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Research Article

Impact of Board Incentives and Board Interlocks on Audit Fees

Elham Chenari*

Faculty of Economics and Administrative Sciences, Ferdowsi University of Mashhad, Mashhad, Iran

Abstract

This study aims to examine how board incentives and board interlocks affect audit fees. Using multiple linear regression with panel data, this research shows a significant relationship between the board incentives and future audit fees. In contrast, this relationship is not significant for current audit fees. Furthermore, there is a significant relationship between board interlock in companies with future audit fees, while this relationship is not significant for the current audit fees. This paper contributes to the literature on the determinants of audit fees.

Keywords: Board incentives, Board compensation, Audit fees, Board interlock

***Corresponding Author**: MSc Student of Auditing, Email: el.chenari.66@gmail.com

1. Introduction

To manage and organize daily company operations, guidance and leadership are transferred from board to president and from the president to the chief executive officer. Thus, as a representative of company shareholders, the board is responsible for monitoring and controlling the company. Therefore, executive officers of companies are responsible for daily operations and business processes. The board is also responsible for the company's ultimate operation and financial health (Salehi, 2020). The main responsibility of the board is to create effective corporate governance in the interests of shareholders and balance in the interests of its various stakeholders, including customers, employees, investors, and local communities, and provide independent oversight on CEO's performance and challenge management strategies and business decisions (Richardson et al., 2001). The meaning of board interlock, interlocks of the board that simultaneously hold the position board in another company (Mizruchi, 1996). While the board interlocks are playing a vital role in the organization (Fama and Jensen, 1983), interlocks' performance has positive and negative consequences for the organization (Erickson et al., 2006). Finally, it can be argued that independent audit fees can be used to measure the complexity of corporate financial reporting. In this research, by studying the board compensation effect and the existence of a board with an interlock on audit fees, we study that the managers, as their agents, improve their programs and performances, as well as reduce the risk of information uncertainty under seeking maximum compensation.

2. Theoretical framework and hypothesis development

The complexity of companies is one of the reasons for audit fees increasing. Companies that have complex operations and structures pay more wages to the CEO to manage their operations (Seifzadeh et al., 2020). On the one hand, managers who earn more profits will be eligible to receive more compensation (Fama, 1980).

When company operations are widespread and complex, the demand for monitoring the financial reporting process will increase. Companies with complex operations require many audit services (Salehi et al., 2019). As a result, they also pay more fees to audit firms. Also, these companies need non-executive directors to supervise the audit process; therefore, more compensation is paid to executives who are interlocks of the audit committee (Wysochi, 2010).

Despite the controversy about the relationship between the board's risk and compensation structure, the consensus is that if other conditions are equal, with uncontrollable risk increasing of company, the compensation paid to managers is also due to the acceptance of a higher level of risk will be increased. It should be noted that compensation of the board can override investment management decisions that affect the risk. So, risk can be limited by the type of compensation attributed to management (Jin, 2002; Coles et al., 2006). Hermalin (2005) believes that systematic increases in remuneration for CEO are due to the strengthening of the corporate governance system and higher managerial management over similar periods. Because strengthening a corporate governance system creates a possibility that if the manager's performance is weak, it will be removed (Salehi et al., 2020). Some managers optimally make decisions to earn more compensation and maintain their job position. In some cases, they are also protected by their friendly relations with board interlocks and receive more compensation. These managers' groups to defend their position are invited to auditors to make comments following their wishes (Bebchuk and Fried, 2005).

Managers' compensations emphasize short-term payments, which may create problems for the company. Therefore, an increase in earnings management, leading to an increase in managers' compensation, will also increase auditors' higher fees.

Another view is that if compensation agreements are properly designed, managers are

motivated to do their job properly and may not need independent auditor services. With this description, there can be an inverse relationship between compensation and fees. Variation in compensation schemes can be another strategy to motivate managers, and with less incentive for the manager to manipulate profits, fewer costs are spent on auditing.

When managers' compensation is according to their performance, they tend to invest in capital and long-term plans. When the management goals are long-term, his incentive to manipulate profits decreases and the need for additional services for auditors is reduced. Finally, if managers are given compensation choices like an option, it can be expected that the manipulation of profits and additional fees to auditors will be reduced (Vafeas and Waegelein, 2007). When paying compensation is based on profitability, despite its high benefits, it may be manipulating profits. By manipulating profits, auditors face a higher risk of discovering manipulated cases (Heninger, 2001; Palmrose and Scholz, 2004). Because of profit management risk and its impact on management compensation, American Accounting Standards express that auditors must review managers' compensations. The purpose of this recognition is to determine the risk of significant errors. Managers may have financial or non-financial incentives to acquire assets and build governance structures. Some managers can apply for more compensation. In the process of creating this governing structure, the complexity of the organization may be greater. Fargher et al. (2013) reported that managers' stock portfolios reduced risk management incentives and had a negative relationship with audit fees. Bergstresser et al. (2006) found that management incentives are positively related to profit management levels, and profit management in this research has been measured through optional accruals. Cohen et al. (2008) found that an increase in accruals management was associated with increased compensations and reimbursement of co-management services before adopting the Sarbanes-Oxley act. Research on the compensation of directors and audit fees has been investigated, and the main hypothesis of the research has been explained. Gul et al. (2003) found that by increasing compensation to the CEO, their incentive to manipulate accruals, in other words, increased profits, required higher quality audit, and, consequently, higher payouts. Companies with more independent audit fees (indicating more demand for monitoring financial reporting by specialized individuals) have paid more and more fees to the audit committee (Engel et al., 2010). Bedard & Johnson (2004) concluded that with increasing corporate compensation based on corporate profit margins, the probability of profits manipulation was increased, and auditors demand higher fees for high-quality audits and detection of manipulation cases. Osma et al. (2007) showed that the board's compensation significantly determined the manipulation of profits. Therefore, this action's limitation is shaped by the board of directors' interlocks towards the independent board's interlocks. Ali shah et al. (2009) showed a negative relationship between institutional ownership and profit management, while the research results did not show a significant relationship between board compensation and profit management. Jones and Wu (2010) have shown that managers' compensation may change profit management. The result of Leventis and Dimitropoulos (2010) showed that there is a positive relationship between audit independence and audit pricing. The results also showed a positive relationship between audit pricing and profit management for small companies. Alali (2011) reported a strong correlation between increased discretionary accruals with increasing audit fees and increasing CEO compensation. This relationship is moderated by increasing managers' salaries. Lifschutz et al. (2010) concluded that the independence of the board (the ratio of independent directors to the entire board) and the persistence of the audit committee (number of meetings) had a positive and significant relationship with audit fees. Kim et al. (2014) showed that option to buy managerial shares positively correlates with the audit fees after

controlling abnormal accruals and other determinants of audit fees. Besides, they showed that the positive relationship between giving the buyer the option to buy managerial shares and audit fees for better corporate governance is reduced.

Rahman Khan et al. (2011) focus on company ownership of audit fees in emerging economies. The research results showed a significant negative relationship between audit fees with sponsorship and the focus of company ownership. This showed that companies controlling by sponsors and institutional investors paid a small amount of Bangladesh's audit fees. Gong & Li (2012) concluded that in high-yielding companies for CEO, the current year's profit will have more information to predict future earnings. In the prediction of profit, the CEO's predictive power for profit stronger than other predictive factors. They concluded that financial analysts did not use information about managerial shareholder benefits when forecasting profit. Xingze (2012) showed that there is a negative relationship between corporate governance and audit fees. The higher level of corporate governance will result in lower audit fees. The higher level of corporate governance will result in fewer audit fees. Guillet et al. (2012) showed that company performance criteria and managers' characteristics determine managers' compensation in these industries. Johnson et al. (2013) concluded a direct relationship between excessive self-confidence, management compensation, and audit risk estimation. In other words, if the auditor recognizes this personality trait of managers and overestimates the risk of financial reporting, he will demand more fees. Lauck et al. (2014) concluded that the CEO had a significant impact on audit services pricing. Newton (2015) explored the relationship between management compensation, organizational performance, and corporate governance quality in the United States and concluded a negative relationship between management compensation, corporate governance, and organizational performance. The results of Jiang et al. (2015) indicated that profit manipulation increases the likelihood of retrospective observations from profit management, but high-quality auditing limits this effect. However, they did not find such evidence for refinancing from cash flow; in other words, increasing the auditing quality does not affect the resumption of cash flow provision. Chen et al. (2015) also concluded that auditors are more risk-averse when managers' incentives to maintain or increase stock prices are higher; in other words, auditors have more remuneration than companies with more sensitive executives showing fluctuations in stock returns.

According to theoretical foundations and the related literature, the following hypotheses postulated in the study:

H_1: There is a significant relationship between the incentives of the board with current audit fees.

H_2: There is a significant relationship between the incentives of the board with future audit fees.

H_3: There is a significant relationship between the existence of board interlock and current audit fees.

H_4: There is a significant relationship between the existence of board interlock and future audit fees.

This research's statistical population is companies listed companies on the Tehran Stock Exchange and all industries during 2011-2016. Sample of this study, based on its subject, is of knock-out type sampling from a set of companies listed on the Tehran Stock Exchange that have the following conditions:

1. Companies are not interlocks of the financial intermediation industry, holding, and banks. Such companies differ in terms of activities and classification of financial statement items with other companies.

2. Deals of companies should not be completely stopped during the research period (symbol of the company has not been withdrawn from the exchange).

3. Companies have been accepted at the Tehran Stock Exchange at least since the beginning of 2011.

All required research data for those companies is available during the research period. Considering the above conditions, 94 companies remained, which represents the actual statistical population. Hypotheses were tested using a multiple regression model. Excel was used for data preparation, and Eviews software was used to analyze the data.

3. Data Analysis and Hypothesis Testing

To investigate the relationship between board incentives (board compensation) and audit fees, according to Kim et al. (2016), using the following regression model.

$$LOG\ AUDITFEES = \beta_0 + \beta_1 LOG\ CEOVEGA + \beta_2 LOG\ CEODELTA + \beta_3\ Size + \beta_4 INVREC + \beta_5 LEVERAGE + \beta_6 QUICK + \beta_7 ROA + \beta_8 LOSS + \beta_9\ A\_Size + \beta_{10} EXPERTISE + \beta_{11}\ TENURE + \beta_{12} AUDITOR\ CHANGE + \beta_{13}\ CEOTENURE + \beta_{14}\ DINDUSTRY + e$$

Also, in order to investigate the relationship between board interlocks and audit fees, according to Kim et al. (2016), the following regression model is used:

$$LOG\ AUDITFEES = \beta_0 + \beta_1\ Board\_Interlocks + \beta_2\ Size + \beta_3\ INVREC + \beta_4 LEVERAGE + \beta_5\ QUICK + \beta_6\ ROA + \beta_7\ LOSS + \beta_8\ A\_Size + \beta_9 EXPERTISE + \beta_{10}\ TENURE + \beta_{11}\ AUDITOR\ CHANGE + \beta_{12} EOTENURE + \beta_{13}\ DINDUSTRY + e$$

The definitions of variables are presented below:

LOG AUDITFEES: audit fees logarithm

LOG CEOVEGA: Ownership of board shares, calculated by dividing the total number of board shares into the company's total number. It needs to be explained that the information needed to measure this variable will be extracted from the capital note in the financial statements.

LOG CEODELTA: Logarithm of board compensation that exists in financial statements and its explanatory notes.

Board_Interlocks: shows the presence of board interlock and, if the company has a board interlock, among the companies audited by an audit firm, the number 1 and otherwise it will be 0. More clearly, the purpose of this variable is that the presence of board interlock in two companies may lead to the selection of joint auditor in those companies; therefore, if the two companies have the same board of directors and auditors, this dummy variable will take 1; otherwise, it will be 0.

Size: The company size is equal to the logarithm of the company's sales.

INVREC: Total accounts receivable and inventory.

LEVERAGE: Financial leverage, which is the ratio of total debt to assets.

QUICK: Current ratio, the quick ratio for the company i in year t. This is calculated by dividing current assets into current debts.

ROA: Return on assets is calculated by dividing interest before deducting interest and tax on total assets.

LOSS: fictional variable, equivalent to 1 if the company is losing, otherwise it is 0.

A_Size: the size of the auditor, if the auditor belongs to the audit firm, is equivalent to 1 and otherwise equal to 0.

EXPERTISE: Audience industry expertise, equivalent to 1 if the auditor is an industry specialist and otherwise 0. To determine the auditor's specialty in the industry, we consider the share of auditors' markets so that institutions are considered as industry specialists, whose market share (equation 1) is greater than the equation (2) (Palmrose, 1989).

Equation 1 auditors market share= $\frac{total\ assets\ of\ all\ the\ owners\ of\ each\ industry\ audit\ firm}{Total\ assets\ of\ all\ owners\ in\ this\ industry}$

Equation 2: $[(\frac{1}{Companies\ in\ an\ industry})* 1.2]$

TENURE: Auditor's term time.

AUDITOR CHANGE: auditor's change, equivalent to 1 if the auditor changes, otherwise it is 0.

CEOTENURE LOG: The term time of CEO.

DINDUSTRY: Industry Indicator

Examinations related to research hypotheses

Hypotheses Test

Descriptive statistics

Table 1 shows the descriptive statistics of the research variables. As respects, the mean and median of all quantitative variables have a small difference. We can say that the variables have a normal distribution. On the other hand, as respects that the average logarithm of audit fees is close to the minimum, it is not unusual for audit firms to receive their fees. Also, the average board stock ownership is 0.054. The cash compensation logarithm of board interlocks was 2.525. The minimum was 0 that either company suffered losses, and no compensation was distributed, or it did not have a compensation distribution in the company's policy. The average tenure of the auditor is about

two years, and this amount is about 2.5 years for the CEO. In qualitative variables, out of 564 observations, 241 views had board interlocks. Also, 73 years of corporate loss and 167 observations were audited by a great audit firm. In 174 observations, auditors' changes, and in 330 views were audited by an expert auditor.

Table 1. Descriptive statistics of research variables

Variable	symbol	Mean	Median	S.d	Min	Max
audit fees	*LOGAUDITFEES*	8.888	8.837	0.431	8.314	10.038
Ownership of board shares	*CEOVEGA*	0.054	0.055	0.027	0.010	0.099
Logarithm of board compensation	*logceodelta*	2.525	2.916	1.172	0.000	3.281
Size of company	*Size*	13.660	13.585	1.489	10.156	18.936
The logarithm of receipts and inventory	*INVREC*	5.234	5.279	0.765	3.073	7.879
Financial Leverage	*LEVERAGE*	0.391	0.331	0.206	0.143	0.937
quick ratio	*QUICK*	1.648	1.480	0.886	0.244	3.838
Return on assets	*ROA*	0.328	0.374	0.344	-0.999	1.078
Auditor tenure	*TENURE*	1.755	2.000	0.876	1.000	4.000
President tenure	*CEOTENURE*	2.548	2.000	1.377	1.000	9.000
Qualitative Variables Frequency						
presence of a joint board	*Board_Interlocks*	241				
Losing company	*LOSS*	73				
Auditor Size	*A_Size*	167				
Auditor's expertise	*EXPERTISE*	330				
AUDITOR CHANGE	*AUDITOR CHANGE*	174				
Observations	564					

3.1. Normality of variables

As the results of Table 2 show, none of the research variables follow normal distribution despite the Coincidence (significance of the Kolmogorov-Smirnov test in all of them is lower than 5%). Accounting data is usually not normal, and this Precondition can be ignored.

Table 2. The search variables Normality

Variable	Symbol	Kolmogorov-Smirnov test statistics	Sig.
Logarithms of audit fees	*LOGAUDITFEES*	0.08	0.000
Ownership of the board stock	*CEOVEGA*	0.094	0.000
The logarithm of board compensation	*Logceodelta*	0.195	0.000
size of the company	*Size*	0.052	0.001
The logarithm of receipts and inventory	*INVREC*	0.054	0.001
Financial Leverage	*LEVERAGE*	0.117	0.000
quick ratio	*QUICK*	0.164	0.000
Return on assets	*ROA*	0.073	0.000
Auditor tenure	*TENURE*	0.293	0.000
CEO tenure	*CEOTENURE*	0.190	0.000

3.1.1. The research variables Linearity

To better fit the regression model, the linearity relationship between independent variables should be considered. Regarding all variables, this factor is less than 5; there is no linearity between variables, and the model fitting can be made.

Table 3. variance inflation Factor for research variables

Variable	Coefficient of variance	Variance inflation Factor
CEOVEGA	0.889	1.125
LOGCEODELTA	0.265	3.771
Board_Interlocks	0.764	1.309
Size	0.434	2.307
INVREC	0.446	2.241
LEVERAGE	0.969	1.032
QUICK	0.942	1.061
ROA	0.446	2.146
LOSS	0.281	3.563
A_Size	0.555	1.803
EXPERTISE	0.322	3.105
TENURE	0.386	2.594
AUDITOR CHANGE	0.893	1.120
CEOTENURE	0.951	1.052

4. Findings

Descriptive statistics and assumptions for preparing variables for regression fitting and hypothesis testing were studied in the previous sections. In this section, the hypothesis test is examined. The dependent variable is the logarithm of current and future audit fees, and the independent variable is the compensation of the board of directors and the existence of board interlock.

First, to examine the effects of panel or combination, F Limer's test was performed. The significant value lower than 5% confirms the null hypothesis based on data fitted as a panel.

Table 4. F limer and Hausman tests

Test type	Statistics amount	Sig.
F limer	8.648	0.000
Hausman	24.607	0.026

After the F limer test, the Hausman test is performed to determine constant effects versus random effects. The test significance value is 0.026 and lower than 5%. Thus, the hypothesis test will be performed in panel form with constant effects.

According to Table 5, the Fisher statistic and significant value were 11.296 and 0.000, respectively, indicating proper model fitting at an error level of 5%. On the other hand, the adjusted coefficient is 0.659; independent variables explain 66% of the dependent variable. The Durbin-Watson statistic is 1/822 and located between 1.5 to 2.5, indicating a lack of autocorrelation in model error sentences. But for analyzing hypothesis test results, the significance of the variable is 0/527, and this value not lower than the 5% significance level, and the first research hypothesis is not confirmed. That means there is no significant direct relationship between the incentives of the board and current audit fees.

Table 5. Test results of the first hypothesis

Symbol	Variable	Coefficient	T Statistics	Significant
C	Constant factor	7.709	32.399	0.000
LOGCEODELTA	The logarithm of board compensation	-0.010	-0.566	0.572
CEOVEGA	Ownership of the board stock	-0.221	-0.337	0.736
SIZE	size of company	0.061	4.016	0.000
INVREC	The logarithm of receipts and Inventory	0.058	1.886	0.060
LEVERAGE	Financial Leverage	-0.009	-0.159	0.874
QUICK	*quick* ratio	0.005	0.363	0.717
ROA	Return on assets	-0.045	-1.000	0.318
LOSS	Being losing	-0.026	-0.447	0.655
A_SIZE	size of audit firm	0.022	0.478	0.633
EXPERTISE	Auditor's expertise	0.050	1.283	0.200
TENURE	Auditor tenure	0.027	1.535	0.126
AUDITOR_CHANGE	Auditor Change	0.037	1.733	0.084
CEOTENURE	President tenure	-0.005	-0.692	0.489
Industry	Industry type	Is included		
Fisher's statistic and significant		(0.000)11.296		
R^2		0.723		
Adjusted R^2		0.659		
Durbin-Watson Statistics		1.882		

First, to examine the effects of panel or combination, the F Limer test was performed. The significant value lower than 5% confirms the null hypothesis based on data fitted as a panel.

Table 6. F limer and Hausman tests

Test type	Statistics amount	Significant
F limer	9.830	0.000
Hausman	30.288	0.004

After the F limer test, the Hausman's test is performed to determine constant effects versus random effects. The test significance value is 0.004 and lower than 5%. Thus, the hypothesis test will be performed in panel form with constant effects.

According to Table 7, the Fisher statistic and significant value were 13.359 and 0.000, respectively, indicating proper model fitting at an error level of 5%. On the other hand, the adjusted coefficient is 0.736; independent variables explain 74% of the dependent variable. The Durbin-Watson statistic is 2/138 and is located between 1.5 to 2.5, indicating a lack of autocorrelation in model error sentences. But for analyzing hypothesis

test results, the significance of the variable is 0/005, and this value not lower than 5%. Also, the T statistic was 2.809 and positive. In other words, the second research hypothesis is accepted, and there is a significant direct relationship between the incentives of the board and future audit fees.

Table 7. Test results of the second hypothesis

Symbol	Variable	Coefficient	T Statistics	Significant
C	Constant factor	7.781	31.276	0.000
LOGCEODELTA	The logarithm of board compensation	0.055	2.809	0.005
CEOVEGA	Ownership of the board stock	0.060	0.096	0.923
SIZE	size of company	0.027	1.843	0.066
INVREC	The logarithm of receipts and Inventory	0.089	2.534	0.012
LEVERAGE	Financial Leverage	0.016	0.300	0.764
QUICK	*quick* ratio	-0.008	-0.545	0.586
ROA	Return on assets	-0.023	-0.476	0.635
LOSS	Being losing	0.188	3.072	0.002
A_SIZE	size of audit firm	-0.018	-0.406	0.685
EXPERTISE	Auditor's expertise	0.128	2.628	0.009
TENURE	Auditor tenure	0.045	1.832	0.068
AUDITOR_CHANGE	Auditor Change	-0.012	-0.622	0.534
CEOTENURE	President tenure	-0.001	-0.118	0.906
Industry	Industry type	Is included		
Fisher's statistic and significant		(0.000)13.359		
R^2		0.759		
Adjusted R^2		0.736		
Durbin-Watson Statistics		2.138		

The third research hypothesis is as follows: There is a significant direct relationship between board interlock and current audit fees. To examine the effects of panel or combination, an F Limer test was performed. The significant value lower than 5% confirms the null hypothesis based on data fitted as a panel.

Table 8. F limer and Hausman test

Test type	Statistics amount	significant
F limer	8.678	0.000
Hausman	20.739	0.044

After the F limer test, the Hausman test is performed to determine constant effects versus random effects. The test significance value is 0.044 and lower than 5%. Thus, the hypothesis test will be performed in panel form with constant effects.

According to the results of Table 9, the Fisher statistic and significant value were 11.418 and 0.000, respectively, that indicating proper model fitting at an error level of 5%. On the other hand, the adjusted coefficient is 0.660; independent variables explain 66% of the dependent variable. The Durbin-Watson statistic is 1/823 and located between 1.5 to 2.5, indicating a lack of autocorrelation in model error sentences. But for analyzing hypothesis test results, the variable's significance is 0/718, and this value is not lower than 5%, and the third research hypothesis is not confirmed. That means there is no significant direct relationship between the incentives of the board and current audit fees.

Table 9. Test results of the first hypothesis

symbol	Variable	Coefficient	T Statistics	significant
C	Constant factor	7.688	32.454	0.000
Board-Interlocks	The logarithm of board compensation	-0.008	-0. 361	0.718
SIZE	size of company	0.060	3.984	0.000
INVREC	The logarithm of receipts and Inventory	0.058	1.876	0.061
LEVERAGE	Financial Leverage	-0.009	-0.162	0.872
QUICK	*quick* ratio	0.005	0.324	0.746
ROA	Return on assets	-0.049	-1.101	0.271
LOSS	Being losing	-0.005	-0.110	0.912
A_SIZE	size of audit firm	0.021	0.455	0.649
EXPERTISE	Auditor's expertise	0.051	1.300	0.194
TENURE	Auditor tenure	0.027	1.526	0.128
AUDITOR_CHANGE	Auditor Change	0.037	1.716	0.087
CEOTENURE	President tenure	-0.005	-0.703	0.483
Industry	Industry type	Is included		
Fisher's statistic and significant		(0.000)11.418		
R^2		0.723		
Adjusted R^2		0.660		
Durbin-Watson Statistics		1.823		

The fourth research hypothesis is as follows: There is a significant direct relationship between a board interlock and future audit fees.

To examine the effects of panel or combination, the F limer test was performed. The significant value lower than 5% confirms the null hypothesis based on data fitted as a panel.

Table 10. F limer and Hausman tests

Test type	Statistics amount	significant
F limer	9.997	0.000
Hausman	22.433	0.032

Table 11. Test results of the fourth hypothesis

symbol	Variable	Coefficient	T Statistics	significant
C	Constant factor	7.929	133.108	0.000
Board-Interlocks	The logarithm of board compensation	0.016	3.291	0.001
SIZE	size of company	0.037	7.115	0.000
INVREC	The logarithm of receipts and Inventory	0.061	5.386	0.000
LEVERAGE	Financial Leverage	0.038	3.262	0.001
QUICK	*quick* ratio	-0.004	-1.128	0.260
ROA	Return on assets	0.008	0.670	0.503
LOSS	Being losing	0.034	3.221	0.001
A_SIZE	size of audit firm	0.013	0.732	0.465
EXPERTISE	Auditor's expertise	0.095	7.054	0.000
TENURE	Auditor tenure	0.040	6.285	0.000
AUDITOR_CHANGE	Auditor Change	-0.004	-0.832	0.411
CEOTENURE	President tenure	0.004	2.221	0.027
Industry	Industry type	Is included		
Fisher's statistic and significant		(0.000)13.978		
R^2		0.796		
Adjusted R^2		0.795		
Durbin-Watson Statistics		2.025		

After the F limer test, the Hausman test is performed to investigate the constant random variable's effects. It is observed that test significance is 0/032 and lower than 5%. In other

words, the hypothesis test will be performed in panel form with constant effects.

According to the results of Table 11, Fisher statistics and significant value of 13.98 and 0.000 respectively, indicating proper model fitting at an error level of 5%. On the other hand, the adjusted coefficient is 0.795; independent variables explain about 80% of the dependent variable. But in the hypothesis test analysis results, the significance of the variable is 0/001 and lower than the 5% significance level. Moreover, T statistics is 3.291 and positive, and therefore, the fourth research hypothesis is confirmed. That means there is a significant direct relationship between the existence of board interlock and future audit fees.

5. Conclusion

The results of this study showed that there is no direct and significant relationship between the incentives of the board and current audit fees. The main reason for the rejection of this hypothesis is the inefficiency of the auditors' labor market in Iran, that mostly, the pricing of audit services does not follow theoretical and logical models, and in many cases, competitive pricing. The results of this hypothesis are consistent with the results of Hermalin (2005). He reported that systematic increases in executive officers' compensation were due to corporate governance and higher management leadership over similar periods. Some officers make decisions in the best way to earn more compensation and maintain their job position. To protect their position, these managers' groups are invited from auditors that submit comments following their request and agree on audit fees. The results also contradict Cohen et al. (2015), which argue that managers' stocks portfolio reduces risk aversion of management incentives and negatively relates to audit fees. The results of this study also showed that there is a direct and significant relationship between incentives of the board and future audit fees, and the results are contrary to the results of Cohen et al. (2015), which suggest that stock portfolios of managers have a negative relationship with audit fees. On the other hand, results are similar to the Wysocki study (2010). One reason to assume a positive relationship between the compensation of board and audit fees is that independent auditors expect managers who receive a high percentage of compensation annually and have more incentives to manipulate profits. With the increasing complexity and risk of the company, auditors are also asking for higher fees. Also, the results are similar to the study of Gul et al. (2003), who found that by increasing compensation to the manager, their incentive to manipulate accruals or profits has increased, which requires higher audit quality and, as a result, higher fees. Bedard and Johnson (2004), Engel et al. (2010) also concluded that companies with more independent audit fees (indicating more demand for monitoring financial reporting by individuals Specialists) paid more wages and compensations to the audit committee. The research findings also showed that there no direct relationship between the existence of board interlock of companies and current audit fees, and the reason for rejection of this hypothesis could be the lack of power of managers in the first year of attending board, because after attending The board of directors and the power and influence of decision making are considered a little conservative. The results of this study contradict the results of the study by Wysocki (2010). Similar to research findings, Guillet et al. (2012), and Coles et al. (2006) and in the internal domain, Sajjadi et al. (2012) concluded that managers and Their policies could be effective in determining the auditor and, as a result, their current and future fees. Finally, the results showed a significant direct relationship between board interlock and future audit fees. Results are similar to Wysocki's results (2010), which states that the board chooses independent and high-quality auditors to limit manipulation of profits by the manager. Therefore, an increase in profit management, which leads to an increase in compensation for the CEO, will also increase auditors' higher fees. Chen et al. (2015) also reported that the existence of board interlock would

reduce the board's independence, which affects the quality of the audit and undermines the auditor's independence. However, an audit can be useful as a powerful oversight mechanism to reduce representation problems. However, given that most board interlocks represent major shareholders, an independent board can also be considered a corporate governance mechanism that will influence the auditor's independence and, as a result, audit quality.

Resources

Alali, F. (2011). Audit Fees and Discretionary Accruals: Compensation Structure Effect. *Managerial Auditing Journal*, 26(2), 90-113. https://doi.org/10.1108/02686901111094994

Ali Shah, S.Z. Butt, S.A. and Hassan, A. (2009). Corporate Governance and Earnings Management an Empirical Evidence Form Pakistani listed companies. *European Journal of Scientific Research*, 26(4), 624-638.

Bebchuk, L.A. and Fried, J.M. (2005). Pay Without Performance: Overview of The Issues. *Journal of Applied Corporate Finance*, 17(4), 8-23. DOI: 10.1111/j.1745-6622.2005.00056.x

Bedard, J.C. and Johnstone, K.M. (2004). Earnings Manipulation Risk, Corporate Governance Risk, and Auditors' Planning and Pricing Decisions. *The Accounting Review*, 79(2), 277-304. https://doi.org/10.2308/accr.2004.79.2.277

Bergstresser, D. and Philippon, T. (2006). CEO Incentives and Earnings Management. *Journal of Financial Economics*, 80 (3), 511–529. https://doi.org/10.1016/j.jfineco.2004.10.011

Chen, Y. Gul, F.A. Veeraraghavan, M. and Zolotoy, L. (2015). Executive Equity Risk-Taking Incentives and Audit Service Pricing. *The Accounting Review*, 90(6), 2205-2234. https://doi.org/10.2308/accr-51046

Cohen, D.A. Dey, A. and Lys, T.Z. (2008). Real and Accrual-Based Earnings Management in The Pre- and Post-Sarbanes-Oxley Periods. *The Accounting Review*, 83(3), 757–787., https://doi.org/10.2308/accr.2008.83.3.757

Coles, J.L. Daniel, N.D. and Naveen, L. (2006). Managerial Incentives and Risk-Taking. *Journal of Financial Economics*, Vol. 79(2), pp. 431-468. https://doi.org/10.1016/j.jfineco.2004.09.004

Engel, E. Hayes, R.M. and Wang, X. (2010). Audit Committee Compensation and The Demand for Monitoring of The Financial Reporting Process. *Journal of Accounting and Economics*, 49(1-2), PP136-154. https://doi.org/10.1016/j.jacceco.2009.08.001

Erickson, M., Hanlon, M. and Maydew, E. (2006). Is There a Link Between Executive Equity Incentives and Accounting Fraud?. *Journal of Accounting Research*, 44 (1), 113–143. DOI: 10.1111/j.1475-679X.2006.00194.x

Fama, E. and Jensen, M. (1983). Separation of Ownership and Control. *Journal of Law and Economics*, 26(2), 301-325. https://doi.org/10.1086/467037.

Fama, E.F. (1980). Agency Problems and The Theory of the Firm. *Journal of Political Economy*, 88(2), 288-307. http://dx.doi.org/10.1086/260866

Fargher, N. Jiang, A. and Yu, Y. (2013). How Do Auditors Perceive CEO's Risk-Taking Incentives?. Accounting and Finance, 54 (4), 1157–1181. DOI: 10.1111/acfi.12044

Gong, J. and Li, S. (2012). CEO Incentives and Earnings Prediction. *Journal: Review of Quantitative Finance and Accounting*, 40 (4), 647-674., http://hdl.handle.net/10.1007/s11156-012-0291-2

Guillet, B.D. Kucukusta, D. and Xiao, Q. (2012). An Examination of Executive Compensation in The Restaurant Industry. *International Journal of Hospitality Management*, 31(1), 86-95. DOI: 10.1016/j.ijhm.2011.04.014

Gul, F.A. Chen, C.J. and Tsui, J.S. (2003). Discretionary Accounting Accruals, Managers' Incentives, and Audit Fees. *Contemporary Accounting Research*, 20(3), 441-464. DOI: 10.1506/686E-NF2J-73X6-G540

Heninger, W.G. (2001). The Association Between Auditor Litigation and Abnormal Accruals. *The Accounting Review,* 76(1), 111-126., https://www.jstor.org/stable/3068847

Hermalin, B.E. (2005). Trends in Corporate Governance. *The Journal of Finance*, 60(5), 2351-2384. DOI: 10.1111/j.1540-6261.2005.00801.x

Jiang, H., Habib, A. and Zhou, D. (2015). Accounting Restatements and Audit Quality in China. *Advances in Accounting*, 31, 125–135. https://doi.org/10.1016/j.adiac.2015.03.014

Jin, L. (2002). CEO Compensation, Diversification, and Incentives. *Journal of Financial Economics*, 66(1), 29-63. https://econpapers.repec.org/article/eeejfinec/v_3a66_3ay_3a2002_3ai_3a1_3ap_3a29-63.htm

Johnson, E.N. Kuhn Jr. J.R. Apostolu, B. and Hassell, J.M. (2013). Auditor Perceptions of Client Narcissism as a Fraud Attitude Risk Factor. *A Journal of Practice & Theory*, 32(1), 203-219. https://doi.org/10.2308/ajpt-50329

Jones, R. and Wu, Y.W. (2010). Executive compensation, earnings management, and shareholder litigation. *Review of Quantitative Finance and Accounting*, 35(1), 1-20. DOI: 10.1007/s11156-009-0150-y.

Kim, Y. Li, H. and Li, S. (2014). CEO Equity Incentives and Audit Fees. *Contemporary Accounting Research*, 23(2), 608-638. DOI: 10.1111/1911-3846.1209

Lauck, J.R. Rakestraw, J.R. and Stein, S.E. (2014). *The Effect of Executives on The Pricing of Audit Services.* Working Paper, Virginia Tech University.

Leventis, S. and Dimitropoulos, P.E. (2010). Audit Pricing, Quality of Earnings and Board Independence: The Case of The Athens Stock Exchange. *Advances in Accounting, incorporating Advances in International Accounting,* 26, 325–332. http://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))

Lifschutz, S. Jacobi, A. and Feldshtein, S. (2010). Corporate Governance Characteristics And External audit Fees: A Study Of Large Public Companies In Israel. *International journal of business and management*, 5(3), DOI: http://dx.doi.org/10.5539/ijbm.v5n3p109

Mizruchi, M.S. (1996). What Do Interlocks Do? An Analysis, Critique, and Assessment of Research on Interlocking Directories. *Annual Review of Sociology*, 22(1), 271-298. https://doi.org/10.1146/annurev.soc.22.1.271

Newton, A.N. (2015). Executive Compensation, Organizational Performance, and Governance Quality in The Absence of Owners. *Journal of Corporate Finance*, 30, 195-222. https://doi.org/10.1016/j.jcorpfin.2014.12.016

Osma. B.C. and Belen, G.A. (2007). The Effect of The Board Composition and Its Monitoring Committees on Earnings Management: Evidence From Spain. *Corporate Governance: An International Review*, 15(6), 1413-1428. DOI: 10.1111/j.1467-8683.2007.00654.x

Palmrose, Z.V. and Scholz, S. (2004). The Circumstances and Legal Consequences of Non-GAAP Reporting: Evidence from Restatements. *Contemporary Accounting Research, 2*1(1), 139-180. DOI: 10.1506/WBF9-Y69X-L4DX-JMV1

Palmrose, Z.V. (1989). The Relation of Audit Contract Type to Audit Fees and Hours.*The Accounting Review*, 64(3), 488-499. http://www.jstor.org/stable/247601

Rahman Khan, A. Mahboob Hossain, D. and Siddiqui, J. (2011). Corporate Ownership Concentration and Audit Fees: The Case of An Emerging Economy. *Advances in Accounting*, 27(1), 125-131. https://doi.org/10.1016/j.adiac.2011.04.007

Richardson, S. Sloan, R. Soliman, M. and Tuna, I. (2001). Information in Accruals about The Quality of Earnings. *University of Michigan Business School, Ann Arbor*, 52-78. https://pdfs.semanticscholar.org

Salehi, M. (2020), "The relationship between the companies' political connections and audit fees", *Journal of Financial Crime*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JFC-04-2020-0066

Salehi, M., Jahanbin, F. and Adibian, M.S. (2019), "The relationship between audit components and audit expectation gap in listed companies on the Tehran stock exchange", *Journal of Financial Reporting and Accounting*, Vol. 18 No. 1, pp. 199-222. https://doi.org/10.1108/JFRA-12-2018-0115

Salehi, M., Lari Dasht Bayaz, M., Mohammadi, S., Adibian, M.S. and Fahimifard, S.H. (2020), "Auditors' response to readability of financial statement notes", *Asian Review of Accounting*, Vol. 28 No. 3, pp. 463-480. https://doi.org/10.1108/ARA-03-2019-0066

Seifzadeh, M., Salehi, M., Abedini, B. and Ranjbar, M.H. (2020), "The relationship between management characteristics and financial statement readability", *EuroMed Journal of Business*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/EMJB-12-2019-0146

Vafeas, N. and Waegelein, J. (2007). The Association Between Audit Committees, Compensation Incentives, and Corporate Audit fees. *Review of Quantitative Finance and Accounting*, 28(3), 241-255. https://ideas.repec.org/a/kap/rqfnac/v28y2007i3p241-255.htm

Wysocki, P. (2010). Corporate Compensation Policies and Audit Fees. *Journal of Accounting and Economics*, 49(1-2). 155-160. https://econpapers.repec.org

Xingze, W. (2012). Corporate governance and audit fees: Evidence from companies listed on the Shanghai stock exchange. *China Journal of Accounting Research*, 5(4), 321-342. https://doi.org/10.1016/j.cjar.2012.10.001.