Original Article

From ethics to whistleblowing: the role of psychological safety in professional misconduct reporting by auditors

Ali Aliloo [1], Reza Nemati Koshteli [2*], Habibollah Nakhaei [1]

[1] Department of Accounting, Bi.C., Islamic Azad University, Birjand, Iran.

[2] Department of Accounting, Isl.C., Islamic Azad University, Islamshahr, Iran, , Email: nematikoshteli@iiau.ac.ir

*** Corresponding author and reprints: Reza Nemati Koshteli**, Assistant Professor, Department of Accounting, Isl.C., Islamic Azad University, Islamshahr, Iran.

Email: nematikoshteli@iiau.ac.ir

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Abstract

Background: Auditors, especially in health-related sectors, face psychological and organizational barriers when reporting misconduct. While ethical leadership promotes whistleblowing, the moderating role of psychological safety remains underexplored. This study examined how psychological safety influences the relationship between ethical leadership and auditors' willingness to report professional misconduct.

Methods: This descriptive-correlational survey was conducted among auditors working in the Audit Organization and member institutions of the Iranian Association of Certified Public Accountants in 2025. A simple random sampling method was employed, and a total of 177 valid questionnaires were collected for analysis. Data collection instruments included standardized questionnaires on ethical leadership, psychological safety, and whistleblowing intention, all of which have been previously validated in Iranian contexts, showing satisfactory reliability (Cronbach's alpha > 0.80) and construct validity through confirmatory factor analysis. Data were analyzed using structural equation modeling with the partial least squares approach (PLS-SEM) via SmartPLS 4 software. PLS-SEM was chosen because it is well-suited for studies with relatively small sample sizes, can handle complex models with multiple latent variables, and does not require strict assumptions about data normality

Results: Ethical leadership was significantly and positively associated with a greater willingness to report professional misconduct ($P<0.01$). Furthermore, psychological safety strengthened the effect of ethical leadership on whistleblowing intention and served as a significant moderator ($P<0.05$).

Conclusion: Psychological safety may play a key role in enhancing whistleblowing within auditing institutions, especially in health-related organizations. Unlike prior studies that focused only on direct effects of ethical leadership, examining psychological safety as a moderating factor addresses a scientific gap by showing when and how ethical leadership most effectively promotes whistleblowing. This highlights that a supportive work environment can strengthen transparency and foster a health-oriented organizational culture.

Keywords: Ethics; leadership; Psychological Safety; Whistleblowing; Management Audit; Ethics, Institutional.

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Introduction

Auditing firms, particularly in critical areas such as healthcare, play a vital role in ensuring the financial information's validity, improving internal control systems, and promoting transparency (1, 2). Some factors, such as political instability, economic volatility, and technological developments in Iran,

have required these firms to adapt to new standards and meet the increasing needs of stakeholders (3). However, there are multiple reports of employees violating laws and ethical norms in such high-pressure environments. They can lead to wider organizational misconduct and violations, if not reported (4). Despite the importance of professional whistleblowing, studies indicate that many auditors refrain from whistleblowing for several reasons, such as fear of retaliation, removal from projects, or weakening of their professional status (5, 6). These retaliatory responses can include reduced job responsibilities, transfers to non-key units, and even threats of preventing job promotion (7, 8). Psychologically, these pressures may strengthen the feelings of helplessness, hopelessness, and worthlessness in auditors and jeopardize their mental health (9).

Psychological safety is defined as feeling safe to freely express opinions, concerns, and disclose misconduct without fear of negative consequences (10). When these conditions are provided, employees are more likely to express their ethical concerns and report misconduct and violations (11). In this regard, ethical leadership plays a key role in providing such conditions. Ethical leaders pave the way for increased psychological safety in the organization by modeling correct behaviors, promoting ethical values, and supporting psychological safety (12). Several studies have indicated that ethical leadership can significantly enhance reporting behaviors, especially in an interaction with psychological safety (13). Bandura's theory of moral agency also emphasizes the role of one's moral capacities in interacting with environmental conditions (14). Although recent studies have examined ethical leadership, psychological safety, and whistleblowing separately, no research has investigated their interactive effects among Iranian auditors. Specifically, it remains unclear how psychological safety moderates the influence of ethical leadership on whistleblowing behaviour in this context. The present study addresses this scientific gap by analyzing both the direct relationship between ethical leadership and whistleblowing and the moderating role of psychological safety. Practically, it provides actionable insights for audit firms, particularly in health-related organizations, by identifying conditions under which ethical leadership is most effective in fostering a transparent reporting culture, thereby enhancing organizational accountability and ethical practice.

Methods

Research setting and population

The present descriptive-correlational study was conducted within the framework of audit research in 2024. The statistical population included all auditors working in the Audit Organization and member institutions of the Iranian Society of Certified Public Accountants. Participants were selected using a convenience-based stratified random sampling method to ensure representation across different provinces, organizational roles, and experience levels. Initially, 650 questionnaires were distributed both electronically and manually to maximize reach and representativeness. A minimum sample size of 140 was calculated based on the rule of five to fifteen observations per questionnaire item (28 items) (15). Ultimately, 177 complete and valid questionnaires were obtained for the final analysis, ensuring that the sample adequately reflected the diversity of the auditor population while maintaining randomness within each stratum.

Data collection method

The research data were collected quantitatively and cross-sectionally. Three standard and valid questionnaires were used as data collection tool: the Ethical Leadership Questionnaire Brun et al., (16) including 8 items with a five-point Likert scale, the Psychological Safety Questionnaire Edmondson, (17) including

5 items with the same scale, and the Scenario-BasedWhistleblowing Questionnaire Taylor EZ, Curtis, (7) including 15 items with a seven-point Likert scale. The questionnaires were reviewed for content validity by experts and specialists before their final distribution, and their reliability was confirmed using a Cronbach's alpha coefficient, as its value was obtained higher than 0.7. The final version of the questionnaires was provided to the respondents after a pre-test to examine their consistency. The priorities of data collection were to adhere to ethical research principles and maintain the confidentiality of participants' information.

Statistical analysis

To analyze the data, partial least squares structural equation modeling (PLS-SEM) was used in SmartPLS-4 software. This method allowed for the simultaneous examination of measurement and structural models. To assess model quality, indices such as the coefficient of determination (R^2), composite reliability (CR), and average variance extracted (AVE) were calculated. The significance test of model paths was performed using the bootstrapping method with 100,000 replications. Additionally, descriptive statistics, including mean, standard deviation, and correlation matrix, were also calculated. This integrated statistical approach paved the way for a deep understanding of the mechanisms of effect of ethical leadership and psychological safety on professional whistleblowing in audit environments, and its results have the potential to be applied in improving organizational policies and performance.

Results

In this study, 650 questionnaires were distributed manually and electronically. Finally, 183 questionnaires were returned. Among them, 177 were usable. Thus, the return rate of the questionnaires was about 29%. As Table 1 presents, the largest gender group was males with 69%. The largest education group, with 54%, was related to a master's degree. The results also revealed that 30% of the respondents had a PhD degree. The largest age group of respondents, with 83% belonged to 18 to 30 years, and the smallest age group, with 4%, belonged to 46 years and older. Additionally, 95% of the respondents were working in auditing firms that are members of the Iranian Society of Certified Public Accountants Table 1.

Table 1. Demographic characteristics of the respondents

Description		No.	%
Gender	Male	123	69
	Female	54	31
Education	Bachelor's Degree	28	16
	Master's Degree	96	54
	PhD	53	30
Age	18 to 30 years old	147	83
	31 to 45 years old	23	13
	46 and above	7	4
Workplace	Audit Organization	9	5
	Audit firms	168	95

The results revealed that the mean scores of the ethical leadership items were high, ranging from 3.68 to 4.13. They also had relatively low dispersion, indicating that the respondents had a positive assessment of ethical leadership. Regarding whistleblowing, the means ranged from 2.34 to 3.72, indicating a large variation in individuals' attitudes and behaviors toward professional disclosure. Moreover, in the psychological safety items, the means were reported to be around 3, and the standard deviations were high, indicating a moderate level of psychological safety and significant individual differences. Generally, the descriptive data revealed a good dispersion in the variables for conducting subsequent analyses and examining the relationships between them Table 2.

Table 2. Descriptive statistics of research variables

Dimensions	Question	Mean	Median	SD	Skewness	Min	Max
Ethical Leadership	1	3.864	4	0.917	-0.171	2	5
	2	3.881	4	0.946	-0.244	2	5
	3	3.881	4	0.91	-0.261	2	5
	4	3.904	4	0.9	-0.278	2	5
	5	3.887	4	0.932	-0.152	2	5
	6	3.91	4	0.904	-0.144	2	5
	7	3.904	4	0.943	-0.173	2	5
	8	3.859	4	0.937	-0.212	2	5
Professional whistleblowing by the auditor	9	3.853	4	1.997	0.084	1	7
	10	3.78	4	2.034	0.136	1	7
	11	3.893	4	2.101	0.029	1	7
	12	3.729	4	1.976	0.134	1	7
	13	3.91	4	2.012	0.095	1	7
	14	3.989	4	2.028	-0.062	1	7
	15	4.124	4	1.993	-0.121	1	7
	16	3.955	4	1.951	-0.019	1	7
	17	4.186	4	1.921	-0.036	1	7
	18	4.232	4	1.942	-0.06	1	7
	19	4.096	4	1.837	-0.115	1	7
	20	4.209	4	2.125	-0.12	1	7
	21	3.819	4	1.925	-0.038	1	7
	22	3.701	3	1.918	0.206	1	7
	23	4.266	4	2.051	-0.173	1	7
Psychological Safety	24	2.842	3	1.413	0.199	1	5
	25	2.904	3	1.409	0.123	1	5
	26	2.938	3	1.423	0.039	1	5
	27	2.921	3	1.436	0.082	1	5
	28	3.045	3	1.373	-0.042	1	5

Questionnaire validity and reliability

Convergent validity, Cronbach's alpha coefficient, and composite reliability were used, respectively, to determine the validity and reliability of the mentioned questionnaire. Its validity and reliability were confirmed. Table 3 presents the results. As the Cronbach's alpha value of the variables was higher than 0.7, there is acceptable reliability. The composite reliability values of the constructs were a more realistic and accurate measure than their Cronbach's alpha. A value higher than 0.7 of the composite reliability coefficients in Table 3 indicates appropriate internal consistency for measurement models. Fornell and Locker (1981) (31) introduced the AVE (average variance extracted) criterion to measure convergent validity. He stated that in the case of AVE, the critical value is 0.5, meaning that an AVE value above 0.5 indicates acceptable convergent validity. Table 3 shows that the average variance extracted for all variables in the present study is higher than 0.5, indicating acceptable convergent validity.

Table 3. Cronbach's alpha coefficient, composite reliability coefficient, and average variance extracted

Model	Variable	Cronbach's alpha coefficient Alpha > 0.7	composite reliability coefficient Alpha > 0.7	and average variance extracted Alpha > 0.7
First	Ethical Leadership	0.995	0.996	0.969
	Professional whistleblowing	0.999	0.999	0.986
Second	Psychological Safety	0.992	0.993	0.967
	Ethical Leadership	0.995	0.996	0.969
	Professional whistleblowing by auditor	0.999	0.999	0.986

Table 4 shows the factor loadings of the items for three primary research constructs, including ethical leadership, auditor whistleblowing, and psychological safety. All items related to the ethical leadership construct (questions 1 to 8) have factor loadings between 0.975 and 0.988, indicating a very high correlation of these items with the relevant construct. It also indicates that the items can represent different dimensions of ethical leadership well. All the items related to professional whistleblowing (questions 9 to 23) have high factor loadings of 0.991 to 0.995. These very high values indicate that the questionnaire designed to measure whistleblowing has high internal consistency and accuracy, and the items are completely in line with the primary construct. Regarding the psychological safety construct (questions 24 to 28), which was included only in the fourth model, all factor loadings were in the range of 0.979 to 0.986, indicating high validity and the capability of the items to represent the perception of psychological safety in the workplace. Generally, the results of Table 4 indicate that all research variables had good construct validity and the measurement model had sufficient validity to continue structural analyses.

Table 4. Factor loadings of research variables in both models

Dimensions	Question	First	Fourth
Ethical Leadership	1	0.987	0.987
	2	0.980	0.980
	3	0.987	0.987
	4	0.987	0.987
	5	0.985	0.985
	6	0.975	0.975
	7	0.987	0.987
	8	0.988	0.988
Professional whistleblowing **by the auditor**	9	0.992	0.992
	10	0.993	0.993
	11	0.992	0.992
	12	0.993	0.993
	13	0.992	0.992
	14	0.994	0.994
	15	0.993	0.993
	16	0.991	0.991
	17	0.994	0.994
	18	0.992	0.992
	19	0.995	0.995
	20	0.995	0.995
	21	0.992	0.992
	22	0.992	0.992
	23	0.993	0.993
Psychological safety	24	--	0.984
	25	--	0.984
	26	--	0.979
	27	--	0.986
	28	--	0.984

Hypothesis 1 (H1): Ethical leadership positively influences auditors' professional whistleblowing.

Structural equation modeling results (Figure 1, Table 5) revealed a significant positive effect of ethical leadership on professional whistleblowing (path coefficient = 0.888, $t = 43.832$, $p < 0.001$). The R^2 value of 0.788 indicates that ethical leadership accounts for approximately 79% of the variance in auditors' whistleblowing behavior. These results confirm H1, demonstrating that ethical leadership creates an organizational environment conducive to professional transparency and accountability.

Given the path coefficient (0.888), t-statistic (832.43), and a significance level of less than 5 percent (0.000), the first hypothesis of the study (the positive and significant impact of ethical leadership on auditors' professional whistleblowing), is confirmed. These results suggest that organizational environments with an ethical leadership model are likely to have a stronger work and ethical culture in which auditors feel more responsible for professional whistleblowing. From a research viewpoint, the results provided a strong basis for explaining the importance and key role of ethical leadership in improving the organization's internal processes and promoting professional transparency. The CV-Red and CV-Com statistics, representing the redundancy index and the cross-validity index, respectively, and the positive values in all paths indicate the appropriate quality of the structural model for the paths of the present study, as shown in Table 5. Moreover, the R2 value of the dependent variable of the

study in Table 5 indicates that about 79 percent of the changes in the variable of professional whistleblowing by the auditor can be predicted by the independent variables.

Hypothesis 2 (H2): Psychological safety moderates the relationship between ethical leadership and professional whistleblowing.

As shown in Figure 2 and Table 6, the interaction between ethical leadership and psychological safety was significant (path coefficient = 0.178, t = 4.702, p < 0.001), confirming H2. The R^2 value of 0.820 indicates that about 82% of the variance in professional whistleblowing can be explained by ethical leadership, psychological safety, and their interaction. These findings highlight that the positive influence of ethical leadership on whistleblowing is stronger in environments where psychological safety is perceived as high, emphasizing the role of trust and a safe reporting climate in promoting ethical auditing behaviors

As shown in Figure 2 and Table 6, psychological safety significantly enhances the impact of ethical leadership on auditor professional whistleblowing. The path coefficient (0.178), t-statistic (4.702), and a significance level of less than 5 percent (0.000) indicate that the second hypothesis of the study (the moderating impact of psychological safety on the relationship between ethical leadership and auditor professional whistleblowing) is confirmed. In environments where a sense of psychological safety is felt more, the

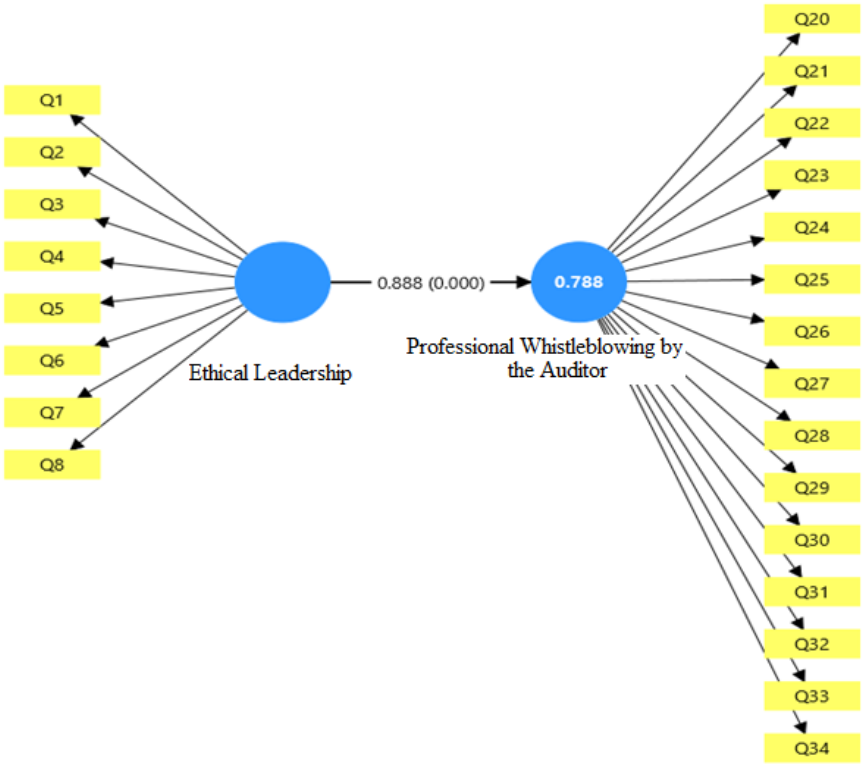

Figure 1. Path coefficients and significance level of variables of the first research model (first hypothesis)

Table 5. Results of testing the first research hypothesis

Hypothesis	Variables	Path coefficient	T statistic	Sig	Hypothesis result
1	Ethical Leadership → Professional whistleblowing by the Auditor	0.888	43.832	0.000	Confirmed
	Cv – Red :0.213		Cv – Com :0.209		
Professional whistleblowing by the auditor			R^2 (0.788)		

positive effect of ethical leadership in encouraging whistleblowing among auditors is more highlighted. This result indicates that leaders' ethical models play a more significant role in transparent and ethical auditing behaviors when organizational members have more trust in each other and are not concerned about the negative consequences of professional whistleblowing. These results indicate that psychological safety in the workplace can improve the effects of ethical leadership in promoting the level of accountability and professional transparency among auditors. Thus, enhancing psychological safety in the organization is not only a cultural need but also a key factor for improving the processes of professional whistleblowing and promoting ethical behaviors. In a safe environment, auditors discuss professional issues and misconduct with more confidence, so the organization is enhanced ethically.

The CV-Red and CV-Com statistics, representing the redundancy index and the cross-validity index, respectively, and positive values in all paths indicate the appropriate quality of the structural model for the paths of the present study, as shown in Table 6. The R2 value of the dependent variable of the study in Table 6 indicates that about 82 percent of the changes in the variable of the auditor's whistleblowing can be predicted by the independent variables.

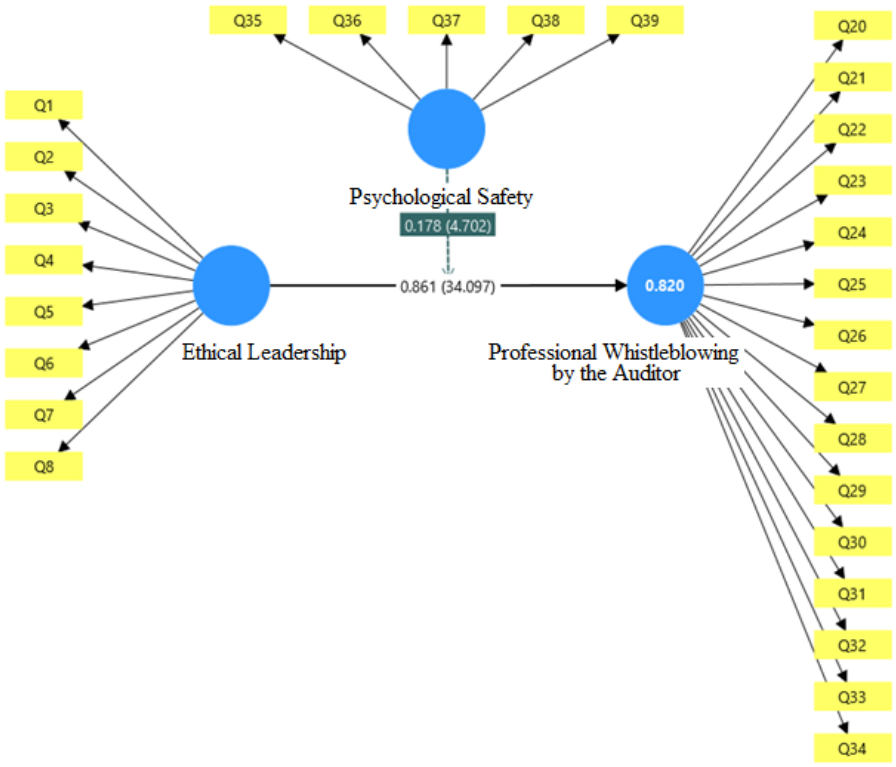

Figure 2. Path coefficient and t-statistic of variables of the second research model (second hypothesis)

Table 6. The moderating effect of psychological safety on the relationship between ethical leadership and auditor professional whistleblowing using structural equation modeling

Hypothesis	Variables	Path coefficients	t-statistic	sig	Hypothesis result
2	Psychological safety*Ethical leadership → Professional Whistleblowing by the Auditor	0.178	4.702	0.000	Confirmed
	Cv – Red: 0.214		Cv – Com: 0.205		
	R^2: 0.820	Professional whistleblowing by the auditor			

Discussion

The results highlight the complementary role of ethical leadership and psychological safety in promoting professional whistleblowing among auditors in Iran. The first hypothesis was confirmed, showing that ethical leadership has a direct and substantial positive effect on auditors' willingness to report misconduct. Specifically, the path coefficient of 0.888 and an R^2 value of 0.788 indicate that ethical leadership alone accounts for a significant proportion of variance in whistleblowing behaviour.

The second hypothesis was also confirmed, demonstrating that psychological safety moderates this relationship. When auditors perceive a higher level of psychological safety, the positive impact of ethical leadership on whistleblowing is strengthened (path coefficient = 0.178; R^2 = 0.820). This finding suggests that ethical leadership is most effective in encouraging professional disclosure when employees feel secure to express concerns without fear of retaliation.

Investigating the impact of ethical leadership on auditors' professional whistleblowing confirmed and expanded the theories of leader-member exchange and servant leadership. It emphasizes the importance of integrating the concepts of social identity and self-determination in a better understanding of the process of formation of "organizational ethical identity" (18). Ethical leaders create an environment where whistleblowing becomes an act of identity, guiding not only individual behavior but also the entire organizational cultural structure toward transparency and accountability (19).

Practically, this study highlights the need to redesign policy-making and human resource management mechanisms in audit firms, such as simulating ethical conflicts in professional training, implementing secure and anonymous reporting channels, integrating ethical indicators into reward systems, and appointing "ethical ambassadors" to continuously promote ethical values in audit teams. Additionally, supervisory institutions can strengthen organizational accountability mechanisms and increase the resilience of the economic system against corruption by requiring transparency in internal processes for professional whistleblowing and periodically assessing the psychological safety of employees (20). Ethical leaders can prevent financial crises by transforming whistleblowing from exceptional behavior to an organizational norm in the complex and stressful auditing environment, where it is difficult to maintain a balance between professional duty and organizational pressures. Achieving this goal requires a synergistic triple bottom line of continuing education, reengineering organizational structures, and strengthening supervisory governance. Future studies should go beyond simple causal models and explore the interactive circle of individual, organizational, and societal behavior to more comprehensively consider the complexities of the ethical ecosystem in audit firms.

The second hypothesis of this study provides a novel perspective on the dynamic interaction between individual factors and organizational structures in professional settings by closely examining the moderating role of psychological safety in strengthening the link between ethical leadership and whistleblowing. Our results suggest that psychological safety is not merely a favorable context but rather acts as a "structural enabler" and enhances the effectiveness of ethical leadership from the level of ideals to tangible reporting behaviors. This phenomenon can be explained by relying on social exchange theory and psychological safety theory. Additionally, ethical leadership increases social capital among team members by creating mutual commitment and mutual trust (21).

Moreover, psychological safety, as a mechanism for reducing the potential risks arising from courageous ethical actions, transforms this social capital into objective reporting actions (22). In other words, even the presence of leaders with strong moral tendencies may lead to "organizational silence" in environments lacking psychological safety since fear of potential negative consequences prevents reporting behaviors. In contrast, the synergy of ethical leadership and psychological safety reinforces a positive and virtue-centered cycle in the organization (23, 24). This interaction at a deeper level operates through three fundamental mechanisms. First, psychological safety paves the way for "ethical dialogue, where complex ethical issues can be debated without fear of judgment, enriching a collective understanding of professional standards and reducing the ambiguity related to the whistleblowing duty (24). Second, in environments with psychological safety, whistleblowing gradually moves from an exceptional act to an accepted "organizational norm," and it gradually becomes part of desirable "organizational citizenship" behaviors. Ethical leadership also institutionalizes these norms in the organizational structure by modeling behaviors based on transparency and accountability. Third, the psychological support in safe environments increases auditors' psychological resilience in the face of potential pressures after reporting (such as interpersonal tensions or organizational pressures), thereby moderating the perceived costs of ethical action (25).

Practically, the results of the second hypothesis revealed three key strategic directions for audit firms and supervisory bodies. First, leaders' performance evaluation systems should be redesigned, and their effectiveness metrics should include tangible indicators of their capability to create and maintain psychological safety in teams (such as the rate of internal reporting or the diversity of views and opinions presented in meetings). Second, organizational development and training programs should be designed in an integrated manner and focus simultaneously on promoting leadership ethics and strengthening trust-building and psychological safety skills (such as the capability to listen actively and respond non-defensively to criticism). Third, it is necessary to institutionalize dynamic support policies in organizations. Although creating anonymous reporting mechanisms is crucial, it is not sufficient. Establishing independent ethical mediation institutions within organizations can act as an effective intermediary between employees and management and prevent the reporting process from turning into a communication crisis (26-28).

Considering the positive and significant impact of ethical leadership on increasing the professional whistleblowing, it is recommended that policymakers and regulatory bodies include tangible requirements for measuring and monitoring the ethical indicators of senior managers and audit partners in the development of national and international auditing standards, so the selection and promotion criteria at these levels include ethical competencies beyond technical and quantitative criteria. Audit firm managers can identify and cultivate opportunities to improve and strengthen ethical leadership in real time by establishing systematic 360-degree feedback mechanisms and continuously monitoring the ethical behavior of these individuals using technologies such as secure and confidential interaction platforms (29).

Based on the results of the second hypothesis, to strengthen the impact of ethical leadership on professional whistleblowing and to use the moderating role of psychological safety, it is recommended that the audit organization and the certified public accountants' community develop an operational framework that ensures the confidentiality

of the reporter, legal protection, and guarantees positive consequences so that auditors can disclose misconduct in a safe environment. At the management level, audit firms' supervisors should strengthen the atmosphere of trust and dialogue with exemplary behaviors, including public appreciation of reporters, and increase the teams' capability to deal with ethical risks by holding short-term training courses in the field of ethical leadership and psychosocial skills (30).

Auditors should create supportive networks and access to electronic and anonymous reporting systems to strengthen the feeling of psychological safety in real situations and increase the courage to report misconduct. In the higher education area, it is recommended that interdisciplinary courses in organizational behavior and professional psychology be designed, and applied research projects be supported on how ethical leadership and psychological safety interact in audit firms, so the next generation of auditors and managers can become familiar with these concepts and can effectively sustain healthier work environments.

By investigating the role of moderating factors (work pressure, policy ambiguity, and competitive climate) and mediating variables (organizational culture and management support), and conducting cross-cultural and longitudinal comparative studies, future studies could deepen the relationships between ethical leadership, ethical empowerment, psychological safety, and whistleblowing. Using the mixed methods (qualitative interviews combined with quantitative analysis) and analyzing various types of misconduct (overt and gray), especially in the context of new technologies such as artificial intelligence platforms and blockchain registration, can clarify the hidden dimensions of auditors' experience and the effects of tools on psychological safety. Moreover, investigating the effect of macro-environmental factors (economic pressures and social media), the role of informal peer networks, and exploring potential paradoxes (e.g., ethical leadership without psychological safety) increases the theoretical and applied richness of causal models in this area.

Limitations

The limitations suffered from some limitations. First, relying on self-report data may have led to response bias, as participants may have tended to present a favorable self-image. Second, sampling from a specific geographic region may have overlooked the impact of different cultural variables. Thus, future studies can clarify these impacts by examining different cultural contexts. Third, focusing merely on ethical individualism may have overlooked the impact of larger structures, such as the intense competition in the audit services market or the conflicts of interest inherent in the firms' business models. Fourth, using cross-sectional data limits our capability to investigate causal relationships over time and the long-term impact of variables. It highlights the need for longitudinal methods in future studies. Finally, the possibility of "survival bias" in the research samples (auditors who remained in unsafe environments) could have affected the findings, so future studies should pay attention to sampling design.

Conclusion

The results indicate the decisive role of ethical leadership and psychological safety in promoting professional whistleblowing in the auditing area. According to the results, ethical leadership directly and positively affects the auditors' whistleblowing. Psychological safety strengthens this relationship significantly. It indicates that the mere presence of ethical leaders is not sufficient to create responsible behaviors in the organization, and employees must operate in a psychologically safe environment so they can display ethical behaviors such as professional whistleblowing without fear of

negative consequences. Analyzing the results revealed that psychological safety, as a structural and facilitating factor, provides a condition in which leaders' ethical messages are heard, understood, and ultimately transformed into real and positive behaviors. In other words, the combination of ethical leadership with a high level of psychological safety institutionalizes organizational norms based on transparency, accountability, and ethical activism. It also prevents passivity, organizational silence, and professional corruption.

Thus, it is recommended that managers and policymakers in audit firms base their organizational strategies on two main axes: selecting and cultivating leaders with ethical competencies, and creating and maintaining work environments based on psychological safety. Some key measures in this regard are implementing continuous training programs, reviewing performance evaluation systems, developing confidential reporting channels, and providing structural support to reporters. Additionally, the results highlight the necessity of developing more precise monitoring mechanisms by upstream institutions to simultaneously measure professional ethics indicators and the quality of psychological safety in audit firms. Based on the study limitations, it is recommended that future studies investigate the ethical and psychological dynamics in auditing structures using mixed approaches and in more diverse cultural and temporal contexts to gain a deeper understanding of the ethical ecosystem of professional organizations.

Authors' contribution

Ali Aliloo and Reza Nemati Koshteli developed the study concept and design. Habibollah Nakhaei and Ali Aliloo acquired the data. Ali Aliloo and Reza Nemati Koshteli analyzed and interpreted the data, and wrote the first draft of the manuscript. All authors contributed to the intellectual content, manuscript editing and read and approved the final manuscript.

Informed consent

Questionnaires were filled with the participants' satisfaction and written consent was obtained from the participants in this study.

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Conflict of interest

The authors declare that they have no conflict of interests.

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