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The Impact of Board of Directors and Islamic Shariah on Company Internal Control: Evidence from Jordan

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ABSTRACT

The purpose of this paper is to examine the impact of corporate governance and compliance with Shariah on internal controls over financial reporting. It also examines the moderating role of Shariah compliance on the relationship between corporate governance structures and internal reporting controls. Ordinary least square (OLS) models are applied to 94 listed Jordanian companies on Amman Stock Exchange over the period 2015-2021. The empirical evidence shows board size, board meetings, Shariah compliance, and auditor type have a negative impact on material weaknesses in internal controls (MWIC). Second, unitary leadership, where the same individual is both the chair and CEO, is positively correlated to MWIC. Third, Shariah compliance strengthens the effect of board meetings, suggesting that Shariah compliance and good corporate governance mechanisms reinforce each other to ensure higher-quality internal financial reporting controls.

Keywords: Internal Controls, Corporate Governance, Board of Directors, Islamic Shariah
JEL Classifications: G32, G34, G38

1. INTRODUCTION

Recently, the world has witnessed the failure of too many companies in recent times. The scandals of WorldCom, Arthur Andersen, and Tyco International, plus the recent financial crisis of 2007-2008 are leading examples of where the corporate governance and internal control systems of large organisations failed to deliver what they promised, both at the corporate and at the country level (Wu and Patel, 2014). Every financial crisis raises some fundamental issues and questions related to corporate governance: Where were the directors of the failed financial institutions? Where were the regulators? Why don't corporate governance regulations prevent this situation? Why did their internal control and risk management systems fail? How can oversight mechanisms be improved to reduce the information gap between owners and management (Tricker, 2015, p. 18)?

In response to these concerns, corporate governance reforms have emerged in various forms around the world intending to reach better internal control practices. For example, in the UK, the Committee on the Financial Aspects of Corporate Governance published a report, now commonly referred to as the Cadbury Report (1992), that provides advice on how to form and structure boards, the vital role of an audit committee, the importance of separating the roles of chair and CEO, and so on (Cadbury, 1992). Similarly, the Organisation for Economic Co-operation and Development (OECD) has released Principles of Corporate Governance (in 1999 and 2004) which clearly define the rights and obligations of management and shareholders. The OECD describes these as "guidelines to international best practice", encouraging companies worldwide to adopt these ideals in their laws and codes. In 2002, the US Congress passed the Sarbanes-Oxley Act (SOX) to help restore public and investor confidence in capital markets after the repercussions of the grave financial violations that led to the collapse of some companies, including Enron and WorldCom (Rice and Weber, 2012). SOX also recommends companies activate the responsibilities of the board

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of directors and the audit committees regarding internal controls (Abdullatif, 2006).

The rationale behind the gaolable race towards better corporate governance practice is due to its role in reducing the information asymmetry and thus enhancing the internal control practice (Nalukenge et al., 2018). Management often has self-interested incentives that may not necessarily serve the best interests of shareholders (Goh, 2009). Also, a manager's position in a company creates information asymmetry in that a manager may be able to use internal information to achieve results that are favourable to their interests over the interest of the company's shareholders (Agyei-Mensah, 2016; Sun, 2016; Walker, 2013). For example, a manager may choose reporting methods and estimates that do not accurately reflect the company to hide manipulations consistent with their self-interest (Miller et al., 2023), for example, compensation, incentives, or disclosure policies (Adu et al., 2022).

Thus, companies need active corporate governance structures to limit information asymmetry and protect shareholders' interests (Nalukenge et al., 2018). An effective board of directors can identify a company's principal risks, implements an appropriate system to manage those risks, and should then frequently review the adequacy and integrity of those internal controls at mitigating the risks they identified (Ahmad et al., 2015, p. 602). These control measures taken by the board can mitigate information asymmetry and restrict management's ability to manipulate company resources, ensuring effective internal controls (D'Mello et al., 2017).

Like other countries, Jordan has also sought to codify improved corporate governance. At the end of 2008, during the last GFC, Jordan implemented a string of corporate governance reforms for non-financial companies in line with the OECD's principles (Al-Zwyalif, 2015). The resulting Corporate Governance Code of 2009 (CGC 2009) defines the characteristics of boards of directors and their supervisory duties for Jordanian companies. However, it is still unknown how likely corporate governance can affect internal control in Jordan; therefore, the primary goal of this study was first to examine the impact of corporate governance on internal financial reporting control. Numerous related studies have been conducted in the US market (Chen et al., 2016; Hoitash et al., 2009; Mitra and Hossain, 2011; Owusu-Ansah and Ganguli, 2010), while very few have been conducted on emerging markets (Chang et al., 2019; Moumen et al., 2016).

In addition, given that Jordan is an Islamic country, where many of the country's regulations are derived from the teachings of Islam (Shariah), a question can be raised on how these unique techniques are likely to affect internal control among companies. In its spirit, Shariah calls for good spiritual ethical teachings which can influence the behaviour of individuals in ways that might make them more loyal to shareholders or could steer them away from cheating and opportunistic practices (Ibrahim, 2006). Thus, it is likely that Shariah compliance will provide an additional layer of control over company operations (Farooq and AbdelBari 2015), which may mitigate the effects of poor compliance with corporate governance. This has been confirmed by several studies where Shariah is found to act as a form of management control (Farooq and AbdelBari, 2015; Ibrahim, 2006). Yet, and to the best of the researcher's knowledge, research on the interactions between corporate governance and Shariah and how one might moderate the other is scant. This study intends to fill in this gap as it concerns management controls over financial reporting.

This study contributes to the growing literature on corporate governance and internal control reporting in a variety of ways. Several studies have examined the relationship between corporate governance and MWICs (Chen et al., 2016; Hoitash et al., 2009; Mitra and Hossain, 2011; Owusu-Ansah and Ganguli, 2010). We contribute to this flow of literature by documenting the results of such relationships in Jordan. In addition to the novelty of examining Shariah compliance's role in financial reporting and internal controls, this study incorporates the variable of multiple directorships, i.e., (one person acting as a director for more than one company), which has not been examined in this context before.

The rest of the article is organized as follows. The second section theorizes the relationships between corporate governance variables, Shariah compliance and internal report control, as well as the moderating role of Shariah compliance in this relationship. It is followed up in section three with a description of the data collection procedures and research design. The empirical results are reported and discussed in section four. Section five presents the conclusions and suggestions for future research.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Board Size

Board size may play an important role in addressing agency problems, and enhancing a company's internal controls (Nalukenge et al., 2018). CGC 2009 states that one of the board's responsibilities is to prevent knowledgeable people in a company, such as management, from exploiting internal information for their ends – that is, to reduce the problem of information asymmetry. Large boards have greater oversight capabilities because they encompass a wider range of skills and knowledge (Owusu-Ansah and Ganguli, 2010). Thus, a large board is likely to be more able to reduce information asymmetries, ensuring better internal controls. According to Khlif and Samaha (2019), the board of directors acts on behalf of shareholders and is an effective tool for improving internal control quality.

Studies have shown that the board size is positively associated with the quality of the firm's internal controls. For example, Chang et al. (2019) investigated the relationship between board size and the effectiveness of internal controls over operations and compliance using 3,340 year-observations of Chinese companies between 2005 to 2007. The authors found a significant relationship between board size and the disclosure of internal control weaknesses. They indicate that, as board size increases, information asymmetries become easier to track. Similarly, Saggar and Singh (2017) find a positive relationship between board size and risk disclosure in 100 non-financial Indian listed companies. Moumen et al. (2016)

also chart a significant relationship between board size and risk disclosure in nine Middle Eastern and North African emerging markets over the period from 2007 to 2009.

Several researchers document that a large board correlates to improved remediation of weak internal controls. For example, when Johnstone et al. (2011) examined the association between changes in corporate governance and the revelation and remediation of MWICs in 733 US companies, they found a positive correlation between board size and MWIC remediation. Additionally, Mitra et al. (2012) find that companies with strong corporate governance, especially a large board, are quicker to address MWICs. They argue that large boards might not only be more effective in addressing internal control problems but also in enhancing the quality of internal controls more generally. Following on from this research, Khlif and Samaha (2019) examined the impact of board structures (including board independence and board size) on internal control quality, basing their findings on the opinion of an external auditor. They report a significant positive association between board size and the quality of internal controls. All these findings suggest that large boards of directors with diverse experiences can track information asymmetry and address internal control issues quickly and effectively, ultimately enhancing internal control quality. In line with these findings, it is expected that the larger a company's board, the greater its ability to prevent MWICs.

H1: Board size is likely to negatively affect a company's internal reporting controls.

2.2. CEO Duality

CEO duality may impact a board's ability to effectively supervise management's actions and internal controls (Michelon et al., 2015). CEO duality signals the absence of separation between decision-making managers and overseers of that decision-making (Michelon et al., 2015). As a result, CEO duality may run the risk of limiting the board's independence. In addition, the board may be directed in line with the CEO's interests, rather than the shareholders' (Saggar and Singh, 2017). For example, CEO duality may see the board endorsing management decisions without checking their credibility, which contributes to further information asymmetry (Owusu-Ansah and Ganguli, 2010) and increase management opportunities for exploiting information (Le et al., 2022; Sanjaya, 2011).

Fama and Jensen (1983) further argue that a board that is separate from the CEO is considered independent and that such an arrangement increases the board's ability to perform its oversight role effectively. Likewise, Cadbury (1992, p. 20) states:

Chairmen are primarily responsible for the working of the board, for its balance of membership subject to board and shareholders' approval, for ensuring that all relevant issues are on the agenda, and for ensuring that all directors, executive and non-executive alike, are enabled and encouraged to play their full part in its activities. Chairmen should be able to stand sufficiently back from the day-to-day running of the business to ensure that their boards are in full control of the company's affairs and alert to their obligations to their shareholders.

Several researchers contend that CEO duality leads to more internal control problems: the two are positively correlated (Johnstone et al., 2011; Mitra and Hossain, 2011). Chen et al. (2016) report that CEO duality makes it harder to remediate internal control weaknesses. Alves (2023) also finds that companies with CEO duality have a greater chance of financial fraud. These studies suggest that CEO duality hinders the actions of the board of directors. Accordingly, the following hypothesis will be tested:

H2: CEO duality is likely to negatively affects a company's internal reporting controls.

2.3. Multiple Directorships

The term "multiple directorships" refers to directors who hold board seats in more than one company (Baccouche et al., 2014). Effective board members pay attention to company activities so they can closely supervise management performance and internal control (Fich and Shivdasani, 2006). Board members who hold multiple directorships may face time constraints, limiting their ability to effectively monitor the individual companies they serve (Owusu-Ansah and Ganguli, 2010). Plus, a board member's service in multiple directorships may distract them from the affairs of other organisations, diminishing their supervisory capacity (Amayreh, 2021). Consequently, companies with "busy" directors may see less effective internal controls and poorer report quality in turn (Fich and Shivdasani, 2006). Latif et al. (2020, p. 623) observed that when outside directors sit on multiple boards, CEOs can extract excess compensation due to poor supervisory processes. Other studies argue that boards with multiple directorship-holding members are less likely to evaluate company performance well (Alhaddad et al., 2022).

Board members with multiple directorships are arguably less committed to their overseer responsibilities for each company. They are more likely to miss board meetings because of other obligations, which could affect the quality of internal controls (Jiraporn et al., 2008). Further, they are less likely to discuss company matters, such as internal control issues, with other board members (Ferris and Liao, 2019). This, in turn, means that they are less familiar with emerging internal control issues (Bravo and Reguera-Alvarado, 2018), which may lead to more MWICs. All these considerations lead to the following hypothesis:

H3: Multiple directorships are likely to negatively affect a company's internal reporting controls.

2.4. Board Meeting

Board meeting frequency is an important proxy for measuring how effectively a board oversees a company (Owusu-Ansah and Ganguli, 2010). Theoretically, from a monitoring and control perspective, frequent board activity reflects the board's effectiveness in performing its duties (Owusu-Ansah and Ganguli, 2010). Boards that meet frequently are likely to spend more time assessing a company's internal controls and identifying issues that need further attention than boards that meet less frequently (Saggar and Singh, 2017). Agustia et al. (2022) note that frequent board meetings facilitate greater information sharing among company directors and allow for better workload distribution. Thus, an active board may enhance the quality of internal controls related to financial reporting.

Jensen (1993) argues that directors who spend limited time at board meetings may struggle to define the company's strategy and thoroughly understand its operations, which may undermine their ability to monitor and control company operations. Saggar and Singh (2017), in turn, assert that companies can improve internal control mechanisms by increasing board activity (such as the frequency of board meetings), while Lipton and Lorsch (1992) go so far as to assert that time spent by directors in board meetings can be considered a resource provided to the company.

In the US market, Mitra and Hossain (2011) indicate a significant positive relationship between board meetings, disclosure and remediating MWICs. Michelon et al. (2015), and Sun et al. (2012) follow Mitra and Hossain, finding a positive relationship between board meetings and internal control disclosure in the European and Chinese markets, respectively. This would suggest that boards that meet frequently have greater scope to disclose and address MWICs than boards that rarely meet.

The literature is similarly divided in other contexts. Zhang et al. (2007) investigated the relationship between board composition and the disclosure of MWICs in US companies. Their results show that the greater a company's board activity, the greater the board's ability to diagnose weak internal controls. In other words, frequent board meetings improve internal control quality. Likewise, Al-Smadi (2019) finds, in the Jordanian context, that the relationship between board meetings and risk-taking is significantly negative. Thus, the hypothesis to be tested is:

H4: Frequent board meetings are likely to positively affect a company's internal reporting controls.

2.5. Shariah Compliance and Internal Control

Shariah is the teachings that guide and regulate all aspects of a Muslim's life, including all economic and investment aspects (Yildirim et al., 2018). Recently, many Muslims have been asking stock markets whether they comply with Shariah (Adam and Abu Bakar, 2014). And, to increase participation by Muslim investors, several stock exchanges and financial institutions have responded by establishing various Shariah indices.

All indices seek to identify any elements of their operation that violate the rules of Islamic law as outlined in the Quran and Sunnah (Yildirim et al., 2018). For example, Shariah prohibits elements that are common to traditional financial activities, such as borrowing, credit, and usury (interest) (Yildirim et al., 2018). However, these controls are too constraining for most modern companies, so Islamic scholars and leaders, including some Jordanians[1], have agreed on an acceptable set of dealings companies can participate in while remaining Shariah-compliant (Khatkhatay and Nisar, 2007). Specifically, companies are considered to follow Shariah if the amount they borrow or lend does not exceed 25% of their total assets and if the interest rate on any borrowed or lent amount does not exceed 5% (Exchange, 2019). Shariah restricts usury and excessive borrowing because it encourages extravagance, which may come at the expense of others or concentrate wealth within certain groups (Lawal, 2016). Additionally, Shariah discourages lending and borrowing because high returns from these activities may tempt companies to move away from more honest work and stop contributing to areas such as trade and industry (Ayubi 2003). Additionally, Farooq and AbdelBari (2015) argue that excessive lending and borrowing reduce a company's financial leverage, receivables, and cash, which affects its overall performance.

Previous studies stated that Shariah provisions (characteristics) reduce a company's risk and earnings management (Guo et al., 2019). Companies that adhere to Shariah principles presumably have fewer funds and liabilities and, as a result, management is less likely – or able – to engage in fraudulent activity or aggressive accounting. Richardson et al. (2002) and Bansal (2023) argue that debt covenant pressures are the main driver of aggressive accounting policies because companies install these policies primarily to demonstrate their willingness to pay: companies with few debt obligations have much less reason to manipulate their earnings or follow aggressive policies. Ferris and Liao (2019), likewise, report that companies closest to debt breaches resort to twisted accounting options (such as a report of discretionary accruals) to amplify profits and avoid defaulting.

Guo et al. (2019) also suggest that debt covenant violations are an important determinant of internal control issues regarding financial reporting. They document that the positive correlation between violations and internal control weaknesses is clearer for companies that fail to address violations by the end of the fiscal year. Moreover, the authors show that the relationship between debt covenant violations and ineffective internal controls intensifies with the severity of internal control problems, suggesting that debt covenant violations may be a risk factor for internal control breakdown. Accordingly, companies with low leverage may have better internal controls and reporting quality than those with higher leverage.

Firms with low accounts receivables, in line with Shariah principles, also provide fewer opportunities for management to act opportunistically or restrict discretionary reporting behaviour. Managers use accounts receivable to report positive earnings surprises (Caylor, 2010), so the manager of a company with low accounts receivables has much less flexibility to manipulate accounting statements (Farooq and AbdelBari, 2015; Lu et al., 2010). Multiple studies demonstrate that companies with lower receivables report fewer earnings management (Lu et al., 2010). Caylor (2010, p. 82) notes that companies with high accounts receivables are more likely to seek to use discretion around both accrued revenue (i.e., accounts receivable) and deferred revenue (i.e., advances from customers) to avoid negative earnings surprises.

Low cash is also a key deterrent to opportunistic management behaviour. In companies with low cash, managers have less room to act opportunistically for personal gains, such as through involvement in unprofitable projects to enable misuse of funds

1 A Shariah advisory committee was formed from a group of specialists in Islamic sciences and Islamic finance to draft Shariah and accounting standards to classify companies listed on the ASE according to their compliance with Islamic Shariah. where the committee drafted the accounting standards after reviewing the decisions the International Islamic Fiqh Academy, the Accounting and Auditing Organization for Islamic Financial Institutions (ASE, 2019), https://www.exchange.jo/en/news/Classifying-listed-Companies-According-Islamic-Sharia.

(Farooq and AbdelBari, 2015). Nekhili et al. (2016) show that earnings management is higher among companies with a cash surplus. Similarly, Jamadar et al. (2022) reported that cash flows are significantly related to discretionary accounting accruals, involving a high agency cost to shareholders.

In addition to shariah elements (characteristics), Shariah advocates good ethical conduct and inhibits opportunistic behaviour. Its principles stop individuals from misbehaving for personal gain and help them avoid being held to account by shareholders (Amayreh, 2021). Indeed, the managers of Shariah-compliant companies more reliably achieve stakeholder interests (Ibrahim, 2006). In turn, a Shariah-compliant company may have better internal controls and higher financial reporting quality because it has less agency conflict.

Several studies suggest that Shariah-compliant companies experience lower earnings management. For example, in the Indonesian market, Antonio et al. (2019) investigated the relationship between corporate governance and earnings quality by analysing 138 compliant and non-compliant Shariah companies, finding that Shariah-compliant companies have a higher earnings quality overall than non-Shariah-compliant companies. Similarly, in the Oman market, Elghuweel et al. (2017) find that companies with a greater commitment to integrating Islamic beliefs and values into their operations tend to engage less with earnings management. Additionally, using a sample of banks an international sample of banks' during 2007-2009, Kanagaretnam, Lobo, and Wang (2015) find that banks in highly religious countries are less likely to report asset degradation and poor performance because they have lower earnings management. The authors argue that religion is a major source of ethical behaviour and thus may reduce excessive risk in companies. The hypothesis put forward is, therefore:

H5: Shariah compliance is likely to positively affects a company's internal reporting controls.

2.6. The Moderating Role of Shariah Compliance

As previously explained, both good corporate governance mechanisms and Shariah compliance can improve internal reporting controls. But it is also important to empirically understand how Shariah interacts with corporate governance mechanisms. Shariah approval may weaken or strengthen the relationships between corporate governance structures and internal reporting controls. It may also function as a substitute or a supporter of good corporate governance mechanisms[2].

The weakening effect comes from Shariah as an additional oversight over company operations (Obid and Naysary, 2016; Yusuf et al., 2016). If this is the case, Shariah compliance may function as a substitute for corporate governance mechanisms. For example, if Shariah's teachings make management more loyal to shareholders, the oversight provided by a large board may become less important. Following the same reasoning, Shariah compliance may also weaken all other corporate governance mechanisms.

Conversely, Shariah compliance may strengthen the impact of corporate governance on internal controls related to financial reporting. Shariah requires Muslims to work efficiently and effectively (Fikri et al., 2017). And, to achieve effectiveness, workers must comply with applicable laws and regulations, such as corporate governance guidelines (Fikri et al., 2017). Consequently, where Shariah principles interact with corporate governance structures, the quality of internal reporting controls should improve.

Based on the above discussions, the hypotheses to be tested are:

H6: Shariah compliance moderates the effects of board size on a company's internal reporting controls.

H7: Shariah compliance moderates the effects of CEO duality on internal controls related to financial reporting.

H8: Shariah compliance moderates the effects of multiple directorships on a company's internal reporting controls.

H9: Shariah compliance moderates the effects of frequent board meetings on a company's internal reporting controls.

3. DATA AND VARIABLES

Our dependent variable is the disclosure of material weakness (MW) in internal control over financial reporting. We obtain the MWIC data for this study from external auditor reports and annual financial reports. CGC 2009 states that the external auditor must evaluate a company's financial reports and disclose any reservations arising from their audits in their auditor's report. Further, the board of directors must include a statement about their internal controls in each annual report beginning with the annual reports filed. We extract board information from annual reports. The annual reports involve information about the board of directors such as name, age, job position, and the number of jobs they occupy. We restrict our sample period to 2015–2021. Our final sample consists of 94 non-financial companies listed on the ASE with 496 firm-year observations[3]. Table 1 gives a summary of the study sample.

2 Islamic Shariah has discussed governing a business for approximately 1,400 years and defined a set of principles that relates to it– particularly to business ethics, decision-making, disclosure and transparency, and bookkeeping and final accounts (Saad, Abdul Aziz, & Sawandi, 2014). "Allah says, 'And do not conceal any evidence for whoever hides it, surely his heart is sinful' (Quran 2:283); 'O ye who believe! When ye deal with each other, in transactions involving future obligations in a fixed period of time, reduce them to writing Let a scribe write down faithfully as between the parties: let not the scribe refuse to write: as God Has taught him, so let him write. Let him who incurs the liability dictate, but let him fear His Lord God, and not diminish aught of what he owes' (Quran 2:282). To some extent, this mirrors Western corporate governance, which also promotes transparent and fair doing business. But the Islamic perspective adds a spiritual slant: Muslim businesses are accountable to God.

3 Companies operating in the financial industry such as banking, insurance, are excluded from the sample due to the nature of their businesses. Different Codes of Governance cover their activities, financial industry companies are governed by regulations issued by the Central Bank and the Insurance Commission, and they naturally differ from the regulations issued by Jordan Securities Commission. Additionally, most previous studies have examined either financial or non-financial businesses, not both (Agustia et al., 2022; S. Alves, 2023; Ananzeh, Bugshan, & Amayreh, 2022). Furthermore, the compliance with corporate governance requirements by non-financial companies has been reported as weak (Zureigat, Fadzil, & Ismail, 2014). Thus, an examination of the governance and reporting in non-financial companies can contribute more to Jordanian society.

We measure the disclosure of MWICs using a constructed index for MWICs to respond to the research objective[4]. The disclosure index measures the degree or level of disclosure items in the selected sample companies (Al Mutawaa and Hewaidy, 2010). For the purpose of this study, an unweighted disclosure index was used, assuming that each item disclosed is equally important (Alves et al., 2012). Despite that, this study uses a measurement, namely dichotomous, of zero and one to score the level of MWICs in the Jordanian annual reports. The dichotomous disclosure index calculates the ratio of items disclosed and the number of items applicable to each company. It can be stated as:

$$DS_j = \frac{T = \sum_{i-1}^{n} d_i}{M = \sum_{i-1}^{n} d_i}$$

Where DS_j is the total compliance score for company j where DS_j can be any value from zero (0) to one (1) inclusive. T is the total number of items disclosed by the company j. M is the maximum number of possible items that company *j should disclose.*

In terms of the independent variables. Board size is measured as the natural log of the number of directors on the board. It is included as prior literature e.g., (Kalbuana et al., 2022) shows that the size of the board is related to the effectiveness of board monitoring. The CEO/chair duality effect is measured by a dummy coded one if a company's CEO is the same as the chair of its board, zero otherwise. Multiple directorships are measured by the proportion of directors on a board with directorships in other companies. Board meetings are measured by the number of meetings per fiscal year.

In a further analysis, we include Shariah compliance as a moderator variable. Companies were classified as either Shariah- or non-Shariah-compliant, according to the instructions proposed by the ASE dated March 05, 2019 (Exchange, 2019). In short, a company is Shariah-compliant, and this variable was set to 1, if: (i) the business avoids the prohibited types of business e.g, (alcohol and tobacco); (ii) the percentage amount of monies borrowed or deposited is <25% of the company's book value; and (iii) the percentage of the benefit that comes from borrowed or deposited monies is <5% of the company's total revenue. Companies failing to meet all three requirements are not Shariah-compliant, and the variable was set to 0.

This analysis of the study is also limited by the use of a group of control variables. The selection of control variables follows Singer et al. (2022), Hoitash et al. (2009), Goh (2009), and Owusu-Ansah and Ganguli (2010). Specifically, we control for the company's resource constraints in building an effective internal control system using two variables. First, company size is measured by the natural log of the market value of equity. Second, leverage is measured by the company's total debt divided by its total assets. We also include two variables to control for the internal audit quality and complexity. Auditor type is an indicator variable equal to 1 if the audit firm is one of BIG4, and 0 otherwise. We further include company age, defined as the natural log of the number of years since the company was first established, since Chen et al. (2016) suggest that older firms tend to have better internal control systems. Detailed variable definitions are available in Appendix A.

4 The index contained 31 MWICs were identified from external auditor reports and annual financial reports (please see Appendix c for more details).

4. EMPIRICAL RESULTS

4.1. Descriptive Analysis

Table 2 presents the summary statistics of the variables used in our analysis. The table shows that 3.7% of the observations in our sample report MWICs. The average board has 8.084 directors, and CEO duality is 18.3% over our sample period. in addition, the experimental companies have 49.8% of directors holding multiple directorships in other companies, and their board met 7.717 a year. Of the total sample, 67.5% of firms are involved in Shariah compliance in the seven years. The sample companies have an average size of 17.167, and an average age of 24.178. On average, 39.9% of the companies are dited by a Big 4 firm. Finally, the sample companies have an average leverage rate of 32.23%.

4.2. Correlation Matrix

The correlations are reported in Table 3. Recall that a coefficient of less than 0.800 indicates no multicollinearity (Ananzeh et al., 2022). The highest correlation coefficient in Table 3 is 0.455 between board size and company size. Therefore, all independent and control variables are appropriate for inclusion in the regression analysis.

The first column shows that the indicator variable representing the MWICs is negatively correlated with board size, Board meetings, Company size, Company age, and auditor type, while positively with Company size, and Leverage. Further, the indicator variable is the negatively correlated proportion of Shariah compliance ($P < 0.05$), suggesting that more compliance with Shariah independence is associated with a lower probability of MWICs.

4.3. Multivariate Analysis

Table 4 presents the results of the regression analysis, a multiple regression model, which tests the relationships between four

Table 1: Stepwise sample selection

Total number of listed companies on ASE	193
less finance and insurance companies	(99)
Number of non-financial companies	94
Number of initial observations for 7 years (2015-2021)	658
less observations with missing data	(162)
Total Observations	496

Table 2: Descriptive Statistics

Variable	Observations	Mean	Median	SD
MWICs	657	0.370	0.366	0.162
Board size	657	8.084	8	2.297
CEO duality	655	0.183	0	0.387
Multiple directorships	657	0.498	0.556	0.28
Board meetings	540	7.717	6	3.144
Shariah−compliance	658	0.675	1	0.469
Company size	657	17.167	17.117	1.42
Company age	657	24.178	20	16.258
Auditor type	657	0.399	0	0.49
Leverage	657	0.323	0.289	0.217

Table 3: Correlation Matrix

Variable	−1	−2	−3	−4	−5	−6	−7	−8	−9	−10	−11
(1) MWICs	1										
(2) Board size	−0.218***	1									
	0										
(3) CEO duality	0.239***	−0.028	1								
	0	−0.477									
(4) Multiple directorships	−0.048	0.278***	−0.152***	1							
	−0.218	0	0								
(5) Board meetings	−0.104**	−0.008	−0.071*	−0.137***	1						
	−0.016	−0.848	−0.099	−0.001							
(6) Shariah compliance	−0.096**	−0.200***	−0.04	−0.117***	0.066	1					
	−0.014	(−0.000)	−0.303	−0.003	−0.124						
(7) Company size	−0.202***	0.455***	−0.135***	0.198***	0.198***	−0.157***	1				
	0	0	−0.001	0	0	0					
(8) Company age	−0.180***	0.242***	−0.047	0.108***	0.078*	−0.083**	0.300***	1			
	0	0	−0.229	−0.006	−0.072	−0.034	0				
(9) Auditor type	−0.256***	0.277***	−0.185***	0.082**	0.091**	−0.197***	0.390***	0.429***	1		
	0	0	0	−0.036	−0.036	0	0	0			
(11) Leverage	0.071*	−0.009	−0.109***	0.073*	0.162***	−0.235***	0.276***	0.089**	0.078**	−0.014	1
	−0.067	−0.82	−0.005	−0.062	0	0	0	−0.022	−0.046	−0.728	

*,**,***Indicate significant effects with probability levels one-tailed for directional expectations at the<0.10, < 0.05, and<0.01 levels, respectively. This table presents the correlation matrix of the variables used in the analysis. Numbers in parentheses are the significance level of the correlation coefficient. Variable definitions are presented in Appendix A

Table 4: Regression analysis of corporate governance, shariah complaince, and MWICs

$$MWICit = \alpha + \beta_1 Board\ size + \beta_2 CEO\ duality + \beta_3 Multipledicrectorships + \beta_4 Board\ meetings + \beta_5 Shariah - complianceit + \beta_6 Xit + \beta_7 Industry + \beta_8\ Year \quad (1)$$

Variable	Dependent Variable:		
	MWICs (1)	*MWICs (2)*	*MWICs (3)*
	Coefficient (T-stat)	Coefficient (T-stat)	Coefficient (T-stat)
Board size	−0.022***	−0.023***	−0.025***
	(−7.68)	(−8.13)	(−7.81)
CEO duality	0.074***	0.074***	0.066***
	(4.00)	(4.08)	(3.36)
Multiple directorships	0.030	0.024	0.016
	(1.16)	(0.98)	(0.64)
Board meetings	−0.005**	−0.005**	−0.005**
	(−2.42)	(−2.17)	(−2.12)
Shariah compliance		−0.086***	−0.146***
		(−2.70)	(−4.56)
Company size			0.111
			(1.22)
Company age			0.002
			(0.27)
Auditor type			−0.385*
			(−1.98)
Leverage			0.022***
			(3.94)
Constant	0.665***	0.748***	0.803***
	(3.73)	(4.05)	(4.58)
Year dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes
Number of observations	539	539	539
R-squared	0.402	0.410	0.450

*,**,*** Indicate significant effects with probability levels one-tailed for directional expectations at the<0.10, < 0.05, and<0.01 levels, respectively. This table presents results of multiple regression analysis on the relation between corporate governance, shariah compliance and material weakness in internal control. Regressions are run using one-way cluster standard errors (Boto-García, 2022), at the firm level which are robust to both heteroscedasticity and within-firm serial correlation. Each of the continuous variables is winsorized at 1% and 99% to reduce the potential impact of outliers on the model. The model includes fixed year effects and fixed industry effects with 17 industry dummies that have not been reported for the sake of brevity. Variable definitions are specified in Appendix A

governance characteristics, Shariah compliance and MWICs. The model's R-square statistic of 0.435 is statistically significant ($P < 0.01$), indicating that the coefficients of the variables in the model are significantly different from zero. In Column 1, MWICs are only regressed on the corporate governance mechanisms. In Column 2, MWICs are regressed on the corporate governance mechanisms while conjunctionally mediating the Shariah compliance variable. Finally, Column 3 represents the full model including the control variables.

From Table 4, our results indicate that the coefficients for corporate governance structures are statistically significant in most models. Column 1 shows that board size is negatively and significantly related to MWICs ($P < 0.01$), suggesting that a larger board size leads to a lower probability of MWICs. These results confirm prior findings on board size and build on prior research that does not isolate the effects of supervisory capacity provided by the large board in the MW context (Johnstone et al., 2011; Mitra et al., 2012).

Also consistent with expectations, column A shows that the coefficient on CEO duality is positive and statistically significant, suggesting that duality in the position of CEO and chairman of the board links to a higher possibility of MWICs. As in this study, Chen et al. (2016), Mitra and Hossain (2011) and Moumen et al. (2016), find a significant negative relationship between CEO duality and MWIC remediation and disclosure. One possible explanation for this finding is that the duality of positions allows the CEO to run the company's business in a manner commensurate with their aspirations and interests. They also have access to and can manipulate internal information, which can lead to information asymmetry and problems with internal controls in turn (Goh, 2009).

Though the effect of multiple directorships on MWICs is consistent with expectations (positive), it is not statistically significant at any conventional level. This result is not consistent with the agency

Table 5: Models to test Shariah compliance as a moderator

Variable	Hypotheses	Model
Board size	H6	$\alpha + \beta_1$Board size + β_2CEO duality + β_3Multiple dicrectorships + β_4Board meetings + β_5Shariah – complianceit + β_6Board size * Shariah−complianceit + $\beta_7 X_{it}$ + β_8Industry+B_9 Year + ε_{it} (2)
CEO duality	H7	$\alpha + \beta_1$Board size + β_2CEO duality + β_3Multiple dicrectorships + β_4Board meetings + β_5Shariah – complianceit + β_6CEO duality * Shariah−compliance$_{it}$ + β_7Xit + β_8Industry+B_9 Year + ε_{it} (3)
Multiple directorships	H8	$\alpha + \beta_1$Board size + β_2CEO duality + β_3Multiple dicrectorships + β_4Board meetings + β_5Shariah – complianceit + β_6*Multiple directorships* * Shariah−compliance$_{it}$ + β_7Xit + β_8Industry+B_9 Year + ε_{it} (4)
Board meetings	H9	$\alpha + \beta_1$Board size + β_2CEO duality + β_3Multiple dicrectorships + β_4Board meetings + β_5Shariah – complianceit + β_6B*oard meetings* * Shariah−compliance$_{it}$ + β_7Xit + β_8Industry+B_9 Year + ε_{it} (5)

theory view that board members should have sufficient time to carry out their responsibilities (Goh, 2009). However, Jordan has a relatively lower incidence of multiple directorships compared to other countries[5] at 49% (Table 2). At only half the average board, there may not be enough members holding multiple directorships to noticeably impact supervision over management's action – good oversight might still be maintained, which might explain this finding.

Table 4 shows that Board meeting frequency is significantly and negatively associated with MWICs ($P < 0.05$), suggesting that active boards are less likely to be associated with MWICs. A possible explanation for this result is that the continuous evaluation of management actions afforded by frequent board meetings reduces the level of information asymmetry, which translates to fewer internal control problems. This finding is consistent with the results of Mitra and Hossain (2011), and Sun et al. (2012), who have both documented a significant positive relationship between board meetings and MWIC remediation.

Our analysis in Table 4, revealed that Shariah compliance has a significant negative impact on MWICs ($P < 0.10$). This result suggests that compliance with Shariah requirements lowers the probability of MWICs. This is consistent with the view of many researchers who describe Shariah as an additional control that supports corporate governance (Farooq and AbdelBari, 2015; Yildirim et al., 2018). As such, Shariah-compliant companies have additional controls over their operations that may not be available to non-compliant companies, which improves their performance, the quality of their operations, and their internal controls.

As Table 4 reports, the coefficient estimates for one of the four control variables are statistically significant. Auditor type is significantly negative ($P < 0.10$), corroborating Albring et al. (2018). Thus, any of the companies audited by PWC, KPMG, DT, or EY are better in terms of MWIC than those companies in the sample audited by the now-defunct AA, which serves as the base category. This may be due to the extensive experience the Big 4 have with auditing, which enables them to provide better oversight than other firms (Ge and McVay, 2005). Consequently, appointing one of the Big 4 should give companies a greater ability to track management activities and internal control issues, and thus take measures to address any weaknesses in them. Nor was any significant association found between company size, company age or leverage with MWIC.

5 The rate of multiple directorships in the US is 56% (Goh, 2009), while Malaysia's average is 63% (Goh, 2009).

4.4. The Moderating Role of Shariah

As the next step in our analysis, we examine the moderating effect of shariah compliance on the relationship between corporate governance and MWICs. The test of the moderating role of Shariah compliance on the corporate governance structures/MWICs relationship is conducted by introducing an interaction term between each of the corporate governance structures and Shariah compliance in the regression in Models 2 to 5 in Table 5. These interaction terms are the variables of interest in this regression analysis.

Table 6 presents the results of the new regression. The results showed that Shariah compliance has a significant moderating effect on the relationship between one aspect of corporate governance and internal reporting controls: board meetings. Shariah compliance has a significant and negative moderating effect on the relationship between board meetings and MWICs ($P < 0.01$). Therefore, Shariah compliance strengthens the effect of board meetings on internal control over financial reporting.

Concerning the interaction of board size, CEO duality, and multiple directorships with Shariah compliance, the regression results in Table 6 show they are not associated with MWIC, which is inconsistent with Hypotheses 6, 7, and 8. It suggests that Shariah compliance does not affect the relationship between board size, CEO duality, and multiple directorships with internal control over financial reporting.

From these results, the clear conclusion is that, in Jordan, Shariah compliance does not weaken Western corporate governance mechanisms, on the contrary, it complements Western governance mechanisms as it appears with board meetings.

4.5. Robustness Checks

We perform the following additional tests to verify that our results in Tables 4 and 6 are robust:

1. Board size: As an alternative to a simple count of members, board size was instead categorised as either large or small. Jensen (1993) argues that the ideal board size is eight. Therefore, this alternative dummy was set to 1 for a board size of eight or more, and 0 otherwise.
2. The measure of multiple directorships as the proportion of board members with more than one directorship was replaced with a dummy variable of 1 if the ratio of members on the board with multiple directorships was >50% and 0 otherwise, following Rubin and Segal (2019).
3. Company size was measured as the natural logarithms of total assets (Hoitash et al., 2009). This indicator was substituted

for one that simply classifies each company as large (1) or small (0) concerning the median. This method was used by Badolato et al. (2014).

In all these cases, our results are robust to these alternative specifications, adding credence to our findings. The regression results for the robustness checks are presented in Table 7.

Table 6: Regression results for the interaction terms

Variable	Sing	Interaction terms models			Board meetings
		Board size	CEO duality	Multiple d'ships	
		Coefficient (T-value)	Coefficient (T-value)	Coefficient (T-value)	Coefficient (T-value)
Board size*Shariah	-	−0.006 (−0.67)			
CEO duality*Shariah	+		0.063 (1.26)		
Multiple directorships*Shariah	-			−0.009 (−0.10)	
Board meetings*Shariah	-				−0.039*** (−4.11)
Board size	-	−0.015* (−1.84)	−0.025*** (−7.71)	−0.026*** (−7.38)	−0.027*** (−8.45)
CEO duality	+	0.063*** (3.18)	0.027* (1.92)	0.070*** (3.56)	0.065*** (3.38)
Multiple directorships	−	0.015 (0.58)	0.018 (0.71)	−0.013 (−0.16)	0.035 (1.41)
Board meetings	-	−0.005** (−2.03)	−0.005** (−2.16)	−0.005** (−2.29)	−0.044*** (−5.60)
Shariah compliance	-	−0.067* (−1.79)	−0.091*** (−3.06)	−0.083* (−1.85)	−0.382*** (−5.05)
Company size	?	0.025*** (3.09)	0.009 (1.22)	0.007 (0.88)	0.017** (2.18)
Company age	+	0.000 (0.24)	0.000 (−1.19)	0.000 (−0.49)	0.000−0.05)
Auditor type	-	−0.064*** (−4.50)	−0.070*** (−4.89)	−0.073*** (−5.05)	−0.092*** (−5.87)
Leverage	?	0.020*** (4.32)	0.008 (1.62)	0.013*** (2.87)	0.014** (2.09)
Constant	+	0.706*** (8.24)	0.543*** (14.90)	0.568*** (9.89)	0.8.57*** (11.63)
Year dummies		Yes	Yes	Yes	Yes
Industry dummies		Yes	Yes	Yes	Yes
Number of observations		539	539	539	539
R-squared		0.457***	0.452***	0.454***	0.476***
(P-value)		22.630***	21.539***	22.484***	14.336***

*,**,***Indicate significant effects with probability levels one-tailed for directional expectations at the <0.10, < 0.05, and <0.01 levels, respectively. This table displays the results for the interaction terms: Hypotheses 6-9a and b using the multiple regression model. Regressions are run using one-way cluster standard errors (Boto-García, 2022), at the firm level which is robust to both heteroscedasticity and within-firm serial correlation. Each of the continuous variables is winsorized at 1% and 99% to reduce the potential impact of outliers on the model. The model includes fixed year effects and fixed industry effects with 17 industry dummies that have not been reported for the sake of brevity. Variable definitions are specified in Appendix A

Table 7: Robustness Checks

Variable	Sing	Main Models	Dependent Variable			
			Board size	CEO duality	Multiple d'ships	Board meetings
			Coefficient (T-stat)	Coefficient (T-stat)	Coefficient (T-stat)	Coefficient (T-stat)
Board size (dummy)	-	−0.085*** (−6.43)	−0.002* (−1.72)	−0.078*** |(−6.04)	−0.078*** (−6.06)	−0.083*** (−6.38)
CEO duality	+	0.083*** (4.40)	0.063*** (3.34)	0.008*** (5.34)	0.077*** (3.96)	0.076*** (4.10)
Multiple directorships (dummy)	-	0.009 (0.65)	0.009 (0.65)	0.012 (084)	0.017 (0.83)	0.016 (1.14)
Board meetings	-	−0.004* (−1.68)	−0.005** (−2.02)	−0.005** (−2.13)	−0.005** (−2.11)	−0.041*** (−5.28)
Shariah-compliance	-	−0.148*** (−4.49)	0.092* (1.66)	−0.147*** (−4.50)	−0.130*** (−3.33)	−0.424*** (−6.20)
Board size X Shariah-compliance	-		−0.023 (−1.65)			
CEO duality X Shariah-compliance	+			0.061 (1.21)		
Multiple directorships X Shariah-compliance	+				0.019 (0.48)	
Board meetings X Shariah-compliance	-					−0.039*** (−4.43)
Company size	?	0.039*** (2.99)	0.054*** (3.99)	0.035*** (2.88)	0.027 (2.19)	0.033** (2.41)
Company age	+	0.000 (0.50)	0.000 (0.48)	0.000 (−1.11)	0.000 (−0.37)	0.000 (−0.03)
Auditor type	-	−0.065*** (−4.68)	−0.069*** (−5.05)	−0.074*** (−5.24)	−0.077*** (−5.39)	−0.093*** (−5.66)
Leverage	?	0.009** (2.01)	0.019*** (4.35)	0.009 (1.65)	0.014*** (2.95)	0.013** (2.44)
Constant	+	0.520*** (15.20)	0.553*** (13.05)	0.532*** (14.85)	0.569*** (9.94)	0.841*** (12.62)
Year dummies		Yeas	Yeas	Yeas	Yeas	Yeas
Industry dummies		Yes	Yes	Yes	Yes	Yes
Number of observations		539	539	539	539	539
R-squared		0.434***	0.457***	0.428***	0.426***	0.447***
(P-value)		21.567***	22.744***	20.467***	20.898***	21.208***

*,**,***Indicate significant effects with probability levels one-tailed for directional expectations at the<0.10, < 0.05, and<0.01 levels, respectively. This table presents results of multiple regression analysis on the relation between corporate governance, shariah compliance and material weakness in internal control. Regressions are run using one-way cluster standard errors (Boto-García, 2022), at the firm level which is robust to both heteroscedasticity and within-firm serial correlation. Each of the continuous variables is winsorized at 1% and 99% to reduce the potential impact of outliers on the model. The model includes fixed year effects and fixed industry effects with 17 industry dummies that have not been reported for the sake of brevity. Variable definitions are specified in Appendix A

5. CONCLUSIONS

In this study, we examine the association of corporate governance and Shariah compliance with material weakness in internal control (MWIC) over financial reporting, as a measure of the quality of corporate systems that produce financial reports. More specifically, it examines what impacts the corporate governance structures of board size, CEO duality, multiple directorships, and board meetings have on this metric of a company's governance in the Jordanian market. As a further variable, Shariah-compliance is also explored for its moderating effect in the above relationships. We investigate these issues using multiple regression models for which the dependent variable is the disclosure of MWIC, with independent variables including board characteristics, Shariah compliance, and controls.

Using a comprehensive sample of Jordanian listed companies spanning the period 2015-2021, we establish several key findings. There are negative, significant relationships between internal reporting controls and board size, board meetings, Shariah compliance, and auditor type. Positive significant relationships are also found to exist between internal reporting controls and CEO duality. However, no significant relationships are documented between internal reporting controls and multiple directorships, company size, company age, and leverage. In addition, Shariah compliance strengthens the effect of board meetings, suggesting that Shariah compliance and good corporate governance mechanisms reinforce each other to ensure higher quality internal reporting controls.

This study contributes to the existing internal reporting controls by providing empirical evidence on the role of governance characteristics in enhancing the internal reporting control systems of Jordanian companies. In particular, this study shows for the first time that while not all board characteristics are relevant in discloser of material weakness of the internal control system, board size, and CEO duality are, and as such, these board characteristics should not be ignored in any future research.

The present study contributes to this debate by empirically investigating the effect of shariah compliance on internal reporting control and the moderating effect of Shariah compliance. In addition to the positive impact of Shariah on internal control, Shariah has further strengthened the effect of some of these corporate governance practices – specifically, board meetings. Although not every governance characteristic tested moderate internal reporting controls, there was, importantly, no evidence to show that Shariah compliance weakens the effect of any variable examined. Consequently, the conclusion from these analyses is that Shariah is supportive of, and compatible with, Western corporate governance practices.

Like all research, this study is subject to limitations that are important to define. The first limitation is using unbalanced panel data, partially as a result of the fact that some of the companies in the sample do not have an audit committee. The small sample size meant a decision needed to be made between balancing the panel data with an even smaller sample or conserving as many observations as possible and conducting the analyses with an unbalanced panel set. Obviously, the decision made was the latter choice. second, since the results of the study are based on an analysis of non-financial listed companies, their generalizability to other types of companies, notably, financial and insurance companies is limited. Third, several potential governance characteristics such as directors' age, board independence, financial expertise of board members, block shareholders', and equity ownership are not considered in this study because of either lack of data, or the unreliability of the available data.

Despite the limitations mentioned above, the results are interesting enough to have implications for the financial reporting of companies in other developing economies. The important governance characteristics identified in this study can be incorporated into many of the current corporate governance codes and guidelines that are considered in these economies. Findings may also extend to firms in developed economies, where current literature has documented earning management problems as a contributing factor to the lack of transparency in corporate financial reporting (see, for example, Carrera et al. (2017). Consequently, policymakers in these economies may benefit from the results of this study by strengthening their corporate governance laws and guidelines in a way that internal control over financial reporting can be strengthened to provide more transparent accounting information.

Moreover, the analyses provide evidence that Shariah is supportive of and largely compatible with, Western corporate governance practices. No evidence was found that following Shariah weakens the impact of any of the aspects of corporate governance that were examined. It would, therefore, be beneficial for policymakers and regulators to take the importance of Shariah into account when considering measures to improve corporate governance practices.

REFERENCES

Abdullatif, M. (2006), The effectiveness of audit committees in Jordanian public shareholding companies and potential company characteristics affecting it: Perceptions from auditors in Jordan. Dirasat: Administrative Sciences, 33(2), 450-467.

Adam, N.L., Abu Bakar, N. (2014), Shariah screening process in Malaysia. Procedia - Social and Behavioral Sciences, 121, 113-123.

Adu, D.A., Flynn, A., Grey, C. (2022), Executive compensation and sustainable business practices: The moderating role of sustainability-based compensation. Business Strategy and the Environment, 31(3), 698-736.

Agustia, D., Harymawan, I., Nowland, J. (2022), Joint board-management meetings and firm performance. Australasian Accounting, Business and Finance Journal, 16(1), 119-133.

Agyei-Mensah, B.K. (2016), Internal control information disclosure and corporate governance: Evidence from an emerging market. Corporate Governance, 16(1), 79-95.

Ahmad, R.A.R., Abdullah, N., Jamel, N.E.S.M., Omar, N. (2015), Board characteristics and risk management and internal control disclosure level: Evidence from Malaysia. Procedia Economics and Finance, 31, 601-610.

Al Mutawaa, A., Hewaidy, A.M. (2010), Disclosure level and compliance with IFRSs: An empirical investigation of Kuwaiti companies. International Business and Economics Research Journal (IBER), 9(5), 33-50.

Albring, S.M., Elder, R.J., Xu, X. (2018), Unexpected fees and the prediction of material weaknesses in internal control over financial reporting. Journal of Accounting, Auditing and Finance, 33(4), 485-505.

Alhaddad, L., Gerged, A.M., Saidat, Z., Al-Qudah, A.A., Aziz, T. (2022), Do multiple directorships stimulate or inhibit firm value? Evidence from an emerging economy. International Journal of Accounting and Information Management, 30(4), 546-562.

Al-Smadi, M.O. (2019), Corporate governance and risk taking of Jordanian listed corporations: The impact of board of directors. Investment Management and Financial Innovations, 16(1), 79-88.

Alves, H., Rodrigues, A., Canadas, N. (2012), Factors influencing the different categories of voluntary disclosure in annual reports: An analysis for Iberian Peninsula listed companies. Tekhne, 10(1), 15-26.

Alves, S. (2023), CEO duality, earnings quality and board independence. Journal of Financial Reporting and Accounting, 21(2), 217-231.

Al-Zwyalif, I.M. (2015), The role of internal control in enhancing corporate governance: Evidence from Jordan. International Journal of Business and Management, 10(7), 57-67.

Amayreh, I. (2021), The Impact of Corporate Governance and Islamic Shariah on Internal Controls Over Financial Reporting: Evidence from Jordan. (Ph.D), Western Sydney University, ResearchDirect.

Ananzeh, H., Bugshan, A., Amayreh, I. (2022), Does media exposure moderate the relationship between ownership structure and environmental disclosure quality: Evidence from Jordan. Management of Environmental Quality: An International Journal, https://doi.org/10.1108/MEQ-12-2021-0293.

Antonio, M.S., Laela, S.F., Darmawan, R.R. (2019), Corporate governance, earnings quality and market response: Comparison of Islamic and non-Islamic stock in the Indonesian capital market. Academy of Accounting and Financial Studies Journal, 23(1), 1-22.

Baccouche, S., Hadriche, M., Omri, A. (2014), Multiple directorships and board meeting frequency: Evidence from France. Applied Financial Economics, 24(14), 983-992.

Badolato, P.G., Donelson, D.C., Ege, M. (2014), Audit committee financial expertise and earnings management: The role of status. Journal of Accounting and Economics, 58(2), 208-230.

Bansal, M. (2023), Do credit market incentives drive classification shifting in emerging markets? International Journal of Accounting and Information Management, 31(3), 564-582.

Boto-García, D. (2022), Multiway clustering in tourism research. Current Issues in Tourism, 25(3), 363-378.

Bravo, F., Reguera-Alvarado, N. (2018), Do independent director's characteristics influence financial reporting quality? Spanish Journal of Finance and Accounting/Revista Española de Financiación y Contabilidad, 47(1), 25-43.

Cadbury, A. (1992), Report of the Committee on the Financial Aspects of Corporate Governance. London: Gee Publishing.

Carrera, N., Sohail, T., Carmona, S. (2017), Audit committees' social capital and financial reporting quality. Accounting and Business Research, 47(6), 633-672.

Caylor, M.L. (2010), Strategic revenue recognition to achieve earnings benchmarks. Journal of Accounting and Public Policy, 29(1), 82-95.

Chang, Y.T., Chen, H., Cheng, R.K., Chi, W. (2019), The impact of internal audit attributes on the effectiveness of internal control over operations and compliance. Journal of Contemporary Accounting and Economics, 15(1), 1-19.

Chen, Y., Knechel, W.R., Marisetty, V.B., Truong, C., Veeraraghavan, M. (2016), Board independence and internal control weakness: Evidence from sox 404 disclosures. Auditing: A Journal of Practice and Theory, 36(2), 45-62.

D'Mello, R., Gao, X., Jia, Y. (2017), Internal control and internal capital allocation: Evidence from internal capital markets of multi-segment firms. Review of Accounting Studies, 22(1), 251-287.

Elghuweel, M.I., Ntim, C.G., Opong, K.K., Avison, L. (2017), Corporate governance, Islamic governance and earnings management in Oman: A new empirical insights from a behavioural theoretical framework. Journal of Accounting in Emerging Economies, 7(2), 190-224.

Exchange, A.S. (2019), Classifying the Listed Companies According to Islamic Sharia. Available from: https://www.exchange.jo/en/news/classifying-listed-companies-according-islamic-sharia

Fama, E., Jensen, M. (1983), Agency problems and residual claims. The Journal of Law and Economics, 26(2), 327-349.

Farooq, O., AbdelBari, A. (2015), Earnings management behaviour of Shariah-compliant firms and non-Shariah-compliant firms: Evidence from the MENA region. Journal of Islamic Accounting and Business Research, 6(2), 173-188.

Ferris, S.P., Liao, M.Y.S. (2019), Busy boards and corporate earnings management: An international analysis. Review of Accounting and Finance, 25(9), 1-42.

Fich, E.M., Shivdasani, A. (2006), Are busy boards effective monitors? American Finance Association, 61(2), 689-724.

Fikri, S.M., Yahya, M.H., Hassan, T. (2017), A review on agency cost of shariah governance in mutual fund. International Journal of Economics and Financial Issues, 7(1), 530-538.

Goh, B.W. (2009), Audit committees, boards of directors, and remediation of material weaknesses in internal control. Contemporary Accounting Research, 26(2), 549-579.

Guo, J., Huang, P., Zhang, Y. (2019), Do debt covenant violations serve as a risk factor of ineffective internal control? Review of Quantitative Finance and Accounting, 52(1), 231-251.

Hoitash, U., Hoitash, R., Bedard, J.C. (2009), Corporate governance and internal control over financial reporting: A comparison of regulatory regimes. The Accounting Review, 84(3), 839-867.

Ibrahim, A.A. (2006), Convergence of Corporate Governance and Islamic Financial Services Industry: Toward Islamic Financial Services Securities Market. Georgetown University Law Center. Available from: http://scholarship.law.georgetown.edu/gps_papers/3,3-19

Jamadar, Y., Ong, T.S., Abdullah, A.A., Kamarudin, F. (2022), Earnings and discretionary accruals. Managerial and Decision Economics, 43(2), 431-439.

Jensen, M.C. (1993), The modern industrial revolution, exit, and the failure of internal control systems. The Journal of Finance, 48(3), 831-880.

Jiraporn, P., Kim, Y.S., Davidson, W.N. (2008), Multiple directorships and corporate diversification. Journal of Empirical Finance, 15(3), 418-435.

Johnstone, K., Li, C., Rupley, K.H. (2011), Changes in corporate governance associated with the revelation of internal control material weaknesses and their subsequent remediation. Contemporary Accounting Research, 28(1), 331-383.

Kalbuana, N., Taqi, M., Uzliawati, L., Ramdhani, D. (2022), The effect of profitability, board size, woman on boards, and political connection on financial distress conditions. Cogent Business and Management, 9(1), 1-22.

Kanagaretnam, K., Lobo, G.J., Wang, C. (2015), Religiosity and earnings management: International evidence from the banking industry. Journal of Business Ethics, 132(2), 277-296.

Khatkhatay, M., Nisar, S. (2007), Shariah compliant equity investments: An assessment of current screening norms. Islamic Economic Studies, 15(1), 47-76.

Khlif, H., Samaha, K. (2019), Board independence and internal control quality in Egypt: Does CEO duality matter? International Journal of Law and Management, 61(2), 345-358.

Latif, B., Voordeckers, W., Lambrechts, F., Hendriks, W. (2020), Multiple directorships in emerging countries: Fiduciary duties at stake?

Business Ethics: A European Review, 29(3), 629-645.

Lawal, I.M. (2016), Riba (Usury); A tool that should be carved out of financial transactions. Turkish Journal of Islamic Economics, 3(2), 13-24.

Le, V.P., Nguyen, A.N., Gregoriou, A. (2022), Insider trading, gender diversity within the board room, CEO pay gap, and stock price crash risk. International Journal of Finance and Economics, https://doi.org/10.1002/ijfe.2731, 1-23.

Lipton, M., Lorsch, J.W. (1992), A modest proposal for improved corporate governance. The Business Lawyer, 48, 59-77.

Lu, H., Richardson, G.D., Salterio, S. (2010), Direct and indirect effects of internal control weakness and external audit effort on accruals quality: Evidence from a unique Canadian regulatory setting. Contemporary Accounting Research, 28(2), 1-52.

Michelon, G., Bozzolan, S., Beretta, S. (2015), Board monitoring and internal control system disclosure in different regulatory environments. Journal of Applied Accounting Research, 16(1), 138-164.

Miller, T.C., Peffer, S.A., Stone, D.N. (2023), How contextually dependent, non-monetary preferences influence cost reporting misrepresentations. In: Advances in Management Accounting. United Kingdom: Emerald Publishing Limited. p73-98.

Mitra, S., Hossain, M. (2011), Corporate governance attributes and remediation of internal control material weaknesses reported under SOX Section 404. Review of Accounting and Finance, 10(1), 5-29.

Mitra, S., Hossain, M., Marks, B.R. (2012), Corporate ownership characteristics and timeliness of remediation of internal control weaknesses. Managerial Auditing Journal, 27(9), 846-877.

Moumen, N., Othman, H.B., Hussainey, K. (2016), Board structure and the informativeness of risk disclosure: Evidence from MENA emerging markets. Advances in Accounting, 35(6), 82-97.

Nalukenge, I., Nkundabanyanga, S.K., Ntayi, J.M. (2018), Corporate governance, ethics, internal controls and compliance with IFRS. Journal of Financial Reporting and Accounting, 16(4), 764-786.

Nekhili, M., Amar, I.F.B., Chtioui, T., Lakhal, F. (2016), Free cash flow and earnings management: The moderating role of governance and ownership. Journal of Applied Business Research (JABR), 32(1), 255-268.

Obid, S.N.S., Naysary, B. (2016), Toward a comprehensive theoretical framework for Shariah governance in Islamic financial institutions. Journal of Financial Services Marketing, 19(4), 304-318.

Owusu-Ansah, S., Ganguli, G. (2010), Voluntary reporting on internal control systems and governance characteristics: An analysis of large US companies. Journal of Managerial Issues, 22(3), 383-408.

Rice, S.C., Weber, D.P. (2012), How effective is internal control reporting under SOX 404? Determinants of the (non-) disclosure of existing material weaknesses. Journal of Accounting Research, 50(3), 811-843.

Richardson, S.A., Tuna, A., Wu, M. (2002), Predicting Earnings Management: The Case of Earnings Restatements. SSRN Electronic Journal. Available from: https://ssrn.com/abstract=338681>1-39

Rubin, A., Segal, D. (2019), Directors skill and financial reporting quality. Journal of Business Finance and Accounting, 46(3-4), 457-493.

Saad, R.A.J., Abdul Aziz, N.M., Sawandi, N. (2014), Islamic accountability framework in the zakat funds management. Procedia-Social and Behavioral Sciences, 164, 508-515.

Saggar, R., Singh, B. (2017), Corporate governance and risk reporting: Indian evidence. Managerial Auditing Journal, 32(4/5), 378-405.

Sanjaya, I. (2011), The influence of ultimate ownership on earnings management: evidence from Indonesia. Global Journal of Business Research, 5(5), 61-69.

Singer, Z., Wang, Y., Zhang, J. (2022), Can short sellers detect internal control material weaknesses? Evidence from Section 404 of the Sarbanes-Oxley Act. Journal of Accounting, Auditing and Finance, 37(1), 3-38.

Sun, Y. (2016), Internal control weakness disclosure and firm investment. Journal of Accounting, Auditing and Finance, 31(2), 277-307.

Sun, Y., Yi, Y., Lin, B. (2012), Board independence, internal information environment and voluntary disclosure of auditors' reports on internal controls. China Journal of Accounting Research, 5(2), 145-161.

Tricker, B. (2015), Corporate Governance: Principles, Policies, and Practices. USA: Oxford University Press.

Walker, M. (2013), How far can we trust earnings numbers? What research tells us about earnings management. Accounting and Business Research, 43(4), 445-481.

Wu, H., Patel, C. (2014), Adoption of Anglo-American Models of Corporate Governance and Financial Reporting in China. Vol. 29. UK: Emerald Group Publishing.

Yildirim, R., Masih, M., Bacha, O.I. (2018), Determinants of capital structure: Evidence from Shari'ah compliant and non-compliant firms. Pacific-Basin Finance Journal, 51(1), 198-219.

Yusuf, A., Ahmad, U., Razimi, M. (2016), A conceptual study on Islamic corporate governance model in curtailing bank's fraud. International Journal of Economics, Finance and Management Sciences, 4(6), 357-361.

Zhang, Y., Zhou, J., Zhou, N. (2007), Audit committee quality, auditor independence, and internal control weaknesses. Journal of Accounting and Public Policy, 26(3), 300-327.

Zureigat, B.N., Fadzil, F.H., Ismail, S.S.S. (2014), The role of foreign, family ownership and audit committee in evaluating the company as a going concern: Evidence from Jordan. International Journal of Accounting and Financial Reporting, 4(2), 329-338.

APPENDIXCES

Appendix 1: Definitions of the variables

Name	Variable type	Measure
MWICs	Dependent	31 MWICs were identified, each equal to 1 for the company involved, and 0 otherwise.
Board size	Independent	The number of directors.
CEO duality	Independent	A dummy, equal to 1 if the same individual is both chair and CEO, and 0 otherwise.
Multiple directorships	Independent	The proportion of directors holding directorships with other companies.
Board meetings	Independent	The number of meetings per fiscal year.
Shariah- compliance	Moderator	A dummy, equal to 1 if the company complies with Shariah, and 0 otherwise.
Company size	Control	The natural logarithm of total assets.
Company age	Control	Years since the company was first established.
Auditor type	Control	A dummy, equal to 1 if the firm is one of BIG4, and 0 otherwise.
Leverage	Control	The company's total debt is divided by its total assets.
Industry	Control	A dummy, is equal to 1 if the company falls within an industry, and 0 otherwise.
Year	Control	A dummy variable is equal to 1 if the company falls within that year, and 0 otherwise.

Appendix 2: MWICs Index

The audit committee did not meet with the external auditor.
Lack of experience among senior management members.
The absence of internal controls in the company.
Failure of the board and audit committee to evaluate management's performance or its compliance with regulatory requirements.
Failure to develop and set a disclosure policy by regulatory requirements.
Failure to organise relationships with stakeholders and address shareholder complaints.
The board does not have the expertise needed to assess internal controls.
There is no internal auditor.
The Nominations Committee does not guarantee that independent members fulfil the conditions of independence.
There are no disclosures available on the company's website to increase transparency and reliability.
There are no procedures that prevent insiders from exploiting financial information.
Failure to submit an audit committee report to shareholders.
There is no policy to define the need for competencies or methods for selecting them.
The nominations committee is not able to obtain adequate information.
No courses are held to train members of the board of directors on how to manage risks to enable them to fulfil their responsibilities efficiently and effectively.
No training courses are held on how to deal with and apply the requirements of the revised accounting standards.
There are no policies to manage the risks that the company may face, commensurate with the nature and size of the company's business.
The company failed to fulfil its obligations to the financiers.
Current assets were disclosed as fixed assets to increase the company's capital.
No clarification or confirmation of the correctness of the company's revenue balances in the financial statements.
No clarification of accounts receivable for employees and clients in the company books.
Failure to submit audit results for the investee companies.
Non-reassessment of fixed assets annually.
Failure to prove the annual revaluation of the actual value of investments.
Non-recognition of the full accumulated losses.
Not all loans obtained by the company are recorded in their books.
No provision has been made for tax losses.
Failure to submit the settlements of Provision for impairment of assets/depreciation ratio.
Failure to submit the settlements of Provision for doubtful debts.
Failure to prepare financial reports for investee companies.
Non-recognition of realised profits and recycled profits as a result of price differences.