



Cosmetic Accounting and Auditor Litigation Risk in Emerging Market: The Moderating Effect of Corporate Governance

Mohsen Imeni

Associate Professor, Department of Accounting, Ayandegan Institute of Higher Education, Tonekabon, Iran;
Corresponding Author
imeni@aihe.ac.ir

Xin Guo

Zhuhai College of Science and Technology, Zhuhai, 519000, China;
guoxin@zcst.edu.cn

Seyyed Ahmad Edalatpanah

Associate Professor, Department of Applied Mathematics, Ayandegan Institute of Higher Education, Tonekabon, Iran; Email:
s.a.edalatpanah@aihe.ac.ir

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ABSTRACT

This study investigates the relationship between cosmetic accounting and auditor litigation risk, moderated by the corporate governance. The present study examined the association between cosmetic accounting and auditor litigation risk, considering the corporate governance' moderating role. The sample consists of financial data from 113 companies listed on the Tehran Stock Exchange throughout 2016-2023 (904 firm-years). The results are based on multivariate regression models. In the current study, board characteristics was considered as an indicator of corporate governance. The findings showed that cosmetic accounting significantly positively affects auditor litigation risk. Moreover, board independence significantly positively affects the relationship between cosmetic accounting and auditor litigation risk. However, board size doesn't have a significant effect on this relationship. Additional tests show that cosmetic accounting plays a crucial role in auditor litigation risk (auditing fees) in larger companies compared to smaller ones. Also, in smaller companies, the size of the board is vital, whereas in larger companies, the board's independence is more crucial. Further results indicate that auditors, when faced with cosmetic accounting, tend to increase their auditing fees to mitigate the audit risk, leading to an increase in abnormal auditing fees.

Keywords: Cosmetic Accounting, Auditor Litigation Risk, Corporate Governance, Board Characteristics

1. Introduction

According to agency theory, managers, acting as agents for the company's primary owners, receive various direct and indirect benefits, many of which are related to the figures presented in the financial statements (Bauer et al., 2018). This relationship can motivate managers to manipulate these statements. Since managers are responsible for preparing financial statements and have discretion, they might engage in practices such as fictitious accounting (Narsa et al., 2023; Ramírez-Orellana et al., 2017). It means managers might use their expertise and understanding of accounting standards to manipulate financial reports to reflect their desires (Abed, Hussin, Ali, et al., 2022). However, this manipulation can potentially mislead financial statement users. In other words, cosmetic accounting is a flexible tool for managers to decrease earnings volatility (Fagbeni, T. O., & Olaoye, 2014).

"Cosmetic accounting" is synonymous with profit smoothing, earnings management, fictitious accounting, or financial engineering (Bala et al., 2020; Dechow et al., 2010). Ioana (2019) defined cosmetic accounting as "changing accounting numbers from their true form to a desired shape to achieve specific benefits for the company and management to disclose information to users by choosing among alternative accounting policies or ignoring some" (Ioana, 2019). Cosmetic accounting is also defined as certain accounting procedures that a company's management occasionally employs to artificially enhance profitability or financial position (Rahman et al., 2023; Sanusi & Izedonmi, 2014).

Cosmetic accounting is one of the ways financial statements are influenced by managers (Abed, Hussin, Ali, et al., 2022; Voinea & Dimitriu, 2014). From a theoretical perspective, managers oversee companies owned by shareholders. Therefore, when directly involved, they should manage the company in the shareholders' interest. Still, they might be tempted by personal benefits to exploit the flexibility inherent in the accounting system, using fabricated accounting to manipulate results in their favor (Golubeva, 2023; Ivascu et al., 2022). Managers might be inclined to increase earnings, enhance assets, or reduce liabilities, and these inclinations differ. For instance, managers might need to raise assets to avoid violating debt contracts. Earnings also increase when managers' bonuses are tied to profits or aim to align results with market expectations for predicted earnings, requiring

profit manipulation (Guidry et al., 1999; Ramírez-Orellana et al., 2017).

Financial scandals recently seen, especially in the United States, result from cosmetic accounting. These scandals deeply impacted the financial institutions of those countries and, consequently, the financial markets of other nations (Buchanan & Wright, 2021). In fabricated accounting, the reporter bypasses accounting principles and standards, exploiting the absence of standards, tax laws, and financial regulations when conducting a financial event to present a distorted and favorable managerial view of the company (Moreno & Jones, 2022; Princen, 2012). Accounting standards, influenced by stakeholders through lobbying and other means, further stakeholders' objectives (De Freitas et al., 2023; Larson & Brown, 2001). No matter how robust and foundational the standards and rules appear, they allow managerial manipulation. Thus, standard setters always lag behind the users of those standards; this can lead to an agency problem (T. H. Kim et al., 2023; Kothari et al., 2010; Mora & Walker, 2015).

To mitigate the agency problem, an independent individual must bridge the gap between the manager and the representative. This individual is an independent auditor. It's expected that the auditing process reduces information discrepancies between management and shareholders through verifying financial statements (DeAngelo, 1981). Users will trust audited financial statements by a credible auditor more. The Enron scandal exposed in 2001 led to a sharp decline in stock prices in many global exchanges (J. Wang & Wang, 2022). Such financial issues impact public trust in auditors' integrity, credibility, and competency to minimize profit management techniques (Jarrah et al., 2022). An auditor negligent in auditing risks facing legal litigation from third parties like investors. Litigation risk often occurs in public companies. Properly implementing laws usually reduces this risk in capital markets (Zhang, 2023). Sun and Liu (2011) demonstrated that earning management is influenced by litigation risk since high-profit quality reflects earning management presence in a company, and high audit quality can influence management due to not engaging in earning management. Therefore, audit quality concerning legal litigation and earning management can be a moderating variable (Alareeni, 2019; M. DeFond & Zhang, 2014; Lin & Hwang, 2010; Tulcanaza-Prieto & Lee, 2022).

Previous research indicates that auditors increase their fees based on accrual items in response to earnings management. These findings suggest auditors enhance their fees to cover the litigation costs related to earnings management behaviors (Gandía & Huguet, 2021; Imeni & Daryaei, 2021; Robinson et al., 2023). In recent decades, certain factors have prompted managers to prefer accrual-based earnings over real earnings management (Cohen & Zarowin, 2010). One of these factors was enacting the Sarbanes-Oxley Act, which imposed strict regulations on companies (Yu, 2008). Given this trend, if auditors expect that earnings management increases the business risk due to a heightened likelihood of litigation (a risk effect) or decide to intensify their audit methods after observing earnings management (an effort effect), it's evident they would increase their audit fees (Dewi Kartika & Nahumury, 2014; Salehi et al., 2022). Previous studies, like those by Simonik and Stein (Simunic D. A., 1996) and Venkataraman et al. (Venkataraman et al., 2008), showed that audit firms in high-risk industries charge higher audit fees.

Besides potential financial penalties, legal litigation brings more costs for managers, such as emotional burden, time, and intensification of being accused in a legal case (Laux, 2010). Suppose the current supervisory pressure has created a risk of legal repercussions against managers. In that case, a pertinent question arises: how will changes in the legal environment impact the board's behavior and the company's CEO?

Earnings manipulation poses a risk for CEOs and boards, potentially leading to lawsuits against both parties (Imeni & Tayebinaz, 2025). To reduce exposure to litigation, boards can allocate more effort to oversee the financial reporting process, helping prevent earnings manipulation and diminishing the CEO's incentive to manipulate (M. DeFond & Zhang, 2014; Habib et al., 2022). The reason for this is the CEO's insufficient incentives when facing legal action. Since the board holds only a relatively small portion of the company's shares, managers prioritize their litigation costs over shareholder value, leading to the absence of strong incentives for the CEO (Laux, 2010).

Therefore, the present study investigates the relationship between Cosmetic Accounting (CA) and audit litigation risk and how the board of directors' characteristics moderate this relationship. The present

study results indicate that cosmetic accounting significantly affects audit litigation risk and that the board of directors' independence moderates this relationship. Based on these results, it can be said that this study can contribute from two perspectives: Firstly, until now, little literature has examined the relationship between cosmetic accounting (CA) and audit litigation risk. Thus, this research fills this gap and deepens the literature regarding whether cosmetic accounting has specific implications for audit litigation risk. These findings offer insight into how board characteristics moderate the relationship between cosmetic accounting (CA) and audit litigation risk. Secondly, the results can be crucial for potential and current investors. The findings from emerging markets like Iran can help policymakers and regulators understand the impact of corporate governance mechanisms, such as board characteristics, on cosmetic accounting practices. In other words, the results might enhance individuals' understanding of how market professionals can use publicly reported information compared to developed capital markets.

It has been organized into sections to provide a clear overview of this study. The following section is about the development of hypotheses and the review of related literature. The next section includes information on the research methodology, including data collection and sample selection methods. The fourth section presents the main results and concepts derived from statistical analyses. The study concludes in the final section by presenting the conclusions.

2. Literature Review and Hypothesis Development

2.1. Cosmetic Accounting and Audit Litigation Risk

Many managers use cosmetic accounting (CA) to reduce earnings variability. This flexible accounting tool is also known as earnings smoothing, financial engineering, creative accounting, or earnings management. It has been argued that cosmetic accounting is prevalent in several countries (Dechow et al., 2010). Previous research suggests that implementing International Financial Reporting Standards (IFRS) improves the quality of financial reporting (Chua et al., 2012; Zeghal et al., 2012).

Nevertheless, prior studies have indicated decorative accounting as an index of low-quality

earnings since this method reflects another approach for artificial earnings management (Dechow et al., 2010; Gaynor et al., 2016). Certainly, financial statements should provide relevant, reliable, and timely information to support users in decision-making and should not be intentionally prepared to mislead users. Consequently, to ensure that financial reports are relevant and trustworthy, certain tools are needed that can encourage high-quality earnings reporting (Abed, Hussin, Haddad, et al., 2022).

Based on this, corporate governance tools aim to balance the interests of managers and investors and ensure the reliability and integrity of financial reports (Watts & Zimmerman, 1983). Independent auditors enhance corporate governance. Previous research suggests that internal governance mechanisms and independent audits are interchangeable, indicating that better internal control could reduce the need for auditing (Samagaio & Felício, 2023). Conversely, much of the theoretical literature consistently suggests that they complement each other, meaning strengthening internal governance mechanisms correlates with higher audit quality (Alves, 2013). Some studies have shown higher audit fees indicate high quality (Abid et al., 2018; Shakhatareh et al., 2020; Yuniarti, 2011). Yuniarti (2011) found that audit fees relate to risk, duty and mission complexity, expertise, and other professional considerations. Moreover, higher audit fees facilitate better audit quality (Yuniarti, 2011).

Based on existing audit literature, two motivators for auditors cause them to perform their jobs with higher quality (Hassanzadeh Mohassel et al., 2023). These motivators are litigation (big pocket theory) and reputation (Skinner & Srinivasan, 2012). According to the first motivator (litigation), auditors must provide higher audit quality to prevent potential litigation from investors. Based on the second motivator (reputation), auditors must deliver higher audit quality to maintain their reputation. As a result, it's expected that auditors with a greater reputation are more inclined to preserve their reputation and receive higher fees (Kinney & Libby, 2002); thus, by increasing their fees, they reduce litigation risk and maintain or enhance their reputation (Malm et al., 2023).

In certain cases of audit litigation, auditors perform examinations based on generally accepted auditing standards and report accurately on financial statements. However, litigation can still expose

auditors to risks that may harm their professional practice (Zhu & Zheng, 2020). Therefore, auditors must thoroughly assess their clients' risks, develop audit plans that match them, and charge the appropriate audit fees (M. L. DeFond & Zhang, 2014; Drake et al., 2018). To evaluate this proposal, we define hypothesis H1 as follows:

H1: Cosmetic accounting has a significant effect on the risk of audit litigation.

2.2. The moderating effect of board characteristics

Two perspectives on the role of the board of directors exist. Based on agency theory, the first view sees the board as a supervisory body that aims to minimize agency costs. On the other hand, the second perspective, based on resource-dependence theory, views the board as an entity that helps manage the company's resources. According to the agency theory, the board's main function is to monitor the management team and protect the interests of the shareholders (Klein, 2002; Shleifer & Vishny, 1997). The board's capability to exercise its powers has been a subject of much debate. Research has indicated that a board's efficiency can be attributed to specific features such as its composition, structure, and appropriate size, all of which should be tailored to the company's unique business model and oversight environment. From a supervisory perspective, the board's composition is particularly important, emphasizing the need for board members to be independent in managing and fulfilling their shareholder responsibilities (Yeung & Lento, 2020).

Board members not affiliated with company managers are called independent board members because it is assumed that executives and employees who are insiders may not represent shareholders effectively when supervising management. They also may have divided loyalties between the shareholders and the CEO. Therefore, independent board members without affiliation to the company managers are believed to be more effective in supervisory roles. However, empirical studies have not yet provided conclusive evidence regarding the necessity of board members' independence (Dalton et al., 1998, 2003). The board's resource-dependence perspective (Boyd, 1990) posits that by providing expertise, the board allows the company to confront internal and external

performance uncertainties and offers sound governance (Clementino & Perkins, 2021). Encountering uncertainties, the board members must possess diverse skills, including business experience, expertise in that domain, and societal leadership (Hillman et al., 2000). Reducing agency risks requires a properly functioning board, which is widely supported (J. B. Kim & Zhang, 2016).

Two criteria have been considered to assess the board of directors' characteristics. Based on the agency theory perspective, the board of directors' effectiveness is the first criterion. The primary aspect is the board's overall independence, defined as the percentage of independent directors on a company's board at the end of a year. There is sufficient evidence to suggest that independent directors effectively carry out their supervisory responsibilities within the board (C. Wang et al., 2015). From the resource dependency perspective, the second criterion is the board size, defined as the total number of members on a company's board at the end of a year (Das et al., 2022). It has been shown that companies with smaller boards are associated with riskier investments, larger future performance fluctuations, and more liabilities (Huang & Wang, 2015). Consequently, it is anticipated that the board's features will influence the relationship between cosmetic accounting and the litigation risk of auditing. This leads to the presentation of the second and third research hypotheses, which are stated as follows:

H2: The board's independence significantly affects the relationship between cosmetic accounting and the litigation risk of auditing.

H3: The size of the board significantly affects the relationship between cosmetic accounting and the litigation risk of auditing.

3. Research Methodology

3.1. Population Sample

The population sample of the research comprises 113 companies listed on the Tehran Stock Exchange from 2016 to 2023. For sample selection from these companies, those fulfilling the following conditions were considered:

- Their fiscal year-end should be the end of the year.
- Their fiscal period should remain unchanged.
- Companies should not have changed the nature of their operations.

- Companies should not be among investment and brokerage firms, banks, insurance companies, etc.
- Their data should be accessible.
- Based on these criteria, 113 firms (904 firm-year observations) were studied.

3.2. Research Model

The regression Models 1-2 were applied to test the research hypotheses:

$$\text{LitigRISK}_{it} = \beta_0 + \beta_1 \text{CA}_{it} + \beta_2 \text{QUICK}_{it} + \beta_3 \text{CURRET}_{it} + \beta_4 \text{OP}_{it} + \beta_5 \text{BIG}_{it} + \beta_6 \text{LEV}_{it} + \beta_7 \text{SPEL}_{it} + \beta_8 \text{ROA}_{it} + \beta_9 \text{LOSS}_{it} + \beta_{10} \text{GROWTH}_{it} + \beta_{11} \text{EFFORT}_{it} + \beta_{12} \text{SWITH}_{it} + \beta_{13} \text{LNTA}_{it} + \varepsilon_{it} \quad (1)$$

$$\text{LitigRISK}_{it} = \beta_0 + \beta_1 \text{CA}_{it} + \beta_2 \text{CA}_{it} * \text{BI}_{it} + \beta_3 \text{CA}_{it} * \text{BS}_{it} + \beta_4 \text{QUICK}_{it} + \beta_5 \text{CURRET}_{it} + \beta_6 \text{OP}_{it} + \beta_7 \text{BIG}_{it} + \beta_8 \text{LEV}_{it} + \beta_9 \text{SPEL}_{it} + \beta_{10} \text{ROA}_{it} + \beta_{11} \text{LOSS}_{it} + \beta_{12} \text{GROWTH}_{it} + \beta_{13} \text{EFFORT}_{it} + \beta_{14} \text{SWITH}_{it} + \beta_{15} \text{LNTA}_{it} + \varepsilon_{it} \quad (2)$$

- Dependent Variable

Litigation Risk (LitigRISK): Previous studies indicate that an auditor's assessment of a client's business risk plays a significant role in audit pricing (e.g., (Pratt, J., & Stice, 1994; Simunic, 1980)). Therefore, following the literature (Badertscher et al., 2014; Drake et al., 2018). In line with the study by Zhu and Zheng [56], we use audit fees to represent the auditor's litigation risk.

- Independent Variable

Cosmetic Accounting (CA): In this study, we use the earnings smoothing model (ECKEL, 1981) to depict the cosmetic accounting behavior of companies, which is based on the coefficient of variation (CV) (ECKEL, 1981; Yang et al., 2012). This model focuses on perceived artificial smoothing rather than actual smoothing, which alters the economic picture. This model posits that sales variability results from real earnings smoothing, while earnings variability results from artificial smoothing. Thus, a company is smoothing earnings if:

$$\text{Profit Smoothing Index} = \frac{CV\Delta I}{CV\Delta S} < 1$$

where ΔS represents the sales changes, and ΔI denotes the earnings changes. Also, CV indicates the coefficient of variation, i.e., $\sqrt{\text{variance}/\text{mean}}$

The motivation for selecting this method is to objectively and statistically distinguish between smoothing and non-smoothing firms. Unlike other smoothing techniques (Atik, 2009; Godfrey & Jones, 1999), Eckel's index assesses the prevalence of earnings smoothing without relying on mental judgment, expectations, cost determination, or modeling anticipated earnings (Albrecht & Richardson, 1990; Ashari et al., 1994). CV is the change in earnings divided by the CV of changes in sales. A company is classified as smoother if $CV\Delta I/CV\Delta S < 1$, denoted by the number 1, and otherwise 0 (Albrecht & Richardson, 1990; Ashari et al., 1994; Yang et al., 2012).

- Moderating Variable

Board Independence (BI): The ratio of non-executive members to the board members' total number (Krishnan et al., 2011; Sultana, 2015).

Board Size (BS): Natural logarithm of the board members number (Yeung & Lento, 2020).

- Control Variables

Based on previous studies, other control variables of the research that can be important are as follows: (Chen et al., 2019; Simunic, 1980; Simunic D. A., 1996; Wu et al., 2018):

- Profitability (ROA): Net profit divided by total assets.
- Firm Loss (LOSS): 1 if the firm incurs a loss in year t, otherwise 0.

- Financial Leverage (LEV): Total debt divided by total assets.
- Firm Size (LNTA): Natural logarithm of the book value of total assets.
- Growth: Percentage change in sales (based on total assets) compared to the previous year.
- Auditor Effort (Effort): Natural logarithm of calendar days between the fiscal year's end and the audit report's date.
- Auditor Change (Switch): 1 if there's a change in the auditing firm; otherwise, 0.
- Quick Ratio (Quick): Calculated by dividing current assets by current liabilities.
- Current Ratio (Current): Calculated by dividing current assets minus inventory and prepayments by current liabilities.
- Auditor Opinion (OP): 1 if the auditor's opinion is unqualified; otherwise, 0.
- Auditor Firm Size (BIG): 1 if the auditing organization conducts the company's audit, otherwise 0.
- Auditor Expertise (SPEL): Determined by dividing one audit firm's owner assets by all owner assets in the industry. If the resulting number is above the industry median, it is 1; otherwise, it's 0.

4. Research Findings

4.1. Descriptive Statistics

The descriptive statistical indices are initially discussed and reviewed in this section. The results are presented in Table 1.

Table 1. The variables' statistical index.

Variables	Symbol	Mean	Med	Maximum	Minimum	S.D.
Litigation Risk	LitigRISK	6.96	6.93	9.50	4.79	0.80
Cosmetic Accounting	CA	0.34	0.000	1	0.00	0.47
Board Independence	BI	5.008	5	7	5	0.13
Board Size	BS	0.64	0.60	1	0.20	0.19
Institutional Ownership	Owner	0.64	0.74	0.98	0.006	0.26
Profitability	ROA	0.13	0.11	0.63	-0.78	0.15
Loss	LOSS	0.14	0.00	1	0.00	0.34
Financial Leverage	LEV	0.63	0.59	3.97	0.04	0.39
Firm Size	LNTA	14.53	14.44	1.69	1.14	0.11
Growth	Growth	0.33	0.20	4.24	-0.97	0.67
Auditor Effort	Effort	1.42	1.44	1.69	1.14	0.11
Auditor Change	Switch	0.22	0.00	1	0.00	0.41
Quick Ratio	Quick	1.48	1.29	7.61	0.07	0.93
Current Ratio	CURRENT	0.93	0.78	5.61	0.03	0.67
Auditor Opinion	OP	0.49	0.00	1	0.00	0.50
Auditor Firm Size	BIG	0.20	0.00	1	0.00	0.40
Auditor Expertise	SPEL	0.49	0.0000	1	0.0000	0.50

The mean is the most central and commonly used measure of central tendency. The value of the mean lies exactly at the equilibrium and the center of gravity of the data. Variables are suitable when there is little difference between their mean and median.

4.2. Model Test

Considering the Chow and Hausman test results in Table (2), the model estimation uses panel data with fixed effects.

Table 3 displays the test results for the first research hypothesis.

According to Table 3, at the 95% confidence level, the main hypothesis suggesting that cosmetic accounting significantly affects audit litigation risk is confirmed.

Table 2 Panel A. Chow test results.

Model Title	F-stat.	Prob.	Test Result
Model 1	0.0000	11.174	Null hypothesis confirmed – Panel Data
Model 2	0.0000	11.129	Null hypothesis confirmed – Panel Data

Table 2 Panel B. Hausman test results.

Model Title	χ^2 stat.	Prob.	Test Result
Model 1	73.92	0.0000	Panel data with fixed effects
Model 2	72.11	0.0000	Panel data with fixed effects

Table 3. Model one test results.

Variable Name	Variable Symbol	Est. Coeff.	t-Stat.	Sig.
Intercept	C	2.57	6.37	0.000
Cosmetic Accounting	CA	0.15	2.81	0.005
Institutional Ownership	OWNER	-0.25	-2.68	0.0077
Quick Ratio	Quick	0.10	1.98	0.0472
Current Ratio	Current	-0.12	-1.69	0.0912
Auditor's Opinion	OP	-0.01	-0.28	0.772
Auditor Size	BIG	0.22	3.26	0.0012
Financial Leverage	LEV	-0.04	-0.44	0.6530
Auditor Expertise	SPEL	0.01	2.10	0.0354
Profitability	ROA	-0.60	-2.62	0.0088
Loss	LOSS	-0.22	-2.45	0.0142
Growth	GROW	0.01	0.32	0.7423
Auditor Effort	EFFORT	0.54	2.62	0.008
Auditor Change	SWITH	0.0005	0.01	0.992
Firm Size	LNTA	0.26	14.31	0.000
R ²	0.77		F-stat.	16.80
R ² adj.	0.73		Prob. F .	0.00
Durbin-Watson (D-W)	1.57			

4.3. The Second Hypothesis test results

For testing the second research hypothesis, Model 2 has been used, the results of which are shown in Table 4.

According to Table 4, at a 95% confidence level, the primary hypothesis based on the influence of board independence on the relationship between cosmetic accounting and audit litigation risk is affirmed.

Furthermore, at a 95% confidence level, the results indicate that the board size does not significantly impact the relationship between cosmetic accounting and audit litigation risk.

Table 4. Model two test results.

Variable Name	Variable Symbol	Est. Coeff.	t-stat.	Sig.
Intercept	C	-1.35	-1.98	0.04
Cosmetic Accounting	CA	1.06	6.01	0.00
Board Independence Modifier	CA*BI	-0.20	-5.19	0.00
Board Size Modifier	CA*BS	0.72	1.61	0.10
Institutional Ownership	OWNER	0.33	1.52	0.12
Quick Ratio	QUICK	0.04	0.79	0.42
Current Ratio	CURRENT	-0.03	-0.30	0.76
Auditor Opinion	OP	0.021	0.57	0.56
Auditor Size	BIG	-0.26	-2.97	0.00
Financial Leverage	LEV	0.06	0.54	0.58
Auditor Expertise	SPEL	0.14	3.16	0.00
Profitability	ROA	-0.24	-1.07	0.28
Loss	LOSS	0.07	1.21	0.22
Growth	GROW	-0.04	-1.72	0.08
Auditor Effort	EFFORT	0.22	1.86	0.06
Auditor Change	SWITH	0.02	0.93	0.35
Firm Size	LNTA	0.52	3.98	0.00
R ²	0.77	F-stat.	13.85	
R ² adj.	0.72	Prob. F	0.00	
D-W	1.56			

4.4. Additional Analysis

4.4.1. Testing of research hypotheses based on firm size

The decision to sue an auditor depends on the size of the expected damage to the plaintiff (Lys & Watts, 1994). From another perspective, the plaintiff's expectation of damages is contingent on the extent of the imposed loss on them. Kellogg (Kellogg, 1984) concluded that there's a significant relationship between the imposed losses on plaintiffs and the size of the employer company. He believes that in larger

companies, the extent of losses inflicted on individuals due to reliance on inaccurate audit reports is greater. Consequently, aggrieved individuals' inclination to sue auditors will be higher (Anand, 2004).

Given this, the research hypotheses are retested for two categories of firms: large and small. Firms are considered large if the total value of their assets is above the industry median, which is equivalent to the number 1, and companies below the industry median (small firms) take the value of zero. After examining 450 observations (year-firm), the results for large firms are shown in Table 5.

Table 5. Results of hypothesis testing 1, 2, and 3 (fixed effects) - small firms.

Variable Name	Variable Symbol	Model 1:	Model 2:
		t-stat. Coeff.	t-stat. Coeff.
Intercept	C	1.8853 (3.0822)	2.394 (4.1000)
Cosmetic Accounting	CA	0.2858 (2.3049)	
Cosmetic Accounting * Board Independence	CA*BI		0.1779 (0.5307)
Cosmetic Accounting * Board Size	CA*BS		0.2828 (2.0949)
Other Control Variables	CONTROLS	yes	yes
	F	9.017	8.320
	Prob. F	0.000	0.000
	D-W	1.603	1.696
	R ² _{Adj}	0.199	0.197

Continued Table 5. Results of hypothesis testing 1, 2, and 3 (fixed effects) - large firms.

Variable Name	Variable Symbol	Model 1:	Model 2:
		t-stat. Coeff.	t-stat. Coeff.
Intercept	C	-2.0419 (-2.0292)	-1.1176 (-1.1820)
Cosmetic Accounting	CA	0.5899 (3.3613)	-
Cosmetic Accounting * Board Independence	CA*BI	-	0.9400 2.4547
Cosmetic Accounting * Board Size	CA*BS	-	-0.0628 (-0.5090)
Other Control Variables	CONTROLS	yes	yes
	F	13.926	13.500
	Prob. F	0.000	0.000
	D-W	1.861	1.859
	R ² _{Adj}	0.736	0.732

Based on the significance level of the t-statistic derived from the Paternoster test in STATA 14 software, the test results for the study's first hypothesis are 0.0508. It can be stated that the degree of cosmetic accounting in large companies (0.5899) is significantly higher than the degree of cosmetic accounting in small companies (0.2858). According to the results of Table 4, it can be said that cosmetic accounting plays a significant role in the audit litigation risk (audit fee) in both large and small companies. The size of the companies does not reduce the importance of this concept, i.e., cosmetic accounting.

Based on the significance level of the t-statistic of the Paternoster test for the interactive effects of cosmetic accounting and board independence and board size, which are respectively 0.0154 and 0.0019, it can be stated that there's a significant difference between the coefficients of these two variables. The results indicate that the board size plays a more important role in small firms, and in contrast, the board's independence in large firms is more important than in small ones. Considering that small firms typically have weaker management and internal control systems (Barua et al., 2019), this leads to a greater increase in inherent and control risks.

4.4.2. Examination of the research hypotheses with an alternative dependent variable (abnormal audit fees)

Simunic's (Simunic, 1980) model calculates abnormal audit fees. The residuals of Model 4 represent abnormal fees:

$$LAF_{i,t} = \beta_0 + \beta_1 LNTA_{i,t} + \beta_2 CATA_{i,t} + \beta_3 DE_{i,t} + \beta_4 ROA_{i,t} + \beta_5 LOSS_{i,t} + \beta_6 QUICK_{i,t} + \phi_{i,t}$$

These variables include the company size (LNTA), the natural logarithm of the book value of total assets, current assets (minus inventory) divided by total assets (CATA), the quick ratio (QUICK), and DE is derived from the division of long-term liabilities by total assets (Cao et al., 2023; Xie et al., 2010). The test results are shown in Table 6.

The results of Table 6 show that when auditors encounter cosmetic accounting, they focus solely on charging additional audit fees to reduce their audit risk, and as a result, this leads to the charging of abnormal audit fees (Cao et al., 2023; Xie et al., 2010).

Table 6. The research hypotheses test results (fixed effects) - Abnormal audit fees.

Variable Name	Variable Symbol	Model 1:	Model 2:
		t-stat. Coeff.	t-stat. Coeff.
Intercept	C	-6.1872	-5.5587
		(-9.0339)	(-8.4024)
Cosmetic Accounting	CA	0.3739	-
		(3.7618)	
Cosmetic Accounting * Board Independence	CA*BI	-	0.5828
			(2.2978)
Cosmetic Accounting * Board Size	CA*BS	-	-0.0036
			(-0.0442)
Other Control Variables	CONTROLS	yes	yes
	F	10.842	10.545
	Prob. F	0.000	0.000
	D-W	1.622	1.596
	R ² _{Adj}	0.589	0.583

5. Discussion and Conclusion

This study investigates the cosmetic accounting and audit litigation risk, considering the board characteristics moderating role. A sample of 113 companies listed on the Tehran Stock Exchange was chosen from 2016 to 2023 to test the abovementioned hypotheses. With this introduction, this study's primary objectives and lines have been to examine the cosmetic accounting and audit litigation risk with the moderating role of corporate governance.

Earnings manipulation is an important issue affecting the relationship between litigation risk and corporate governance, especially in emerging markets. This study examined the relationship between earnings manipulation and litigation risk in emerging markets with the mediating effect of corporate governance. The results show that corporate governance plays an important role in this relationship and has a significant mediating effect in reducing the litigation risk associated with earnings manipulation (Boachie & Mensah, 2022; Saleh et al., 2023). Stronger corporate governance reduces the adverse effects of earnings manipulation on litigation risk by strengthening the monitoring and control of financial decisions and increasing the assurance of the accuracy of financial information (Velte, 2023).

Overall, the results of this research show that corporate governance can act as an effective management mechanism to reduce the risk of lawsuits related to earnings manipulation in emerging markets (Q. Nguyen et al., 2024). To increase transparency and

public trust, companies should formulate and implement strong corporate governance policies and processes and strengthen governance assurance. These measures can help reduce earnings manipulation and the risk of related lawsuits and ensure the improvement of companies' financial performance and sustainability. Finally, this research shows that corporate governance mitigates the harmful effects of earnings manipulation on litigation risk and ensures better financial performance and sustainability of companies (Sáenz González & García-Meca, 2014).

Earnings can be used as a basis for tax calculation and the redistribution of wealth among individuals. It guides dividend policy decisions and earning retention, aids in investment decisions, serves as a predictive tool assisting individuals in forecasting earnings and economic events, and ultimately, is used as a measure of efficiency (Khuong et al., 2022; Nnadi & AKPOMI, 2005). The value of a company can be calculated as the present value of its future profits. An increase in earnings implies an increase in the company's value, while a decrease in earnings suggests a decrease in its value (Mendes et al., 2012). Given the importance of earning, it's unsurprising that company management is keenly interested in how earning is reported (Degeorge et al., 1999).

The research findings suggest a significant link between cosmetic accounting practices and the risk of litigation between auditors in emerging markets. Cosmetic accounting, which is characterized by the manipulation of financial statements to present a more

favorable picture of the company's financial performance, increases the likelihood of auditor litigation. This suggests that companies that engage in cosmetic accounting practices are more vulnerable to legal challenges and potential lawsuits from auditors, regulators and investors (Imeni et al., 2019).

Furthermore, the study shows that corporate governance plays a crucial role in this relationship. Strong corporate governance mechanisms, such as independent audit committees, transparent disclosure policies and effective internal controls, have been shown to mitigate the negative impact of cosmetic accounting on the risk of litigation with auditors. Companies with sound corporate governance structures are better able to detect and prevent cosmetic accounting practices, thereby reducing the likelihood of legal consequences (Saleh et al., 2023).

this study contributes to our understanding of the complex dynamics between cosmetic accounting, audit litigation risk and corporate governance in emerging markets. It underscores the importance of maintaining integrity and transparency in financial reporting to mitigate legal risks and increase investor confidence. Going forward, policy makers, regulators and corporate stakeholders should prioritize the implementation of sound corporate governance frameworks to prevent the damaging effects of cosmetic accounting and ensure the integrity of financial reporting in emerging markets (Q. Nguyen et al., 2024).

As per Clause 3 of the Iranian Accounting Standard Number One, titled "Presentation of Financial Statements," financial statements cater to the needs of users who cannot receive customized reports. Clause 6 of the same standard states that the objective of financial statements is to provide summarized and classified information about a business entity's financial position, financial performance, and financial flexibility that is useful for a wide range of financial statement users in making economic decisions. Financial statements also showcase the results of management's stewardship of the resources entrusted to them. With the increasing prominence of artificial accounting in the field, managers who want to present their reports in the best light have become capable of altering the appearance of financial statements within accounting standards (Imeni et al., 2019).

Accounting scandals, artificial accounting, and fraud have existed across all eras and countries. Hence,

investors, creditors, and all stakeholders are, in turn, concerned about their interests in companies (DesJardine et al., 2023). Considering that the earning figure influences economic decisions, bonuses, promotions, firings, and retention of managers, it causes managers to worry about the company's future, bonuses, and career prospects (Liu & Liu, 2022). Many factors influence the earnings figure. Earnings management refers to a manager's actions to achieve predetermined goals, and artificial accounting consists of methods assisting in achieving this aim (Mendes et al., 2012). In artificial accounting, managers leverage their knowledge and experience related to accounting and its standards, using their discretion so that, ultimately, financial statements reflect what they desire. However, this might mislead the users of the financial statements. In other words, cosmetic accounting is a flexible tool managers use to reduce earnings volatility (Abed, Hussin, Ali, et al., 2022; H. T. T. Nguyen et al., 2023).

Creative accounting is one of how managers influence financial statements. Managers have their schemes, theoretically managing companies owned by shareholders. Hence, in their direct roles, they should manage the company in the interest of shareholders (Abed, Hussin, Haddad, et al., 2022). However, in practice, personal interests might lead them to exploit the flexibility inherent within the accounting system, which is prepared through creative accounting, to manipulate outcomes in their favor (Aburous, 2019). Managers might be inclined to increase or decrease earnings, increase assets, or decrease liabilities, and these inclinations vary (Wagener, 2023). Although no official statistics are available in Iran regarding complaints against auditors, anecdotal evidence suggests that complaints against auditors have risen recently. Complaints against auditors, in addition to imposing significant damages, also levy indirect costs on auditors and the profession. These complaints can harm their reputation and credibility, causing them to lose significant potential earnings (Rothenberg, 2020). Additionally, complaints against auditors may lead to an increase in their liability insurance premiums. Litigations initiated by the audit report users impose costs on the individual auditor and significantly damage the profession's credibility. The negative outcomes have intensified the litigation risk against auditors, becoming a primary concern for the audit

community (M. DeFond & Zhang, 2014; J. Wang & Wang, 2022).

Based on the study's insights, two recommendation classes emerge. The first entails pragmatic directives tailored to guide those relying on accounting and financial intel, especially investors and managers, during their decision-making journeys (Sorourkhah & Edalatpanah, 2022; Wolny & Charoensuksai, 2014). The next class sheds light on prospective research avenues, offering direction for ensuing scholarly endeavors. Auditors must remain proactive in gauging their litigation risk, pinpoint key determinants, and implement strategies to mitigate potential ramifications (Perifanis & Kitsios, 2023). The matter of grievances lodged against auditors and the associated audit litigation risk within Iran's context remains relatively underexplored, with noticeable legal voids evident. It's advocated that forthcoming research endeavors prioritize the legal intricacies surrounding auditors' litigation risk and its influence on other fiscal parameters. Furthermore, researchers seeking to develop a model for predicting audit opinions are advised to consider, in addition to other factors, those based on the litigation risk of auditors (Chu & Weng, 2021; Daneshvar et al., 2019).

6. Limitations and suggestions

The research had certain limitations that hindered the disclosure of audit fee data in the financial statements of some companies listed on the Tehran Stock Exchange. As a result, the number of sample companies under study was reduced. Moreover, the study was focused on the non-financial sector, and the conclusions drawn may not apply to financial services due to their distinct characteristics and regulations. Therefore, generalization may not be possible. The study mainly concentrated on board attributes as monitoring mechanisms in determining CA and litigation risk. In contrast, other monitoring mechanisms such as audit committee characteristics, ownership structure, and internal audit also affect CA. Nonetheless, the above limitations highlight some areas that need improvement in future studies, but this should not diminish the value of this study.

The subject of complaints against auditors and the risk of audit litigation has not been given much attention in Iran, and there are many legal gaps in this field. Therefore, it is suggested that future researchers pay more attention to the legal issues of auditors'

litigation risk and the impact of this risk on other financial variables. Finally, regulatory institutions, including the Society of Certified Accountants and the Tehran Stock Exchange, are expected to use the present research results. For future research in this field, we can mention the following points:

- 1) Examine the impact of various corporate governance factors such as board size, international board composition, and directors' degree of independence on the relationship between earnings manipulation and litigation risk.
- 2) Evaluate the role of internal oversight bodies such as audit committees and internal controls in mitigating litigation risk related to earnings manipulation.
- 3) Examine the impact of the relationship between corporate governance and risk management on how they manage and control the impact of earnings manipulation.
- 4) Examine the impact of the use of new technologies such as artificial intelligence and data analytics on reducing profit manipulation and litigation risk.
- 5) Assess the impact of different legal and regulatory frameworks in emerging markets on the relationship between earnings manipulation and litigation risk.

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