



Paper Type: Original Article

Do Key Audit Matters Shape Investor Sentiment? Evidence from the Tehran Stock Exchange

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Citation:

Received: 17 December 2025

Revised: 26 February 2026

Accepted: 14 April 2026

Izadpanah, M., & Sadeghi, M. (2026). Do key audit matters shape investor sentiment? evidence from the Tehran Stock Exchange. *Accounting and Auditing with Application*, 3(3), 230-244.

Abstract

Investor sentiment is recognized as one of the key factors in financial decision-making,, influencing asset pricing and market volatility. This sentiment, which includes irrational optimism or pessimism toward companies' stocks, can lead to deviations of market prices from their intrinsic values. Studies indicate that investor sentiment is influenced not only by fundamental factors but also by psychological and behavioral variables. One of these factors is Key Audit Matters (KAMs). KAMs, as part of the auditor's report, provide information about significant audit risks that may affect investors' judgments. Investors' reactions to these matters may reflect their level of confidence in the transparency and reliability of financial information. Therefore, this study aims to examine the impact of KAMs on investor sentiment in companies listed on the Tehran Stock Exchange. To achieve this objective, a research hypothesis was developed. A sample consisting of 119 companies listed on the Tehran Stock Exchange during the period 2019–2023 was selected to test the hypothesis. A multiple regression model based on panel data was employed for hypothesis testing. The findings indicate that KAMs have a positive and significant effect on investor sentiment. This result suggests that transparent disclosure of KAMs enhances investor confidence and positive perceptions, thereby significantly strengthening investor sentiment and trust.

Keywords: Investor sentiment, Key audit matters, Behavioral biases.

1 | Introduction

Investor sentiment, as one of the psychological factors influencing financial decisions, represents a combination of individuals' emotions, perceptions, and expectations regarding future market performance. Studies have shown that such sentiment can significantly affect stock price fluctuations and market efficiency [1]. In particular, in emerging markets, where the participation of individual investors is relatively high, investor sentiment plays a more prominent role [2]. Emotional behaviors such as fear and greed may lead to

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 10.22105/aaa.v3i3.107



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irrational decision-making and cause stock prices to deviate from their intrinsic values. Therefore, understanding the factors that shape investor sentiment has become increasingly important [1].

The traditional audit reporting model limited the communication between auditors and investors regarding risks [3], and investors perceived audit reports as less informative than expected [4] or even lacking informational content [5]. Understanding the risk identification process in auditing through audit reports is challenging for investors. Consequently, fully utilizing audit reports as an important decision-making tool remains difficult. Moreover, the economic environment faced by investors has become increasingly complex, and investment risks continue to rise. Given these circumstances, stakeholders increasingly demand improvements in financial reporting, making it essential to enhance the communicative role of financial statements [6]. To make audit reports more useful and informative, broader and innovative audit reporting practices have been introduced, drawing users' attention to high-risk issues, areas that significantly influence audit strategies, or matters requiring critical auditor judgment [7]. The primary requirements of International Standard on Auditing (ISA) 701 are to improve the informational content of audit reports, enhance transparency in audit processes, and strengthen auditors' responsibilities toward financial statement users. The main reason for requiring the disclosure of Key Audit Matters (KAMs) has been to align audit reporting practices with international developments, increase the information value of audit reports, and comply with professional regulatory requirements. The disclosure strategy for such matters involves evaluating and identifying significant challenges and critical areas within the audit process, explaining these issues, and describing how auditors addressed them in the audit report, while also communicating these matters to those charged with corporate governance [8].

KAMs, as indicators of risk and uncertainty in financial reports, generate different reactions among investors [9]. One of the main reasons for these reactions is the warning effect of KAMs. When auditors transparently highlight issues such as doubts regarding a company's going concern or significant changes in accounting policies, investors interpret these signals as indications of potential problems within the company [10]. This interpretation may lead to reduced confidence and increased caution in financial decision-making, even when the company is fundamentally in a favorable condition. On the other hand, ambiguity in the disclosure of such matters may result in stronger reactions, as investors may anticipate worst-case scenarios [11].

Accordingly, examining whether investors respond to information disclosed as KAMs and, if so, whether the disclosure of such matters provides informative value is essential. The present study contributes to reducing the existing research gap by providing empirical evidence regarding the impact of KAM disclosures on investor sentiment. Furthermore, considering the recent implementation of mandatory KAM disclosures in audit reports and the limited number of studies conducted in this area, this research can provide valuable insights for policymakers and relevant stakeholders by improving the understanding of this process and contributing to the development of existing knowledge.

The remainder of this paper is organized as follows: First, the theoretical foundations and research literature are presented. Subsequently, the research hypotheses, hypothesis testing procedures, and the statistical population and sample are explained. Finally, the findings and results of the study are discussed.

2 | Theoretical Foundations

In recent years, researchers have paid considerable attention to investor sentiment. Sentiment is regarded as a behavioral bias among investors that, due to the absence of rational elements, may be subject to opportunistic actions by managers. When investor sentiment increases, investors tend to pay less attention to financial statements and firms' fundamental information and become more influenced by exaggerated and sometimes unreliable news and information published through media and press sources [1], [12]. Traditionally, within classical financial theories, investor sentiment was not considered to have a significant role in influencing capital markets. This perspective was based on the belief that either investor sentiments are dispersed and offset each other's effects, meaning that sentiments cannot become synchronized enough

to form a collective emotional wave and systematically affect stock markets, or that if sentiment could systematically influence stock markets, mispricing would eventually be corrected by rational arbitrageurs [13].

In recent years, considerable efforts have been made to modify and improve the information provided in audit reports. Following major financial scandals in recent decades, the global financial crisis of 2008, the increasing complexity of business environments, and the growing complexity of financial reporting standards, the demand among users for more information from auditors has increased significantly. In fact, various groups of financial statement users have called for improvements in audit reporting with the aim of enhancing transparency.

In response to these demands, various standard-setting and regulatory bodies worldwide have undertaken several initiatives. One of the most important measures was the development of the new ISA 701, titled “communicating KAMs in the independent auditor’s report”, by the International Auditing and Assurance Standards Board (IAASB) [14].

According to this standard, a new section entitled KAMs was added to the auditor’s report, and its implementation became mandatory from December 15, 2016 onward [15]. In Iran, Auditing Standard No. 701, titled “Communicating KAMs in the Independent Auditor’s Report”, was approved in 2021, and compliance with this standard became mandatory for the audit of financial statements of companies whose financial periods begin on April 1, 2022, or later. According to this standard, KAMs are defined as issues that, based on the auditor’s professional judgment, were of the greatest significance in the audit of the financial statements for the current period. KAMs are selected from matters communicated to those charged with governance. The auditor must determine, among the matters communicated to governance bodies, those requiring significant auditor attention during the audit process. For this purpose, the auditor should consider the following factors: 1-Areas with higher assessed risks of material misstatement or significant risks identified by the auditor in accordance with Auditing Standard No. 315 (identifying and assessing the risks of material misstatement through understanding the entity and its environment: Revised 2013). 2-Significant auditor judgments related to areas of the financial statements involving significant management judgments, including accounting estimates for which a high degree of estimation uncertainty has been identified. 3-The effects of significant events or transactions occurring during the period on the audit process [16].

KAMs disclose specific information about a company [17] and may vary depending on the industry in which the company operates [18]. The characteristics of KAM disclosures differ based on auditors’ judgments regarding what information should be disclosed and how it should be presented [19]. The disclosure of KAMs is also influenced by factors such as litigation risk, the relationship between auditors and clients, the precision of accounting standards, and supportive activities by regulatory and supervisory bodies [20]. As a result, auditors disclose different types of KAMs. These various types of KAMs may have different effects on investor reactions because they are associated with different levels of risk. Investors are expected to respond more strongly to a greater number of disclosed KAMs, as these matters provide important information that directs them toward areas with the highest levels of risk. Although KAMs provide useful information, they may also indicate risky situations and uncertainty regarding the audited company. The greater the number of disclosed KAMs, the higher the amount of risk-related information provided to investors. In other words, disclosure of KAMs may make investors feel less comfortable with high-risk and uncertain situations [21]. Therefore, it is expected that KAMs will increase investor reactions.

Based on the above discussions, the objective of the present study is to answer the following research question: What is the impact of KAMs on investor sentiment in companies listed on the Tehran Stock Exchange?

The following hypothesis has been explained for this question:

H1: KAMs have a positive and significant effect on investor sentiment.

3 | Background

Kitiwong et al. [21] conducted a study entitled “the impact of KAMs on investor sentiment.” For this purpose, information from 334 Thai companies during 2016 and 2017 was examined using a multiple regression approach. The results showed that investor sentiment responded only to three categories of KAMs and neutral words. However, investors did not react to the number of KAMs or words associated with negativity, positivity, litigation, or uncertainty. These findings indicate that the disclosure of KAMs has limited informational value for investors.

Srisuwan et al. [22] conducted a study entitled “factors affecting KAMs reporting.” The study analyzed data from 343 companies listed on the Thailand Stock Exchange during 2016–2020 using multiple regression analysis. The results indicated that auditor type (large versus non-large audit firms), audit fees, audit independence, and industry type have a positive and significant effect on KAM reporting. However, female board representation, year, return on assets, risk, and firm size did not have a significant positive effect on KAM disclosures.

Alduneibat [23] conducted a study entitled “factors affecting the Level of KAMs disclosure.” The study examined data from 108 companies listed on the Oman Stock Exchange during 2017–2019 using multiple regression analysis. The results revealed a negative relationship between the level of KAM disclosure and profitability as well as modified audit opinions. In addition, the findings showed that accounts receivable and provisions had the highest levels of KAM disclosure.

He [24] conducted a review study entitled “factors affecting investor sentiment in capital markets,” focusing on three factors: Corporate announcements, market seasonality, and Environmental, Social, and Governance (ESG) performance. The results indicated that corporate announcements serve as an important source of information that directly affects investor behavior and sentiment, while market seasonality reflects cyclical patterns in investor sentiment. Meanwhile, ESG investments represent investors’ concerns regarding companies’ environmental protection performance, social responsibility, and governance practices.

Huang et al. [25] conducted a study entitled “investors’ responses to KAMs.” The statistical population consisted of 120 investors in the United States. The findings showed that when a component of KAMs was associated with a low-risk financial (non-financial) disclosure issue, investors assessed investment risk as higher (lower) compared with situations where the KAM component was unrelated to a low-risk issue.

Liu et al. [26] conducted a study entitled “users’ perceived sentiment toward KAMs and firm performance.” The study analyzed 1,606 firm-year observations of companies listed on the Taiwan Stock Exchange during 2017 and 2018 using the Ordinary Least Squares (OLS) regression method. The results indicated that the positive relationship between users’ sentiment toward audit reports, KAMs, and current market performance of firms was statistically weaker in 2017 compared with 2018.

Wuttichindanon and Isarawornravee [27] conducted a study entitled “determinants of KAMs disclosure.” The research examined 996 firm-year observations of companies listed on the Thailand Stock Exchange during 2016 and 2017 using multiple regression analysis. The findings showed that companies audited by large audit firms, companies with a greater number of subsidiaries, and companies operating in technology, real estate, construction, and financial industries disclosed more KAMs. In contrast, highly profitable companies disclosed fewer KAMs. Regarding corporate governance mechanisms, the number of KAM disclosures had a significant positive relationship with the number of independent directors.

Altawalbeh and Alhajaya [28] conducted a study entitled “investors’ reaction to KAMs disclosure.” The study examined data from 128 companies listed on the Oman Stock Exchange in 2017 using a panel data regression approach. The results showed that KAM disclosures had a significant impact on investors’ decisions.

Heydari and Mashaikh [29] conducted a study entitled “the consequences of KAMs disclosure on investors’ judgments and decision-making.” The study was conducted using 176 participants and an experimental factorial design. The results showed that KAMs affect professional investors’ judgments and decision-making

and reduce their willingness to invest; however, they do not affect the judgments and decisions of non-professional investors. The earnings performance measure influenced the valuation judgments of both groups, and no interaction effect was found between earnings performance and KAMs.

Safari et al. [30] conducted a study entitled “developing an audit report model on investor behavior with emphasis on behavioral biases.” The study was conducted among 220 investment experts, investment managers, ordinary investors, and auditors who were randomly selected in 2022, using the structural equation modeling approach. The findings showed that the type of audit report has a significant effect on rational behavior. Cognitive bias plays a mediating/moderating role in the effect of audit report type on intuitive decision-making and reactive behavior.

Eskandar and Safadel [8] conducted a study entitled “the process of disclosing KAMs in the auditor’s report.” Using grounded theory methodology and in-depth interviews with experts, the results identified 47 concepts and 14 categories. The findings indicated that the process of KAM disclosure in Iran has not yet reached the desired level and faces fundamental challenges, including user-related challenges, standard-related challenges, and professional challenges.

Akramiyarfi et al. [31] conducted a study entitled “investigating the effect of emphasis of matter paragraphs in audit reports on investor behavior.” The study examined data from 105 companies listed on the Tehran Stock Exchange during 2016–2020 using panel data regression. The results showed that investors react negatively to emphasis of matter paragraphs when a company has high short-term earnings. After the release of audit reports containing emphasis of matter paragraphs, investors show a stronger negative reaction toward reported earnings.

Rahimi et al. [32] conducted a study entitled “investigating the role and importance of audit report publication on investors’ reactions.” The study examined data from companies listed on the Tehran Stock Exchange during 2016–2020 using panel data regression. The findings indicated that investors’ reactions to the publication of audited financial statements are more positive compared with the timing of unaudited financial statement releases.

Shoja et al. conducted a study entitled “the role and importance of increasing audit report disclosures in professional and non-professional investors’ decisions.” The study employed the fuzzy Delphi method using the opinions of 30 financial and auditing experts. The results showed that disclosure level and the auditor’s assurance dimension have potential effects on investors’ decisions and create differences between decisions made by professional and non-professional investors.

Abbaspour Sani et al. [33] conducted a study entitled “designing a model for key matter disclosure in audit reports.” The research used a questionnaire-based approach. The qualitative section included 13 academic specialists and audit firm partners, while the quantitative section consisted of 22 brokers with more than five years of experience, who evaluated the identified main components using a fuzzy matrix. The findings showed that disclosure of KAMs in audit reports has a negative and significant effect on business failure of companies listed on the Tehran Stock Exchange.

Heyrani et al. [34] conducted a study entitled “Investigating the Effect of KAMs on Investors’ Perceptions of Management Reporting Credibility.” The study used a questionnaire distributed among 300 finance and accounting graduates at three educational levels, with 2 to 10 years of experience, who professionally or non-professionally traded securities on the Tehran Stock Exchange. The results showed that investors’ perceptions of management credibility under precise accounting standards do not differ from those under imprecise standards. The inclusion of KAMs does not affect perceptions of management credibility under inaccurate accounting standards. Furthermore, the inclusion of KAMs does not reduce perceived management credibility under precise accounting standards.

4 | Methodology

Considering that the findings of this study can be used in investors' decision-making processes, this research is classified as an applied study in terms of purpose. Regarding the research design, the present study is descriptive, as in descriptive research, the researcher does not manipulate variables or create specific conditions for the occurrence of events. Since none of the variables examined in this study are manipulated and the research is limited to describing and analyzing the collected data, the methodology of this study is considered descriptive.

Furthermore, given that the main objective of this research is to identify the relationship between variables and determine the magnitude and direction of these relationships, the study is categorized as correlational in terms of method and nature. In correlational studies, the relationships among variables are examined and analyzed using appropriate statistical techniques.

The information related to the theoretical foundations of the research was collected through library research using secondary sources, including books, scientific articles, research reports, theses, reliable documents, and digital information databases. The primary (raw) data required for the study were obtained from information published by official institutions, such as the Securities and Exchange Organization (Codal database), which includes companies' financial information, market indicators, stock prices, and financial statements, as well as from Rahavard Novin software.

The statistical population selected in this study consists of all companies listed on the Tehran Stock Exchange during the period from 2019 to 2023. The sample selection method is systematic elimination; therefore, to determine the sample size, companies must meet the following criteria:

- I. Their financial information should be available during the examined period and should not contain any deficiencies.
- II. Their fiscal year should end on 29/12/XX and no change in the fiscal year should have occurred during the research period.
- III. They should not have experienced a trading suspension of more than three months.
- IV. They should not belong to financial intermediary industries, including investment companies, insurance companies, and banks, because the nature and type of their activities differ from those of other listed companies.
- V. They should have been listed on the stock exchange before 2019.

Considering the requirements and conditions governing the present study and using the systematic elimination method, a total of 119 companies were ultimately selected as the research sample from among the firms listed on the Tehran Stock Exchange.

In the present study, a multiple regression model based on panel data was employed to test the research hypothesis. The analysis was conducted in two sections: descriptive statistics and inferential statistics. Descriptive statistics were used to summarize and describe the data in a simple and understandable manner through measures such as mean, median, maximum, minimum, standard deviation, and other statistical indicators. Inferential statistics were applied to draw conclusions about the statistical population based on sample data, test the research hypothesis, and generalize the findings to the larger population. In the inferential analysis, the classical assumptions were examined, including multicollinearity through the Variance Inflation Factor (VIF), homoscedasticity through the Breusch–Pagan–Godfrey test, and autocorrelation through the Breusch–Godfrey test. The research model and hypothesis were evaluated using the F-statistic and t-statistic. Initial calculations were performed on the data collected from companies' financial statements using Microsoft Excel, while the final estimation and analysis were conducted using EViews 10 software.

5 | Research Model

Based on the study by Kitiwong et al. [21], multiple regression analysis based on panel data was employed to test the research hypothesis. The research *Model (1)* is presented as follows:

$$\text{SENT}_{it} = \beta_0 + \beta_1 \text{KAM}_{it} + \beta_2 \text{LEV}_{it} + \beta_3 \text{ROA}_{it} + \beta_4 \text{LOSS}_{it} + \beta_5 \text{LOGAUDELAY}_{it} + \beta_6 \text{INSTINVESTOR}_{it} + \beta_7 \text{BIG4}_{it} + \varepsilon_{it} \quad (1)$$

In the above model:

SENT_{it} : Investors' sentiment of company i in year t ; KAM_{it} : KAMs of company i in year t ; LEV_{it} : Financial leverage of company i in year t ; ROA_{it} : Return on assets of company i in year t ; LOSS_{it} : Loss of company i in year t ; LOGAUDELAY_{it} : Audit report delay of company i in year t ; INSTINVESTOR_{it} : Institutional investors of company i in year t ; BIG4_{it} : Audit firm size of company i in year t . If the coefficient β_1 is positive and statistically significant at the 95% confidence level, the research hypothesis is not rejected.

5.1 | Dependent Variable

The dependent variable in the present study is investor sentiment (SENT). Based on the studies conducted by Kitiwong et al. [21] and Goodarzi-Farahani et al. [35], the Rhodes-Kropf et al. [36] approach is employed to measure investor sentiment as follows. This study uses non-fundamental components to estimate investor sentiment. Specifically, firm-level investor sentiment (non-fundamental components) is defined as the difference between the market value and the fundamental value of a company's stock. A positive (negative) difference indicates that optimism (pessimism) dominates the company's stock price. The regression model attempts to predict the fundamental value of equity based on financial variables, such as the book value of shareholders' equity, net income, and financial leverage. Any deviation from this prediction (the residual) is interpreted as the sentiment component, which arises from non-fundamental factors such as emotions, rumors, or herding behavior. The research *Model (2)* is presented as follows:

$$m_{it} = \alpha_{0it} + \alpha_{1it} b_{it} + \alpha_{2it} \ln |NI|_{it} + \alpha_{3it} I_{[<0]} * \ln |NI|_{it} + \alpha_{4it} \text{LEV}_{it} + \varepsilon_{it} \quad (2)$$

In the above equation:

m_{it} : The natural logarithm of the market value of shareholders' equity of firm i in year t ; b_{it} : The natural logarithm of the book value of shareholders' equity of firm i in year t ; $\ln |NI|_{it}$: The natural logarithm of the absolute value of net income (profit or loss) of firm i in year t ; $I_{[<0]} * \ln |NI|_{it}$: To incorporate negative earnings (losses) into the model, a dummy variable $I_{[<0]}$ is used. If the firm reports a loss, the value of I equals one; otherwise, it equals zero; LEV_{it} : The debt-to-assets ratio of firm i in year t ; ε_{it} : The regression residual, representing investor sentiment.

Positive residual values ($\varepsilon_{it} > 0$) indicate investor optimism, implying that the market value of the firm's equity is higher than its fundamental value (the theoretical value estimated by the model). Negative residual values ($\varepsilon_{it} < 0$) indicate investor pessimism, implying that the market value of the firm's equity is lower than its estimated fundamental value.

5.2 | Independent Variable

The independent variable in the present study is KAMs. Based on the studies by Kitiwong et al. [21] and Kitiwong and Sarapaivanich [37], the components of KAMs are classified into 12 categories as follows:

- I. Restate: If the financial statements are subsequently restated, it is assigned a value of 1; otherwise, it is assigned 0.

- II. PVI: If the auditor discloses a KAM related to property, plant, and investment assets, it is assigned a value of 1; otherwise, it is assigned 0.
- III. IMPA: If the auditor discloses a KAM related to impairment, it is assigned a value of 1; otherwise, it is assigned 0.
- IV. ACQ: If the auditor discloses a KAM related to acquisitions, it is assigned a value of 1; otherwise, it is assigned 0.
- V. INVES: If the auditor discloses a KAM related to investment valuation, it is assigned a value of 1; otherwise, it is assigned 0.
- VI. INVEN: If the auditor discloses a KAM related to inventory valuation, it is assigned a value of 1; otherwise, it is assigned 0.
- VII. AR: If the auditor discloses a KAM related to accounts receivable, it is assigned a value of 1; otherwise, it is assigned 0.
- VIII. PRO: If the auditor discloses a KAM related to provisions, it is assigned a value of 1; otherwise, it is assigned 0.
- IX. LITI: If the auditor discloses a KAM related to litigation and regulations, it is assigned a value of 1; otherwise, it is assigned 0.
- X. REV: If the auditor discloses a KAM related to revenue recognition, it is assigned a value of 1; otherwise, it is assigned 0.
- XI. TAX: If the auditor discloses a KAM related to taxation, it is assigned a value of 1; otherwise, it is assigned 0.
- XII. OTHER: If the auditor discloses a KAM related to other issues, it is assigned a value of 1; otherwise, it is assigned 0.

If the auditor refers to any of the above components in the audit report, a value of 1 is assigned; otherwise, a value of 0 is assigned. Finally, the number of disclosed components is counted, and KAMs are measured as the total number of KAMs disclosed in the audit report, ranging from 1 to 12.

5.2.1 | Control variables

Based on the study by Kitiwong et al. [21], the control variables in the present study include financial leverage, return on assets, loss, audit report delay, institutional investors, and audit firm size.

Financial Leverage (LEV): The ratio of long-term liabilities to total assets [38]. Return on Assets (ROA): The ratio of net income to total assets [3]. Loss (LOSS): A dummy variable that takes the value of 1 if the company reports a loss and 0 otherwise [21]. Audit Report Delay (LOGAUDELAY): The natural logarithm of the number of days between the company's fiscal year-end date and the date of the audit report [39]. Institutional Investors (INSTINVESTOR): The ratio of shares held by institutional investors to the total outstanding shares [21]. To measure institutional ownership, the number of shares held by institutional investors is divided by the total number of common shares outstanding at the beginning of the period. Audit Firm Size (BIG4): A dummy variable that takes the value of 1 if the company is audited by the Audit Organization or one of the first-ranked audit firms approved by the Securities and Exchange Organization, and 0 otherwise [3].

6 | Findings

6.1 | Descriptive Statistics

The results presented in *Table 1* show the frequency distribution and percentage frequency of the dummy variables. A total of 595 firm-year observations were included, representing the sample size during the research period (2019–2023). The frequency of observations with a value of one for the loss variable is 17

observations, indicating that out of the 595 observations, 17 observations relate to companies reporting losses, accounting for 3% of the total observations.

Furthermore, the frequency of the audit firm size variable is 471 observations, indicating that 471 observations were audited by the Audit Organization or first-ranked audit firms approved by the Securities and Exchange Organization. This represents 80% of the total observations. As shown in Table 2, the mean, which represents the average value of the data, for the investor sentiment variable is 0.013. This value, being close to zero and slightly positive, indicates that, on average, investor sentiment during the examined period was mildly positive. This may reflect a weak but positive market tendency toward optimism. The median, which represents the middle point of the data distribution where half of the observations are below and half are above this value, is 0.020 for this variable. This indicates that half of the observations have investor sentiment higher than this value, while the other half have lower or more negative sentiment. Since the median value is positive, it can be interpreted that the overall tendency of investor sentiment in this sample is relatively inclined toward optimism. The maximum and minimum values, representing the highest and lowest observed values, are 3.141 and -0.981, respectively. This relatively wide range indicates that investor sentiment experienced considerable fluctuations during the examined period, ranging from highly negative to highly positive sentiment. High positive values represent periods of strong market optimism, which may have been associated with positive corporate news, improved economic conditions, or the release of profitable financial reports.

Conversely, negative values indicate periods of significant pessimism, which may have resulted from financial crises, corporate losses, or unfavorable industry conditions. The standard deviation, which measures the dispersion of data around the mean, is 0.447 for this variable. This value indicates that investor sentiment varied across different periods and experienced noticeable fluctuations. The skewness, which measures the asymmetry of the distribution, is 1.125 for this variable. The positive value of this indicator suggests that the distribution is skewed to the right, meaning that most observations are concentrated around lower values (neutral to slightly positive sentiment), while a smaller number of observations represent extremely positive sentiment. The mean number of reported KAMs is 2.924. This indicates that, on average, companies disclosed approximately three KAMs in their audit reports. The median of this variable is 3, indicating that in half of the examined companies, the number of reported KAMs was three or fewer, while in the other half, it was three or more. The consistency between the mean and median suggests that the distribution of this variable is relatively balanced. The maximum number of reported KAMs is 7, while the minimum value is 0. This indicates that some companies did not report any KAMs, whereas others disclosed up to seven items. This difference may be attributed to variations in reporting practices, differences in the nature of companies' activities, and the relatively recent implementation of the KAMs auditing standard. Since this standard is relatively new, it may not yet have been fully understood and implemented by all entities.

In particular, the recent mandatory adoption of this auditing requirement may explain part of the heterogeneity in disclosure levels, as some companies may still be adapting to its requirements. The standard deviation of this variable is 1.377, indicating a moderate level of dispersion in the number of reported KAMs among companies. The skewness value of this variable is 0.599, suggesting that the distribution is slightly right-skewed. This means that most companies reported a smaller number of KAMs, while a smaller number of companies disclosed a greater number of such matters.

Table 1. Frequency distribution and percentage frequency of dummy variables.

Variable Name	Variable Symbol	Total Observations	Category	Frequency	Percentage
Loss	LOSS	595	Observations with a value of 1	17	0.03
			Observations with a value of 0	578	0.97
Audit firm size	BIG4	595	Observations with a value of 1	471	0.80
			Observations with a value of 0	124	0.20

Table 2. Descriptive statistics of research variables.

Variable Name	Variable Symbol	Mean	Median	Max	Min	S.D	Skewness
Investors' Sentiment	SENT	0.013	0.020	3.141	-0.981	0.447	1.125
Key Audit Matters	KAM	2.924	3	7	0	1.377	0.599
Financial Leverage	LEV	0.478	0.477	0.994	0.017	0.213	0.108
Return on Assets	ROA	0.220	0.207	0.711	0.000	0.158	0.614
Loss	LOSS	0.028	0	1	0	0.166	5.659
Audit report delay	LOGAUDELAY	4.325	4.454	5.192	3.178	0.406	-0.823
Institutional investors	INSTINVESTOR	30.287	19.3	9974	0	30.033	0.600
Audit firm size	BIG4	0.791	1	1	0	0.406	-1.435

6.2 | Inferential Data Analysis

To analyze the data related to each of the presented research models, it is necessary to examine the classical assumptions of the regression model before processing the data and testing the research hypotheses. These assumptions ensure the validity and reliability of the estimated regression results and include the absence of multicollinearity, homoscedasticity of errors, and the absence of autocorrelation among residuals.

6.2.1 | Determining the type of panel data (F-Limer Test and Hausman Test)

As shown in *Table 3*, the significance level of the F-Limer test for the research model is greater than the 5% error level. Therefore, the pooled data method is used for estimating the models. Since the pooled data approach does not require the use of the Hausman test, this test was not performed.

Table 3. Results of the F-Limer and Hausman tests.

F-Limer Test		Diagnosis	Hausman Test		Diagnosis
Stat	Sig.		Stat	Sig.	
0.223	1.000	Pooled data	Pooled data do not require the Hausman test.		

6.2.2 | Heteroscedasticity test

In this study, the Breusch–Pagan–Godfrey test was employed to examine the presence of heteroscedasticity. The results presented in *Table 4* indicate that the calculated significance level for the research model is less than the 5% significance level. Therefore, the null hypothesis of the test, which assumes homoscedasticity of variance, is rejected. Accordingly, the existence of heteroscedasticity in the model is confirmed, and the estimation method applied for the model is the Generalized Least Squares (GLS) regression method.

Table 4. Results of the heteroscedasticity test.

Result	Stat	Sig.	Test Name	Classical Assumption
Heteroscedasticity	4.141	0.000	Breusch–Pagan–Godfrey test	Homoscedasticity

6.2.3 | Multicollinearity test

Multicollinearity refers to the existence of a strong relationship among the independent and control variables included in the model. To examine the presence of multicollinearity among the variables, the Variance Inflation Factor (VIF) test is employed. Since the VIF values for the research variables are less than 10, there is no multicollinearity problem in the model.

Table 5. Multicollinearity test.

Variable Symbol	Variance Inflation Factor (VIF)
KAM	1.034
LEV	1.503
ROA	1.605
LOSS	1.101
LOGAUDELAY	1.183
INSTINVESTOR	1.053
BIG4	1.034

6.2.4 | Autocorrelation test

In this study, the Breusch–Godfrey test statistic was used to examine the presence of autocorrelation. If the significance level of the Breusch–Godfrey statistic is less than the 5% significance level, it indicates the existence of serial autocorrelation among the error terms.

Table 6. Autocorrelation test.

Result	Stat	Sig.	Test Name	Classical Assumption
Presence of autocorrelation	11.786	0.000	Breusch–Godfrey test	Autocorrelation test

According to the results presented in *Table 6*, the significance level of the Breusch–Godfrey statistic is less than the 5% significance level, indicating the existence of serial autocorrelation. Therefore, in the final estimation of the model, the autocorrelation problem was resolved through the second-order autoregressive correction method.

7 | Results of the Research Model Test

After conducting the necessary statistical tests, the final results obtained from estimating the research models are presented below in order to determine the appropriate data estimation method and ensure the validity of the fitted model. As shown in *Table 7*, the significance level of the F-statistic for the model is 0.000. Since this value is lower than the 5% significance level, the null hypothesis is rejected at the 95% confidence level, indicating that the model is statistically significant. In other words, the examined model has sufficient validity. The adjusted coefficient of determination (Adjusted R^2) of the model is 0.481. This coefficient indicates that the independent and control variables included in the model are able to explain more than 48% of the variations in the dependent variable. The value of the Durbin–Watson statistic is 2.211. Since this value falls within the range of 1.5 to 2.5, it indicates that there is no autocorrelation problem in the model.

Table 7. Results of the research model test.

Variable Name	Symbol	Coeff.	S.D	t-Statistic	Sig.
KAMs	KAM	0.027	0.004	6.397	0.000
Financial Leverage	LEV	-0.401	0.079	-5.017	0.000
Return on Assets	ROA	-0.210	0.075	-2.797	0.005
Loss	LOSS	-0.018	0.056	-0.322	0.747
Audit report delay	LOGAU DELAY	-0.110	0.021	-5.059	0.000
Institutional investors	INSTIN VESTOR	-0.001	0.000	1.593	0.112
Audit firm size	BIG4	-0.058	0.021	-2.669	0.008
Intercept	C	0.635	0.143	4.420	0.000
First-order autoregressive correction	AR(1)	-0.692	0.113	-6.124	0.000
Second-order autoregressive correction	AR(2)	-0.610	0.028	-21.518	0.000
F-stat	3.599	Durbin–Watson Test			2.211
Sig. (F-stat)	0.000	Adj. R^2			0.481

The research hypothesis states that KAMs have a positive and significant effect on investor sentiment. As shown in *Table 7*, the calculated significance level for the KAMs variable is 0.000. Since this value is lower than the 5% significance level, it indicates that the effect of this variable is statistically significant at the 95% confidence level. Furthermore, the estimated coefficient of this variable is 0.027, and its positive sign indicates that the examined relationship is positive and direct. Therefore, considering the significance level and the sign of the estimated coefficient of the KAMs variable, the positive and significant effect of KAMs on investor sentiment is confirmed. Accordingly, based on these results, the research hypothesis is not rejected.

8 | Conclusion

This study was conducted with the aim of examining the effect of KAMs on investor sentiment in companies listed on the Tehran Stock Exchange. The results obtained from testing the research model indicated that the research hypothesis was not rejected at the 95% confidence level.

8.1 | Analysis of the Research Hypothesis Results

The research hypothesis examined the effect of KAMs on investor sentiment. Based on the results obtained, the research hypothesis was not rejected, indicating that KAMs have a positive and significant effect on investor sentiment. KAMs, as a new section of the auditor's report, include issues that, from the auditor's perspective, were of the greatest significance and involved the highest level of risk during the audit process. The disclosure of these matters contributes to enhancing the transparency of financial information. This transparency can improve investor sentiment through several channels. First, by gaining awareness of the most important areas involving managerial judgment and audit risks, investors obtain a clearer and more comprehensive understanding of the company's condition, which reduces information uncertainty. Second, understanding how management and auditors address these issues can increase investors' confidence in the quality of corporate governance and the reliability of the financial reporting process. Third, the detailed disclosure of KAMs signals to investors that the auditor has played an active and independent role in evaluating the company's financial condition, thereby strengthening the credibility of the disclosed information. Consequently, reducing ambiguity and increasing confidence can enhance investors' willingness to maintain or increase their investments, thereby strengthening their positive sentiment toward the company. The findings of this hypothesis are inconsistent with the results of Kitiwong et al. [21] and consistent with the findings of Huang et al. [25], Liu et al. [26], and Altawalbeh and Alhajaya [28].

8.2 | Suggestions Based on the Research Findings

Considering the research findings regarding the positive effect of KAMs on investor sentiment, it is recommended that auditors provide KAMs in their reports with clear, documented, and understandable explanations. This enables investors to accurately understand the associated risks as well as the measures taken by companies to manage these risks, thereby strengthening their optimism and confidence. Furthermore, it is suggested that companies provide supplementary explanations and practical examples regarding improvements in internal controls or reductions in identified risks, transforming such positive sentiment into a sustainable advantage for investors. Regulatory authorities are also recommended to facilitate this process by developing comprehensive guidelines and requiring targeted disclosures. In this way, investors can benefit not only from reduced information uncertainty but also from increased confidence and a more positive outlook regarding the future performance of companies.

8.3 | Suggestions for Future Research

- I. Investigating the effect of the tone of KAMs disclosures on investors' risk-taking levels in the Iranian capital market.
- II. Examining the relationship between the readability of audit reports and investor sentiment with an emphasis on KAMs.
- III. Investigating the effect of KAMs on stock price volatility.
- IV. Examining the effect of KAMs on investor sentiment and market reactions.
- V. Investigating the effect of KAMs on audit fees and audit report delays.
- VI. Examining the moderating effect of corporate governance characteristics on the relationship between KAMs and investor sentiment.
- VII. Investigating the effect of managerial overconfidence on KAMs.

8.4 | Research Limitations

- I. One of the main limitations of this study is the recent implementation of Auditing Standard No. 701 and the emerging nature of the requirement to disclose KAMs in Iran. Some companies may not yet be fully familiar with the requirements of this standard. Moreover, differences in the interpretation of the standard and the lack of uniformity in reporting practices may lead to different results if a consistent reporting framework is adopted among companies. Furthermore, this study uses 12 components to measure KAMs; therefore, employing interviews or a broader range of measurement components for this variable may produce results different from those obtained in the present study.
- II. Another limitation of this study relates to the measurement method of investor sentiment, which was based on the approach proposed by Rhodes-Kropf et al. [36]. It should be noted that the use of alternative measures (such as trading volume-based indicators or market volatility indices) may lead to different findings. This limitation arises because each sentiment measurement approach captures specific dimensions of this concept and may not fully represent all complex aspects of market sentiment. Therefore, generalizing the findings to other methods of measuring investor sentiment should be approached with caution and requires further empirical investigations.

Conflict of Interest

The authors declare no conflict of interest.

Data Availability

All data are included in the text.

Funding

This research received no specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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