larger and more independent boards of directors and audit committees exhibit less opportunistic earnings management behaviour.

6.3 Implications, Limitations and Suggestions for Future Research

The investigation in this thesis responds to prior calls for comprehensive understanding of the relevance of bank type and internal governance mechanisms to financial reporting quality (He and Yang, 2014). The thesis provides valuable insights for regulators seeking to enhance the quality of financial reporting in banks.

The empirical findings provide important implications for regulators, investors, external auditors, and other stakeholders engaging with both banking sectors (i.e. conventional and Islamic banks). Bank regulators and external auditors should consider the joint effect of different layers of internal governance mechanisms on mitigating managerial opportunism and improving the financial reporting quality. Such knowledge enables regulatory bodies to develop strict regulations to enhance the effectiveness of corporate governance systems in banks. The findings also enable market regulators to identify weakness in financial reporting systems and in corporate governance structures, and therefore allow them to improve such weaknesses.

The findings of this thesis also enable investors and other market participants to improve their decision-making process in relation to investment decisions. High-quality financial reports allow stockholders and potential investors to accurately evaluate the financial performance and position of banks, and hence facilitate efficient and effective resource allocation. This is achieved through avoiding inaccurate decisions made using inaccurate information.

Finally, the findings raise a call to Islamic banks' regulators to promote effective Shari'ah governance by employing qualified and highly-reputable Shari'ah scholars to raise the public confidence in the Islamic banking industry. This can also be achieved by establishing professional institutions specialised in providing training and development courses to Shari'ah scholars.

The empirical results provide evidence that several characteristics of corporate governance are associated with enhanced financial reporting quality in banks. However, there are some research limitations within this thesis, and hence, there are several ways to extend it. First, the empirical research in this thesis has focused on the role of only three internal governance mechanisms (board of directors, audit committee, and Shari'ah supervisory board), thus, future research may consider the role of risk committees' effectiveness in financial reporting

quality in conventional and Islamic banks. Second, future research may investigate the impact of other corporate governance characteristics that were not tested in this thesis, such as the characteristics of chief executive officers and other boards sub-committees. Third, as this thesis assesses the quality of financial reporting from an opportunistic earnings management and from an informational perspective, future research may consider other aspects of earnings quality, such as financial restatements, conservatism, and audit opinion. Fourth, the thesis compares Islamic banks with conventional banks in terms of the quality of their financial reporting, hence, future research may investigate financial stability within Islamic banks and compare it with conventional banks. Finally, the selection of the sample in this thesis is based on predetermined criterial. The final sample considers only Muslim countries. Future research may extend the examination by comparing Islamic banks with conventional banks in non-Muslim countries, such as United Kingdom.

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Appendices

Appendix 1: Copies of Shari'ah Reports Issued by Shari'ah Supervisory Boards

A) Al Salam Bank – Bahrain B.S.C

FATWA AND SHARI'A SUPERVISORY BOARD REPORT TO THE SHAREHOLDERS

In the name of Allah, the Beneficent and the Merciful

Praise be to Allah; Prayers and peace be upon the most noble Messenger, our Prophet Muhammad and his Companions

The Report of Shari'a Supervisory Board of Al Salam Bank-Bahrain B.S.C, ("the Board") submitted to the General Assembly on the Bank's activities during the financial year ending 31 December 2018:

First: Memorandum & Articles of Association
We confirm that the Memorandum & Articles of Association of the Bank are in conformity with the rules and principles of Shari'a.

Second: Activities of the Bank and Board's Guidance
The Board supervised the activities and transactions of the Bank during the reporting year and instructed and guided various departments to comply with the rules and principles of Shari'a and fatwas of the Board while undertaking such activities and transactions. A number of meetings were held with the senior staff of the Bank for this purpose.

Third: Contracts & Transactions
The Board studied the structures of the transactions that were presented to it during the year, approved their contracts and documentation, and responded to the questions and inquiries that were raised in respect thereof and issued appropriate decisions and fatwas. These fatwas and decisions have been circulated to the concerned departments of the Bank for execution and implementation. Similarly, the Board, reviewed drafts of the contracts and agreements that were presented to it with respect to Sukuk (investment certificates) and syndicated financing transactions; commented upon them and approved them when its comments were complied with.

Fourth: Access to Records
The Board was provided with the required records of the Bank and obtained the information and data that it requested to enable it to perform the Sharia audit requirements.

Fifth: Shari'a Audit
The Sharia audit reports were submitted to the Board, and the Board issued its comments and observations on the reports and directed the Bank's Management to rectify what is required to be rectified.

Sixth: Training
The Board recommends that the Bank's Management should conduct regular training programmes for the Bank's employees in order to raise the level of their performance and minimize Shari'a-related violations.

Seventh: Balance Sheet

The Board has reviewed the balance sheet, profit and loss accounts, accounting policies for the preparation of the financial statement and the basis of distributing profit to the shareholders and depositors and issued its observations in this regard; and the Bank's Management has promised to comply with Board's observations.

The Board is of the opinion that the balance sheet, to the extent presented to it by the Bank's Management, the information supplied to it and the Management's undertaking to implement the observations thereon, represents the Bank's assets and income. The accuracy of information and data is, however, the responsibility of the Bank's Management.

Eighth: Zakah

Since the Articles of Association do not oblige the Bank to pay zakah on the Shareholder's equity, the Board has calculated the zakah, as disclosed in the balance sheet, which is payable by the Shareholders and instructed the Bank to notify them accordingly.

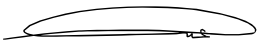
Ninth: Charity Fund

With regard to the transactions that have not yet been converted to Shari'a compliant transactions, as a result of court proceedings or for any other reasons, including the assets and liabilities of Al Salam Bank, Seychelles which have been disclosed in the balance sheet, the Board has instructed the Bank's Management to channel any resulting interests to the Bank's Charity Fund.

Decision of the Board

The Board would like to emphasize that compliance to the rules and principles of the Shari'a in respect of all the businesses and transactions of the Bank is the responsibility of the Bank's Management. The Board would like to confirm that the transactions executed by the Bank during the year, to the extent of the information and data made available to it by the Bank's Management, the observations of the Board and the response of the Bank's Management for compliance with observations, do not conflict, in general, with the rules and principles of Shari'a.

Fatwa & Shari'a Supervisory Board



Shaikh Adnan Abdulla AlQattan

Chairman

Dr. Mohamed Abdulhakim Zoeir

Vice Chairman

Dr. Fareed Yaqoob Almeftah

Board Member

Dr. Azzeddine Ben Zaghiba

Board Member

Dr. Muhammad Qaseem Mohammad

Board Member

The Annual Report of Fatwa and Shari'a Supervisory Board 2018

To the respected KFH shareholders,

Assalamu alaykum warahmatu Allah wabarakatuh,

Praise be to Allah the Almighty and Peace and Blessings be upon our Prophet Muhammad (PBUH), his family and his companions.

We have reviewed and endorsed the policies, products, services and the activities that KFH had carried out in 2018. We have also conducted the necessary review to provide our opinion on KFH compliance with Shari'a rules and principles through the fatwas, resolutions and recommendations that we have issued.

To achieve this compliance assurance, the Fatwa and Shari'a Supervisory Board held 46 meetings during the year 2018, in which it had reviewed and endorsed samples of the contracts and agreements after obtaining the necessary information to issue its opinion. The Shari'a Research and Advisory Department conducted its review on contracts, agreements and polices and procedures as per Fatwa & Shari'a Supervisory Board's resolutions in addition to the Group Internal Shari'a Audit conducted audit exersises on randomly selected samples of all operations and transactions of KFH with the shareholders, investors and others in accordance with the Annual Shari'a Audit plan for all the Bank's departments and its subsidiaries. The Shari'a Board has also received the periodic reports that the Group Internal Shari'a Audit Department has prepared on the Shari'a audit process and operations, site visits and the compliance status of the process and implementation of the fatwa and resolutions issued by KFH Fatwa and Shari'a Supervisory Board.

We have also obtained all necessary information and clarifications to give us sufficient evidence to provide reasonable confirmation that KFH and its subsidiaries had complied with Shari'a rules and principles in all its operations that have been presented to the Fatwa and Shari'a Supervisory Board.

Through the process and steps that we followed to ascertain the compliance of KFH to the Shari'a rules, we confirm the following:

First: The contracts and transactions which KFH had entered into during the financial year ending on 31 December 2018 as presented to us had complied with the Shari'a rules, principles and resolutions and recommendations of KFH Fatwa and Shari'a Supervisory Board.

Second: The profit distribution and loss bearing on the investment accounts are in compliance with the terms of our approval in accordance with the rules and principles of Shari'a.

Third: All income that has been received from non-Shari'a compliant sources or by means prohibited by Shari'a have been cleansed and channeled to charitable purposes.

Fourth: The Zakat calculation has been made in accordance with the Company Zakat Manual issued by Kuwait Zakat House, and in accordance with the resolutions and recommendations of KFH Fatwa and Shari'a Supervisory Board.

Peace be upon our Prophet Muhammad, his family members and companions and praise be to Allah, the Lord of the Universe.

Sheikh/Dr. Sayyid Mohammad Sayyid Abdul Razaq Al-Tabtabae
Chairman

Sheikh/Dr. Anwar Shuaib Al-Abdulsalam
Shari'a Board Member

Sheikh/Dr. Mubarak Jazza Al-Harbi
Shari'a Board Member

Sheikh/Dr. Esam Abdulrahim Ghareeb
Shari'a Board Member

Sheikh/Dr. Khaled Shujaa' Al-Otaibi
Shari'a Board Member

Appendix 2: Performance Comparison of both Islamic Banks and Conventional Banks During the Financial Crisis

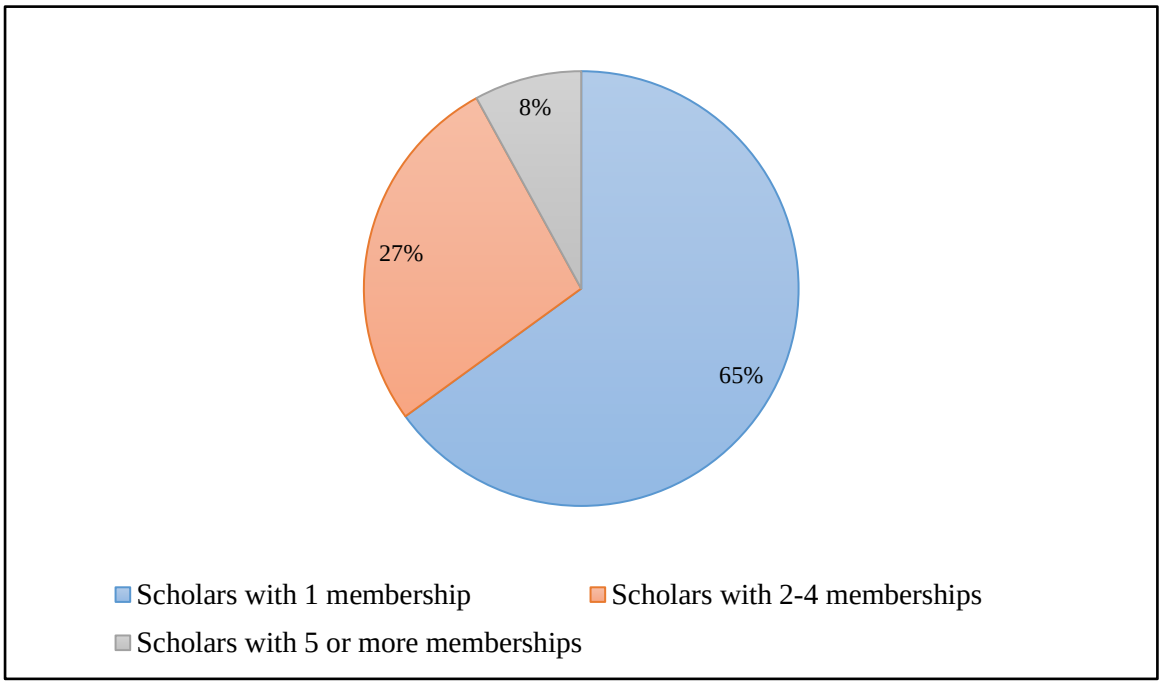
Bank Type		Financial crisis	Post crisis
LR- IBs	Obs.	52	182
	Mean	0.0756**	0.157***
	Mean Rank	43.26**	160.32***
	Sum of Ranks	2250	29179.5
LR– CBs	Obs.	52	182
	Mean	0.2716	0.2874
	Mean Rank	61.73	204.67
	Sum of Ranks	3210	37250.5
CR- IBs	Obs.	52	182
	Mean	-0.2451	0.0783
	Mean Rank	49.08	174.13
	Sum of Ranks	2552	31691
CR- CBs	Obs.	52	182
	Mean	0.0597	0.273
	Mean Rank	55.92	190.87
	Sum of Ranks	2908	34739

The table above presents the results of a study conducted by Hassan et al. (2019), using a comprehensive dataset of 52 Islamic banks and conventional banks for the period of 2007-2015. The table shows that the mean value of liquidity risk (LR) for Islamic banks is 0.0756, which is lower than the conventional banks during the financial crisis period and the period of post financial crisis. These results support the argument that Islamic banks are better in managing their liquidity risk. With regard to credit risk, the results provide evidence for better credit risk management in Islamic banks having the value of CR -0.2451 and 0.0783 in financial crisis and post financial crisis period respectively, which is better relative to conventional banks.

Source: Hassan et al. (2019)

Appendix 3: Statistics about Shari'ah Supervisory Boards Characteristics in Islamic Banks

A) Shari'ah Supervisory Boards' Multiple Memberships



According to the Islamic Finance Development Report (2016), there were 1068 Shari'ah scholars around the world, serving Shari'ah supervisory boards across 46 countries. 65% of the scholars hold 1 membership, 27% hold 2-4 memberships, and 8% hold 5 or more memberships.

Source: Thomson Reuters, Islamic Finance Development Report (2016)

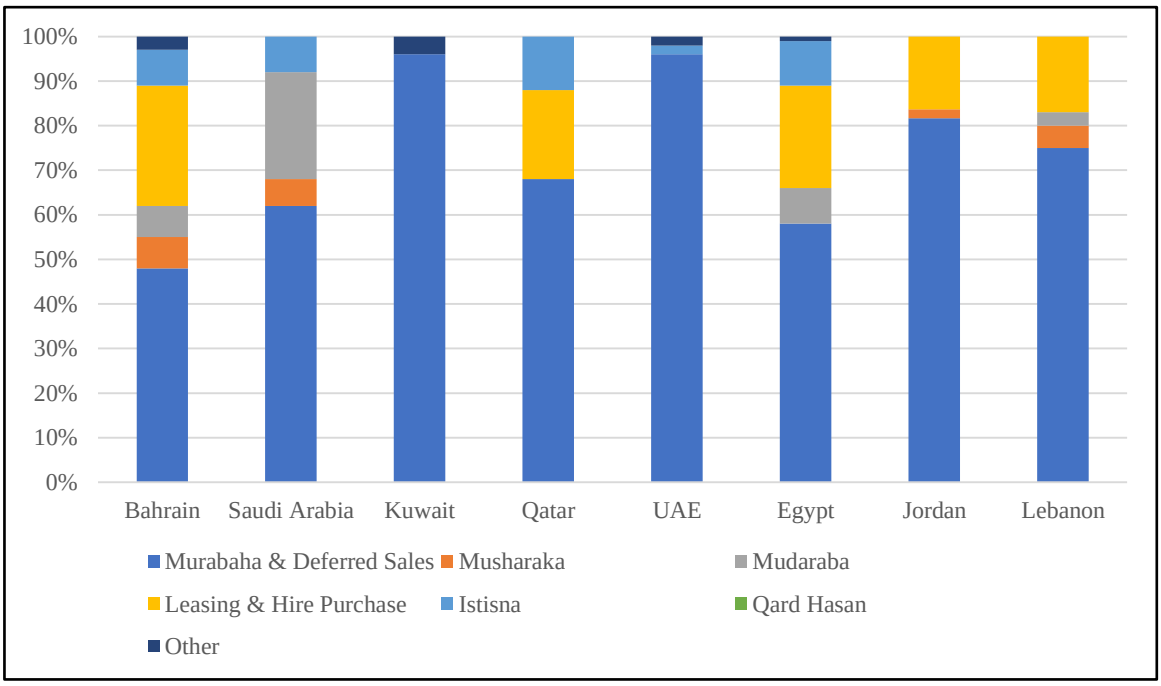
B) List of Top 20 Shari'ah Scholars by Number of Memberships held and their Qualifications

Shari'ah Scholar	Qualification	Number of Memberships Held
Nizam Mohammed Yacoubi	Ph.D. (University of Wales)	85
Abdul Satar Abdul Karim Abu Ghuddah	Ph.D. (Al-Azhar University)	85
Mohammed Ali Elgari	Ph.D. (University of Berkeley)	71
Abdul Aziz Khalifa Al-Qassar	Ph.D. (Al-Azhar University)	42
Ali Mohuddin Al'Qurra Daghi	Ph.D. (Al-Azhar University)	30
Yusuf Bin Abdullah Al-Shubaili	Ph.D. (Imam Mohammad Bin Saud Islamic University)	29
Mohammed Daud Bakar	Ph.D. (University of St. Andrews)	27
Esam Khalaf Al-Enzi	Ph.D. (University of Jordan)	25
Issa Zaki Issa Chakra	Ph.D. (Islamic University of Madinah Al-Munawwarah)	23
Esam Mohammed Ishaq	Bachelor's Degree (McGill University)	22
Mohammed Imran Ashraf Usmani	Ph.D. (University of Karachi)	20
Khaled Mathkour Al-Mathkour	Ph.D. (Al-Azhar University)	18
Abdullah Bin Mohammed Al-Mutlaq	Ph.D. (Imam Mohammad Bin Saud Islamic University)	17
Mohammed Abdul Rahim Sultan Al Olamaa	Ph.D. (Umm Al Qura University)	16
Mohammed Taqi Usmani	LL.B. (Karachi University)	16
Mohammed Abdul Razaq Al-Tabtabaei	Ph.D. (Imam Mohammad Bin Saud Islamic University)	13
Mohammed Abdulhakim Zoeir	Ph.D. (Al-Azhar University)	13
Ajeel Jasem Al-Nashmi	Ph.D. (Al-Azhar University)	11
Ali Ibrahim Al-Rashid	Ph.D. (Cairo University)	11
Mohammed Amin Ali Qattan	Ph.D. (University of Birmingham)	10

Source: Abd Razak (2018)

Appendix 4: Statistics about Distribution of Financing Modes and Lending Portfolio in Islamic Banks

A) Composition of Financing Modes in Islamic Banking Sectors



This chart shows the composition (in percentage) of various modes of financing across different countries for the year 2011.

Source: Islamic Development Bank – Islamic Research and Training Institute (2011)

B) Islamic Banks Lending Distribution by Sector (%Total Facilities) – Bahrain

	2017	2018
Manufacturing	13.0	12.1
Mining and quarrying	0.8	0.9
Agriculture, fishing and forestry	0.7	0.7
Construction	4.8	3.7
Financial	15.3	16.0
Trade	8.6	7.9
Personal/ Consumer finance	22.3	19.8
Credit card	0.8	0.8
Commercial real estate financing	11.4	12.1
Residential mortgage	7.8	10.4
Government	5.7	8.0
Technology and telecommunications	0.9	0.9
Transport	0.8	0.6
Other sectors	7.1	5.9

Source: Financial Stability Report – Central Bank of Bahrain (2018)