

FINANCIAL EXPERTISE IN AUDIT COMMITTEES: A GOVERNANCE APPROACH TO LIMITING EARNINGS MANIPULATION

Waheeda Kanval^{*1}, Dr. Zeeshan Ghafoor²^{*1,2}MS Management Sciences (Finance), Riphah International University, Islamabad¹waheedakanval@gmail.com, ²zeeshan.ghafoor@gmail.comDOI: <http://doi.org/10.5281/zenodo.21062599>**Keywords**

Audit Committee, Financial expertise, corporate governance, Earnings management, CEO duality, and the Karachi Stock Exchange

Article History

Received: 24 April 2026

Accepted: 06 June 2026

Published: 21 June 2026

Copyright @Author

Corresponding Author: *

Waheeda Kanval

Abstract

This study explores how audit committee financial expertise and corporate governance mechanisms influence earnings management practices. Earnings management occurs when company management deliberately manipulates financial reporting to present a favorable image of performance, often misleading stakeholders. Using discretionary accruals as the primary measure, the research applies established models such as Jones (1991), Dechow et al. (1995), Kasznik (1999), and Kothari et al. (2005) to assess earnings manipulation among firms listed on the Karachi Stock Exchange. The findings reveal that audit committee independence and financial expertise are negatively associated with earnings management, indicating that qualified and independent committees enhance reporting credibility. Conversely, excessive workload and frequent meetings may reduce effectiveness, suggesting that governance quality depends on both structure and functionality. Corporate governance factors, including board size, independence, and audit quality, also play a significant role in shaping transparency and accountability. Overall, the study demonstrates that strong governance frameworks and financially skilled audit committees act as safeguards against opportunistic earnings manipulation. By reinforcing independence, expertise, and accountability, organizations can improve the reliability of financial reporting and protect stakeholder interests.

INTRODUCTION

(Beneish, 2001), but Healy & Whalen (1999) extensively explained the concept of earnings management: 'When directors use judgment in financial reporting, earnings management plays an important role. They may either want to divert the attention of stakeholders and shareholders from the financial performance of the company, focusing solely on the investment, or they may want to manipulate the financial reports because most of the proposals of the system are related to it.

Earnings management involves intentional manipulation by the management in reporting to deceive investors about the company's economic

and financial position, or with the individual goal of generating income from transactions based on these manipulated financial reports.

A higher level of audit committee independence and the presence of financial expertise on the committee are associated with lower earnings management. However, companies with relatively busy directors on audit committees are more inclined to engage in earnings management. Some audit committee independence and financial expertise can help alleviate earnings management.

Literature review and hypotheses development**Literature on Earning Management**

Discretionary accruals (DAC) serve as the dependent variable in this study. The difference between total net income and cash flows from operations is defined as accruals (Jones, 1991; Chen, Lin, & Zhou, 2007). DAC, representing non-obligatory expenses, and nondiscretionary accruals, which relate to obligatory expenses, constitute two types of accruals. DAC encompasses changes in cash flow determined by the company's board. Non-discretionary accruals denote accounting-based adjustments to a company's cash flow mandated by entities established through accounting standards.

Discretionary accruals are employed in earnings management, a concept supported by previous literature (Subramanian, 1996; Jones, 1991; Shah et al., 2009). To begin, the total accruals model should differentiate between the total and discretionary models. This involves calculating the difference between the net income of the company and the operating cash flow and then multiplying it by the lagged total assets, known as total accruals (Kasznik, 1999; Dechow et al., 1995).

$$TA_{it} = NI_{it} - CFO_{it} \quad (1)$$

Where TA_{it} represents the total accruals of the firm at time t , NI_{it} denotes the net income of the firm, and CFO_{it} represents cash flow from operations. Four well-known models that separately utilize nondiscretionary and discretionary accruals are employed. We use all four models to calculate discretionary accruals for comparison and to assess the robustness of the results, as discussed in Section 1.

Before Jones (1991), it was assumed that nondiscretionary accruals would remain constant over time. Jones introduced a model to explain total accruals, considering the company's changing economic conditions, as outlined below.

$$1 \left[\frac{1}{A_{it-1}} \right] + 2 \left[\frac{REV_{it} - REC_{it}}{A_{it-1}} \right] + 3 \left[\frac{PPE_{it}}{A_{it-1}} \right] + e_{it} \quad (2) = \frac{TA_{it}}{A_{it-1}}$$

Where REV_{it} represents the change in revenue for firm i from time $t-1$, A_{it-1} denotes the lagged total assets, and PPE_{it} denotes the firm's property, plant, and equipment at time t . The model incorporates PPE and REV to control for variations in nondiscretionary accruals influenced

by the company's fluctuating macroeconomic conditions. Using the deviation in revenue as a proxy for shifting economic positions, the fixed assets of the company reflect constant depreciation expenditure affecting their total accruals.

All variables should be measured by the lagged total assets of the company (A_{it-1}), which is employed to control for the effect of heteroscedasticity (Kothari et al., 2005; Jones, 2007; Liu & Lu, 2007). Equation 2 illustrates the cross-sectional regression for each year. The regression residuals for the respective firm are estimated to determine discretionary accruals (DAC).

Despite Jones's (1991) examination, which suggests that when firms report nondiscretionary revenues, it may indicate that the company has not yet achieved the actual profit, there are instances where directors choose to manipulate revenue figures. Dechow et al. (1995) argue that if the board of directors decides to accrue the company's profits at the end of the year, even if the cash has yet to arrive, the returns will show an exaggerated volume in that year, accompanied by a corresponding increase in accounts receivables. The authors apply the Jones (1991) model to explain this managerial choice related to revenue. They subtract the adjustment in accounts receivables (REC) from the change in the revenue of the company (REV). Their model is represented by equation (3).

$$1 \left[\frac{1}{A_{it-1}} \right] + 2 \left[\frac{REV_{it} - REC_{it}}{A_{it-1}} \right] + 3 \left[\frac{PPE_{it}}{A_{it-1}} \right] + e_{it} \quad (3)$$

According to Dechow (1994), cash flow from operations (CFO) is negatively related to total accruals. When the CFO is omitted from the accrual calculation, the estimation error increases. The Kasznik model is depicted in the diagram below.

$$1 \left[\frac{1}{A_{it-1}} \right] + 2 \left[\frac{REV_{it} - REC_{it}}{A_{it-1}} \right] = \frac{TA_{it}}{A_{it-1}} + e_{it} + 3 \left[\frac{PPE_{it}}{A_{it-1}} \right] + 4 \left[\frac{CFO_{it}}{A_{it-1}} \right] \quad (4)$$

Kothari et al. (2005) incorporate lagged return on assets (ROA) into an approach similar to that of Dechow et al. (1995). They argue that without controlling for previous performance, the proxy for earnings management would be prone to measurement inaccuracy, as accruals are associated

with operating results. The model they propose is as follows

$$1 [1/\text{Ait1}] + 2 [\text{REVit RECit}/\text{Ait1}] = \text{TAit}/\text{Ait1} \cdot \text{ei} + 3 [\text{PPEit}/\text{Ait1}] + 3 [\text{ROAit}/\text{Ait1}] \quad 5$$

Literature on the Earning Management and audit committee financial expertise

Our primary objective is to investigate the effectiveness of audit committee financial expertise, corporate governance, and earnings management. In this study, earnings management is estimated using the accruals accounting approach. Accruals reflect the accounting choices and estimates made by directors, limiting the transparency of a company's financial position regarding earnings management (Chen et al., 2005)

To calculate the unexpected models of accruals, the organization must modify the Jones model for operations. This involves aligning operations with the company's earnings through adherence to the proper rules and regulations set by the top management directors (Dechow et al., 1995)

When the top directors of a company employ different procedures in preparing and organizing financial reports for shareholders, it can significantly impact the company's performance, future contracts, and systems. Furthermore, these actions affect the opinions and decisions of the top management (Healy & Whalen, 1999). Earnings management may be influenced by various factors that manipulate the capital business (Beneish, 2001). Jensen and Mackling (1976) demonstrated that corporate governance involves a conflict of interest among contracting parties, leading to agency conflicts between top management and shareholders. These conflicts impact both inside and outside shareholders due to the disagreements between directors and shareholders of the company

When the CEO holds the position of board presenter, it is perceived as a deviation from the corporate governance rules and regulations, resulting in lower board effectiveness. According to corporate governance principles, the control of organizational activities diminishes when the CEO is the presenter. There exists an association between CEO bias and opportunistic company

behavior. However, previous research indicates no clear relationship between CEO bias and opportunistic directorial activities (Bugshan, 2005; Cornett et al., 2006; Davidson et al., 2005). Therefore, having an independent size of audit committee members within the company's management scrutinizes and ensures an increase in the quality and credibility of financial reporting. In the context of board independence, the accuracy of earning management results, also known as non-executive directors, may be compromised. This classification of non-executive directors may limit the deeper assessment of their various responsibilities and performance. There is an insignificant relationship between earning management and the size of independent board members (Meca et al., 2009)

The quality of audits within inspection groups plays a significant role in safeguarding shareholders' interests (Hasan and Ahmed, 2012). The audit committee has been linked to earnings management and board size (Yermack, 1996; Xie et al., 2001). Klein (2002) has examined a significant association between the size of the board, the composition of audit committee members, the financial expertise of audit committee members (Kalbers & Fogarty, 1993), and, last but not least, the independence of directors in matters related to finance (Chtourou et al., 2001)

When the top management of a company aims to conceal financial information from stakeholders and shareholders, they often resort to earning management as the primary tool for this purpose, thereby not accurately disclosing the financial performance to investors (Healy & Whalen, 1999). It is widely acknowledged that the concept of earning management, being by nature unobservable, doesn't fully explain the financial position of enterprises. Opportunistic earning management is deemed unreliable for the company. The practice of earning management tends to reduce the quality of reported financial information, ultimately diminishing the chances of financial expertise.

Abbott et al. (2003) explore the relationship between audit fees and audit committee characteristics. According to their perspective,

audit committee meeting frequency should be positively associated with audit fees. However, their findings reveal a negative association between audit committee fees and meeting frequency. This suggests that a higher proportion of committee meetings could be attributed to significant internal control issues within the organization. In a related study, Zhang et al. (2007) used a dummy variable to quantify internal control weaknesses and find a positive correlation between audit committee meeting frequency and the dummy variable. This indicates that audit committee meeting frequency is negatively related to its effectiveness.

H5: Meeting of the Audit Committee Frequency is negatively related to earning management

Audit committee independence

The degree of external directors relative to the total audit committee members is termed the independence of the audit committee (Beasley, 1996). According to NASDAQ and NYSE strategies, an audit committee is considered independent when it comprises 100 percent independent external members. This requirement stems from the need for the audit committee to be entirely free from directorial influence and guidance. Contrastingly, Dechow et al. (1996) determined that if independent external directors make up more than half of the board, an audit committee can be classified as working independently, even though the majority of independent external directors control it. The effectiveness of an independent audit committee is highlighted by Bedard et al. (2004), who discuss the impact of audit committee independence on a company's financial data. They contend that an independent audit committee diminishes dangerous and destructive earnings management practices, which holds for both profit-inflating and return-diminishing earnings management exercises. These findings suggest that audit committee members are involved in similar aspects of earnings management exercise and do not support asymmetric determinant information. Bedard et al. (2004) report central findings, including:

- Different situations in financial reporting quality used in the literature on audit committee independence explain only half of the differences in results.
- The purpose of independent audit panels is to upgrade audit quality rather than financial report quality
- The purpose of independent audit panels is to upgrade audit quality rather than financial report quality.

H1: There is a negative relationship between board independence and earning management.

Audit committee meetings, financial expertise, and corporate governance

Kalbers (1993) and DeZoort (2002) demonstrated that the numerical count of meetings is a reflection of the effectiveness of the audit committee. Menon (1994), Abbott (2000), DeZoort (2002), Lee & Mande (2005), and Stewart (2007) exchanged views on the importance of the frequency of group meetings and its impact on predictability. According to Kalbers (1993) and Lee (2004), group members must be willing to exert their best efforts during an audit of the company. Xie (2003) and Vafeas (2005) established a link between the promptness with which the audit committee is engaged and the quality of remuneration. The size of the audit committee is represented by the total number of its members, a proxy provided by Anderson et al. (2004), Baxter and Cotter (2009), Bedard et al. (2004), and Xie et al. (2003). The size of the audit committee is calculated as the total number of audit committee members.

DeZoort (2002) and Cummings (1974) compared their findings to previous research and established that the size of a review group, measured as its composition, positively influences the effectiveness of the group. This is because a review board with a moderate number of members is more effective than a small group, yet if the group becomes too large, review group effectiveness may suffer. Development and workload distribution are crucial because a large group may result in inefficiencies, potentially leading to further delays. Based on earlier discussions, it has been found that the appropriate size of the review board

contributes to exceptional financial content monitoring. The effectiveness of company reports is significantly associated with the size of the audit committee. According to Kamolsakulchai (2015), review group skill refers to members with practical experience and a solid understanding of both office and financial content. External reviews and examination experts (e.g., SOX 2002) anticipate better financial reporting quality with experienced adjudicators, who possess a greater understanding of issues and nuanced judgments. In this study, this assertion was considered supported by justifications.

According to Zaman (2002) and Frankel et al. (2002), the acceptance and development of the audit committee are grounded on the standpoint that suggests the inspection group can be influenced and biased by the top agent. This influence can enhance the position of the specialist body and signify a focused review audit committee. In contrast to the financial breakdowns of major corporations, the role and necessity of the corporate governance movement have significantly improved. These enhancements have been pursued for public and governmental benefits to shape the perception of corporate governance. A notable governmental initiative in 2002 was the Sarbanes-Oxley Act by the United States federal government, reinstating public confidence in the controlling group's authority. Among external shareholders, the company's equity proprietors are the most significant internal shareholders. However, stockholders in large associations lack control over the company's policies and procedures, which are set by the board, creating a potential for proxy conflict. Therefore, one of the primary purposes of corporate governance is the mitigation of top-agent conflict. Various procedures, norms, rules, regulations, and establishments can be used to moderate and regulate the principal-agent conflict, all of which impact this process.

Corporate governance is a broad term that encompasses a company's constitution, standard operating procedures, and operational practices by which it is managed. Various stakeholders, including investors, employees, government, corporate associations, guests, end-users, and the

general public, all contribute to the company's success. The fundamental purpose of corporate governance is to balance the interests of all stakeholders within the organization. Corporate governance also provides a comprehensive framework for understanding the organization's objectives, overall performance strategy, and internal control systems. It serves as a structure for assessing the company's performance and commercial concession strategy in both business and non-supervisory environments.

According to Kamolsakulchai (2015), review group skill refers to the member of the review group who possesses practical experience and a deep understanding of the office and financial coverage. External auditors and audit experts (for example, SOX 2002) anticipate better financial reporting excellence from seasoned auditors compared to inexperienced ones. Additionally, they expect a better understanding of risk and the auditor's opinion. In this study, this perspective was considered supported by evidence.

According to Watts & Zimmerman (1986) and Francis (2004), the audit aspect is strongly associated with a higher level of disclosure. The delegation of authority to audit firms is intended to encourage companies to disclose additional information in their annual reports. According to DE Angelo (1981) and Al-Jami (2009), the "Big Four," which is the merger of four major audit firms (Price Waterhouse Coopers, Deloitte, and KPMG - PWC, Deloitte Touche Tohmatsu - DTT, Ernst & Young - EY, and KPMG), may have overshadowed smaller audit firms, with integration serving as a safeguard against earnings manipulation. Studies have indicated that an auditor's perspective is considered an indicator of auditor independence because auditors must be empowered to convey the truth to the audience, as noted by Hoitas (2007) and Stanley & DeZoort (2007). It has been established that the cost of an audit is negatively related to the likelihood of financial statement manipulation, suggesting that a higher audit price results in a more thorough audit. According to Goodwin & Munro (2004), the rate of audit fees is determined by the time spent on the audit and the number of hours dedicated to it. As per the Stock Exchange of

Thailand (2006), the main objective of firms and the protection of stakeholders, as well as shareholders, depend on the company's board of directors. The following variables were used in the research. The efficiency of firm performance is expected to increase when there are more board members, and it also enhances the personalization of board information (Ezat & El-Masry, 2008; Beasley, 2000). However, Jensen (1986) observed that having more board members in a company can lead to agency problems. Shareholders may perceive lower firm efficiency, and the company may be audited by involved participants. Ezat & El-Masry (2008) explained that a high number of independent directors can contribute to monitoring and management.

More extensive boards are observed in better and higher-income-based organizations; therefore, board size is often correlated with firm size. Larger boards, in comparison to smaller ones, have more resources for monitoring and advisory activities. This is attributed to the fact that larger boards often entail more specialized and ad hoc associations, resembling various functional boards. The experience and diversity of independent external directors play a crucial role in overseeing the organization's decisions and fulfilling a more effective advisory role.

According to Klein (2002), larger boards provide resources to various monitoring committees by focusing on specific duties, which simplifies discussions on a variety of business issues and enhances firm value. However, sustaining a larger board is not without cost. The expense of compensating board members and the actual cost of holding board meetings are higher for larger boards. Nevertheless, the decision-making process is slower in firms with more board members compared to those with fewer members. Diverse perspectives, broad negotiations rather than intensive debates, complications in accountability, and risk-averse behavior all contribute to the slower decision-making of larger boards. Based on expert opinions, the tradeoff of board size is influenced by the size of the company (Lipton & Lorsch, 1992), and it is suggested that the optimal size for board members is between 8 and 9, without exceeding 10. According to research by

Jensen (199) and Lipton & Lorsch (1992), medium-sized boards are less effective compared to smaller ones. The main reason is that long or irregular board sizes make it challenging for members to quickly make financial decisions for the company. Another reason why the motivation to oversee the firm decreases as the board size grows is that the cost of an individual director not exercising his or her diligence obligation is proportional to the total number of directors, which is ostensibly very small. Therefore, a larger board size allows the board of directors to make more independent choices, a rarity with a smaller board.

According to Upadhyay and Sriram (2011), board size is intricately linked to statistical transparency, and a corporation with a high level of transparency does not necessarily benefit from larger boards. Their findings suggest that investors respond positively to a stronger board signal regarding effective monitoring and increased transparency in the company's statistics. The value of a firm increases positively when companies have a maximum number of board members (Nguyen et al., 2014). The number of board members significantly affects stock prices as well as Tobin's Q of the firms, and Guest (2019) has found a negative relationship between them. The efficiency of firms reduces when they have a larger board size because it creates agency conflicts between managers and shareholders, ultimately impeding the decision-making process of the company. Coles et al. (2008) reexamined the impact of board size on business performance, discovering that complex companies have more needs than simple companies do, and larger boards often include more independent external directors. The relationship between board size and firm performance is U-shaped, indicating that extremely large or petite board sizes are better, and this holds in both complex and simple corporate contexts.

H2: There is an indirect relationship between the board meetings and the earning management

H3: The size of the board is negatively related to the earning management

H6: Audit committee size is negatively related to the earning management

H5: Meeting of the Audit Committee Frequency is negatively related to earning management

Literature on Earning Management and corporate governance

Corporate governance is a broad term that encompasses a company's constitution, standard operating procedures, and operational practices by which it's managed. Various stakeholders, including investors, operations, government, corporate associations, guests, end-users, and ordinary people, all contribute to the company's success. The fundamental purpose of corporate governance is to balance the interests of all stakeholders within the association. Corporate governance also provides a comprehensive platform for understanding the association's objectives, overall performance strategy, and internal control systems. It serves as a framework for assessing the establishment's performance and commercial concession strategy in both the business and non-supervisory environments. According to Kamol Sakulchai (2015), review group skill refers to the review group member who possesses practical experience and a deep understanding of the office as well as financial content. External audit experts, for example, SOX 2002, predict better financial reporting excellence from experienced adjudicators and a better understanding of the trouble and the adjudicator's opinion. In this study, this distant test amendment was regarded as supported by justifications.

In previous literature, researchers have extensively discussed corporate governance, the financial expertise of the audit committee, and earning management determinants. However, the existing study has reported mixed consequences. The primary objective is to evaluate the significant impact of available data on earning management determinants. Our overall goal is to investigate the effectiveness of audit committee financial expertise, corporate governance, and earning management. In this study, earning management is assessed using the accruals accounting approach. Accruals reflect the accounting choices and estimations made by the directors, limiting the substantiations of the company for earning management (Chen et al., 2005). To compute

unforeseen models of accruals, the establishment needs to modify the Jones model for operations and align it with the operations covered by the company's earnings. This alignment is done by the rules and regulations set by the top management directors (Dechow et al., 1995),

Hashim and Rahman (2010) demonstrated that the number of board of directors' meetings is a measure of dedication to functioning as a shareholder representative. Directors who meet regularly enhance their perspectives and can quickly detect concerns, thereby improving operations the board meeting frequency is typically measured by the total number of board meetings held in a year. According to the literature, the board of directors should convene regularly to discuss issues related to the company's operations. In most cases, firms include statistics about the frequency of meetings and current facts in their annual reports.

Chen et al. (2006) argue that a high frequency of board meetings indicates that board members are fully aware of corporate operations. However, it's important to note that the frequency of board meetings may also be high if a company is facing challenges. The frequency of board meetings is significantly related to the financial performance of the board members, and the overall performance of the organization is undertaken for the best interest of the company, shareholders, and stakeholders.

According to the paper by Kamardin and Haron (2011), the frequency of board meetings has a positive impact on the firm's value, as high meeting frequency helps boards gain a better understanding of the company's processes and improves operations. According to Vafeas (1999), there are costs and benefits associated with board meeting frequency. The potential costs may include managerial time, travel expenses, and meeting dues, while the benefits can encompass additional monitoring and advising facilities provided by the board of directors to the organization.

According to Vafeas (1999), if a corporation overstates the expense of board meetings and schedules fewer sessions than required under the circumstances, the frequency of board meetings

improves the value of the company's performance. On the other hand, if a corporation exaggerates the benefits of frequent board meetings, excessive meeting frequency is negatively associated with the company's worth. As a result, the agency's struggle can be alleviated by determining the optimal level of board meeting frequency based on the environment. Corporate value and board meetings are positively related, according to Salleh and Othman (2016), indicating that board meetings can be utilized to monitor the organization's demands.

Methodology

Sample construction

For this study, data were analyzed using Stata Software, a general-purpose statistical software package, along with MS Office and Excel spreadsheets. Stata is widely used in contemporary studies on earning management and corporate governance. The quantitative analysis of independent variables (IVs) and dependent variables (DVs) involved financial data extracted from the audited financial statements of companies included in the analysis. The data were precisely presented using statistical tables and figures in APA format. The formulas for the variables used in the current paper are provided in the appendix.

The following empirical model is estimated to test the hypothesis:

$$EM_{i,t} = \sigma + \beta_1 AC_{FE_{i,t}} + \beta_2 CG_{i,t} + \varepsilon_t$$

$$EM_{i,t} = \sigma + \beta_1 AC_{FE_{i,t}} + \beta_2 CG_{i,t} + \Sigma Control_{i,t} + \varepsilon_t$$

The dependent variable is Earning Management (EM), measured for firm *i* at time *t* as $EM = (R_2 / (1 - R_2))$. This measurement is based on previous research on EM. Audit committee financial expertise is used as an indicator for the independent variable and was calculated based on accounting background and non-accounting background. Corporate governance is also used as an indicator for an independent variable. The term 'Control' refers to the collection of all control variables used in the study. Control variables include firm Size (FS), calculated as the logarithm of total assets; leverage (LEV), calculated as total

debt to total assets; and return on assets (ROA), calculated as earnings before tax to net assets.

$$EM_{i,t} = \sigma + \beta_3 BSIZE_{i,t} + \beta_4 BIND_{i,t} + \beta_5 Big4_{i,t} + \Sigma Control_{i,t} + \varepsilon_t$$

BSIZE is measured as the total number of directors on a company board and is determined by taking the logarithm of the overall number of directors. BIND is the proportion of the number of independent (outsider) directors on the board and is calculated by dividing the number of independent directors by the total number of directors. Audit quality is represented by BIG4 and measured by a dummy variable with a value of 1 indicating that the firm is audited by one of the foreign Big 4 audit firms or one of their local affiliates.

Variables

Dependent variable: Earnings Management

Discretionary accruals (DAC) serve as the dependent variable in this edition. Accruals, as defined by Jones (1991) and Chen, Lin, & Zhou (2007), represent the difference between total net income and cash flows from operations. There are two types of accruals: discretionary accruals (DAC), which are non-obligatory expenses, and nondiscretionary accruals, which are obligatory expenses. DAC specifically denotes changes in cash flow made by the company's board. Nondiscretionary accruals, on the other hand, refer to accounting-based changes in a company's cash flow directed by entities established by accounting standards.

Independent variables: audit committee financial expertise and corporate governance

We employ various characteristics of the Audit Committee (AC) in our study, including the number of independent directors (AC_IND), the frequency of AC meetings (AC_MET), the number of board meetings (BM), the proportion of financial experts in the AC (FIN_EXP), and the role of the AC chair (AC_CHAIR). Each of these variables plays a distinct role in our analysis.

Control variables

The control variables utilized in the study include financial risk, measured as the ratio of total debts

to total assets. Companies with a higher ratio of financing structures are more susceptible to defaulting on their obligations. Optional accruals are employed to control earnings management. Chen and Church (1992) hypothesized and reached the same conclusion that high financial risk would lead to a higher level of optional accruals. A company with a high level of financial risk may exhibit a lower level of earnings quality. Previous research papers suggest that financial leverage is a crucial factor contributing to the variability in stock returns' volatility (Boubaker et al., 2014). According to Rajgopal and Venkatachalam (2011), the financial distress of organizations leads to higher stock return volatility. Therefore, this study incorporates financial leverage as a control variable, measured by the ratio of Long-Term Debt to Total Assets (Leverage). The efficiency of a company is assessed

using the Return on Assets (ROA), which measures the net income divided by the total assets of the company. The Stock Price (SP) is expected to be influenced by both a company's efficiency and performance. The turnover of assets, calculated as Sales, reflects a venture's ability to generate a profit using available resources. A higher Return on Assets (ROA) than the average indicates more efficient asset utilization. Smith and Watts (1992) found that administrators of high-growth companies may engage in earnings management through optional accruals, as increased earnings can enhance the firm's value. Johnson & Lys (1990) and Smith & Watts (1992) observed that higher asset growth leads to increased accruals, contributing to elevated earnings management. The quick ratio, calculated by dividing current assets by current liabilities, is a measure of a company's liquidity.

Variables	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	-21	-22	-24
(1) YEAR	1																						
(2) ID	0	1																					
(3) CD	-0.205*	-0.108*	1																				
(4) ED	-0.096*	-0.243*	0.105*	1																			
(5) NED	-0.014	0.146*	-0.01*	-	1																		
(6) INDD	-0.023	0.283*	-0.05*	-	-	1																	
(7) TBS	-0.554	0	-0.19	0	0	0	1																
(8) NID	0.015	0.261*	-0.01	-0.06	0	0	0.07	0.487	0.205	1													
(9) PP	-0.693	0	-0.01	-0.06	0	0	-	-0.661*	0.392	0.697	1												
(10) TA	0.128*	0.388*	0	0	0	0	0	0	0	0	0	1											
(11) REV	0.093*	0.254*	-0.04	0.04	0.095	0.190*	0.333	0.254	1														
(12) OI	-0.017	0	-0.32	-0.31	-0.02	0	0	0	0	0	0	0	1										
(13) LTD	0.146*	0.225*	-0.05	0	0.139*	0.186*	0.357	0.296	0.956	1													
(14) STD	0	0	-0.2	-1	0	0	0	0	0	0	0	0	0	1									
(15) ACI	0.163*	0.132*	-0.05	-0.02	0.148*	0.158*	0.337	0.283	0.777	0.856	1												
(16) ACM	0	-0.001	-0.23	-0.66	0	0	0	0	0	0	0	0	0	0	1								
(17) ACS	0.122*	0.202*	-	0.02	0.083	0.165*	0.262	0.220	0.749	0.795	0.832	1											
(18) BM	-0.002	0	-0.03	-0.59	-0.03	0	0	0	0	0	0	0	0	0	0	1							
(19) A	0.037	0.280*	-0.04	0.04	0.032	0.202	0.355	0.264	0.937	0.690	0.666	0.611*	1										
(20) NA	-0.343	0	-0.27	-0.38	-0.02	0	0	0	0	0	0	0	0	0	0	0	1						
(21) NI	0.096*	0.297*	-0.05	-0.02	0.130*	0.253	0.410*	0.349	0.747	0.766	0.685	0.594	0.683	1									
(22) AR	-0.014	0	-0.22	-0.6	-0	0	0	0	0	0	0	0	0	0	0	0	0	1					
(23) EM	-0.023	0.283*	-0.05	-	1.000*	0.205	0.392	0.190*	0.186*	0.158*	0.165*	0.202	0.253	1									
	-0.554	0	-0.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
	0.043	0.012	-0.03	-	0.080	0.04	0.02	0.113*	0.05	0.07	0.092	0.04	-0	0.089	0.04	1							
	-0.267	-0.753	-0.43	-0.02	-0.04	-0.26	-0.65	-0	-0.23	-0.09	-0.02	-0.28	-0.97	-0.02	-0.26								
	0.088*	-0.052	-0.05	-0.04	0.253	0.094	0.237	0.333	0.078	0.120*	0.168*	0.123*	0.03	0.115*	0.094	0.198*	1						
	-0.023	-0.186	-0.18	-0.32	0	-0.02	0	0	-0.05	-0	0	-0.39	-0	-0.02	0	0	0	1					
	-0.04	0.072	-0.03	0.111*	-0.04	0.03	0.105*	-0.01	0.226	0.222	0.152*	0.124*	0.229	0.226	0.03	0.159*	0.04	1					
	-0.304	-0.065	-0.44	-0	-0.3	-0.39	-0.01	-0.79	0	0	0	0	0	0	-0.39	0	-0.27						
	0.014	0.037	-	0.01	0.100*	-	-0.03	-0.06	0.03	0.06	0.084	0.04	0.03	-0.03	-	-0.03	0.07	-0.04	1				
	-0.719	-0.34	-0.02	-0.8	-0.01	0	-0.43	-0.14	-0.48	-0.13	-0.03	-0.28	-0.51	-0.41	0	-0.5	-0.07	-0.35		1			
	-0.007	-0.032	0.090	-0.01	-	0.195*	0.04	0.06	0	-0.02	-0.06	-0.02	0.01	0.05	0.195*	0.03	-0.08	0.04	-		1		
	-0.849	-0.409	-0.02	-0.84	-0.01	0	-0.37	-0.12	-0.32	-0.54	-0.11	-0.61	-0.75	-0.24	0	-0.51	-0.06	-0.29	0			1	
	0.162*	0.126*	-0.07	-0	0.127*	0.113*	0.241*	0.221*	0.514*	0.611*	0.655	0.747	0.390	0.442	0.113*	0.06	0.163*	0.124*	0.01	0			1
	0	-0.001	-0.06	-0.97	-0	-0	0	0	0	0	0	0	0	0	0	-0.1	0	-0	-0.74	-0.99			
	0.226*	0.206*	-0.03	-0.02	0.174*	0.190*	0.396	0.337	0.798	0.868	0.789	0.610*	0.767	0.729	0.190*	0.07	0.136*	0.158*	0.05	-0.02	0.508	1	
	0	0	-0.48	-0.56	0	0	0	0	0	0	0	0	0	0	0	0	-0.08	0	0	-0.2	-0.64	0	
	-0.048	0.039	-0.03	-0.04	0.06	-0.02	0.03	0.04	-0.05	-0.06	-	-0.07	-0.04	-0.06	-0.02	-0.02	-0.01	-0.07	0.01	-0.01	-0.06	-0.06	1
	-0.223	-0.315	-0.42	-0.27	-0.14	-0.65	-0.52	-0.26	-0.18	-0.1	-0.02	-0.06	-0.27	-0.16	-0.65	-0.61	-0.82	-0.1	-0.75	-0.75	-0.11	-0.11	

***p<0.01, **p<0.05, *p<0.1

Pairwise Correlations matrix

LEV_{it}	= Leverage ratio
ROA_{it}	= Return on assets
$GROWTH_{it}$	= Rate of growth of assets
QR_{it}	= Quick ratio
$FIRMSIZE_{it}$	= Firm size measured from the natural log of assets
$GROUP_{it}$	= Industry group
ε_{it}	= Errors of the model

Empirical results

Table 2 in the appendix presents the descriptive statistics for the current research. Descriptive analysis aims to provide insights into the statistical behavior of the data. In this study, both the mean and median of the sample are calculated. The mean, often referred to as the arithmetic mean, is determined by summing all the numbers and dividing the result by the total number of observations. The statistical median is the central value in a set of numbers when arranged in

ascending or descending order. The standard deviation, a widely used measure of variance or dispersion in a set of values is computed by taking the square root of the sum of squared deviations from the average and dividing it by the total number of observations. Skewness, on the other hand, is a statistical measure indicating the asymmetry of a real-valued random variable's probability distribution around its mean. Skewness values can be negative or positive. Values may be negative or positive).

Table 2 Descriptive Statistics

Name of the Variables	Obs.	Mean	Std. Dev.	Min.	Max.
Years	660	2013.5	2.874	2009	2018
ID	660	36.152	20.309	1	71
CD	660	.044	.205	0	1
ED	660	2.291	1.381	0	8
NED	660	4.476	2.041	0	10
INDD	660	1.538	1.68	0	8
TBS	660	8.171	1.663	1	13
NID	660	6.002	1.997	0	12
PP	660	11664.118	25793.674	.031	204545.98
TA	660	23158.36	47517.622	78.104	421229.03
REV	660	18610.851	30204.264	.599	181979.69
OI	660	2633.292	5473.773	-6998.035	45544.683
LTD	660	4326.656	14039.805	0	130576.36
STD	660	2607.714	5310.758	0	37992.181
ACI	660	1.538	1.68	0	8
ACM	660	4.135	.702	0	10
ACS	660	3.459	.743	0	6
BM	660	5.332	2.099	0	33
A	660	.15	.357	0	1

NA	660	1.703	.712	0	2
NI	660	1715.985	4405.616	-3810.23	69107.24
AR	660	2049.548	4151.451	.062	32720.079
EM	660	.56	1.036	0	9.25
est fixed	660	1	0	1	1
est random	660	1	0	1	1

White's test for heteroscedasticity

The White test is a widely used statistical procedure in econometrics for detecting heteroscedasticity, where the variance of the errors in a regression model is not constant. It allows for the heteroscedasticity process to be a function of

one or more independent variables. The test determines whether there is homoscedasticity, indicating that the error variances are constant. Table 3 in the appendix presents the results of the White test for heteroscedasticity.

Table 3

White's test for heteroscedasticity: homoscedasticity

Against H_a : unrestricted heteroscedasticity $\chi^2(186) = 98.16$

Probe $> \chi^2 = 1.0000$

Interpretation of result: White's test shows that there is no heteroscedasticity

Cameron & Trivedi's decomposition of IM-test for heteroscedasticity

Source	chi2	Df	P
Heteroscedasticity	98.160	186	1.000
Skewness	19.210	20	0.508
Kurtosis	7.520	1	0.006
Total	124.880	207	1.000

Interpretation of result: The interpretation of Cameron & Trivedi's decomposition of the IM-test results indicates that there is no heteroscedasticity.

Regression results with fixed effects

EM	Coif.	St. Err.	t-value	p-value	[95% Conf Interval]	Sig
A	.231	1.071	0.22	.829	-1.872 2.334	
NA	.097	.519	0.19	.852	-.923 1.116	
Constant	.361	1.041	0.35	.729	-1.684 2.405	
Mean dependent vary	0.560		SD dependent vary	1.036		
R-Square	0.000		Number of orbs	660		
F-test	0.027		Probe > F	1.000		
Akanke crit. (AIC)	1787.169		Bayesian crit. (BIC)	1800.646		

*** $p < .01$, ** $p < .05$, * $p < .1$

Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity

H_0 : Constant variance Variables: fitted values of EM $\chi^2(1) = 169.34$ Probe $> \chi^2 = 0.0000$
Interpretation of the result: The Breusch-Pagan /

Cook-Weisberg test shows that there exists heteroscedasticity. The degree of multicollinearity is assessed using the variance inflation factor (VIF) in the ordinary least square (OLS) regression analysis. Multicollinearity increases type II error

and variance, making a variable's measure harmonious yet unreliable. VIF counts inflated variance that indicates the existence of multicollinearity. Table 4 in the appendix shows the result of the VIF. The VIF test indicates the presence of multicollinearity because the mean value of VIF is greater than 5.

Multicollinearity Variance Inflation Factor Test

The degree of multicollinearity is assessed using the variance inflation factor (VIF) in ordinary least squares (OLS) regression analysis. Multicollinearity increases the risk of type II error and variance, making a variable's coefficient stable yet unreliable. VIF quantifies the inflated variances caused by multicollinearity.

Variance inflation factor

	VIF	1/VIF
NID	941.661	.001
NED	731.468	INDEED
INDD	494.634	.002
A	109.463	.009
NA	108.524	.009
TA	29.868	.033
PP	25.54	.039
TBS	19.35	.052
LTD	11.689	.086
ED	9.385	.107
REV	6.537	.153
OI	6.114	.164
AR	5.628	.178
STD	3.035	.33
NI	2.654	.377
ID	1.444	.692
ACS	1.303	.767
BM	1.158	.863
ACM	1.119	.893
CD	1.057	.946
Mean VIF	125.582	.

Interpretation of result The VIF test indicates the presence of multicollinearity because the mean value of VIF is greater than the commonly accepted threshold, typically set at 5.

The Random Effects regression model

is used to estimate the effect of individual-specific characteristics such as grit or acumen that are

inherently unmeasurable. Such individual-specific effects are often encountered in panel data studies. Along with the Fixed Effect regression model, the Random Effects model is a commonly used technique to study the effect of individual-specific features on the response variable of the panel data set.

When DV=Earning management and IVs= A, NA

Regression results with fixed effect

EM	Coif.	St. Err.	t-value	p-value	[95% Conf Interval]	Sig
A	.231	1.071	0.22	.829	-1.872 2.334	
NA	.097	.519	0.19	.852	-.923 1.116	
Constant	.361	1.041	0.35	.729	-1.684 2.405	
Mean dependent vary	0.560		SD dependent vary	1.036		
R-Square	0.000		Number of orbs	660		
F-test	0.027		Probe> F	1.000		
Akanke crit. (AIC)	1787.169		Bayesian crit. (BIC)	1800.646		

*** p<.01, ** p<.05, * p<.1

Regression results with random effect

EM	Coif.	St. Err.	t-value	p-value	[95% Conf Interval]	Sig
A	.116	1.015	0.11	.909	-1.873 2.106	
NA	.041	.507	0.08	.936	-.952 1.034	
Constant	.473	1.015	0.47	.641	-1.517 2.464	
Mean dependent vary	0.560		SD dependent vary	1.036		
Overall r-squared	0.000		Number of orbs	660		
Chi-square	0.068		Probe> chi2	0.966		
R-squared within	0.000		R-squared between	0.000		

*** p<.01, ** p<.05, * p<.1

Housman's (1978) specification test

	Coif.
Chi-square test value	.255
P-value	.88

Selection between fixed effect model and random effect model:

The P-value of Housman's (1978) specification test is insignificant or greater than 5%, which shows that the random effect model is appropriate.

When DV=Earning management and IVs= CD, ED, NED, TBS, NID**Regression results with fixed effect model**

EM	Coif.	St. Err.	t-value	p-value	[95% Conf Interval]	Sig
CD	-.057	.245	-0.23	.816	-.539 .425	
ED	-.29	.086	-3.39	.001	-.459 -.122	***
NED	.013	.04	0.32	.753	-.066 .091	
TBS	.149	.066	2.24	.026	.018 .279	**
NID	-.236	.076	-3.13	.002	-.385 -.088	***
Constant	1.374	.438	3.14	.002	.514 2.234	***

Mean dependent vary 0.560 SD dependent vary 1.036

R-squared 0.022 Number of orbs 660

F-test	2.672	Probe> F	0.000
Akanke crit. (AIC)	1778.426	Bayesian crit. (BIC)	1805.380

*** p<.01, ** p<.05, * p<.1

Regression results with random effect model

EM	Coif.	St. Err.	t-value	p-value	[95% Conf	Interval]	Sig
CD	-.085	.214	-0.40	.692	-.504	.335	
ED	-.109	.061	-1.79	.074	-.228	.011	*
NED	.024	.03	0.78	.433	-.036	.083	
BS	.073	.056	1.31	.192	-.037	.182	
NID	-.089	.06	-1.50	.133	-.206	.027	
Constant	.647	.268	2.42	.016	.123	1.172	**

Mean dependent vary	0.560	SD dependent vary	1.036
Overall r-squared	0.003	Number of orbs	660
Chi-square	4.223	Probe> chi2	0.518
R-squared within	0.016	R-squared between	0.003

*** p<.01, ** p<.05, * p<.1

Housman's (1978) specification test

	Coif.
Chi-square test value	14.599
P-value	.012

Selection between random effect model and fixed effect model:

Fixed effect model is applicable because significance value i.e. p-value of Hausman test is lesser than 5%.

When DV=Earning management and IVs= PP, TA, REV, IO, LTD, STD

Regression results with fixed effect model

EM	Coif.	St. Err	t-value	p-value	95% Conf	Interval	Sig
PP	0	0	0.75	.456	0	0	
TA	0	0	-0.09	.93	0	0	
REV	0	0	-0.33	.743	0	0	
OI	0	0	-0.67	.502	0	0	
LTD	0	0	-0.50	.619	0	0	
STD	0	0	-0.47	.636	0	0	
Constant	.593	.065	9.15	0	.466	.721	***

Mean dependent vary	0.560	SD dependent vary	1.036
R-squared	0.002	Number of orbs	660
F-test	0.228	Probe> F	1.000
Akanke crit. (AIC)	1793.698	Bayesian crit. (BIC)	1825.143

*** p<.01, ** p<.05, * p<.1

Regression results with random effect model

EM	Coif.	St. Err.	t-value	p-value	[95% Conf	Interval]	Sig
PP	0	0	0.54	.587	0	0	
TA	0	0	0.07	.943	0	0	
REV	0	0	-0.90	.37	0	0	
OI	0	0	-0.46	.649	0	0	
LTD	0	0	-0.37	.712	0	0	
STD	0	0	-0.27	.785	0	0	
Constant	.61	.066	9.28	0	.481	.739	***
Mean dependent vary	0.560		SD dependent vary	1.036			
Overall r-squared	0.009		Number of orbs	660			
Chi-square	3.418		Probe> chi2	0.755			
R-squared within	0.002		R-squared between	0.039			

*** p<.01, ** p<.05, * p<.1

Housman's(1978) specification test

	Coif.
Chi-square test value	.825
P-value	.991

Selection between fixed effect model and random effect model:

Random effect model is applicable because the significance value of Hausman test is grater that 5%.

Conclusion and implications

The literature covers the findings of Eon et al. (2015), Jin & Myers (2006), Morck et al. (2000), and Roll (1988), who examined micro and macro factors to demonstrate variable outcomes. Investigating the relationship between the corporate board and earnings management is crucial because a competent corporate board is needed to mitigate the principal-agent conflict by performing its essential internal control function. According to Newell and Wilson (2002), corporate governance is necessary for external stakeholders to enhance the agency clash, which reduces information asymmetry and improves the company's internal information situation.

To further explore variables related to firms' information, the study investigates the association of corporate board and audit committee composition with financial proxies. Examining the impact of corporate board and audit committee composition in association with earnings management is crucial because they are integral to a firm's information environment and

information asymmetry. The study validates the findings of previous research published in the literature and suggests new measures that must be examined in the field of stock request informativeness. Individual stockholders, financial forecasters, policy generators and controllers, and company administration all benefit from these revisions.

This study was confined to probing the impact of Audit Inspection Committee Financial Expertise, Corporate Governance, and Earnings Management on financial performance in the case of emerging and developed non-financial enterprises. Therefore, the results of this study may not be generalized. The literature confirms that earnings management reflects both macro and micro information. The study attempts to incorporate the suggestions made by several studies by exploring both macro and micro-position factors. The study is conducted by taking a sample from 70 companies in the incorporating and developing request in Pakistan for the period of 10 years, from 2009 to 2018. The revision offers

to delve further into areas that are essential to the company's statistical ground as well as the country's data condition. To gain a better understanding, it's recommended that you cover a wider sample and explore different and more robust ways of measuring financial reporting quality, board and audit committee composition, financial constraints, and inspection quality's financial development.

Hashim and Rahman (2010) demonstrated that the number of board of directors' meetings is a measure of dedication to performing as a shareholder representative. Directors who meet regularly increase their perspective and can sharply detect concerns, which improves operations. In the board meeting frequency, the total number of board meetings over time should be considered. According to the literature, the board of directors should meet regularly to discuss issues related to the company's operations. In most cases, enterprises include statistics about the frequency of meetings and current data in their periodic reports. According to Vafeas (1999), if a corporation overstates the expenditure of board meetings and schedules smaller sessions than is needed.

Under the circumstances, the frequency of board meetings improves the value of the company's performance. On the other hand, if a corporation is exaggerating the benefits of frequent board meetings, inordinate meeting frequency is negatively associated with the company's worth. As a result, the agency's struggle can be alleviated by being able to determine the optimal position of board meeting frequency based on the environment. On the other hand, corporate value and board meetings are favorably related, according to Salleh and Othman (2016), indicating that board meetings can be employed to monitor the establishment's demands.

The proportion of external directors to the total audit committee members is known as the independence of the audit committee (Beasley, 1996). According to NASDAQ strategies, the audit committee will be considered independent if it is composed of 100 percent independent external members. This requirement stems from the notion that independence necessitates the

audit committee to be entirely free from directorial influence and guidance. Conversely, Dechow et al. (1996) determined that if independent external directors make up more than half of the board, an audit committee can be classified as working somewhat independently, with the majority of independent external directors exercising control. Effectiveness can be associated with an independent audit committee. Bedard et al. (2004) describe the impact of audit committee independence on a company's financial data, asserting that an independent audit committee mitigates dangerous and destructive earnings management practices.

According to Wolnize (1995) and DeZoort (1997), the group responsible for the fiscal content of the company is known as the review group, as it reviews the primary tasks of the company before its actual operations. Kalbers & Fogarty (1993) and DeZoort (2002) state that the review group's daily tasks include fiscal reporting, auditing, and managing redundant procedures to facilitate communication between the board of directors and the external adjudicator. Studies define inspection group effectiveness as the capability to carry out daily responsibilities as initially refocused. The size of the audit committee is determined by the total number of its members, as proposed by Anderson et al. (2004), Baxter and Cotter (2009), Bedard et al. (2004), and Xie et al. (2003). This proxy is calculated as follows: Size of the Audit Committee = (Total number of audit committee members).

DeZoort (2002) and Cummings (1974) compared their findings with previous research and established that the size of an audit committee, measured in terms of its composition, positively influences its effectiveness. The optimal size of an audit committee is crucial, as a group that is too small may lack sufficient diversity, while a group that is too large may face challenges in coordination and workload distribution, potentially leading to inefficiencies. Previous discussions highlight the importance of determining an appropriate size for the audit committee to ensure effective financial oversight. The company's financial reporting quality is significantly associated with the audit committee's

size. Kalbers (1993) and DeZoort (2002) demonstrated that the frequency of meetings is an outcome of the effectiveness of the audit committee. According to Menon (1994), Abbott (2000), DeZoort (2002), Lee and Mande (2005), and Stewart (2007), the predictability of group meetings is crucial. Members of the committee must be committed to investing time and effort during the company's audit, as highlighted by Kalbers (1993) and Lee (2004). Xie (2003) and Vafeas (2005) established a link between the promptness with which the audit committee conducts its reviews and the quality of financial reporting.

Limitations and Future Directions

Financial performance in the use of emerging and developed non-financial firms, so the results of this study may not be easily generalized. To gain a more comprehensive understanding, it is recommended that future researchers consider a broader sample. Additionally, exploring alternative and more robust measures for financial reporting quality, board and audit committee composition, financial constraints, audit quality, financial development, and earnings management would enhance the depth of future studies.

References

- An Empirical Analysis of the Relation between the Board of Director Composition and Financial Statement Fraud. (1996). *CFA Digest*, 27(2), 69. <https://doi.org/10.2469/dig.v27.n2.79>
- Archambeault, D. S., Dezoort, F. T., & Hermanson, D. R. (2002). Audit Committee Incentive Compensation and Accounting Restatements. *Contemporary Accounting Research*, 25(4), 965-992. <https://doi.org/10.1506/car.25.4.1>
- Bai, X., Hu, N., Liu, L., & Zhu, L. (2017). Credit derivatives and stock return synchronicity. *Journal of Financial Stability*, 28, 79-90. <https://doi.org/10.1016/j.jfs.2016.12.006>
- Banerjee, A., & Eckard, E. W. (1990). Why Regulate Insider Trading? Evidence from the First Great Merger Wave (1897-1903). *American Economic Review*, 91(5), 1329-1349. <https://doi.org/10.1257/aer.91.5.1329>
- Baños-Caballero, S., García-Teruel, P. J., & Martínez-Solano, P. (2014). Working capital management, corporate performance, and financial constraints. *Journal of Business Research*, 67(3), 332-338. <https://doi.org/10.1016/j.jbusres.2013.01.016>
- Baxter, P., & Cotter, J. (2009). Audit committees and earnings quality. *Accounting & Finance*, 49(2), 267-290. <https://doi.org/10.1111/j.1467-629x.2008.00290.x>
- Be´Dard, J., Chtourou, S. M., & Courteau, L. (2004). The Effect of Audit Committee Expertise, Independence, and Activity on Aggressive Earnings Management. *AUDITING: A Journal of Practice & Theory*, 23(2), 13-35. <https://doi.org/10.2308/aud.2004.23.2.13>
- Berkowitz, S. L. (2001). Enterprise risk management and the healthcare risk manager. *Journal of Healthcare Risk Management*, 21(1), 29-38. <https://doi.org/10.1002/jhrm.5600210106>
- Bhojraj, S., & Sengupta, P. (2003). Effect of Corporate Governance on Bond Ratings and Yields: The Role of Institutional Investors and Outside Directors*. *The Journal of Business*, 76(3), 455-475. <https://doi.org/10.1086/344114>
- CAMPBELL, T. S., & KRACAW, W. A. (1980). Information Production, Market Signalling, and the Theory of Financial Intermediation. *The Journal of Finance*, 35(4), 863-882. <https://doi.org/10.1111/j.1540-6261.1980.tb03506.x>

- Carcello, J. V., & Neal, T. L. (2000). Audit Committee Composition and Auditor Reporting. *The Accounting Review*, 75(4), 453-467.
<https://doi.org/10.2308/accr.2000.75.4.453>
- Carcello, J. V., & Neal, T. L. (2003). Audit Committee Independence and Disclosure: choice for financially distressed firms. *Corporate Governance*, 11(4), 289-299.
<https://doi.org/10.1111/1467-8683.00327>
- Chen, X., Cheng, Q., & Wang, X. (2015). Does increased board independence reduce earnings management? Evidence from recent regulatory reforms. *Review of Accounting Studies*, 20(2), 899-933.
<https://doi.org/10.1007/s11142-015-9316-0>
- Cormier, D., Ledoux, M., Magnan, M., & Aerts, W. (2010). Corporate governance and information asymmetry between managers and investors. *Corporate Governance: The International Journal of Business in Society*, 10(5), 574-589.
<https://doi.org/10.1108/14720701011085553>
- Cotter, J. F., Shivdasani, A., & Zenner, M. (1997). Do independent directors enhance target shareholder wealth during tender offers? *Journal of Financial Economics*, 43(2), 195-218.
[https://doi.org/10.1016/s0304-405x\(96\)00886-0](https://doi.org/10.1016/s0304-405x(96)00886-0)
- De Long, J. B., Shleifer, A., Summers, L. H., & Waldmann, R. J. (1990). Noise Trader Risk in Financial Markets. *Journal of Political Economy*, 98(4), 703-738.
<https://doi.org/10.1086/261703>
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183-199.
[https://doi.org/10.1016/0165-4101\(81\)90002-1](https://doi.org/10.1016/0165-4101(81)90002-1)
- DECHOW, P. M., SLOAN, R. G., & SWEENEY, A. P. (1995). Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC. *Contemporary Accounting Research*, 13(1), 1-36.
<https://doi.org/10.1111/j.1911-3846.1996.tb00489.x>
- DECHOW, P. M., SLOAN, R. G., & SWEENEY, A. P. (1996). Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC. *Contemporary Accounting Research*, 13(1), 1-36.
<https://doi.org/10.1111/j.1911-3846.1996.tb00489.x>
- Fama, E. F., & Jensen, M. C. (1983). Separation of Ownership and Control. *The Journal of Law and Economics*, 26(2), 301-325.
<https://doi.org/10.1086/467037>
- Farre-Mensa, J., & Ljungqvist, A. (2016). Do Measures of Financial Constraints Measure Financial Constraints? *Review of Financial Studies*, 29(2), 271-308.
<https://doi.org/10.1093/rfs/hhv052>
- Gelfand, M. J., Nishii, L. H., & Raver, J. L. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology*, 91(6), 1225-1244.
<https://doi.org/10.1037/0021-9010.91.6.1225>
- Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate Governance and Equity Prices. *The Quarterly Journal of Economics*, 118(1), 107-156.
<https://doi.org/10.1162/00335530360535162>
- Guest, P. M. (2009). The impact of board size on firm performance: evidence from the UK. *The European Journal of Finance*, 15(4), 385-404.
<https://doi.org/10.1080/13518470802466121>

- Hasan, I., Song, L., & Wachtel, P. (2014). Institutional development and stock price synchronicity: Evidence from China. *Journal of Comparative Economics*, 42(1), 92–108. <https://doi.org/10.1016/j.jce.2013.07.006>
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1-3), 405–440. [https://doi.org/10.1016/s0165-4101\(01\)00018-0](https://doi.org/10.1016/s0165-4101(01)00018-0)
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405x\(76\)90026-x](https://doi.org/10.1016/0304-405x(76)90026-x)
- Kaufmann, D. (2004). Governance Matters III: Governance Indicators for 1996, 1998, 2000, and 2002. *The World Bank Economic Review*, 18(2), 253–287. <https://doi.org/10.1093/wber/lhh041>
- Lee, H. Y., Mande, V., & Ortman, R. (2004). The Effect of Audit Committee and Board of Director Independence on Auditor Resignation. *AUDITING: A Journal of Practice & Theory*, 23(2), 131–146. <https://doi.org/10.2308/aud.2004.23.2.131>
- Morck, R., Yeung, B., & Yu, W. (2000). The information content of stock markets: why do emerging markets have synchronous stock price movements? *Journal of Financial Economics*, 58(1-2), 215–260. [https://doi.org/10.1016/s0304-405x\(00\)00071-4](https://doi.org/10.1016/s0304-405x(00)00071-4)
- Morris, R. D. (1987). Signaling, Agency Theory, and Accounting Policy Choice. *Accounting and Business Research*, 18(69), 47–56. <https://doi.org/10.1080/00014788.1987.9729347>
- Raheja, C. G. (2005). Determinants of Board Size and Composition: A Theory of Corporate Boards. *Journal of Financial and Quantitative Analysis*, 40(2), 283–306. <https://doi.org/10.1017/s0022109000002313>
- Rajgopal, S., & Venkatachalam, M. (2011). Financial reporting quality and idiosyncratic return volatility. *Journal of Accounting and Economics*, 51(1-2), 1–20. <https://doi.org/10.1016/j.jacceco.2010.06.001>
- Sabato, G. (2010). Financial Crisis: Where Did Risk Management Fail? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1460762>
- Salleh, S. M., & Othman, R. (2016). Board of Directors's Attributes as Deterrence to Corporate Fraud. *Procedia Economics and Finance*, 35, 82–91. [https://doi.org/10.1016/s2212-5671\(16\)00012-5](https://doi.org/10.1016/s2212-5671(16)00012-5)
- Sila, V., Gonzalez, A., & Hagendorff, J. (2017). Independent director reputation incentives and stock price informativeness. *Journal of Corporate Finance*, 47, 219–235. <https://doi.org/10.1016/j.jcorpfin.2017.09.018>
- Titman, S., Wei, K. C. J., & Xie, F. (2010). Access to Equity Markets, Corporate Investments and Stock Returns: International Evidence. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1571648>
- Wang, H., Sakr, S., Ning, Y., & Davidson, W. N. (2010). Board composition after mergers, does it matter to target shareholders? *Journal of Empirical Finance*, 17(5), 837–851. <https://doi.org/10.1016/j.jempfin.2010.05.002>