

The Effect of Professional Commitment on Auditors' Ethical Whistleblowing: Moderating Role of Gender and Age

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Abstract

Background: The auditing profession contributes to upgrading information transparency, economic health, and confidence in the community. With the spread of financial corruption, ethical whistleblowing as a control mechanism and part of corporate governance was raised as an essential approach to prevent and identify immoral behaviors. This study aimed to investigate the effect of professional commitment on auditors' ethical whistleblowing, emphasizing the moderating role of gender and age variables.

Material and Methods: The method of the present study is a descriptive survey in terms of data collection and applied from the point of view of purpose. The statistical population of this study includes all auditors working in private institutions under the membership of the Society of Certified Public Accountants. The statistical sample consisted of 392 participants selected using a simple random sampling method and Cochran's formula. The data of the study were collected using a standard questionnaire tool. The structural equation modeling method was performed using the Smart PLS software to investigate the effect of research variables on moral warning and fit the proposed model.

Results: The research results indicated that professional commitment positively affects ethical whistleblowing. The variables of gender and age also moderate the relationship between professional commitment and the level of independent auditors' ethical whistleblowing.

Conclusions: Following the findings of this study, strengthening professional commitment leads to the development of ethics and ethical whistleblowing and health the economic atmosphere.

Keywords: Professional Commitment, Ethics, Whistleblowing

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INTRODUCTION

Nowadays, one of the worst dilemmas ahead of society is the continuous separation of business and ethics [1]. These problems are derived from embezzlement, corruption, theft, and fraud, reflecting the lack of commitment of employees to the profession, extravagance, and violation of legal and moral principles [2]. During the audit process, auditors may witness unethical behaviors associated with accounting. Thus, they have a proper opportunity for whistleblowing about misbehaviors [3]. Academic research in connection with whistleblowing began in the early 1980s. Most of these investigations have insisted on identifying the whistleblower's psychological and sociological characteristics or on identifying a situation leading to ethical whistleblowing [4]. In the current case, comprehensive and effective monitoring of public

resources is a public demand, and the utilization of any mean that detects errors or violations in the performance of public sector organizations in the fastest time possible is crucial. To reassure the public about self-discipline in the accounting profession, employees in this profession must be sensitive to detecting any unethical behavior and misconduct related to the financial field. In the case of awareness, before it leads to public harm, they should attempt to disclose it (ethical whistleblowing) to the relevant authorities inside and outside the organization. Despite the existence of various mechanisms to prevent and detect all types of fraud and abuse in organizations, the best way to detect violations is still via ethical whistleblowing. In other words, in most cases, managers or supervisors notice errors or irregularities in their

financial and operational processes when someone has disclosed them [5].

The consequence of a lack of ethical whistleblowing to the public is the potential damage that will address audit firms and the auditing profession, as it plunged the Arthur Anderson Institute into the abyss of destruction [6]. Studies carried out in the auditing profession regarding whistleblowing in Iran demonstrate the importance of this matter in auditing firms. The significance of whistleblowing is more manifested when compromise and collusion between the manager, the supervisor, and the audit partners. When auditors observe a questionable action, they are in an ethical dilemma requiring moral judgment and decision-making [7].

It was found in a study that the ethical climate is affecting Whistle Blowing and its two components of its three components. The two components that are affected by Ethical climate include the Perceived personal responsibility to report and the Perceived seriousness of the act in question. The component that is not affected by the ethical climate is the Perceived personal costs of reporting [8]. Some scholars consider organizational and professional norms as critical and influential factors in employees' perception of fraud whistleblowing. They believed that employees' conscientiousness, corporate trust, and professionalism should be promoted to strengthen the reporting and whistleblowing of fraud [9]. Researchers have exhibited a positive relationship between professional commitment and auditors' disclosure intent, reflecting that auditors with professional commitment make more disclosures [10].

The professional commitment represents a cognitive state and a sense of psychological identity with a job. Professional commitment is the belief about a person's job and depends on how a job can meet a person's current needs. Individuals heavily involved in their jobs and professions consider a career an essential part of their identity [11]. Anyone with a strong professional commitment strives to perform their duties professionally [12]. Hence, if a problem prevents him from doing their job and profession, they will solve it immediately. If fraud occurs in the organization, someone with a strong professional commitment will surely realize how dangerous this immoral behavior is since this action violates the ethical norm that has already been established and certainly challenges the organization's purpose. Thus, they quickly report fraud to do his/her duty professionally. Because of smoothing the achievement of the organization's goals, ethical whistleblowing is associated with his/her responsibility.

As a person's level of professional commitment is higher, ethical whistleblowing will probably be necessary for her view of them [13].

Professional commitment is the level of personal loyalty to one's job that individuals recognize. Professional commitment is related to the disclosure intention, suggesting that auditors involved in the work are more likely to disclose. It is expected that experienced auditors should have a major contribution to prioritizing professionalism and ethics for disclosure [14].

Furthermore, some studies explored the relationship between professional commitment and ethics. Auditors' professional responsibility might affect their level of moral reasoning [15].

Some experts have announced different results in empirical research concerning the impact of auditors' commitment and professional evaluation on whistleblowing decisions [16]. Some experts revealed no relationship between professional commitment and auditors' ability to identify ethical issues [17]. On the other hand, the other researchers concluded a positive correlation between professional commitment and the auditor's intention for ethical whistleblowing [18]. Therefore, concerning the above-listed contents, the first question of the research is whether the professional commitment of independent auditors has a significant effect on ethical whistleblowing?

Moreover, some experts have expressed that gender seems to affect the whistleblowing process; nevertheless, this is probably since the results of investigations have been unpredictably varied. Some scholars reported that women who observed misbehavior had less but significant whistleblowing likelihood relative to men [19, 20]. On the contrary, others indicated that men tend to whistleblowing [21]. Whistleblowers of immoral behavior often face retaliation as a result of their actions. This is while studies illustrated that women decline their whistleblowing tendency at disclosure compared to men [22]. Other investigations demonstrated that gender has no significant relationship with disclosure purposes [23]. Some scholars explored the accountants' whistle-blowing intentions and the impact of retaliation, age, and gender. The results show a complex interaction effect of revenge, participants' age, and gender on their propensity to blow the whistle. Male accountants are more likely than female accountants to blow the whistle as early career accountants. Accountants in the mid-age group are not only likely to whistle-blow when there is retaliation but also tend to be more willing to do so when that retaliation involves a direct personal loss rather than a loss to their

associates. Accountants 45 years or above respond to retaliation differently depending on their gender [24]. Hence, this study intended to investigate the effect of auditors' age and gender on the relationship between professional commitment and auditors' ethical whistleblowing. In this respect, the following questions are proposed:

1. Do the gender differences of independent auditors significantly affect the relationship between professional commitment and ethical whistleblowing?
2. Does the age of independent auditors significantly affect the relationship between professional commitment and ethical whistleblowing?

Based on the backgrounds and hypotheses raised, the research design is depicted in Figure (1).

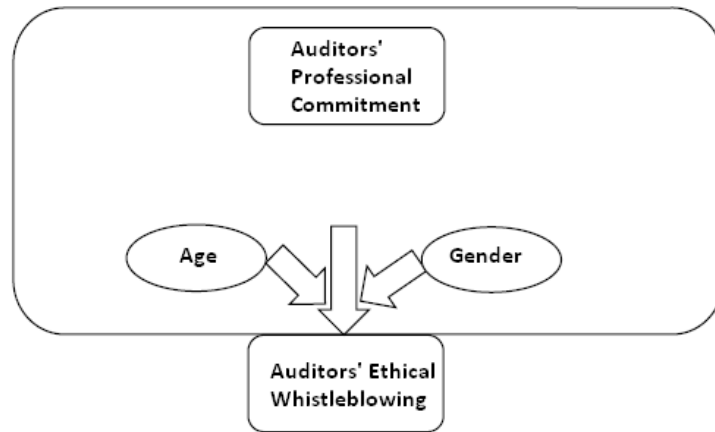


Figure 1. Conceptual Design of the Research

Table 1. Demographic Characteristics of the Participants

Variables /Description	No	Percentage (%)
Gender		
Men	446	63
Female	146	37
Age		
Less than 30	155	40
30-40	176	45
More than 40	61	16
Education		
Bachelor's degree and below	169	43
Masters	204	52
Phd and Phd student	19	5
Work experienc		
Less than 5 years	169	43
10-5 years	106	27
15-10 years	67	17
More than 15 years	50	13

MATERIAL AND METHODS

The method of the present study is a descriptive survey in terms of data collection and applied from the point of view of purpose. The statistical population of this study includes all auditors working in private institutions under the membership of the Society of Certified Public Accountants in 2019 in Iran.

Since structural equation modeling methodology has been used for data analysis, this method is similar to multiple regression aspects. The principles of sample size determination in multiple regression analysis can be used to determine the statistical sample in structural

equation modeling. The number of samples required for field research of Cochran's formula for an infinite population has been obtained. The equation of the mentioned formula is in the form of the following formula:

$$n = \frac{Z^2 \alpha / 2 p(q)}{d^2}$$

where in:

n: Number of samples

p: Success ratio in society

q: Unsuccess ratio in society

Z α/2: The value of the standard variable corresponding to the confidence level d: Accepted error. According to

the above formula and by accepting an error of 5%, the required number of samples reached 385 people. In order to observe conservatism, 450 paper questionnaires were distributed among the community as a simple random, of which 392 out of 396 returned questionnaires were usable and their data were analyzed. The demographic characteristics of the sample including gender, age, education, work experience and place of employment of the participants in this study are presented in [Table 1](#).

The data collection tool was a questionnaire. Each of the two questionnaires used is a standard questionnaire and the content validity has been approved by experts. It has been used in previous research by researchers. Confirmatory factor analysis (CFA) and extracted mean variance (AVE) were used to test the convergent validity of the model structures. For convergent validity test which is used in confirmatory factor analysis using structural factor method, The factor loads of each variable must be greater than 0.4 and be significant, i.e. the coefficient of significance or T-value of each variable must be greater than 1.96 and less than -1.96. On the other hand, the mean extracted variance (AVE) should be greater than 0.4. The condition for establishing reliability is to achieve a minimum value of 0.7 (CR for combined reliability), which is an alternative to Cronbach's alpha in structural equation analysis (25). In this study, the value of combined reliability (CR) obtained according to [Table 4](#) for research variables is more than 0.7, and thus the reliability of these variables can be ensured. The research method was field and through the distribution of paper questionnaires. To assess the ethical warning, three hypothetical situations in the field of auditing were depicted. Each scenario puts the respondent to decide on the questionable practical warning. Answers based on the Likert scale are five options, with a score of 1 for the lowest Whistle Blowing motivation and 5 for the highest Whistle Blowing motivation. A standard questionnaire consisting of 14 questions was also used to measure the professional commitment variable. The answers are based on the Likert scale. There are five options, with a score of 1 for the lowest ethical warning motivation and a score of 5 for the highest Whistle Blowing motivation. The method for testing research hypotheses is structural equation modeling (SEM) with the help of Smart PLS software. Structural equation modeling (SEM) is one of the types of statistical methods that study the relationship of several variables in a pattern at a time. One of the main reasons researchers use this approach is that structural equation modeling is a comprehensive way to test theories. Another reason is the consideration of

measurement error by this method, which allows the researchers to report the analysis of their data, taking into account the measurement error [25].

RESULTS

The title of this study is to investigate the effect of professional commitment on auditors' ethical whistleblowing with the moderating role of age and gender. Therefore, the following hypotheses are formulated:

Hypothesis 1: Professional commitment affects the ethical whistleblowing of independent auditors.

Hypothesis 2: Age differences affect the ethical whistleblowing of independent auditors.

Hypothesis 3: Auditors' age differences affect the relationship between professional commitment and ethical whistleblowing.

Hypothesis 4: Gender differences affect the ethical whistleblowing of independent auditors.

Hypothesis 5: Auditors' gender differences affect the relationship between professional commitment and ethical whistleblowing.

Structural equation modeling (SEM) was performed using PLS software for data analysis. The correlation between the variables was evaluated in this model, and the following results were gained:

The correlation coefficient is among the criteria employed in determining the correlation between two variables. The correlation coefficient shows the intensity of the relationship and the type of relationship (direct or inverse). This coefficient ranges from 1 and -1, and it will be equal to zero in the case of no connection between the two variables. Thus, [Table 2](#) illustrates the correlation between variables of the research. As can be seen, the highest correlation between the dimensions is associated with the degree of correlation between the measurements of the moderating variables with age and gender with the values of 0.593 and 0.527.

Regarding the significance level values of any of the dimensions in the table, it is found that most of the listed sizes have been confirmed in terms of the significance level. Another essential criterion that is specified by discriminant validity is the degree of relationship of a construct with its indicators compared to the relationship of that construct with other constructs so that the acceptable discriminant validity of a model suggests that a construct in the model has more interaction with its indicators relative to other constructs. Some experts express that discriminant validity is at an acceptable level when the Average Variance Extracted (AVE) value for each construct is

greater than the shared variance between that construct and other constructs (i.e., the square of the correlation coefficients between the constructs) in the model, which is illustrated in Table 3.

Meanwhile, based on the Goodness of Fit (GOF) statistic related to the model's overall fit, 0.450 represents a good

fit for the general model. The value of R² for the dependent variable of the research is equal to 0.255. Therefore, concerning these values, one can argue that 25.5% of the variations in the ethical whistleblowing variable can be predicted by professional commitment, age, and gender.

Table 2. Correlation Matrix Discriminant Validity

Variable	Age	Gender	Ethical Whistleblowing	Professional Commitment	Age× Professional Commitment	Gender×Professional Commitment
Age	1.000	-	-	-	-	-
Gender	0.274*	1.000	-	-	-	-
Ethical whistleblowing	0.251*	0.217*	0.761	-	-	-
Professional commitment	0.299**	0.231*	0.213*	0.756	-	-
Age×professional commitment	0.527**	0.234*	0.211*	0.268*	0.819	-
Gender×professional commitment	0.377**	0.593**	0.310**	0.188*	0.085	0.967

* 0.05 significance level

** 0.01 significance level

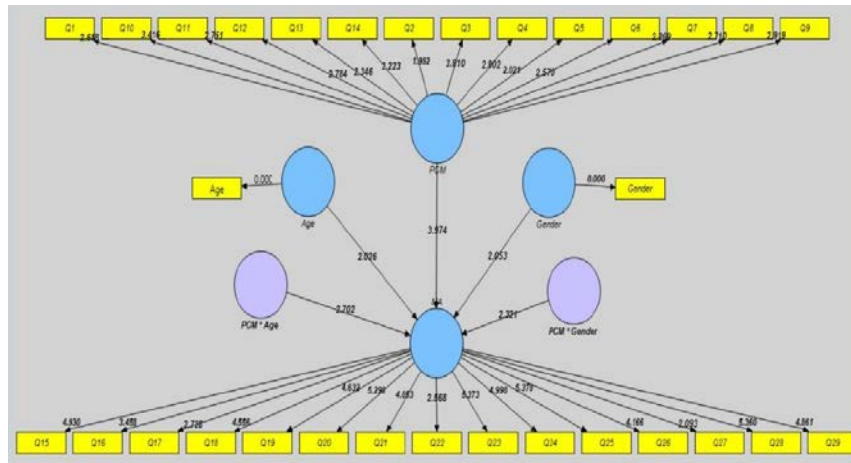


Figure 2. Structural Equation Modeling (Path Analysis)

Table 3. Results of Testing the Research Hypotheses

Relationship	Path Coefficient	T Statistic	Result	Relevant Hypothesis
The effect of professional commitment on ethical whistleblowing	0.184	3.973**	Confirmation of hypothesis	First hypothesis
The effect of age on ethical whistleblowing	0.006	2.026*	Confirmation of hypothesis	Second hypothesis
The effect of gender on ethical whistleblowing	0.027	2.053*	Confirmation of hypothesis	Third hypothesis
The moderating effect of age on the relationship between professional commitment and ethical whistleblowing	0.169	2.702**	Confirmation of hypothesis	Fourth hypothesis
The moderating effect of gender on the relationship between professional commitment and ethical whistleblowing	0.120	2.321*	Confirmation of hypothesis	Fifth hypothesis

* 0.05 significance level

** 0.01 significance level

Table 4. Summary of Statistics Associated with the Research Model

Variable	AVE	CR	Q2	R2	GOF	F2
Age	1.000	1.000	1.000	-	0.450	0.215
Gender	1.000	1.000	1.000	-	0.450	0.215
Ethical whistleblowing	0.579	0.868	0.379	0.255	0.450	0.215
Professional commitment	0.572	0.821	0.353	-	0.450	0.215
Age × Professional commitment	0.671	0.965	0.671	-	0.450	0.215
Gender × Professional commitment	0.936	0.995	0.937	-	0.450	0.215

In the meantime, by observing [Table 4](#) and based on the Q2 statistic, which indicates the appropriate quality of the model variables, it represents the suitable quality of all model variables by displaying positive numbers. On the other hand, it is observed that the CR index of the measurement constructs of research variables indicates the appropriate Composite Reliability of these variables. Moreover, the Average Variance Extracted (AVE) indicates the suitable validity of the measurement instruments.

Furthermore, based on the effect size or Cohen's f^2 , one can argue that the research's latent independent variables (moderators) have a significant impact on the dependent variable, approximately 21.5%. According to Cohen, the values of 0.02, 0.15, and 0.35 for f^2 represent small, medium, and large effect sizes, respectively.

DISCUSSION

This study sought to investigate the effect of professional commitment on auditors' ethical whistleblowing, emphasizing the moderating role of gender and age variables. The results from testing the first hypothesis indicated that professional responsibility is among the factors influencing the auditors' behavior in their judgment and decision-making about ethical whistleblowing. Auditing is a reassuring profession to shareholders and other users of the financial auditing and reporting process. Parallel to this assurance, professional commitment as an essential feature can cause strengthen ethical whistleblowing and prevent whistleblowing intention in the audit process.

This survey demonstrates that concerns are lowered whenever relationships between employees and managers are better and leadership is honest. Thus, employees' tendency to maintain ethics and professional commitment is also enhanced. People who regard their future as aligned with the organization's goals have more commitment and adopt the desired characteristics of the organization and are willing to act in the organization's interests and avoid collision with the client. Dedicated auditors strive to adhere to professional standards, principles, and rules and respect professional requirements. Hence, those with high professional commitment have more orientation to ethical whistleblowing. The results of this part of the research are in line with the studies conducted [[18](#), [21](#), [26](#)] but do not correspond to the other research results [[17](#)].

In this respect, the relevant managers in the sphere of auditing are proposed to generate suitable conditions to upgrade the professional commitment of employees while providing desirable requirements for establishing

friendly relations among employees and offering efficient and effective incentives. In addition to the knowledge and expertise of the applicants, the auditing firms and the auditing organization are suggested to seriously take into account (test) the responsibility and commitment of individuals in recruiting auditors, and the skilled psychologists should be employed in this regard. Besides, continuous training in connection with the significance of ethics and its positive effects in improving the environment of the auditing profession should be conducted. Moreover, the Iranian Association of Certified Public Accountants (IACPAs) is recommended to codify guidelines for the development of regulations related to the reporting of unethical behaviors that jeopardize economic health in line with the enforcement of the Administrative Health Law and notify the audit firms and consider in assessing the quality of the audit firms.

The results gained from the second and third hypotheses imply that as the age of the auditors is higher, they will have more ethical whistleblowing. Although people are more courageous at a young age, these decisions can be influenced by environmental factors and psychological climate. Age and gender have a complex effect on disclosure purposes. Older auditors typically have successful employment records, and gaining positions that others can trust is essential for them; hence, they will have more ethical whistleblowing. The results of this hypothesis are consistent with the results of one study [[27](#)] and do not agree with the results of another research [[24](#)].

One of the other findings of this investigation is the effect of gender on ethical whistleblowing. Males and females have differences in the information processing mechanism. Whistleblowing relative to wrongdoing is higher in women than in men. Typically, men act selectively in dealing with information, whereas women generally receive more extensive information. The outcome of this difference is greater efficiency and improved decision-making in the conditions of uncertainty. The results of this part of the study are consistent with the results of studies [[20](#)] and disagree with the results of other research [[5](#)].

The existence of obstacles and limitations in the implementation stages of any research is indispensable. This research has not been an exception to this issue, and its conduct has faced limitations. This research method is based on a questionnaire and has its inherent limitations. Among these cases, we can mention the non-completion of the questionnaires by some auditors, the

different attitudes of the respondents to the question, and the judgment based on it. About the limited number of respondents, the generalizability of research results to the entire statistical population should be done with caution.

In this survey, two moderating criteria of age and gender were exploited. Other moderating variables such as education, auditors' experience, and the size of the audit firm can be employed in further studies. Furthermore, concerning the subject examined in this study, researchers can carry out the same research at the level of auditors of government organizations (Audit Organization and Court of Audit).

CONCLUSION

The outcomes of this study demonstrate that professional commitment as one of the ethics mechanisms can promote the disclosure of violations and whistleblowing by auditors. Nowadays, with the advancement of science and technology, communities are moving towards being sophisticated and specialized. As institutions in society, organizations are no exception. In today's highly competitive world, committed, motivated, and skilled human resources are created merely due to considering the needs of individuals and training and educating human resources. In such circumstances, matters including ethics, transparency, and ethical whistleblowing against wrongdoing have become more critical than ever. Professional commitment reflects the auditor's adherence to rules and regulations. The most critical rule of the auditing profession is possibly the code of professional conduct for auditors, which encourages them to observe professional ethics. Whistleblowing is an ethical action in line with the public interest since potential harm to external and internal stakeholders can be prevented by whistleblowing (illegal, immoral, and illegitimate

activities). Hence, one can expect that auditors' commitment to their profession and its requirements, including the code of professional conduct, enhance their willingness to whistleblowing.

Professional commitment is important for auditors and those who use auditing services. In this profession, members must be required to enjoy a level of commitment beyond society's rules and regulations while observing ethical and professional principles. This study undoubtedly contributes to understanding and recognizing the attitudes of managers in the private and public sectors. These results could be employed in planning to formulate ethical principles of the profession and policy-making in attracting auditors, particularly auditors approved by the Exchange and Securities Organization and the Iranian Association of Certified Public Accountants (IACPAs).

ETHICAL CONSIDERATIONS

In this paper, the authors have taken into account ethical issues like plagiarism, informed consent, multiple publications, etc. While adhering to the principle of fiduciary duty in writing the article, people during the distribution of the questionnaires are assured that their opinions will be kept confidential, and the results will be merely assessed in general.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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