



Providing a model for disclosing fraudulent actions for accountants

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ABSTRACT

A cursory look at the formation of corruption and financial fraud cases shows that fraud is always disclosed after a considerable period of time from the date of the fraud, often through reports of intelligence agencies, informed staff and managers, and the media; only a small percentage has been revealed by corporate accountants. In this regard, the purpose of this study is to provide a model for disclosing fraudulent actions for accountants with an emphasis on effective factors. During the implementation stages of the present study, the most important indices were obtained by studying the theoretical foundations. Based on these indices, interviews were conducted with experts and some codes were extracted relying on the results of these interviews. Finally, based on the results of these interviews with experts and extracting keywords and key answers, a model was presented with a factor analysis approach. It is worth mentioning that after conducting several studies, we conducted 12 semi-structured interviews. Open-ended questions were used in these interviews. In summary, the results of the present study showed that personal responsibility, sense of importance, philosophical attitude, risk-taking, cultural characteristic of distance from power, cultural characteristic of corporate citizen, organizational commitment and experience of similar cases have a positive and increasing effect on the extra-organizational disclosure of the frauds. Factors of personal cost, job or family dependence on offenders (high influence of the offender in the organization) and a history of poor dealings with offenders (frustration with the investigation mechanism of revealed frauds), have a negative and decreasing effect on the extra-organizational disclosure of the frauds.

Keywords: : fraudulent actions, extra-organizational disclosure, fraud.

1. Introduction

Accounting is a service activity that aims to provide useful information related to economic units to the extra-organizational decision makers. Therefore, accounting must properly identify, analyze, and record the activities of an economic unit in order to report effectively to the beneficiaries (Segal, 2016). The information provided about the financial condition and performance of a company is very important for users of financial statements, because it is a basis for decision-making and capital allocation. Therefore, reliability and transparency in financial reporting will lead to accurate and honest presentation of the company's financial achievements and play an important role in the stability of the financial system. However, the collapse of many companies cast doubt on the effectiveness of corporate governance, the quality of financial statements, and the reliability of audit functions (Rezaee, 2005). Fraudulent financial statements have had a negative impact on the world's economies and led to significant financial losses for individuals and companies. Therefore, in a technology-based business environment that is associated with rapid changes, there is an urgent need for effective factors to prevent and detect fraud (Khajavi & Ebrahimi, 2017). So, our study has presented a model for accountants to understand the extra-organizational disclosure of fraudulent actions with an emphasis on the factors affecting it.

2. Literature Review

Researchers have shown that disclosing fraudulent actions can be one of the most important control mechanisms in the organization. Potentially alarming disclosures will have many benefits for members of the organization and other beneficiaries in the society (Alleyne, Hudaib, & Pike, 2013). Accountants are more likely to obtain evidence of organizational errors than others because of authorized access to the client's information; so, accountants are expected to disclose any error in line with the public interest (Jubb, 2000). But evidence shows that accounting staff are less inclined to warn their co-workers. Thus, we can expect that disclosing fraudulent actions as a moral act will play a prominent role in preventing financial scandals. Therefore, better identification and understanding of the factors associated with warning and disclosing fraudulent actions is an important area

for research; by identifying the variables that encourage or prevent the disclosure of fraudulent actions, it is possible to introduce factors that play an important role in preventing potential harms caused by organizational errors. In recent years, the accounting profession has received more attention due to the scandals of financial fraud of managers. Pursuant to Section 24 of the Iranian Standards on Auditing, we can define the fraud as any intentional or fraudulent act by one or more managers, employees or third parties to obtain an unlawful or illicit advantage. A fraud that occurs with the involvement of one or more managers of an economic unit is called managerial fraud (Auditing Standards Committee, 2019). This study presents a model based on theoretical foundations collected from the various sources and interviews. It examines accountants' perception of disclosing fraudulent actions and the factors affecting it. The questions are: do accountants have a correct understanding of disclosing fraudulent practices. What are the factors influencing the disclosure of accountants' fraudulent actions? In the following, we will describe the dimensions of the research problem and the relevant variables:

2.1 Personal responsibility and disclosing accountants' extra-organizational fraudulent actions

In the model of principled organizational dissent, Graham (1986) introduced the concept of personal responsibility under the heading of influencing errors reporting. Personal responsibility for reporting is derived from the defined responsibility of individuals to report an action that has been taken and is questionable (Kaplan & Whitecotton, 2001). It is believed that a sense of moral commitment, a job defined for individuals, or responsibilities defined for individuals, cause the employees of the organization to promptly report if they see an error (Curtis, 2006). Miceli et al. (1991) found that if the disclosure of fraudulent actions is defined as part of the responsibilities of internal auditors or they are morally forced to disclose fraudulent actions, the internal auditors are more likely to disclose fraudulent acts. Previous studies have reported the positive effect of personal accountability for reporting on the tendency to disclose fraudulent actions (Kaplan, 1995; Kaplan & Whitecotton, 2001; Schultz et al., 1993). Schultz et

al. (1993) found that a personal tendency to report abuse is determined by a personal sense of responsibility. Thus, it is argued that increasing the sense of personal responsibility for reporting is directly related to accountants' tendency to disclose fraudulent extra-organizational actions.

2.2 Feeling of importance and disclosing the fraudulent extra-organizational actions of accountants

Graham's model (1986) states that the perceived importance of the issue affects the reporting of errors. According to Graham (1986), given the potentially negative consequences of estimating an issue, a person's inference about the importance of the issue is related to his or her assessment of the severity of the questionability of the observed actions (Curtis, 2006). Perceived importance is similar to Jones' (1991) Moral Intensity Theory, which states that the extent of the consequences of any action influences individual's moral decisions. The index of importance can also be considered as the intensity of influence on the judgment of accountants in decision making. Previous studies have also found that perceived importance is directly related to the tendency to disclose fraudulent actions (Curtis, 2006; Graham, 1986; Schultz et al., 1993). Therefore, given the explanations provided, significant errors are expected to be reported.

2.3 Personal cost and disclosing fraudulent extra-organizational actions of accountants

The personal cost of reporting is recognized as one of the most important factors influencing errors reporting. Personal cost refers to the negative consequences (for example, the risk of retaliation by co-workers and managers) that an individual may face by reporting questionable actions (Graham, 1986; Ponemon, 1994). The amount and nature of personal costs, such as legal permits and retaliation by managers and co-workers, can influence the decision-making process of potential whistleblowers (Alleyne, Hudaib, & Pike, 2013; Ponemon, 1994). Previous studies have confirmed the effect of personal costs on the tendency to disclose fraudulent actions, and at the same time, if the level of estimated personal costs is high, individuals will be less likely to disclose (Curtis, 2006; Schultz et al., 1993; Whitecotton, 2001). Thus,

the personal cost of reporting is directly related to the tendency of accountants to disclose the fraudulent extra-organizational actions.

2.4 Philosophical attitude and disclosing the fraudulent extra-organizational actions of accountants

Philosophy is the study of the general and fundamental nature of reality, existence, knowledge, value, reason, thought, and language (Oxford University, 2015). Philosophy can provide a framework and a way of thinking, and so, it is able to expand the capabilities of thinking and create a unity between thought and action. In the philosophical attitude, the philosophy does not satisfy with the study of a particular aspect of reality and always considers everything as a whole. Philosophy is not the accumulation of knowledge, but a kind of attitude about knowledge. Philosophy is the love of wisdom and the search for it. Philosophical attitude consists of four components (dimensions): general understanding, breadth of vision, expert knowledge and insight. Breadth of vision as a component of philosophical attitude requires the necessary reflection to understand the real and complete importance of issues. Expert knowledge is the third component of the philosophical method and emphasizes the depth of research and study of the subject. Insight is a necessary feature in philosophical attitude to study the problems related to the subject under study (Hasas Yeganeh, 2014). Accountants play a key role in the process of preparing, reporting and handling accounting information. Having a philosophical approach can equip accountants with the tools to make effective decisions about identifying, processing, and reporting financially in complex situations. In this way, the accountants who have philosophical attitude will be more inclined to disclose fraudulent actions. Given the explanations provided, it is expected that having a philosophical attitude will lead accountants to disclose fraudulent actions.

2.5 Risk-taking and disclosing fraudulent extra-organizational actions of accountants

The risk of uncertainty or ambiguity is present in many important life decisions, and researches show that it has a lasting effect on the choice between the

different decisions (Camerer & Weber, 1992). Previous researches have shown that uncertainty and ambiguity have negative effects on the quality of decision of the decision makers (e.g., Ghosh & Ray, 1997; Ho et al., 2002, 2005). A person who is willing to take risks will exhibit more risk-taking behaviors, such as financial risk-taking behavior, that are directly related to risk tolerance (Bailey & Kinerson, 2005; Chang et al., 2004). Therefore, people with higher levels of risk-taking and risk tolerance are more likely to disclose fraudulent actions.

2.6 Cultural characteristics and disclosing the fraudulent extra-organizational actions of accountants

Culture is the glue that holds the organization together and also acts as a compass that sets goals (Tharp, 2015). Cultural dimensions are: (1) avoiding uncertainty about the future: Avoiding uncertainty means the level of anxiety and worry of people in a society. The existence of economic sanctions and trade restrictions in the country, as well as the lack of long-term plans and goals all affect the level of hope for the future of people and their uncertainty about the future (De Mooij & Hofstede, 2010). (2) Masculinity vs. Feminism: Masculine refers to societies or organizations in which the social role of individuals is clearly segregated by gender, and bold and violent roles and emphasis on financial success for men and emotional roles are considered for women with an emphasis on quality of life; of course, in this sense, the use of the words man and woman is metaphorical and has no absolute generality. (3) Individualism vs. collectivism: In individualistic societies, individuals consider it their sole duty to take care of themselves and their families. In other words, everyone cares about their own interests or those of their family. In collectivism, on the other hand, group interests are more important and individuals consider it their duty to support and care for the group and the community (De Mooij & Hofstede, 2010). (4) Power distance: Power distance is the scope of participation of individuals in a society in decision-making and policy-making. In societies with high power distance, inferior people are reluctant to have a close relationship with their superiors. Whereas in societies where the power distance is low, managers are more accountable and feel more responsible to society and the general

public, and inferior and superior people have a close and intimate relationship with each other. In other words, the degree of inequality between individuals in a society, assuming that society is normal, is called the power distance (De Mooij & Hofstede, 2010). It is expected that the cultural characteristics of individuals have a significant impact on their tendency to disclose fraudulent actions.

2.7 Corporate citizenship and disclosing fraudulent extra-organizational actions of accountants

Studies in the field of corporate citizenship show that companies that adhere to ethical principles gain a competitive advantage, although they may incur costs in the short term, but in the long term, through the special fame and prestige are highly profitable and find positive and acceptable performance (Matten & Cranc, 2003). Nowadays, one of the basic approaches of companies in the face of crises of reduction of corporate citizenship behavior, social accountability and social performance is the development of corporate social responsibility (Choi & Gray, 2008). Principles of business ethics are considered as one of the basic strategies in requiring companies to observe citizenship behavior in interaction with their environment (Global Corporate Governance Forum, 2010). Social responsibility also sees the company as part of the process of creating wealth, promoting competitive advantage, and maximizing the value of the wealth created for the society in which the company operates. Over the past few years, responding to shareholders' demands as well as trying to promote social values has led to complex contradictions in which are involved the business organizations engaged in various fields (Snider et al., 2003). Reconciling and balancing the demands of shareholders and society is an issue that is defined in the context of corporate social responsibility and contributes to the relationship between business and society (Jamali & Mirshak, 2006). Given the explanations provided, we can expect that there is a direct link between corporate citizenship and disclosing fraudulent actions.

3. Research Background

Lisic et al. (2015) examined the relationship between fraud in accounting, auditing, and government crime in China in a study entitled *Fraud in Accounting, Auditing, and the Role of Government Crime in China*. The results of their studies using linear regression method showed that companies audited by large auditing firms are less likely to commit fraud in the financial statements. This effect is stronger in controlled industries and profit-related fraud. The results also show that the severity of fraud is higher, with the exception of companies in dispute, in other juridical fields, using alternative fraud measures, the selection of auditors by accountants, and control over other corporate governance mechanisms. The results of studies conducted by Perols and Lougee (2017) indicate that there is a significant relationship between profit management and fraud in financial statements. Moreover, motivational factors, if there is a history of profit management, increase this probability. In a study entitled *Bold Tax Reporting and its relationship with Bold Financial Reporting*, Frank et al. (2017) found a direct relationship between fraud in financial reporting and tax avoidance in French companies. They used accrual items in connection with the measurement of fraud in financial reporting and, permanent discretionary tax difference to measure tax avoidance. In fact, they focused on the permanent discretionary differences of tax to identify the activities that lead to the creation of a tax shield against the tax payable. The results of their study using the regression method for 146 French companies showed that the permanent tax difference has a direct relationship with the occurrence of the tax shield against the tax payable. In Iran, Zare Behnamiri and Malekian Kalebasti (2016) concluded that the clauses related to the underestimation or overestimation of revenues and assets have the highest priority in the factors affecting the possibility of financial fraud regarding the audit report of financial statements. The results of Etemadi and Abdoli's studies (2017) also showed that there is a negative and significant relationship between auditor size, auditor tenure, auditor specialization in industry, auditing firm specialized in industry with long tenure and control status score and audit quality on the one hand and the fraud in the financial statements on the other. The results generally indicate that the higher the quality of

auditing in companies, the less companies commit fraud.

4. Methodology

The present research is an exploratory research and, through taking advantage of the correct and accepted approach, seeks to answer the main research questions: (1) Do accountants have a correct understanding of disclosing fraudulent actions? (2) What are the factors influencing the disclosure of accountants' fraudulent actions? One of the best methods for exploratory research is the combined method. In the present research, in order to provide a model for disclosing fraudulent actions by accountants, we used the combined research method. The combined research method (of the present study) was based on the main challenge of two quantitative and qualitative approaches that were rooted in the paradigmatic conflict between positivists and non-positivists about the ontological, epistemological and methodological assumptions of social sciences. The relationship between quantitative and qualitative approaches in the combined researches and the priority and posteriority of each approach has been formed in the form of two simultaneous and consecutive methods. Simultaneous combined design is a design in which both quantitative and qualitative approaches are designed and implemented simultaneously. In contrast, the sequential combined design, which is also used in the present study, refers to a design in which one approach is designed and implemented following the other approach. Thus, in the present study, we used a sequential-exploratory design of the combined method. In this design, first we collected and analyzed qualitative data, then in the second stage, we collected and analyzed quantitative data to test the model extracted from the qualitative method. Finally, both qualitative and quantitative analyzes were interpreted together. In the present research, based on the combined research method, a sequential-exploratory design, through the library and field methods, first we extracted and investigated the research background and related factors. Then, based on the qualitative method, we used interviews and questions and then the quantitative methods and factor analysis to test the model derived from qualitative studies and analyzes. Thus, through the implementation stages of the present study the most important indices were obtained by studying the

theoretical foundations. Based on these indices, we conducted interviews with experts and according to the results of these interviews, we extracted some codes. Based on the results of completing these interviews with experts and extracting keywords and key answers, we presented a model based on a factor analysis approach. Of course, t-test was used to identify the factors. In this study, after conducting several studies, we conducted twelve semi-structured interviews through open-ended questions. The use of semi-structured interviews provides flexibility in the design, follow-up and sequencing of questions. All interviews were conducted by the researcher during a period of four months (in autumn and winter of 2019) and each interview lasted approximately one hour. It should be noted that the initial questions of the interviews were founded on the pre-designed topics based on domestic and foreign scientific sources and expert consultation, and during the interview, additional comments were received from the interviewees. In order to analyze the manuscripts related to the interviews, we used content analysis of the extracted data, coding and identifying keywords. In other words, we studied carefully the text of the interview.

4.1 Statistical Population and Sample

The statistical population of the present study is accounting experts who are active both in the university and in the profession (accounting or auditing). In this regard, the selected individuals must have at least the following characteristics: (1) PhD in

Accounting; (2) a postgraduate teaching chair at a university; (3) History of writing or translating a book or article in the field of accounting and auditing; (4) Membership in the Society of Certified Public Accountants; (5) specialized teaching of auditing as the most relevant course to fraud disclosure; (6) no history of scientific or professional misconduct; and (7) professional activity as an accountant in a company or an auditor in an auditing firm. According to the conditions mentioned in the above paragraphs and the approach of the present study, which is to identify experts, we identified and questioned a total of 12 professional and university experts who were available.

5. Results

5.1. Detailed statistics of interviewees' answers (experts)

The details of the interviews are explained below. The results of the detailed statistics of the interviewees' answers to the initial questions have been given in Table 1. We should note that this section includes the answers received during the interview, which have been summarized through the content analysis. The content analysis performed in this study is done with the aim of characterizing the interviewees' answers to each of the questions asked along with extracting the excess factors mentioned by them during descriptive answers.

Table 1. Detailed statistics of interviewees' answers (initial questions).

Are you familiar with fraud disclosure laws?		
Answer	Number	Percentage
Yes	9	75
Relatively	3	25
Conclusion: There is a good familiarity with the laws of fraud disclosure.		
Do you support fraud disclosure laws?		
Answer	Number	Percentage
Yes	5	42

Yes, but it should be completed and strengthened.	7	58
Conclusion: fraud disclosure laws are protected.		
Priority to disclose fraud intra-organizationally or extra-organizationally?		
Answer	Number	Percentage
intra-organizational	۵	۴۲
extra-organizational	۱	۸
intra-organizational (if useless), then extra-organizational	۴	۳۳
both	۲	۱۷
Conclusion: intra-organizational disclosure is preferred (a significant number has only emphasized it), but extra-organizational disclosure is necessary if it is not useful.		
Have you had any experience with disclosing fraud?		
Answer	Number	Percentage
Yes	10	83
No	2	17
Conclusion: Most of them have had some experience with fraud disclosure.		
Possibility of disclosing frauds by employees to senior management, middle managers and intra-organizational confidential channels?		
Answer	Number	Percentage
Low	۳	۲۵
Moderate (possible)	۶	۵۰
High	۳	۲۵
Conclusion: The possibility of disclosing frauds by employees to senior management, middle managers and intra-organizational confidential channels is assessed as moderate (possible).		
The possibility of disclosing frauds by employees to government and legal organizations, media and secret intra-organizational channels?		
Answer	Number	Percentage
Very low (almost impossible)	۵	۴۲

Low	۳	۲۰
Moderate (possible)	۳	۲۰
High	۱	۸
Conclusion: The possibility of disclosing frauds by employees to government and legal organizations, media and secret extra-organizational channels is assessed as very low (almost impossible).		

The results of the detailed statistics of the interviewees' answers to the main questions (related to the main objectives of the research) have been given

in Table 2. We should note that this section includes the answers received during the interview, which have been summarized through the content analysis.

Table 2. Detailed statistics of interviewees' answers (main questions).

The effect of personal responsibility on the extra-organizational disclosure of frauds?			
Answer		Number	Percentage
Positive & increasing effect	Ineffective	۲	۱۷
	Low	۲	۱۷
	Moderate (in some extent)	۲	۱۷
	High	۴	۳۲
	Very high	۲	۱۷
Conclusion: The possibility of a positive and increasing effect of personal responsibility on the extra-organizational disclosure of frauds is evaluated at different levels, and the high impact has been evaluated more than others.			
The effect of a sense of importance on the extra-organizational disclosure of frauds?			
Answer		Number	Percentage
Positive & increasing effect	Ineffective	۴	۳۳
	Low	۱	۸
	Moderate (in some extent)	۲	۱۸
	High	۴	۳۳
	Very high	۱	۸
Conclusion: The possibility of a positive and increasing effect of the sense of importance on the extra-organizational disclosure of frauds is evaluated at different levels, and the non-impact and high impact have been evaluated more than others.			
The effect of personal cost on the extra-organizational disclosure of frauds?			
Answer		Number	Percentage

Negative & increasing effect	Ineffective	-	-
	Low	-	-
	Moderate (in some extent)	۳	۲۰
	High	۰	۰
	Very high	۴	۲۳
Conclusion: The possibility of a negative and increasing effect of personal cost on the extra-organizational disclosure of frauds is assessed to be more than moderate.			
The Impact of Philosophical Attitude on the extra-organizational disclosure of frauds?			
Answer		Number	Percentage
Positive & increasing effect	Ineffective	۷	۵۸
	Low	۲	۱۷
	Moderate (in some extent)	۳	۲۰
	High	-	-
	Very high	-	-
Conclusion: The probability of a positive and increasing effect of philosophical attitude on the extra-organizational disclosure of frauds is assessed to be lower than moderate (mostly ineffective).			
The effect of risk-taking on the extra-organizational disclosure of frauds?			
Answer		Number	Percentage
Positive & increasing effect	Ineffective	۱	۸
	Low	۱	۸
	Moderate (in some extent)	۳	۲۰
	High	۰	۰
	Very high	۲	۱۷
Conclusion: The possibility of a positive and increasing effect of risk-taking on the extra-organizational disclosure of frauds is assessed to be moderate and high.			
The effect of cultural characteristics (masculinity) on the extra-organizational disclosure of frauds?			
Answer		Number	Percentage
Positive & increasing effect	Ineffective	۹	۷۰

	Low	۱	۸
	Moderate (in some extent)	۲	۱۷
	High	-	-
	Very high	-	-
Conclusion: The probability of positive and increasing effect of cultural characteristics (masculinity) on the extra-organizational disclosure of frauds is assessed to be lower than moderate (mostly ineffective).			
The effect of cultural characteristics (avoiding uncertainty) on the extra-organizational disclosure of frauds?			
Answer		Number	Percentage
Ineffective		5	42
Positive & increasing effect	Low	-	-
	Moderate (in some extent)	-	-
	High	-	-
	Very high	۱	۸
Negative & increasing effect	Low	-	-
	Moderate (in some extent)	۲	۱۷
	High	۳	۲۰
	Very high	۱	۸
Conclusion: The probability of the effect of cultural characteristics (avoidance of uncertainty) on the extra-organizational disclosure of frauds is very low (ineffective).			
The effect of cultural characteristics (distance from power) on the extra-organizational disclosure of frauds?			
Answer		Number	Percentage
Ineffective		5	42
Positive & increasing effect	Low	-	-
	Moderate (in some extent)	۱	۸
	High	۴	۳۴
	Very high	۱	۸
Negative & increasing effect	Low	۱	۸

	Moderate (in some extent)	-	-
	High	-	-
	Very high	-	-
Conclusion: The probability of the effect of cultural characteristics (distance from power) on the extra-organizational disclosure of frauds is sometimes highly and positively assessed and is often considered ineffective.			
The effect of cultural characteristics (corporate citizen) on the extra-organizational disclosure of frauds?			
Answer		Number	Percentage
Ineffective		5	42
Positive & increasing effect	Low	۱	۸
	Moderate (in some extent)	۱	۸
	High	۱	۸
	Very high	۳	۲۶
Negative & increasing effect	Low	۱	۸
	Moderate (in some extent)	-	-
	High	-	-
	Very high	-	-
Conclusion: The effect of cultural characteristics (corporate citizen) on the extra-organizational disclosure of frauds is generally evaluated as positive and sometimes ineffective.			

4.2 Additional information obtained in the interviews

In addition to other pre-designed points and issues raised in the interviews, we asked the interviewees to address any issues related to the disclosure of fraud and the increasing and decreasing factors. These

responses were placed in two clusters of increasing and decreasing factors, which can be explained by a different evaluation method than the previous ones. The results of the detailed statistics of the increasing factors in the interviewees' responses have been shown in Table 3:

Table 3. Detailed statistics of the increasing factors of the interviewees' answers.

What factors increase disclosures? (Emphasis on intra-organizational and personality factors)		
Factor	Repetition	Percentage of emphasis
Organizational Commitment	۷	۵۸
Experience of similar cases	۶	۵۰
Professional and educational	۵	۴۲

competence		
Lower age	۰	۴۲
Boldness	۰	۴۲
religious beliefs	۴	۳۳
Feeling of injustice	۳	۲۰
Years of professional activity	۳	۲۰
quality of Internal control system	۳	۲۰
quality of corporate governance	۳	۲۰
Quality of monitoring systems within the organization	۱	۸
Jealousy to the offender	۱	۸
Positive family culture	۱	۸
Quality Audit Committee	۱	۸
Quality internal audit unit	۱	۸
Existence of a quality independent auditor	۱	۸
Experience and financial expertise of the CEO	۱	۸
Quality of board	۱	۸

It is necessary to explain that these points have been extracted from the explanations of the interviewees and therefore the possibility of the level of impact (very low to very high) has not been provided for some of them. Thus, the issue of determining the level of impact for these factors, which are complementary factors, is not provided. According to the results presented in Table 3, considering the repetition and

the percentage of emphasis on each of the factors (majority), we can consider the factors of "organizational commitment" and "experience of similar cases" as factors that strengthen the extra-organizational disclosure of the frauds. The results of detailed statistics of decreasing factors in the interviewees' responses have been shown in Table 4.

Table 4. Detailed statistics of decreasing factors of interviewees' responses (cluster 17).

What factors weaken the disclosures? (Emphasis on intra-organizational and personality factors)		
Factor	Repetition	Percentage of emphasis
Occupational or family dependence on offenders (high influence of the	۸	۶۷

offender in the organization)		
History of poor dealing with offenders (frustration with the investigation mechanism of revealed frauds)	٦	٥٠
Utilitarianism	٥	٤٢
Job dissatisfaction	٤	٣٣
Lack of meritocracy	٤	٣٣
Lack of organizational support	٤	٣٣
notoriety of the revealer	٤	٣٣
Reluctance to criticize	٣	٢٥
Fear of losing a job	٢	١٧
Ambiguity in the nature of the violation and its forms	٢	١٧
Weak work conscience	٢	١٧
Rooting of violations in the organization	١	٨
Employees' boredom	١	٨
Shyness	١	٨
Lack of proper mechanism of disclosure in the organization	١	٨
Despair for the future	١	٨

It is necessary to explain that these points have been extracted from the explanations of the interviewees and therefore the possibility of the level of impact (very low to very high) has not been provided for some of them. Thus, the issue of determining the level of impact for these factors, which are complementary factors, is not provided. According to the results presented in Table 4, considering the majority of the number of repetitions and the percentage of emphasis on each factor, we can consider the factors "occupational or family dependence on offenders (high influence of the offender in the organization)" and "history of weak encounters with offenders

(frustration with the mechanism for investigating frauds disclosed)" as factors that undermine the extra-organizational disclosure of the frauds.

5.3 Testing the increasing and decreasing factors of the extra-organizational disclosure of frauds

In order to test the increasing and decreasing factors of the extra-organizational disclosure of frauds, single-sample t-test is used. The results of this test have been shown in Table 5.

Table 5. Single-Sample t-test.

Factor	T statistic	Degree of freedom	Significance level	Mean difference	95% of confidence level	
					Lower limit	Upper limit
effect of personal responsibility on the extra-organizational disclosure of frauds	6.093	11	0.000	3.000	1.916	4.083
effect of sense of importance on the extra-organizational disclosure of frauds	4.341	11	0.001	2.416	1.191	3.642
effect of personal cost on the extra-organizational disclosure of frauds	-17.838	11	0.000	-4.083	-4.587	-3.579
effect of philosophical attitude on extra-organizational disclosure of frauds	2.721	11	0.02	1.083	0.207	1.959
effect of risk-taking on the extra-organizational disclosure of frauds	8.583	11	0.000	3.416	2.54	4.292
effect of cultural characteristics (masculinity) on the extra-organizational disclosure of frauds	1.876	11	0.087	0.666	-0.115	1.448
effect of cultural characteristics (avoiding uncertainty) on the extra-organizational disclosure of frauds	-1.827	11	0.095	-1.5	-3.307	0.307
effect of cultural characteristics (distance from power) on the extra-organizational disclosure of frauds	2.682	11	0.021	1.833	0.329	3.337
effect of cultural characteristics (corporate citizen) on the extra-organizational disclosure of frauds	2.561	11	0.026	1.833	0.257	3.409

Considering all the obtained results and considering the level of significance less than 0.05 and the t statistic more than 1.965, we can argue that personal responsibility, sense of importance, philosophical attitude, risk-taking, cultural characteristic of distance from the power and cultural characteristic of the corporate citizen have a positive and increasing effect on the extra-organizational disclosure of frauds. Moreover, due to the significance level of less than 0.05 and the T-statistic of less than -1.965, personal

cost has a negative reducing effect on the extra-organizational disclosure of frauds. The respondents' increasing factors include organizational commitment and experience of similar cases and the decreasing factors added by them are job or family dependence on offenders (high influence of the offender in the organization) and a history of poor dealings with offenders (disappointment with the fraud investigation mechanism revealed). In order to enable their combination, we consider that the people who mention

these factors have highly appreciated their importance and the people who have not mentioned them have evaluated these factors as ineffective. Accordingly, in the following, we discuss the factors and structuring of a model for the factors explaining the extra-organizational disclosure of frauds.

5.4 Articulating a framework of factors affecting the extra-organizational disclosure of frauds

As previously described, after identifying the increasing and decreasing factors of extra-organizational disclosure of frauds, through the factor analysis approach we prepare a framework for the factors affecting the extra-organizational disclosure of frauds. Regarding the reason for using factor analysis, we should say that factor analysis has the ability to put different factors together in a balanced way according

to the convergence and structure of their values. Thus, the most appropriate solution is to combine several factors and form a framework for the factors affecting the extra-organizational disclosure of frauds. The characteristics of factor analysis have been presented in Table 6. It should be noted that the KMO value always fluctuates between zero and one, and if its value is less than 0.5, the data are not suitable for factor analysis; so, considering the value of KMO index, which is higher than 0.5, the identified factors were suitable for factor analysis. In addition, since the significance level of Bartlett test is less than 0.05, factor analysis has been performed successfully. Factor coefficients are also evident in Table 6, which are used as a weight in explaining the compositional pattern. As can be seen, all coefficients and factor loads have the same direction as the predicted directions.

Table 6. Factor analysis test results.

Factors	Factor coefficient (load)
Personal responsibility	0.906
Feeling of importance	0.931
Personal cost	-0.913
Philosophical attitude	0.902
Risk-taking	0.82
Cultural characteristic of distance from power	0.621
Cultural characteristic of the corporate citizen	0.68
Organizational Commitment	0.909
Experience of similar cases	0.933
Occupational or family dependence on offenders (high influence of the offender in the organization)	-0.823
History of poor dealing with offenders (frustration with the investigation mechanism of revealed frauds)	-0.833
KMO index	0.642
Bartlett test statistic	133.482

Significance level of Bartlett test	0.000
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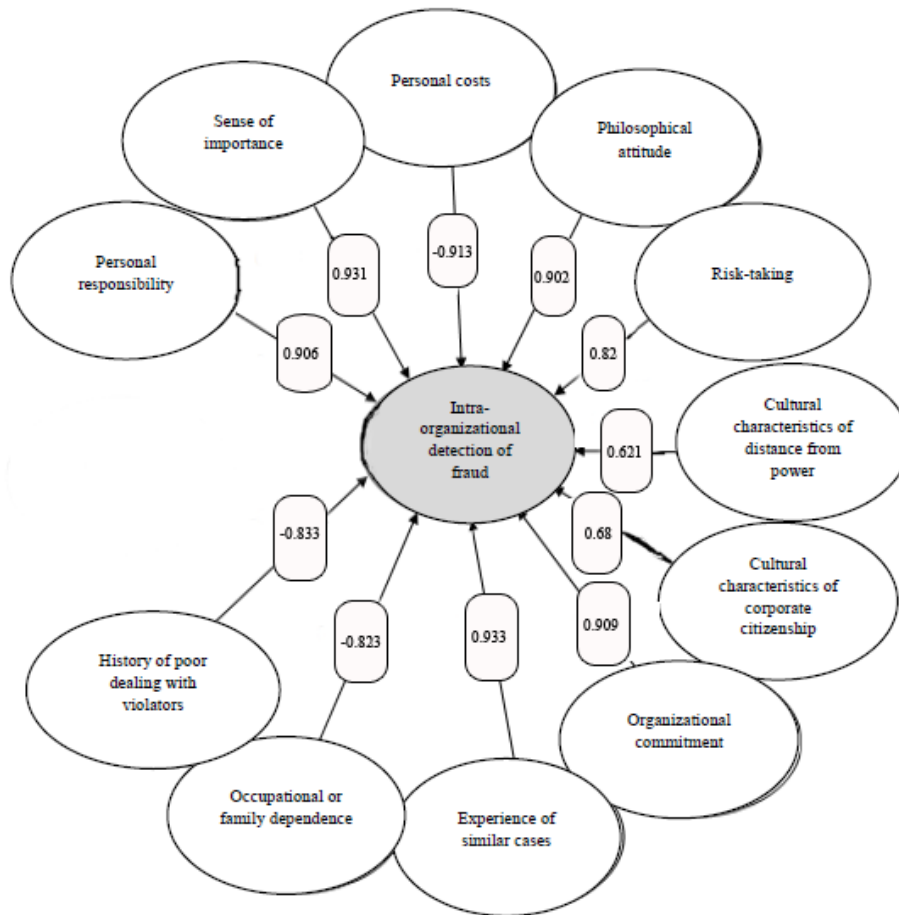


Figure 1. Framework of factors affecting the extra-organizational disclosure of frauds.

Extra-organizational disclosure of frauds: Personal responsibility, Feeling of importance, Personal cost, Philosophical attitude, Risk-taking, Cultural characteristic of distance from power, Cultural characteristic of the corporate citizen, Organizational Commitment, Experience of similar cases, Occupational or family dependence on offenders, History of poor dealing with offenders.

5.5 Testing increasing and decreasing factors of the intera-organizational disclosure of frauds

In order to test the increasing and decreasing factors of the intera-organizational disclosure of frauds, single-sample t-test is employed. Results of this test have been shown in Table 7.

Table 7. Single-Sample t-test.

Factor	T statistic	Degree of freedom	Significance level	Mean difference	95% of confidence level	
					Lower limit	Upper limit

effect of personal responsibility on the intra -organizational disclosure of frauds	10.284	∩∩	0.000	4.166	3.275	5.058
effect of sense of importance on the intra -organizational disclosure of frauds	9.462	∩∩	0.000	3.833	2.941	4.725
effect of personal cost on the intra -organizational disclosure of frauds	15.252	∩∩	0.000	4.25	3.636	4.863
effect of philosophical attitude on intra -organizational disclosure of frauds	2.755	∩∩	0.019	1.166	0.234	2.098
effect of risk-taking on the intra -organizational disclosure of frauds	19.532	∩∩	0.000	4.25	3.771	4.728
effect of cultural characteristics (masculinity) on the intra -organizational disclosure of frauds	1.867	∩∩	0.087	0.666	-0.115	1.448
effect of cultural characteristics (avoiding uncertainty) on the intra -organizational disclosure of frauds	-0.994	∩∩	0.342	-1.083	-3.483	1.316
effect of cultural characteristics (distance from power) on the intra -organizational disclosure of frauds	3.113	∩∩	0.01	2.583	0.756	4.41
effect of cultural characteristics (corporate citizen) on the intra -organizational disclosure of frauds	2.926	∩∩	0.014	2.083	0.516	3.65

Considering all obtained results, it is quite obvious personal responsibility, sense of importance, philosophical attitude, risk-taking, cultural characteristic of distance from the power and cultural characteristic of the corporate citizen have a positive and increasing effect on intera-organizational disclosure of frauds. Moreover, personal cost has a negative reducing effect on intera-organizational disclosure of frauds. The respondents' increasing factors include organizational commitment and experience of similar cases and the decreasing factors added by them are job or family dependence on offenders (high influence of the fraud investigation mechanism revealed). In order to enable their combination, it is obvious to consider the people who mention these factors have highly appreciated their

importance and the people who have not mentioned them have evaluated these factors as ineffective. Accordingly, in the following, factors and structuring of a model for explaining intera-organizational disclosure of frauds are explained.

5.6 Articulating a framework of factors affecting intera-organizational disclosure of frauds

As aforementioned, increasing and decreasing factors of intera-organizational disclosure of frauds, through the factor analysis approach is presented in framework for the factors affecting intera-organizational disclosure of frauds. Regarding the reason for using factor analysis, we should say that factor analysis has the ability to put different factors together in a

balanced way according to the convergence and structure of their values. Thus, the most appropriate solution is to combine several factors and form a framework for the factors affecting inter-organizational disclosure of frauds. The characteristics of factor analysis have been presented in Table 8. It should be noted that the KMO value always fluctuates between zero and one and its value is less than 0.5, the data are not suitable for factor analysis; so,

considering the value of KMO index, which is higher than 0.5, identified factors were suitable for factor analysis. In addition, since the significance level of Bartlett test is less than 0.05, factor analysis has been performed successfully. Factor coefficients are also evident in Table 8, which are used as a weight in explaining the compositional pattern. As can be seen, all coefficients and factor loads have the same direction as the predicted directions.

Table 8. Factor analysis test results.

Factors	Factor coefficient (load)
Personal responsibility	0.686
Feeling of importance	0.843
Personal cost	-0.918
Philosophical attitude	0.695
Risk-taking	0.945
Cultural characteristic of distance from power	0.362
Cultural characteristic of the corporate citizen	0.651
Organizational Commitment	0.693
Experience of similar cases	0.714
Occupational or family dependence on offenders (high influence of the offender in the organization)	-0.796
History of poor dealing with offenders (frustration with the investigation mechanism of revealed frauds)	-0.814
KMO index	0.561
Bartlett test statistic	119.809
Significance level of Bartlett test	0.000

6. Discussion and Conclusions

In the implementation stages of the present study, the most important indices were obtained by studying the theoretical foundations. Based on these characteristics, interviews were conducted with experts and according to the results of these interviews, some codes were extracted. Finally, based on the results of completing

these interviews with experts and extracting keywords and key answers, a model was presented with a factor analysis approach. It is worth mentioning that in this study, after conducting several studies, twelve semi-structured interviews were conducted. Open-ended questions were used in these interviews. The results of the present study briefly showed that personal responsibility, sense of importance, philosophical

attitude, risk taking, cultural characteristics of distance from power, cultural characteristics of corporate citizen, organizational commitment and experience of similar cases have a positive and increasing effect on the extra-organizational disclosure of the frauds; factors of personal cost, job or family dependence on offenders (high influence of the offender in the organization) and a history of poor dealings with offenders (frustration with the investigation mechanism of the revealed fraud) have a negative and decreasing effect on extra-organizational disclosure of frauds.

Regarding the limitations of the present study, it is necessary to explain that the data collection tool in this study was interview. Interview failures and some possible biases in the question and answer process are the main limitations of this study. Also, this study was conducted mainly in the geographical area of Tehran province, the results of which may not be generalizable to all parts of the country. Based on the obtained results, the following suggestions are made:

- Since the extra-organizational disclosure can only be used when intra-organizational disclosure does not work, legislators, policymakers and economic and judicial decision makers of the country should facilitate the extra-organizational disclosure by intra-organizational individuals through the provision of appropriate mechanisms and policies. This will certainly be accompanied by pre- and post-disclosure support as well as discloser protection. Facilitating intra-organizational disclosure is also an important issue that needs the support of company managers and decision makers. Accountants and financial managers, as well as university professors in the field of accounting and other related fields, are encouraged to contribute to the issue of intra- and extra-organizational disclosure of frauds by developing researches and operational approaches in the field of financial frauds and their disclosure.

- Moreover, since personal responsibility has an increasing impact on the extra-organizational disclosure of frauds, the senior managers and company decision makers are advised to try to hire qualified people with personal responsibility for strengthening performance oversight and avoiding employees and managers' fraud. Employee commitment, the degree of remorse of employees and the level of personal responsibility of employees are among the factors that show the personal

responsibility of employees to disclose extra-organizational the frauds.

- Because the sense of importance has a growing impact on the extra-organizational disclosure of frauds, the corporate owners and board members are encouraged to hire employees who have an accurate understanding of the sense of importance. People's attention to the impact of any wrongdoing on the financial performance of the organization, the reputation of the organization and population is the most important characteristic that can determine their sense of importance.

- Since personal cost has a detrimental effect on the extra-organizational disclosure of frauds, the owners and board members of companies are advised to establish a space where the personal cost of extra-organizational disclosure of frauds (hostility of management and other employees) is minimized. Legislators, policymakers, and economic and judicial decision-makers in the country are also encouraged to facilitate this process by providing mechanisms to reduce the personal cost of disclosing frauds. This will certainly be accompanied by pre- and post-disclosure support, as well as the protection and safeguarding of the discloser.

- Because the philosophical attitude has an increasing effect on the extra-organizational disclosure of frauds, the senior managers and corporate decision makers are advised to apply people with philosophical attitudes for strengthening performance oversight and avoiding employees and managers' fraud. Employees' attention to the cause and why (nature) of works and their lack of superficiality, employees' desire for progress, innovation and lack of stability, employees' foresight and their inattention to short-term issues, sense of altruism and attention to other people's problems and employees' comprehensive vision are among the most important characteristics that can determine the level of philosophical attitude of employees.

- Because the risk-taking of individuals has an increasing effect on the extra-organizational disclosure of frauds, the senior managers and corporate decision-makers are advised to employ risk-takers. Employees' inclination to free business, their lack of fear of risk, their unwillingness to maintain comprehensive security, and their preference for high and risky income over fixed and low-risk salaries are some of the factors that determine employees' risk-taking.

- Because the cultural characteristic of distance from power has an increasing effect on the extra-organizational disclosure of frauds, the senior managers and corporate decision makers are advised to employ people with cultural characteristic of the distance from power for strengthening performance oversight and avoiding employees and managers' fraud. Employees who welcome the presence of powerful managers in the organization, employees who consider the kindness and association of managers with employees as one of the good managerial characteristics, and the obedient employees are among the people who are of desirable characteristic in this domain.

- As the cultural characteristic of the corporate citizen has an increasing effect on the extra-organizational disclosure of frauds, it is recommended to senior managers and corporate decision makers that, in order to strengthen performance oversight and avoid employees and managers' fraud, try to employ people who have the cultural characteristic of the corporate citizen. Employees who are cooperative and helpful to other co-workers, employees who care about their work environment and try to keep it healthy, clean and tidy, employees who arrive at work on time, and do things on time and do not nag, employees who cope with the shortcomings and problems of the workplace and think about the growth and development of their workplace, are employees who have the cultural characteristic of a corporate citizen.

- Because organizational commitment has an increasing effect on the extra-organizational disclosure of frauds, the decision-makers, owners, and board members of companies are encouraged to hire employees with organizational commitment. It should be noted that the degree to which a person adheres to the requirements of the attitude and school orientation of the organization, having a sense of patriotism in which a person puts his national and patriotic interests as a criterion for his behavior, lack of extreme interest in personal interests and individual affiliation with the group and preference of group goals are among the most important characteristics that can determine organizational commitment.

- Since the experience of similar cases has an increasing effect on the extra-organizational disclosure of frauds, we suggest to the officials and managers of private and public companies that in order to

strengthen the level of administrative health and provide the infrastructure, mechanisms and forces necessary for disclosing frauds, recruit and retain experienced personnel. In particular, they should recruit and retain forces that have experience in detecting frauds and illegal activities.

- Because job or family dependence on offenders (high influence of the offender in the organization) has a decreasing effect on the extra-organizational disclosure of frauds, we recommend to officials and managers of private and public organizations and companies do not consider family and friendly relationships in attracting forces and emphasize individual abilities.

- Since the history of poor dealings with violators (frustration with the investigation mechanism of the revealed fraud) has a decreasing effect on the extra-organizational disclosure of frauds, we recommend to the officials and managers of private and public companies to create a sense of hope among employees against the revealed fraud mechanism in order to strengthen the level of administrative health and potential and actual reduction of financial and administrative corruption, through the accurate implementation and without disciplinary discrimination and the serious treatment of violators. This result is important for government and judicial officials in formulating and implementing preventive and punitive laws and regulations.

- In this study, interviews were used to provide a model for accountants' understanding of disclosing fraudulent actions. Therefore, we suggest that by compiling mathematical models in future studies and using quantifiable variables and the values reported in the financial statements and related reports on the Codal website, the subject of this study is tested again and the results are compared. In this research, we questioned the accounting experts who were active in both the university and the profession (accounting or auditing). Therefore, we suggest that in future researches, this issue be examined and the results be compared using the opinions and views of company managers, activists in the Tehran Stock Exchange and government and judicial officials. In addition, the emphasis of the present study has been on the factors affecting the disclosure of fraudulent measures. Therefore, it is suggested that in future studies, the effects of disclosing fraudulent actions be emphasized and the results compared.

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