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The Effect of Managerial Overconfidence on Abnormal Audit Fees with Respect to Stakeholder Equity Mechanisms

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Abstract

The pricing of audit services has been a topic of interest to many audit researchers. In case auditors recognize managerial overconfidence, they are expected to incorporate this risk factor into their audit planning and compensate for additional audit efforts to reduce diagnostic risk. This research investigates the effect of the stakeholder equity mechanisms on the relationship between managerial overconfidence and abnormal audit fees. The research sample comprises 144 listed firms on the Tehran Stock Exchange (TSE) from 2012 to 2021. Multiple regression techniques are used to test hypotheses. Furthermore, the Burks et al. (2019) method of testing interaction role is applied. The capital expenditure ratio index has been used for measuring managerial overconfidence. The results indicated a positive and significant relationship between managerial overconfidence and abnormal fees for auditing services. Moreover, the stakeholder equity mechanisms undermine the relationship between managerial overconfidence and abnormal fee for auditing services.

Keywords:
Managerial Overconfidence, Abnormal Fees, Stakeholder Mechanisms

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1. Introduction

Independent auditors have been providing auditing and assurance services for a fixed fee for many years; nevertheless, recent scandals paid special attention and consideration to auditors' economic behavior by researchers and professional society. There have been attempts to determine factors affecting auditing fees and additionally to determine a specific pattern for fee values by researchers. Accountability to the public is a prerequisite for the democratic process. Accountability is also one of the main considerations in auditing and accounting fields. Indeed, auditing and accounting exist in the monitoring aspect of any system and organization; they are widely used from the highest level of government to the smallest business units because each system needs monitoring and feedback for survival (Duellman et al., 2015).

Reduction in the requirements and provisions in the auditing labor market has enabled auditing companies to expand their economic goals and also look for additional revenues and ways of reducing their costs in any audit work.

The determinants of Auditing fees are divided into two general groups: First, the characteristics of the auditing company. Second, the characteristics of the client or customer (Mousavi and Darogheh Hazrati, 2011). Examining these factors is an essential work and there have been attempts to identify them. Some of these determinants are investigated in previous studies; this research investigates the factors and conditions that have not been examined in previous studies.

Overconfidence is a modern financial concept and an important personality trait, so it has a special place in financial and psychological theories. Psychologists have found that people overestimate their abilities to perform tasks appropriately, directly related to the importance given to different businesses. Accordingly, psychologists have reported that people attach more importance to outstanding information when making decisions and judgments. Studies about the effect of managerial overconfidence on a company's performance are of great significance since overconfidence can lead to inappropriate decisions and investments, financing or accounting policies, and costs, and consequently, heavy burdens may be imposed on the company. Overconfidence is a critical personality trait of managers that affects their risk-taking ability. Overconfident managers overestimate the probability and impact of favorable events on cash flows and underestimate the probability and impact of negative events (Duellman et al., 2015).

Hill and Jones (1992) investigated the agency and stakeholder theories in their study. By examining the previous studies conducted in this field, they asserted that the agency theory had been one of the dominant economic models in the literature during the past decades. According to the literature, agency theory primarily concerns the relationship between managers and shareholders. Accordingly, the dividends per share (DPS) policy is considered one of the most effective instruments for managers to reduce agency conflicts between managers and shareholders. In addition, researchers have recently been investigating the functions of agency theory, including strategic management, business performance, organizational behavior, etc. One function, for instance, is the capacity of agency theory to explain implicit and explicit contractual relationships between various groups of stakeholders. In the financial and managerial literature, this approach is known as the stakeholder theory approach. Contrary to the agency theory, which considers only the relationship between managers and shareholders, the stakeholder theory considers the communication link between all the suppliers of a company's resources (stakeholders). According to the agency theory, shareholders invest in a company to earn a profit. Nonetheless, according to stakeholder theory, conflicts of interest between different groups of stakeholders may reduce the returns owed to shareholders (Bøhren et al., 2012).

This study contributes to the literature because 1- the relationship between managerial

overconfidence and abnormal audit fees is not studied well in Iran and 2- the main effect of the stakeholder equity mechanism on this relationship is not studied before in Iran. There this study has enough novelty. The present study investigates, "Do stakeholder equity mechanisms affect the relation between managerial overconfidence and abnormal audit fees?"

2. Theoretical Foundations and Research Hypotheses

Auditing fee is one of the most important factors affecting professional power, which has gained substantial importance in the profession and academic studies after the financial scandals of the early 2000s. Auditing fees are a prerequisite for the survival of the auditing profession and, of course, one of the main determinants of auditor independence. Implementing auditing based on relevant standards and the interests of the auditing community is threatened when auditors do not gain sufficient and proper profits from doing their professional activities (Darogheh Hazrati and Pahlavan, 2011).

Managerial overconfidence can affect auditors' assessment of financial reporting risk-taking because they are more likely to overestimate projects' future cash flows. In contrast, they underestimate the overall probability of negative events. Previous studies indicate that overconfident managers use less accounting conservatism (Ahmed and Duellman, 2012). Due to their optimistic bias towards profit, these managers misrepresent profit, re-evaluate financial statements, use real earning management, and maintain ineffective internal controls (Carey et al., 2017).

Salehi et al. (2019) investigated the relationship between the substitution of managers and auditing fees. The results showed that changing the position of the board's chairman in sample companies reduces auditing fees. Also, they concluded that a change in the responsibilities of board managers positively impacts auditing fees.

Noshadi et al. (2020) investigated the factors influencing auditing fees, like Factors relevant to the professional, cultural and social environment. According to the results, public views of auditing, users' and stakeholders' perceptions of auditing, decision-makers, and policymakers' degree of regulatory competition are the most critical factors influencing the level of professional and environmental conditions. In the meantime, factors such as the market size and concentration, the extent of international relations of institutions, and the risk of lawsuits against auditors in Iran are among the most important factors determining auditing fees. In addition, a set of factors mentioned is described, along with the consequences of reasonable fees and surrounding conditions.

Nemati Mofrah and Bigler (2020) investigated the correlation between earnings, earnings volatility, and auditing fees. The study suggests that the correlation between earnings and earnings volatility is related to auditing fees. Correlation and volatility of earnings can be considered as a set of profit characteristics that may influence the auditor's perception of inherent risk. Auditors should conduct more extensive testing to reduce auditing risks in response to greater inherent risks.

Jizi and Nehme (2018) examined the relationship between CEO duality and auditing fees. The study's statistical population includes US commercial banks, which were collected using the archival method. This study uses the board's structure and the audit committee's characteristics to measure the corporate governance mechanisms. The regression analysis showed that auditing fees positively correlate with the board of director's independence, the board size, CEO duality and audit committee members' financial expertise. Despite the increased risk of misstatement and the financial significance of managerial overconfidence, there is not adequate evidence to support that auditors identify characteristics that reflect managerial overconfidence and that there is a relationship between managerial overconfidence and increased audit risks. It is expected that if auditors consider managerial overconfidence, they may include this risk factor in their audit plan and increase their auditing fee as compensation for additional efforts they assign to reduce the exploration risk. Given all the above, managerial overconfidence seems to increase the audit fee. Accordingly, the first

hypothesis of the research is presented as follows:

First hypothesis: There is a positive and significant relationship between managerial overconfidence and an abnormal fee for auditing services.

The effects of the shareholder equity mechanism on appointing managers and creating incentives for managers to do what is in the best interest of minority shareholders and avoiding inappropriate behaviors by management are highly significant (Bennedsen and Wolfenzon, 2000). These mechanisms act as an oversight system that diminishes conflicts between various shareholders. In other words, various shareholders with almost equal shares prevent large shareholders' tunnelling behaviour. The balance mechanism of shareholders is an aspect of corporate governance which helps other shareholders supervise the largest shareholder and create an environment in which the behavior of managers can be supervised and be more rational (He et al., 2020). In addition, balanced equity can have controlling effects through the participation of corporate governance mechanisms. When the votes are well distributed among major shareholders, neither major shareholders nor the company manager can independently control the production activities and those related to decision-making for the entire company (Maury and Pajuste, 2005). It can prevent shareholders and managers from conspiring against the interests of small and medium-sized shareholders. The existence of various leading shareholders can boost the effective monitoring of managers. So, the oversight system can work more efficiently as minority shareholders are interested in monitoring the behavior of leading shareholders and managers. Eventually, as a result of this oversight system, internal control quality may increase and earning manipulation by self-confident managers may decrease and also, the probability of auditors' opinion shopping by managers may decrease (He et al., 2020).

Bryan et al. (2018) stated that earnings and volatility are associated with auditing fees. Autocorrelation and volatility of earnings may affect auditor perception of inherent risk. They showed a negative (positive) association between earning autocorrelation (volatility) and audit fees. Moreover, they conclude that industry-specialist auditors respond to lower earnings autocorrelation more efficiently than non-specialists; thus, the relationship between earning autocorrelation and audit fees is weakened. Kusharyanti and Kusuma., (2020) investigated the effects of a stakeholder equity theory on the relations between managerial overconfidence and abnormal fee for auditing services. The results showed a positive and significant correlation between managerial overconfidence and abnormal fee for auditing services. In addition, a shareholder equity mechanism can significantly attenuate the positive correlation between managerial overconfidence and abnormal audit fees.

Given all the above, it can be said that the mechanism of shareholders' equity affects the relationship between management overconfidence and audit fee by moderating and limiting the overconfidence behavior of managers. In addition, when auditors consider the mechanism of shareholders' equity, given the effect of this mechanism on the inherent risk of auditing, they moderate the auditing fee. Therefore, stakeholders' equity mechanisms are expected to moderate the relationship between management overconfidence and abnormal audit fees.

Second hypothesis: The stakeholder equity mechanisms moderates the relationship between managerial overconfidence and abnormal fee for auditing services.

3. Research Methodology

The initial sample consists of all listed firms on Tehran Stock Exchange (TSE) from 2011 to 2020. The screened sample of the research is 144 companies that meet all of the following requirements:

1. The selected companies should not be grouped as financial institutes in financial and investments, banking, insurance, and financial services.

2. Selected companies should not be non-manufacturing (transportation, trade, services, etc.)

3. The research sample firms must have entered the capital market before the research period (2011 to 2020).

4. The financial data needed for this research should be available, especially the notes accompanying financial statements.

5. The selected firms should not have been removed from the capital market listed companies' boards during the research period.

6. The Selected companies should not have changed their fiscal year during the research period.

3.1. Research models and variables

In this study, the following regression model is used:

$$AAF_{it} = \beta_0 + \beta_1 OVERCON_{it} + \beta_2 EQUITY_{it} + \beta_3 OVERCON \times EQUITY_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 ROA_{it} + \beta_7 LEV_{it} + \beta_8 CR_{it} + \beta_9 GR_{it} + \varepsilon_{it}$$

3.1.1 Dependent variable

Abnormal auditing fees (AAF $_{it}$)is calculated using the residuals of the following model:

$$LAF_{it} = \beta_0 + \beta_1 LTA_{it} + \beta_2 CR_{it} + \beta_3 CATA_{it} + \beta_4 ARINV_{it} + \beta_5 ROA_{it} + \beta_6 LOSS_{it} + \beta_7 FOREIGN_{it} + \beta_8 LEV_{it} + \beta_9 INTANG_{it} + \beta_{10} OPINION_{it} + \varepsilon_{it}$$

LAF: Logarithm of audit fees

LTA: Logarithm of total asset

CR: Current assets divided by current liabilities

$$\text{CR} = \frac{\text{Current assets}}{\text{current liabilities}}$$

CATA: Current assets divided by total assets

$$\text{CATA} = \frac{\text{Current assets}}{\text{Total assets}}$$

ARINV: Total accounts receivable plus inventories divided by the total assets

$$\text{ARINV} = \frac{\text{Total accounts receivable } + \text{balances}}{\text{Total assets}}$$

ROA: Return on assets

$$\text{ROA} = \frac{\text{Net profit}}{\text{Total assets}}$$

LOSS = Firms that have experienced loss is considered equal to 1 and otherwise equal to zero.

FOREIGN = Firms with foreign income are equal to 1 and otherwise equal to zero.

LEV: Total liabilities divided by total assets

$$\text{LEV} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

INTANG: Intangible assets divided by total assets

$$\text{INTANG} = \frac{\text{Intangible assets}}{\text{Total assets}}$$

OPINION = If the auditor's statement about the company's financial statements is acceptable, it equals 1; otherwise, it equals zero.

3.1.2. Independent variable

Managerial overconfidence (OVERCON**)**

In the present study, capital expenditures have been used as a criterion to measure managerial overconfidence.

Measuring Managerial overconfidence based on capital expenditures criteria results in a dummy variable obtained by calculating capital expenditures' median. Accordingly, if the capital expenditures divided by the total assets in a given year are greater than the median of industry capital expenditures divided by total assets, it will be equal to 1 and otherwise zero. This measurement method is based on Malmendier and Tate's (2005) and David's (2010) findings. Capital expenditures lead to the maintenance, continuation, or increase in the production capacity of goods and services; they also have future profitability for the company (Ahmadi and Mojtahedzadeh, 2009).

$$\text{capital expenditures ratio} = \frac{(\text{Purchase of fixed assets t} - \text{Sale of fixed assets t}) - (\text{Purchase of fixed assets t}-1 - \text{Sale of fixed assets t}-1)}{\text{fixed net assets t}-1}$$

3.1.3. Moderating Variable

Stakeholder equity mechanisms (EQUITY_{it})

Total shares held by banks and insurance firms, holdings, investment firms, pension funds, investment funds, and state-owned companies are divided by the total shares issued by the company.

3.1.4 Control variable

The literature shows that some company characteristics affect most financial elements as abnormal audit fees. These variables are size, age and leverage (He et al., 2020, Mousavi and Darughe Hazrati, 2011, Kusharyanti and Kusuma, 2020). Company size (SIZE_{it}): Natural logarithm of the total assets

$$\text{SIZE}_{it} = \text{Ln(ASSETS)}$$

Company age (AGE_{it}): Equivalent to logarithm, the number of years the company participated in the Tehran Stock Exchange.

$$\text{AGE}_{it} = \text{Ln(Years)}$$

Financial leverage of the company (LEV_{it}): Total liabilities of the company to total assets of the company

$$LEV_{it} = \frac{Total\ liabilities}{Total\ assets}$$

Previous studies show that ROA, CR, and GR affect abnormal audit fees (Khodadadi et al. 2019, He., et al. 2020, Hasas Yeganeh., et al. 2015).

Return of assets (ROA_{it}): Net income divided by the total assets

$$\text{ROA}_{it} = \frac{\text{Net income}}{\text{total assets}}$$

The current ratio of the company (CR_{it}): Current assets divided by current liabilities

$$CR_{it} = \frac{Current\ assets}{current\ liabilities}$$

Company sales growth (GR): This year's sales minus last year's sales divided by last year's sales

$$GR_{it} = \frac{Sale_t - Sale_{t-1}}{Sale_{t-1}}$$

4. Research Findings

4.1 Descriptive statistics

In order to interpret the overall and basic characteristics of the main research variables, the descriptive statistics of variables must be shown. In descriptive methods, in order to contribute to the transparency of the subject, it is crucial to describe the research data by presenting a table and using descriptive statistical tools such as central and dispersion indexes. The number of valid and accurate observations for each variable is 10 years. This study's data were available for 144 firms listed on the Tehran Stock Exchange, which covers the 2012 to 2021 period. The first section shows the most important central indexes of research variables. Among the central indexes, the most important ones, the variable's mean, median, maximum and minimum, have been shown. Finally, the standard deviation, the most important scattering parameter, is obtained from the variance square root. These indexes are presented in Table 1. Excel and EViews v10 software has calculated the figures in this table.

Table 1. The descriptive statistics of research variables

Variable Research	Symbol	Average	Median	Maximum	Minimum	Standard Deviation
Abnormal fee for auditing services	AAF	0.000	0.092	6.391	-6.525	1.890
Managerial overconfidence	OVERCON	0.507	1.000	1.000	0.000	0.500
stakeholder equity mechanisms	EQUITY	0.587	0.699	0.994	0.000	0.323
Company size	SIZE	14.217	14.055	20.183	10.226	1.473
Company age	AGE	2.810	2.833	3.931	1.098	0.453
Return of assets	ROA	0.117	0.095	0.626	-0.362	0.128
Financial leverage of the company	LEV	0.578	0.584	0.996	0.059	0.186
The current ratio of the company	CR	1.496	1.315	6.138	0.196	0.786
Company sales growth	GR	0.322	0.238	6.555	-0.733	0.500

Research hypotheses results

4.2 Assessing the stability of research variables

Data must be analyzed before hypotheses can be tested. For this purpose, before comparing the models, the stability of the research variables was first checked by Levin, Lin and Chao tests using Eviews10 software. The results are presented in Table 2.

Table 2. Stability tests results of research variables

Variable Research	Symbol	P-Value	Statistic -T	Conclusion
Abnormal fee for auditing services	AAF	0.000	-62.066	It is stable
Managerial overconfidence	OVERCON	0.000	-26.279	It is stable
stakeholder equity mechanisms	EQUITY	0.000	-485.933	It is stable
managerial overconfidence×abnormal audit fees	OVERCON×EQUITY	0.000	35.369	It is stable
Company size	SIZE	0.000	-3.921	It is stable
Company age	AGE	0.000	-45.962	It is stable
Return of assets	ROA	0.000	-22.087	It is stable
Financial leverage of the company	LEV	0.000	-9.015	It is stable
The current ratio of the company	CR	0.000	-14.300	It is stable
Company sales growth	GR	0.000	-13.114	It is stable

4.3 Heteroscedasticity Test

The results are shown in Table 3. In the research model, the significance level is less than 5%. That is, there is Heteroscedasticity. The white correction factor was used to solve this problem.

Table 3. Heteroscedasticity analysis results

Inequality	Heteroscedasticity analysis		Model
Conclusion	Chi2	P-Value	
Yes	2343.432	0.000	Research regression model

Reference: Results

4.4 Collinearity Test

The variance inflation factor (VIF) index is used to diagnose the collinearity. The collinearity test (VIF) of the research variables is described in Table 4.

Table 4. Collinearity Test

Variable Research	Sign Exclusive	Research regression model VIF
Managerial overconfidence	OVERCON	4.331
stakeholder equity mechanisms	EQUITY	2.287
managerial overconfidence×abnormal audit fees	OVERCON×EQUITY	2.215
Company size	SIZE	1.079
Company age	AGE	1.074
Return of assets	ROA	1.555
Financial leverage of the company	LEV	2.313
The current ratio of the company	CR	2.170
Company sales growth	GR	1.065

Reference: Results

4.5 Diagnostic tests and model estimation

In this section, the model is estimated using the panel data method to ensure the results of estimating the models. One of the advantages of panel data is that it reduces heterogeneity and variability by considering heterogeneity in collinearity areas. In the panel data method, more complex models can be tested.

Table 5. F-Limer Test Results

Test Result	P-Value	Statistic - F	Model
Fixed Effect Model	0.000	19.073	Research regression model

The results of the F-limer test in Table 5 show that both models are panel data (p-value <0.05). Therefore, the research model is estimated د by the panel data method.

In this phase, Breusch and Pagan's (1980) test was performed. The results of this test are presented in Table (6). The results rejected the null hypothesis. The obtained results emphasized the necessity of using the random effect model for the companies.

Table 6. Breusch–Pagan Test

Test Result	P-Value	Statistic chi-bar	Model
Random Effect Model	0.000	543.092	Research regression model

As the F-limer test confirmed the existence of fixed effects and the Pagan method test also confirmed the existence of random effects, the Hausman test (1978) was performed to choose one of the two methods mentioned.

Table 7. Hausman Test Results

Test Result	P-Value	chi-square Statistic	Model
Fixed Effect Model	0.000	46.154	Research regression model

Hausman test results are presented in Table 7, showing that the fixed effects method is the most appropriate regression estimate. (p-value <0.05)

4.6 Research hypothesis test results

Based on Burks et al. (2019), the interaction analysis is tested in two steps. Step one is inserting interaction variables in the research model and step two is testing the conditional effect of interaction variables.

According to the results obtained from regression analysis provided in Table 8, the adjusted determination coefficient is 0.329, indicating that if other factors are assumed to be constant, approximately 32.9% of the changes in the dependent variable (abnormal fee for auditing services) are explained by independent and control variables. As shown in Table 8, the F-statistic is significantly less than 5% (95% confidence). Thus, the null hypothesis concerning no linear relation between dependent and independent variables is rejected. Therefore, it can be said that there is a significant linear relationship between the model variable.

Table 8. Research hypothesis test results (step 1)

Variable	Sign Exclusive	Research regression model			
		Coefficients	Std. Err	T statistics	P-Value
Managerial overconfidence	OVERCON	0.155	0.076	2.029	0.042
stakeholder equity mechanisms	EQUITY	-0.409	0.124	-3.278	0.001
managerial overconfidence×stakeholder equity mechanisms	OVERCON×EQUITY	-0.118	0.046	-2.553	0.010
Company size	SIZE	0.201	0.051	3.887	0.000
Company age	AGE	0.465	0.087	5.339	0.000
Return of assets	ROA	0.315	0.197	1.592	0.111
Financial leverage of the company	LEV	-0.100	0.143	-0.699	0.484
Current ratio of the company	CR	0.032	0.010	3.095	0.002
Company sales growth	GR	0.042	0.020	2.029	0.042
intercept	Cons	1.835	0.577	3.176	0.001
Number of observations			1440		
R^2 coefficient of determination			0.395		
Adj R-squared			0.489		
Statistics significance level F			0.000		
Statistics F			5.240		
Durbin and Watson			1.603		

Reference: Results

The results of the autocorrelation test (Durbin-Watson statistics) showed that there is no autocorrelation in the research regression model (Durbin-Watson statistics value should be ranged from 1.5 to 2.5; hence it is clear that the model does not have autocorrelation).

First hypothesis: Statistical hypothesis for the first hypothesis is zero (H0) and the opposite hypothesis (H1) is as follows :

Hypothesis (H1): There is a positive and significant relationship between managerial overconfidence and abnormal fee for auditing services.

Investigating the relationship between managerial overconfidence and abnormal fee for auditing services, the coefficient of the managerial overconfidence variable is both statistically positive and significant. As the managerial overconfidence variable coefficient is positive (0.155), managerial overconfidence positively affects the abnormal fee for auditing services. Considering that the significance level of this relationship is less than 0.05, this relation is significant. As a result, there is a positive and significant relationship between managerial overconfidence and abnormal fee for auditing services; therefore, the first hypothesis of the research is confirmed.

Second hypothesis: Statistical hypothesis for the second hypothesis is zero (H0) and the opposite hypothesis (H2) is as follows:

Hypothesis (H2): The stakeholder equity mechanisms undermine the relationship between managerial overconfidence and abnormal fee for auditing services.

Regarding the second hypothesis, i.e. the stakeholder equity mechanisms undermine the relationship between managerial overconfidence and abnormal fee for auditing services, it can be said that there is an interaction effect of the coefficient of the variable of managerial overconfidence and stakeholder equity mechanisms (-0.118). Considering the significant level of the interactive effect of managerial overconfidence and the stakeholder equity mechanisms, which is equal to 0.01, it can be concluded that the stakeholder equity mechanisms significantly affect the relationship between managerial overconfidence and abnormal fee for auditing services. Considering the opposite direction of the interactive effect variable with the independent variable of the research, it can be concluded that the stakeholder equity mechanisms undermine the relationship between managerial overconfidence and abnormal fee for auditing services. Therefore, the second hypothesis is

confirmed.

Regarding control variables, it can be concluded that: The estimated coefficients of the control variables "company size", "company age" and "return on assets" in Table 9 indicate a significant relationship between these variables and the abnormal fee for auditing services.

In the second step and based on Burks et al. (2019) the conditional effect of stakeholder equity mechanisms is analyzed as follows:

Table 9. Analysis of conditional effect on the abnormal fee for various equity mechanisms (step2)

EQUITY distribution point	EQUITY Level	T statistics	Std. Err	Coefficients
10%	0.222	1.065	1.167	1.243
25%	0.386	1.426	1.413	2.016*
50%	0.620	2.799	2.016	2.844*
75%	0.802	1.529	0.896	1.370*
90%	0.971	0.904	2.238	2.025

Given the continuous nature of EQUITY, we analyzed the effect of OVERCON over a range of EQUITY values. Table 9 shows statistical tests of the estimated slope on OVERCON at different values of EQUITY. These points correspond to EQUITY values of 0.22 to 0.971; the table shades the range of EQUITY values where the slope on OVERCON significantly differs from zero.

.Based on the results, at the levels of 0.376, 0.620 and 0.802, the effect of OVERCON is significantly different from zero (based on one-tailed $p< 0.10$);

The magnitude and significance of these conditional effects are similar to the unconditional effect of abnormal fees from the linear-additive model.

5. Conclusion and Implications

This study aimed to investigate the effect of stakeholder equity mechanisms on the relations between managerial overconfidence and abnormal fees in companies listed on the Tehran Stock Exchange. According to the findings, an attempt has been made to examine the following question "Does stakeholder equity mechanisms affect the relationship between managerial overconfidence and abnormal fee for auditing services?"

To answer the above question, the following hypotheses have been proposed:

First hypothesis: There is a positive and significant relationship between managerial overconfidence and abnormal fee for auditing services.

Second hypothesis: The stakeholder equity mechanisms undermine the relationship between managerial overconfidence and abnormal fee for auditing services.

The results of the analysis of the empirical model showed that there is a positive and significant relationship between managerial overconfidence and abnormal auditing fees. Despite the increased risk of material misstatement due to managerial overconfidence, there is little evidence that auditors detect the characteristics that prove managerial overconfidence and the relationship between managerial overconfidence and increased audit risk. It is expected that if auditors take managerial overconfidence into account, they may include this risk factor in their audit plan and, as a result, increase their auditing fees for additional efforts to reduce exploration risk. Given all the above, managerial overconfidence seems to increase the auditing fee. The results of the present hypothesis are somewhat consistent with the findings of Kusharyanti and Kusuma (2020).

The results of the second hypothesis indicated that the stakeholder equity mechanisms undermine the relationship between managerial overconfidence and abnormal fee for auditing services. Leading

shareholders can create effective oversight over managers. To protect their interests, they are interested in monitoring the behavior of managers, thereby creating more effective oversight. Finally, the quality of internal control of listed companies is improved and the motivation of overconfident managers to manage earnings and buy auditing opinions is reduced. Therefore, the positive effect of managerial overconfidence on abnormal auditing fees has been undermined. The results of the present hypothesis are somewhat consistent with the findings of Kusharyanti and Kusuma (2020).

Considering the results, it is suggested that leading investors, especially shareholders, take these three steps to reduce the effect of their managerial overconfidence on abnormal auditing fees. First, increasing the number of board members to control the managers. Second, the company manager should not be the board's chairman due to influencing the company's major decisions. Third, capital market policy makers oversee the company's management activities. Forth auditors be aware of managerial overconfidence and its effect on audit fees.

It is suggested that future research investigate the effect of investors' inclinations on the relationship between managerial overconfidence and abnormal fee for auditing services.

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