

The Relationship between Machiavellianism and Moral Identity of Auditors: Examining the Role of Gender

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Abstract

Introduction: The existence of moral behavior in the auditing profession is of special importance. Moral identity is defined as a person's commitment to perform ethical behaviors, which can be influenced by many individual factors. Personality is one of these factors. In this regard, this research was conducted with the aim of investigating the relationship between Machiavellianism and auditors' moral identity, considering the role of gender.

Material and Methods: This is an applied research and of a descriptive-correlation type. Statistical population of the study consists of auditors working in private audit institutions. The statistical sample includes 228 people who were selected using the available sampling method. The research variables were measured using standard questionnaires, and finally, multivariate regression was used to analyze the collected data.

Results: The results of data analysis showed that Machiavellianism has a negative and significant effect on auditors' moral identity. This effect is more intense for women auditors than men.

Conclusions: The results of this research can help to know the individual factors affecting the moral identity of auditors, in addition to the development of behavioral accounting literature, it can provide useful information to the legislators and policymakers of the profession and finally increase the motivation of ethical behavior of auditors.

Keywords: *Moral Identity, Machiavellianism, Gender*

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INTRODUCTION

The auditing profession is one of the professions whose final result can affect a wide range of people in the society. Therefore, society expects auditors to provide quality reports [1] and since the basis of auditing is judgment; Therefore, one of the key factors to achieve this goal is to observe ethical principles in judgments and decisions. On the other hand, the auditing profession relies to a large extent on public trust, and the recent scandals in large companies, which some believe are one of the reasons for ethical failures [2], have faded the public's trust in the accuracy of services provided by auditors [3]. When the stakeholders' trust in the auditors' reports decreases, the priority of the profession and regulatory institutions is to identify the influential factors to reach the correct judgment and restore this trust [3]. Meanwhile, many studies have pointed out the importance of ethical behavior in the auditing profession [4]. Ethical behavior is the ability to adapt or not to adapt to the moral standards governing the society, which

appears in the form of repeated and continuous patterns of behavior [5]. Professionals are trying to improve ethical behavior in all accounting and auditing activities. It can be said that in recent years, emphasis on ethics and support for ethical behavior in organizations has increased [6]. Studies show that the ethical behavior of auditors has direct consequences on the value of the company [7]. For this reason, professional and regulatory institutions have set ethical requirements, but it is the duty of auditors to implement these requirements [1].

To explain moral behavior, one of the most influential theoretical approaches is the cognitive development model, which was first proposed by Piaget and later developed by Lawrence Kohlberg and others [8]. The basic principle of this model is that the complexity of a person's moral reasoning predicts his moral behavior [9]. In other words, moral reasoning, which is the process of conscious judgment about the goodness and

consequences of actions [10], leads to moral behavior [11]. In all the researches that have been conducted in the field of ethical behavior, the variable of ethical reasoning has had a special importance and position [6]. But gradually some theorists criticized this theory and believed that this theory cannot explain moral behavior [12] and there is a weak connection between moral reasoning and moral behavior [13]. The reason for these inferences was that in many studies, immoral behaviors were sometimes observed in people with moral beliefs. This mismatch between moral judgment and moral actions led to the conclusion that people's judgment of the rightness or wrongness of an action does not always predict whether they decide to do such an action or not [14]. To understand why some people behave according to their moral judgments, while others do not, moral psychologists have introduced the concept of moral identity [15]. Moral identity has been described as a kind of self-regulation mechanism that creates the necessary motivation for moral action [16]. Some researchers suggested that moral identity is a good predictor of moral behavior and in fact they refer to it as the main driver of moral behavior [17]. Studies have shown that moral identity has a significant effect on moral leadership [18]. People with a strong moral identity will have more motivation for moral behavior [19]. In fact, moral identity acts as a bridge between judgment and moral action [20]. Identification in the field of ethics is a time-consuming process [21] and like other identities, a person's moral identity may be related to certain beliefs, attitudes and behaviors [22]. Since auditors' personality traits that may affect their professional behavior are considered a greater risk for unethical behavior; Therefore, it is important to focus on the relationship between personality and moral identity. Personality is considered as the organizing force of individual behavior. Based on personality traits, one can predict people's reasoning and moral judgments [23]. Researchers showed that personality traits can predict different aspects of moral decision-making [12]. In this context, according to the investigations of moral psychologists, the big five personality traits play a major role in people's performance in terms of the components of moral decision-making, and the lack of personality development hinders moral actions [24]. The result of a study also confirmed the negative and significant relationship between the personality trait of neuroticism and moral leadership [25].

Machiavellianism is one of the characteristics of the dark personality and a personality variable that affects the behavior of each person, which can affect the integrity of

people [26]. Researches that examine Machiavellian personality traits show that Machiavellianism is an important variable that can affect people's behavior at work [27]. According to studies, Machiavellianism has a positive and significant effect on the incidence of fraudulent financial reporting [28]. In other words, Machiavellianism is related to deceitful tendencies and disregard for common moral principles [29]. Part of the findings of a study showed that Machiavellianism plays an important role in predicting behavioral risk-taking and moral indifference [30]. Other researches have also shown that negative personality traits such as Machiavellianism are related to violation of empathy and tendency to utilitarian moral judgments [29, 31]. Examining the characteristics of Machiavellianism of official accountants of the United States of America also indicated that people with this personality trait tend towards a relativistic moral position [27].

In addition to the importance of examining the impact of personality traits on moral identity and the occurrence of moral behaviors, since the issue that women and men reason differently about morality [32], researchers have proven evidence of differences. They have achieved gender in ethics, both in general and in negotiations [33]. According to the findings of a research, since the development of professional identity and personal identity is different for men than for women, this causes a difference in their moral judgments [34]. Other research results aimed at investigating the effect of professional commitment on ethical disclosure of auditors, emphasizing the moderating role of gender and age variables, indicated that professional commitment as one of the ethical mechanisms can lead to the disclosure of violations and warnings by auditors. Meanwhile, gender and age variables also have a moderating effect on the relationship between professional commitment and the level of ethical disclosure of independent auditors [35]. Studies have shown that women's stronger moral identities than men's create an obstacle against the temptation to justify and engage in unethical behavior in competitive negotiations [36]. The results of a study that was conducted among the members of the public accountant's community of Iran in 2017 also showed that conscientiousness and moral consequentialism are more among female accountants than men, and women have higher levels of conscientiousness and moral consequentialism [37].

On the other hand, according to some researchers, a person's moral identity may have a social reference. This social reference can be membership in a real group, a known person, or any other social structure, and like

social identities that people have accepted, moral identity can also be the basis for social identity that people use to build their definitions. 17). In fact, social structures, including social institutions, etc., play an effective role in promoting moral identity [38]. Therefore, it can be said that moral identity is another potential social identity that may form a part of a person's personal social schema¹⁵. According to the code of professional and ethical behavior, professional accountants are expected to act honestly, reliably and independently when faced with a conflict of interest. These behavioral expectations clearly go beyond the observance of the code of professional conduct. In other words, the public culture in this profession is based on the principle of prioritizing public interest over the individual and observing ethics. Researches related to the influence of personality traits on the components of moral decision-making, including moral identity, are very limited, and despite the importance of understanding the processes as well as gender differences, the moral differences of men and women have received relatively little attention. With the aim of better understanding the factors affecting non-compliance with ethics and professional conduct, this research seeks to find the answer to the question whether Machiavellianism can predict the ethical identity of auditors or not. In addition, what is the role of factors such as gender, level of education, official accountants of non-partner auditors and the trustworthiness of the auditing firm in this process.

MATERIAL AND METHODS

The current research is practical in terms of its purpose and is among descriptive and correlational researches. The statistical population consists of auditors working in private sector audit institutions. Considering the unlimited population and based on Cochran's formula, the number of sample members was estimated. Based on this, using available sampling method, 250 questionnaires were distributed electronically and face-to-face, and finally, after removing unusable

Due to the closeness of the mean and median values, it can be stated that the distribution of the variables is normal. In the following, the results of the linear regression between the research variables and the estimation of the models are stated in [Tables 2 and 3](#).

In order to test the hypotheses of the research, at first, an estimation of the regression model was made. Based on this, the values of (4.684) and (3.905) of the F statistic for models 1 and 2 with a significance level of zero confirm the validity and existence of the regression line. On the

questionnaires, the data of 228 questionnaires were analyzed.

The demographic information of the statistical sample members shows that 160 (70%) of the participants are male and 68 (30%) are female. Of these, 17 are female certified accountants and 34 are male certified accountants who have been employed by auditing firms but have not yet become partners of the auditing firm. 54 people (80 percent) of women and 123 people (76 percent) of men are active in the trusted audit institutions of the Stock Exchange Organization and the rest are working in other institutions. In the statistical sample of women, 20 people (30%) have a bachelor's degree, 41 people (60%) have a master's degree, and 7 people (10%) have a doctorate. In the statistical sample of men, 46 people (29%) have a bachelor's degree, 94 people (59%) have a master's degree, and 20 people (12%) have a doctorate. 31 women and 50 men are audit partners. In this research, two standard questionnaires of Machiavellianism and moral identity were used to collect data. The Machiavellianism questionnaire contains twenty questions on a five-option Likert scale from completely disagree to completely agree [39]. Also, the moral identity questionnaire includes 15 questions on a 6-point Likert scale (from "not at all" score 1 to "very much" score 6) [40]. The content validity of the questionnaires has been confirmed by experts, and the Cronbach's alpha coefficients calculated for the Machiavellianism questionnaire are equal to 78% and moral identity is equal to 81%, which indicates the appropriate reliability of these questionnaires. The data obtained from the questionnaires were summarized in Excel software and analyzed using SPSS software through multivariate regression.

RESULTS

As can be seen, descriptive statistics indicators including mean, median, standard deviation, minimum and maximum for Machiavellianism and moral identity variables are presented in [Table 1](#).

other hand, since the value of the variance inflation factor for each independent and control variable is less than 5, there is no strong autocorrelation between the independent and control variables. The values of 2.204 and 1.933 for the Durbin-Watson test confirm the absence of autocorrelation between the error values of the models.

Examining the coefficients of the regression model shows that Machiavellianism has a negative relationship with moral identity with the coefficients (-0.514) and (-

0.404) for women and men, respectively, and since the significance level of these coefficients is equal to zero. That is, it is less than 5%; Therefore, this relationship is meaningful. In addition, the large coefficient of Machiavellianism for women also shows that the negative relationship between Machiavellianism and moral identity is more intense in women. Other findings of this research indicate that being an official accountant

of non-partner auditors can also affect the ethical identity of auditors. This effect is negative and significant in women, but despite the positive relationship for male auditors, the significant level (0.612) proves the rejection of the research hypothesis for men. Variables such as the level of education, trustworthiness of the audit firm and audit partner have no effect on the moral identity of female and male auditors.

Table 1. Descriptive Findings Related to Research Variables

Statistical indexes Variable	Mean		Median		SD		Max.		Min.	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Machiavellianism	51.3	51.73	51.50	51.00	8.289	7.25	28	35	67	71
Morality	76.00	75.94	77.00	77.00	9.128	8.615	51	51	90	90

Table 2. Regression Analysis Results (Model 1-Women)

Description	Coefficient	T-Value	Sig.	Variance Inflation Factor
Fixed coefficient	104.714	10.726	0.000	-
Machiavellianism	-0.514	-3.930	0.000	1.205
Education	0.334	0.186	0.853	1.206
Official accountant	-5.073	-2.203	0.031	1.034
Partner of audit	-0.710	-0.360	0.720	1.006
Trustworthy of institute	-2.305	-0.925	0.359	1.056
t-value	4.684	The whole model is statistically significant.		
Sig.	0.001	The whole model is statistically significant.		
Adjusted R ² : 0.216	Durbin-Watson: 2.204			

Table 3. Regression Analysis Results (Model 2-Men)

Description	Coefficient	T-Value	Sig.	Variance Inflation Factor
Fixed coefficient	98.621	16.783	0.000	-
Machiavellianism	-0.404	-4.387	0.000	1.041
Education	-0.884	-0.798	0.426	1.116
Official accountant	0.833	0.509	0.612	1.055
Partner of audit	0.801	0.561	0.576	1.031
Trustworthy of institute	0.367	0.227	0.820	1.091
t-value	3.905	The whole model is statistically significant.		
Sig.	0.002	The whole model is statistically significant.		
Adjusted R ² : 0.084	Durbin-Watson: 1.933			

DISCUSSION

The purpose of this article is to investigate and study the relationship between Machiavellianism and the moral identity of auditors in two samples of men and women in the auditing profession. The research results show that Machiavellianism has a negative and significant relationship with moral identity. Since Machiavellianism is described as a negative character trait including hypocrisy and deceit, it is obvious that people with this character trait do not believe in the chosen moral values. On the other hand, people with high moral identity consider performing moral behaviors as a part of their identity. As a result, according to these findings, Machiavellian character-characteristic can explain the violation of ethics and especially moral identity. Some researches in this field have somehow confirmed the results found [27, 29, 30]. On the other hand, studies

have shown that the relationship between Machiavellianism and moral identity is stronger in women than in men. In explaining such differences, many researches have pointed to different moral development between women and men, which ultimately leads to different attitudes and behaviors in them [41]. The results of several researches have pointed to the moral differences between the two groups of men and women [33-35]. In another part of this research, the relationship between the formality of non-partner auditors and their moral identity was investigated. This relationship was negative and significant for women, but positive and meaningless for male auditors. According to the literature of previous researches, background variables such as social structures have a significant role on moral identity. In other words, a person's moral identity may have a social reference that people use to

build their definitions. [17]. Chartered Accountant is a title that refers to qualified professional accountants who, by having a legal license and establishing an auditing firm, can provide services in the field of audits, etc., according to the rules of the Chartered Accountants Society of Iran. But in the auditing profession, achieving higher career ranks requires spending more time to learn and gain experience. The results of previous researches show that auditors with high background (job rank) and more experience make more ethical judgments [42]. With these explanations, the results obtained in this research can be blamed on the fact that although many studies have shown that women have higher levels of moral consequentialism than men [37] and act more ethically than men [43]. However, many believe that the reason for this is women's need for approval from others [44], and finally, if women have a special reason or justification for an immoral act, for example, when they ignore the consequences of their actions, they do an immoral act [45].

Considering that ethical identity is defined as a person's commitment to perform ethical behaviors in order to protect the interests of others, therefore, creating a high ethical identity in auditors leads to improving their performance and increasing audit quality. For this reason, the results of this research can provide useful information about the effect of personality traits on moral identity, as well as the effect of experience and gender on the emergence of ethical behaviors, to the legislators and policymakers of the profession, in order to implement appropriate programs from Including training can increase the motivation of auditors to perform ethical behavior. In addition, it is suggested to auditing institutions after hiring auditors, by creating equal conditions in order to improve the moral identity of their male and female employees, in order to witness the emergence of ethical behavior in all employees of auditing institutions. On the other hand, it should be noted that personality traits are not the only predictors of moral identity, and therefore, it is suggested to examine other individual influencing factors as well as other contextual components.

There were some limitations in relation to the present research. The main limitation was the use of the questionnaire tool, which is considered an inherent limitation due to reasons such as the researcher's lack of control over the answers, which is beyond the researcher's control.

CONCLUSION

Ethical judgments and the existence of ethical behavior in the auditing profession are of particular importance.

Experts are trying to improve ethical behavior in all accounting and auditing activities. But the results of many researches indicated that some people do not behave according to their moral judgments. Because apart from moral reasoning, people need moral motivation to lead them to perform moral actions. Moral identity creates this motivation. Identification in the field of ethics is a time-consuming process [21] and many individual and contextual factors can affect the formation of moral identity of people. At the individual level of character, it is one of these cases. The characteristic of Machiavellianism is a personality variable that affects the behavior of each person. This feature is related to negative behaviors such as fraud and non-adherence to ethics to achieve a specific goal, which can distort the main duty of auditors, which is to prioritize the interests of the public over their own interests. On the other hand, each person can identify his identity with others in many variables, including common characteristics, similar interests, etc. [17] and these variables may also be related to higher order social identities such as professional groups [46]. The public culture in the auditing profession is based on the principle of prioritizing the public interest over the individual and observing ethics. According to the results obtained from this research, the Machiavellian personality trait of auditors predicts their moral identity, and this relationship is more intense for female auditors. Many believe that the different results between male and female auditors are caused by the difference in the development of professional identity and personal identity of men and women, which ultimately leads to differences in their moral judgments [34]. However, based on the results of the research and in order to achieve ethical behavior and consequently increase the audit quality, it is suggested to the audit institutions to pay attention to their personality traits when hiring auditors. Also, in order to improve the ethical behavior of female auditors, it is suggested to create conditions for them to progress and gain experience along with creating individual motivations so that we do not witness the occurrence of some unethical behaviors that may be caused by ignoring their actions.

Ethical Considerations

In this research, following the ethical principles of keeping the respondents' opinions confidential, data was collected among the sample members. Also, by introducing the sources used, the ethical principle of trustworthiness was respected in writing the article.

Conflict of Interest

The authors declare that there is no conflict of interest.

REFERENCES

- Akbari R, Jahanshad A. Ethical orientation and objectivity auditor. (In Persian). *J Manage Account Audit Knowledge*. 2020;9(36):113-22.
- Dahling JJ, Whitaker BG, Levy PE. The development and validation of a new Machiavellianism scale. *J Manage*. 2009;35(2):219-57. doi: 10.1177/0149206308318618
- Ardelean A. Auditors' Ethics and their Impact on Public Trust. *Procedia Soc Behav Sci*. 2013;92:55-60. doi: 10.1016/j.sbspro.2013.08.637
- Naseri M, Hajiha Z, Navalehzadeh N. Analyzing the Relationship between Spiritual Intelligence and Ethical Decision-Making Style with the Mediating Role of Cognitive Orientation. *Ethic Sci Technol*. 2022;17(2):196-9. doi: 20.1001.1.22517634.1401.17.2.26.8
- Karimzadeh S. A comparative study of the moral education indicators (moral judgment and moral behavior) with self-understanding factors in normal adolescents and with conduct disorder. (In Persian). *Biquarter J Islam Educat*. 2008;3(6):123-60.
- Nikdel F, Dehghan M, Noushadi N. The Mediating Role of Moral Reasoning on the Relationship between Self-Concept and Moral Metacognition with Moral Behavior. (In Persian). *Educat Psychol*. 2018;13(46):123-43. doi: 10.22054/jep.2018.8479
- Noushadi A, Mohammadi Mulqarni A, Noravesh I, Amini P. Predicting Value of Company Based on Audit Components and Auditors' Ethical Behavior with Emphasis on Managers' Financial Intelligence. (In Persian). *Ethic Sci Technol*. 2021;16(1):168-73. doi: 20.1001.1.22517634.1400.16.1.24.7
- Rest J. Development in judging moral issues. Minneapolis: University of Minnesota Press. 1979.
- Kohlberg L. Stage and sequence: The cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory and research*. Chicago: Rand McNally. 1969. 348-480 p.
- Alizadeh S, Alizadeh Damieh T. Predication of Ethical Judgment & Behavior Based on Personal-Familial Values & Moral Meta-Cognition in Students. (In Persian). *Ethic Sci Technol*. 2021;16(3):147-53. doi: 20.1001.1.22517634.1400.16.3.19.6
- Santrock JW. *Adolescence*, Fifteenth Edition. Published by McGraw-Hill Education, 2 Penn Plaza, New York, NY 10121. Printed in the United States of America 2014.
- Murdoch WJ, Singh C, Kumbier K, Abbasi-Asl R, Yu B. Definitions, methods, and applications in interpretable machine learning. *Proc Natl Acad Sci U S A*. 2019;116(44):22071-80. doi: 10.1073/pnas.1900654116 pmid: 31619572
- Rest J. *Moral development: Advances in research and theory*, New York 1986.
- Blasi A. Moral cognition and moral action: a theoretical perspective. *Develop Rev*. 1983;3(2):178-210. doi: 10.1016/0273-2297(83)90029-1
- Pletti C, Decety J, Paulus M. Moral identity relates to the neural processing of third-party moral behavior. *Soc Cogn Affect Neurosci*. 2019;14(4):435-45. doi: 10.1093/scan/nsz016 pmid: 30855686
- Hart D, Atkins R, Ford D. Urban America as a context for the development of moral identity in adolescence. *J Soc Issue*. 1998;54(3):513-30. doi: 10.1111/0022-4537.801998080
- Aquino K, Reed A, 2nd. The self-importance of moral identity. *J Pers Soc Psychol*. 2002;83(6):1423-40. doi: 10.1037//0022-3514.83.6.1423 pmid: 12500822
- Zainun NFH, Johari J, Adnan Z. Machiavellianism, locus of control, moral identity, and ethical leadership among public service leaders in Malaysia: the moderating effect of ethical role modelling. *Int J Sociol Soc Polic*. 2021;41(9/10):1108-33. doi: 10.1108/ijssp-07-2020-0289
- Colby A, Damon W. *Some Do Care: Contemporary Lives of Moral Commitment*, New York: Free Press. 1992.
- Abbasi AR, Hashemi S, Khabbazi Kenari M, Baezzat F. Psychometric properties of Persian version of Black & Reynolds' s Moral Identity Questionnaire (MIQ). (In Persian). *J Appl*. 2020;13(4):651-67.
- Jabbari S, Nikbakhsh R, Afarinesh A, Sharififar F. The moderators of moral identity in the impact of high-performance work systems on immoral unethical pro-organizational behaviors. (In Persian). *J Psychol Sci*. 2022;21(112):781-96. doi: 10.52547/JPS.21.112.781
- Cheryan S, Bodenhausen GV. When positive stereotypes threaten intellectual performance: the psychological hazards of "model minority" status. *Psychol Sci*. 2000;11(5):399-402. doi: 10.1111/1467-9280.00277 pmid: 11228911
- Aghababaei N, Talaei Pashiri A, Kwantes C. Investigating the relations among personality characteristics, moral foundations, and work ethics in Iranian and Canadian students. (In Persian). *Cultural Psychol*. 2017;1(2):1-22. doi: 20.1001.1.25887211.1396.1.2.1.0
- Međedović J, Petrović B. Can there be an immoral morality?: Dark personality traits as predictors of Moral foundations. *Psihologija*. 2016;49(2):185-97. doi: 10.2298/PSI1602185M
- Aghighi A. Effect of Personality Characteristics' Dimensions on Ethical Leadership. *Int J Ethics Soc*. 2019;1(3).
- Pope RK. Measuring the Ethical Propensities of Accounting Students. *J Academ Ethic*. 2005;3:89-111. doi: 10.1007/s10805-005-9000-2
- Wakefield RL. Accounting and Machiavellianism. *Behav Res Account*. 2008;20:115-29. doi: 10.2308/bria.2008.20.1.115
- Sadeghian M, Banimahd B, Jahangir Nia H, Gholami Jamkarani R. Machiavellianism, Idealism, Relativism, Fraudulent financial reporting. (In Persian). *Iran Account Audit Rev*. 2019;26(3):413-34. doi: 20.1001.1.26458020.1398.26.3.5.4
- Afrah A, Ahi O. Model of Utilitarian Ethical Judgment in the Relationship with the Dark Triad: Mediating role of Honesty/Humility and Empathy. (In Persian). *Ethic Sci Technol*. 2020;15(3):151-60. doi: 20.1001.1.22517634.1399.15.3.21.1
- Rasaei Z, Ahi G, Mansouri A. The role of dark triad of personality in the prediction behavioral risk-taking and moral disengagement. *Biannual Peer Review*. *Biannual Peer Rev J Clinic Psychol Personal*. 2018;16(1):83-91. doi: 10.22070/cpap.2020.2838
- Ritchie MB, Forth AE. Without concern: Predicting personal-moral transgressions from psychopathy and gender. *Personal Individ Difference*. 2016;94:247-52. doi: 10.1016/j.paid.2016.01.041
- Gilligan C. *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press 1982.
- Haselhuhn MP, Wong EM. Bad to the bone: facial structure predicts unethical behaviour. *Proc Biol Sci*. 2012;279(1728):571-6. doi: 10.1098/rspb.2011.1193 pmid: 21733897
- Yaqoubi Saleh Abadi R, Jahanshad A, Pour Zamani Z. Relationship between Professional Identity, Gender & Ethical Judgment of Auditors. (In Persian). *Ethic Sci Technol*. 2020;15:164-8. doi: 20.1001.1.22517634.1399.15.0.23.7
- Hajiabbasi M, Vatanparast MR, Banimahd B, Azadehdel MR. The Effect of Professional Commitment on Auditors' Ethical Whistleblowing: Moderating Role of Gender and Age. *Int J Ethics Soc*. 2022;4(1). doi: 10.52547/ijethics.4.1.38
- Kennedy JA, Kray LJ, Ku G. A social-cognitive approach to understanding gender differences in negotiator ethics: The role of moral identity. *Organiz Behav Human Decision*

- Processes. 2017;138:28-44. doi: [10.1016/j.obhdp.2016.11.003](https://doi.org/10.1016/j.obhdp.2016.11.003)
37. Azadi Hir K, Vatanparast MR, Nematollahi S. The Role of Gender in Consequentialism and Ethical Conscientiousness. (In Persian). *Ethic Sci Technol*. 2022;17(2):192-5.
 38. Hojjati G, Naghsh Z, Khodayarifard M. The Relationship between Attachment Style and Moral Identity: The Mediating Role of Empathy. (In Persian). *J Psychol*. 2021;25(2):215-35.
 39. Christie R, Geis FL. How devious are you? Take the Machiavelli test to find out. *J Manage Engineer*. 1970;15(4):17.
 40. Black JE, Reynolds WM. Development, reliability, and validity of the Moral Identity Questionnaire. *Personal Individ Differ*. 2016;97:120-9. doi: [10.1016/j.paid.2016.03.041](https://doi.org/10.1016/j.paid.2016.03.041)
 41. Hijazi R, Mosaferi J. Relationship between Gender and Ethics in Accounting Profession. (In Persian). *Ethic Sci Technol*. 2012;7(1):48-54.
 42. Hasas Yaganeh Y, Amouzad S. The Factors Affecting the Professional Judgment (ethics) of Auditors and the Pressures on Them. (In Persian). *Empiric Stud Financ Account*. 2020;17(67):1-26. doi: [10.22054/qjma.2020.28906.1748](https://doi.org/10.22054/qjma.2020.28906.1748)
 43. Mirfallah-Nassiri R, Tojari F, Zarei A. Investigating the Factors Affecting the Ethical Decision-making of Sports Consumers. *Int J Ethics Soc*. 2019;1(1):22-30.
 44. Becker A, Ulstad I. Gender Differences in Student Ethics: Are Females Really More Ethical. *Plagiarism: Cross-Disciplinary Studies in Iagiarism, Fabrication, and Falsification*. 2007;2(3):1-15.
 45. Ward DA, Beck WL. Gender and dishonesty. *J Soc Psychol*. 1990;130(3):333-9. doi: [10.1080/00224545.1990.9924589](https://doi.org/10.1080/00224545.1990.9924589)
 46. Deaux K, Reid A, Mizrahi K, Ethier KA. Parameters of social identity. *J Personal Soc Psychol*. 1995;68(2):280-91. doi: [10.1037/0022-3514.68.2.280](https://doi.org/10.1037/0022-3514.68.2.280)

