



AUDIT FEES AND TOURNAMENT INCENTIVES

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ABSTRACT

The main purpose of the current research is to investigate the relationship between the tournament incentives related to the post of chief executive officer (CEO) and audit fees. The statistical population of this research is the companies listed in the Tehran Stock Exchange between 2013 and 2016 (four years). 49 case studies are investigated in this research. To measure the tournament incentive variable, five components (the difference between the salary of the chief executive officer and the average salaries of other managers, the company's actual net earnings, the forecasted net earnings, the annual dividend return, and the stock price changes that the chief executive officer owns) have been introduced and PLS software has been employed to analyze the relationships between variables. The research results showed that tournament incentives have a direct and significant impact on audit fees. In addition, they showed that the variables moderating the return on total assets, return on equity, debt ratio and current ratio; none have a significant effect on the relationship.

Keywords: *Tournament Incentives, Audit Fees, Chief Executive Officer.*

INTRODUCTION

A chief executive officer is the highest-ranking executive and administrative manager of a company that reports to the board of directors. The chief executive officer as the leader of a company advises the board, encourages employees, and runs the company's daily operations. Chief executive officers play an important role in organizational priorities and designing production, services, and commerce units and will do their utmost to improve the efficiency and effectiveness of the activities to achieve more productivity (Bryan & Mason, 2017). Therefore, the chief executive officers, in view of their important responsibilities, have wide terms of reference (TCO). Perhaps this is the factor that paves the way for defrauding and has encouraged a lot of research into this matter. In their work, Beasley et al. (2010) claim that chief executive officers have been involved in 72% of fraud cases. In addition, they asserted that executive directors have contributed to 83% of fraudulent financial reporting cases. Therefore, the role of these directors in corporate financial crimes is very big and worrying.

In the organizational pyramid, executive directors with fewer tasks and responsibilities (such as chief financial officer, chief sales officer, etc.) fall under the direction of the company's chief executive officer. The so-called tournament incentives are referred to as motivational tools, stimulating executive directors to take up chief executive officer positions (Bryan & Mason, 2017). The use of such incentives can have different outcomes. First, it either creates more competition among executive directors to reach the intended post or force the current chief executive to work harder to stay in the current position, and thereby improve the company's

condition. Second, it results in executive directors or chief executive officers engaging in wrongdoings to overestimate the efficiency and effectiveness of their activities, thus maintaining their current position or achieving their desired position (Conrads et al., 2014; Fargher et al., 2014). Therefore, in addition to positive results, the use of tournament incentives can bring about disastrous results and increase the possibility of fraud risk as well as fraudulent financial reporting.

It is because of high audit risk that auditors demand higher audit fees, considering the high lawsuit risk threatening them and the high probability of fraudulent financial reporting (Pratt & Stice, 1994; Palmrose, 1987; Stanley, 2011). Since one of the implications of employing tournament incentives is that the executive directors and chief executive officers may defraud, it can be said that tournament incentives are associated to the audit fees demanded by auditors. In Iran, since domestic researchers have not given much attention to the issue of the relationship between tournament incentives and audit fees, it is crucial to study this issue and to consider impacts of the controlling (company size, type of auditor and type of audit) and moderating variables (return on asset ratio, debt ratio ...) on this relationship. Moreover, the results of this study can be fruitful in thoroughly reviewing the seemingly constructive tournament incentives and in providing an answer to the question whether the tournament incentives assigned to the executive director position have a significant relation with the fees charged by the auditors or not.

Hypothesis development

The performance-related salaries and benefits paid to executive directors affect audit risk assessment (Chen et al., 2015; Fargher et al., 2014; Kannan et al., 2014; Kannan et al., 2012; Kim et al., 2015). In fact, the difference between the salary, benefits, and other profits of the CEO with that of company's other executive directors, somehow, encourages CEOs to try to retain their positions. On the other hand, it is considered to be an incentive for other managers to try to assume the positions. These differences are called tournament incentives (Haß et al., 2015; Kale et al., 2009, Kini & Williams, 2012, Kubick & Masli, 2016; Lazear & Rosen, 1981; Prendergast, 1999). Some research claims that intense competition between executive directors will improve company performance (e.g., Kale et al., 2009; Lazear & Rosen, 1981; Prendergast, 1999). Conversely, this competition can have devastating effects. For example, in some studies, it has been argued that stronger tournament incentives are associated with an increase in fraudulent financial reporting (Conrads et al., 2014), more subversive activities (Harbring & Irlenbusch, 2011), and increased possibility of fraud (Haß et al., 2015). In addition, some studies claim that more tournament incentives are associated with more risk tolerance (Goel & Thakor, 2008; Kini & Williams, 2012; Kubick & Masli, 2016), which can lead to irreparable damage the companies with high risk tolerance. In the present study, it is assumed that auditors perceived tournament incentives as an effective factor in creating the risk of material misstatement. As a result, it can be said that the main hypothesis of the present research is that tournament incentives affect audit fees. This relationship is depicted in Fig. 1.

Tournament incentives

Tournament incentives are a kind of incentive that fosters a competition among managers, making them try harder than each other to assume chief executive officer position, and that, on the other hand, encourage CEOs strive to consolidate their current conditions for the future (Haß et al., 2015; Kale et al., 2009; Kini & Williams, 2012; Kubick & Masli, 2016; Lazear & Rosen;



1981; Prendergast, 1999). On the one hand, this effort can lead to improved the company performance, (Kale et al., 2009; Lazear & Rosen, 1981; Prendergast, 1999) but on the other hand, it can be a source of material misstatement in financial statements, manipulating financial reports. For this reason, the recent research has identified financial incentives as a threat to the accuracy of financial statements. Conrads et al. (2014), for example, claim that stronger financial incentives are associated with more unfair performance reporting and Haß et al. (2015) also perceive strong financial incentives as a factor that results in a significant increase in fraud.

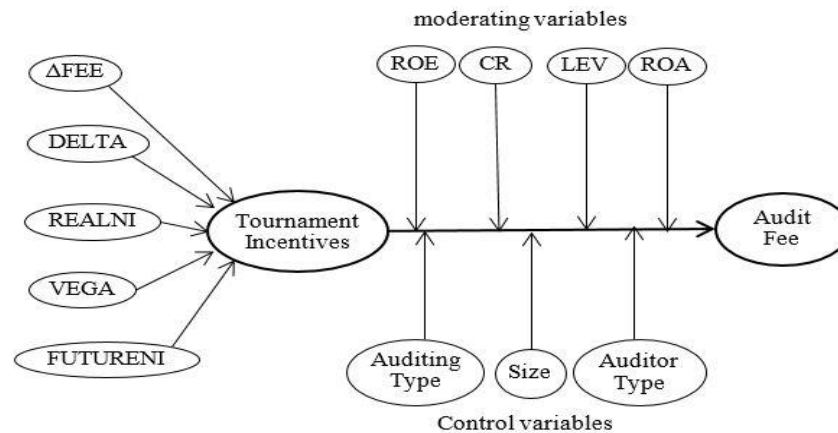


Figure 1. Relationship between research variables

Audit fee

Audit risk is the risk that the auditor expresses an inappropriate audit opinion when the financial statements are materially misstated (Public Company Accounting Oversight Board, 2010) while the auditor's business risk means that the auditor is in a situation where his/her professional performance is impaired by legal issues and by other events which are originated from audited financial statements and reports based on it (American Institute of Certified Public Accountants, 2006). These damages, which are generally financial and heavy, make the auditor more precise in determining audit fees. Previous studies also indicate that an auditor would require higher fees when faced with a high audit risk or high audit-related business risk (Bedard & Johnstone, 2004; Bell et al., 2001; Gul et al., 2003; Lyon and Maher, 2005; Schelleman & Knechel, 2010; Seetharaman et al., 2002; Simunic, 1980; Stanley, 2011).

Tournament incentives and audit fees

The offered tournament incentives can most likely affect the auditor's perception of audit risk and the auditor's business risk. The auditing standards state that the "compensation incentives for performed services" should be taken into account when assessing material misstatement and fraud risks (American Institute of Certified Public Accountants, 2002; Public Company Accounting Oversight Board, 2010). Earlier research also claimed that auditors pay attention to the performance-related compensation incentives for performed services when assessing risk (Billings et al., 2014; Chen et al., 2015; Fargher et al., 2014; Kim et al., 2015). Thus, with regard to previous research that claims there exists a positive relationship between tournament incentives and fraudulent financial reporting, we also believe that the auditor's audit risk perception is higher as stronger tournament incentives are provided, and, as a result, he/she will demand higher fees.



In addition to audit risk, auditors take into account the auditor business risk when assessing risk (American Institute of Certified Public Accountants, 2006; Johnson et al., 2002). One of the most important business risks is the litigation risk threatening the auditor. When shareholders lose, auditors are usually the main defendant in the legal cases because the financial situation of the audit firms is relatively good. In addition, research shows that auditors are more vulnerable to legal issues, especially when the company situation is not appropriate (Pratt & Stice, 1994; Stanley 2011). Therefore, the factors that improve the company's financial condition reduce the auditor's business risk, while factors that threaten the company's financial condition increase the auditor's business risk.

Research hypothesis

According to the context of "Hypothesis development", which concerns the components of tournament incentives, audit fees, and their relation to the subject of risk, the research hypothesis is presented as follows:

Tournament incentives for CEOs have a significant relationship with corporates' audit fees (considering the effect of the moderating variables including "total returns on assets", "return on equity", "debt ratio", and "current ratio" and the control variables including "auditor type", "auditing type" and "company size").

variables

Independent variable: five components have been used to measure the latent impacts of tournament incentives: Logarithm of the difference between the CEO salary and the average of other managers' salaries ($=\Delta FEE$) (Haß et al., 2015; Kale et al., 2009; Kini & Williams, 2012); Logarithm of the company's actual net income ($=REALNI$); logarithm of the forecasted company's net earnings ($=FUTURENI$); logarithm of the annual return resulted from dividend ($=VEGA$); and logarithm of the stock return resulted from the change in the price of the total stock the chief executive officer owns ($=DELTA$) (Bryan & Mason, 2017; Chen et al., 2015).

Dependent variable: natural logarithm of the audit fees demanded by the auditor is used to measure audit fees.

Control variables: these variables include auditor type as well as auditing type and size. According to the stock exchange classification, the trusted audit institutions are classified into four categories, determining the variable "auditor type". If the trusted stock exchange auditor falls in the category 1 or 2, the number 1 and, if placed in the category 3 or 4, the number 0 will be assigned to them. The auditing type also includes "primary audit" and "the audit following primary audit". If the performed audit falls into the primary audit type, the number 0 and, otherwise, number 1 will be assigned to it. As regards the company size variable, the natural logarithm of the company's total assets is utilized (Bryan & Mason, 2017; Chen et al., 2015).

Moderating variables: these variables include total return on assets (ROA), return on equity (ROE), debt ratio (LEV), and current ratio (CR) (Bryan & Mason, 2017; Haß et al., 2015).

Literature Review

Kannan et al. (2012) investigated the effect of audit risk on audit fees. They considered the logarithm of the difference between the salaries and benefits of the chief executive officer and the average salaries and benefits of five lower-levels managers as the audit risk and examined the relationship between the logarithm and the audit fee. Their research results showed that the audit fees will substantially increase as the difference in salaries rises.



Kannan et al. (2014) investigated the impact of the equity-based tournament incentives associated with the financial director and executive director on the audit scope, the auditor's perceived risk, and consequently, audit fees. Their results demonstrated that stock returns (vega) had a direct and significant effect on audit fees, audit scope, and audit risk, while it does not have a significant effect on stock price (delta).

Sajadi et al. (2015) investigated the relationship between independent auditor fees and board remuneration. The research case study consisted of 72 companies listed in Tehran Stock Exchange during the period 2005-2009 whose shares were actively traded on the stock exchange. The results indicate that there is a positive and significant relationship between audit fees and board remuneration. The remuneration paid to managers increases due to the greater complexity and operation of the company, which requires a higher quality audit and, therefore, a higher fee must be paid.

Haß et al. (2015) explored the relationship between tournament incentives and fraud. The results show that managers are more motivated to defraud in the firms in which tournament incentives are stronger- companies that have a higher pay gap between CEO and other lower-level managers. In these companies, if an individual's performance is considered as a criterion for promotion to the CEO position, the level of performance manipulation and wrongdoing will increase.

Kim et al. (2015) investigated the impact of the equity incentives associated with the chief executive officer (such as the stock the chief executive officer owns) on the audit fees. Their results showed that stock returns (vega) had a direct and significant effect on audit fees, while it does not have a significant effect on stock price (delta). The results of the research showed that auditors are sensitive to the tournament incentives that affect the control of equity due to its effect on the wealth of executive directors and reflect this sensitivity in their higher audit fees.

Chen et al. (2015) investigated the relationship between equity-related incentives and audit pricing. The results of their research showed that fluctuations in stock returns are directly and significantly correlated with audit fees. In addition, the results indicate that when chief executive officer are older, the relationship between equity incentives and audit fees will be stronger. Subsequently, they claimed that auditors would offset the risk arising from equity incentives by increasing audit fees.

Bryan & Mason (2017) explored the impact of tournament incentives on audit fees. They believed that tournament incentives had an effect on the auditor's perception of risk. They also considered tournament incentives as a factor in increasing the material misstatement in the financial statements that contributes to an increase in auditor fees. Their research results showed that these two variables have a direct and significant relationship and that moderating variables such as "executive director age", "executive director's tenure period", and "auditor's tenure period" have a significant effect on this relationship.

Khodadadi et al. (2017) investigated the relationship between the management uncertainty and audit fees of the companies listed in Tehran Stock Exchange. To this end, four hypotheses were formulated to analyze this issue and 81 Tehran Stock Exchange member companies were analyzed for the period between 2006 and 2014. The research results showed that management uncertainty has a positive and significant relationship with audit fees. Also, the research findings indicate that the size of the audit firm and the auditor's tenure have a positive and significant effect on the relationship between management uncertainty and audit fees. In addition, the



research results showed that, if the company were loss-making before the change of CEO, the positive relationship between management uncertainty and audit fees would be more prominent. Ghadimpoor & Dastghir (2017) investigated the impact of auditors' litigation risk factors on the audit fees. For the period between 2009 to 2014, they selected 100 joint-stock companies of Tehran Stock Exchange. The results showed that among the eleven factors that were used as factors influencing the auditor's litigation risk do only three factors "the effectiveness of internal control", "auditor independence ratio" and "concentration of ownership" have a significant effect on audit fees. These findings suggest that the independent auditors don't pay much attention to the litigation risk and the audit fees are mainly regulated according to the volume of the audit effort.

METHODOLOGY

The companies accepted in Tehran Stock Exchange constitute the statistical population of this research and, the research statistical sample is selected by applying five criteria: the company's fiscal year ends in March; it had not changed the fiscal year and/or activity during the years 2013-2016 (four years); it has not been an investment company and financial intermediary; and the required financial information is available.

Some of the research data were extracted from the Tehran Stock Exchange sites and Rahavardnovin 3 software. In order to obtain the rial difference between the salaries and benefits of CEOs and other executive directors as well as the amount of possible stock owned by CEOs, we employed telephone and face-to-face interviews and sent questionnaires to financial managers via social networks (telegrams). For better collaboration, a number of gifts were sent to financial managers. Eventually, the researchers were able to collect the required data for 49 companies.

Since the relations between research variables are complex duo to existence of moderating and control variables, we cannot examine the research via an ordinary statistical software such as SPSS. According to Chin et al. (1996), the structural equation modeling is a robust approach to examine the models with moderating variables. In addition, considering the fact that the structural equation approach is not sensitive to the sample size and that the partial least squares approach is not sensitive to the normal or abnormal data (Mohsenin & Esfidani, 2016), among the covariance-based structural equation software programs (Lisrel and Amos) and the variance-based structural equation software programs (PLS), finally, the structural equation software based on the partial least squares variance was selected. The Smart-PLS software was used to analyze the data.

Table 1. Descriptive statistics of the research variables

Quantitative variables	Minimum	Maximum	Average	Standard deviation	Excess kurtosis	Skewness
Logarithm of the difference between the salaries of the Chief Executive Officer and other managers	6.3	8.655	7.535	0.367	6.145	-0.882
Logarithm of book value of the asset	11.320	13.080	11.873	0.506	-0.106	1.021

Logarithm of actual net profit	-12.023	11.654	0.265	6.713	-1.167	0.010
Logarithm of projected net profit	-10.314	13.053	0.588	6.853	-1.169	0.010
Logarithm of the stock return resulted from profit	0	8.286	6.522	3.098	0.858	-1.675
Logarithm of stock return resulted from price	6.699	7.288	6.991	0.170	-1.039	-0.008
Rate of return on assets	-0.536	0.672	0.282	0.211	-1.136	-0.060
Debt ratio	0.012	0.324	0.138	0.159	-0.993	0.1
Current ratio	0.120	8.301	3.955	2.269	-1.126	0.038
Rate of return on equity	-3.5	2.2	0.32	2.249	-0.99	-0.041
Qualitative variable			Frequency	Frequency percentage	Total	
Auditor Type: Trusted category 1 or 2 one			115	59	196 years-company	
Auditor Type: Trusted category 3 or 4 one			81	41		
Audit Type: Primary (1)			68	35	196 years-company	
Audit Type: Non-Primary (0)			128	65		
Source: the research findings						

Descriptive statistics of the research variables' data for the 49 selected companies are shown in table 1. Given that all the research variables are not quantitative, the table (1) is presented in both quantitative and qualitative sections. Among the quantitative variables of table 1, as can be seen, the lowest and highest "natural logarithms of the difference between the CEOs' salaries and other managers'" are 6.3 and 8.655, respectively. The mean value of the natural logarithm of the difference in salary is 7.535. In addition to the standard deviation data, this table depicts skewness and elongation of the research variables. The second part of the table (1) is associated with qualitative research variables. As for the auditor type variable, the number "1" was used for the trusted auditor institutions of the 1st or 2nd category and the number "0" was used for the trusted auditor institutions of the 3th or 4th category. According to the figure 1 data, 59% of companies have designated 1st or 2nd category auditors, while 41% of them have preferred 3th or 4th category auditors.



RESULTS

One of the indicators that verifies the relations in the structural equation model is the significance of the path coefficients. The path coefficient expresses the existence of a linear causal relationship as well as the intensity and direction of this relationship between the two latent variables. The path coefficient is a number between -1 and +1- if it is equal to zero, it indicates that there is no linear causal relationship between the two latent variables (Valaei et al., 2017). The path coefficients are shown in figure 2. The significance of the path coefficients is also shown in table 2.

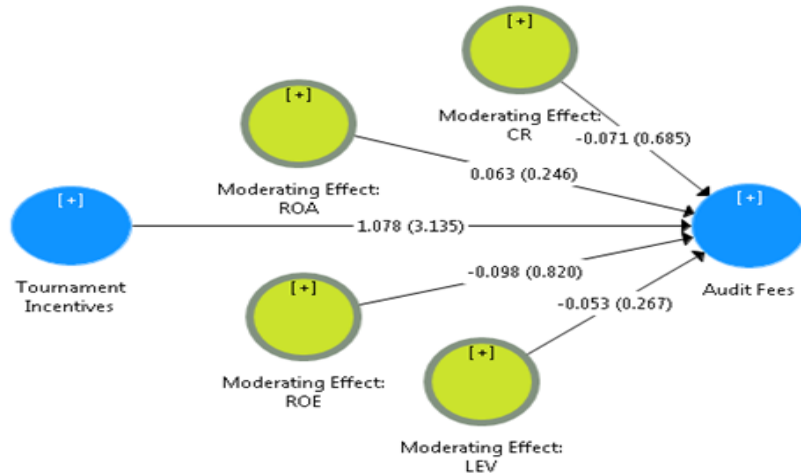


Figure 2. Path coefficient and t-statistic

As shown in figure (2), the path coefficient and the calculated t-statistic for the relationship between the two variables of tournament incentives and audit fees are 1.078 and 3.135, respectively. Therefore, these two variables have a direct relationship with each other, in other words, with the increase of tournament incentives, audit fees also increase. However, this path coefficient has been calculated by allowing for the effect of the four moderating variables; while, regardless of the effect of the moderating variables, as shown in the histogram of Fig. 3, the path coefficient is 0.785. Therefore, the inclusion of moderating variables in the relationship between tournament incentives and audit fees will slightly increase the path coefficient.

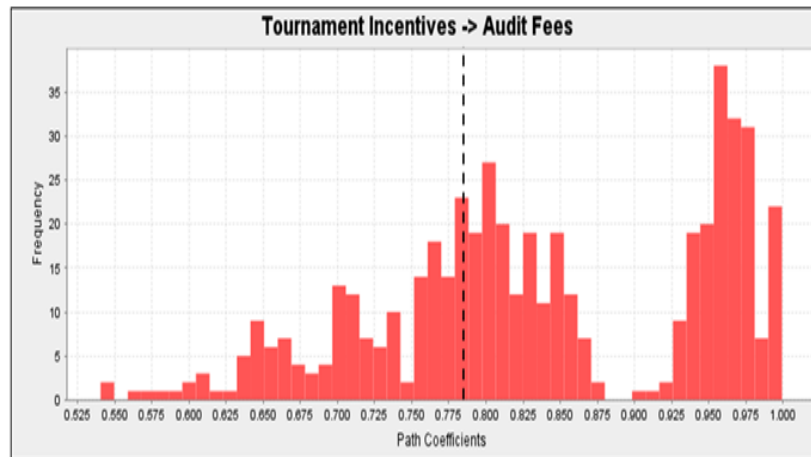


Figure 3. The research hypothesis path coefficient histogram regardless of moderating variables.

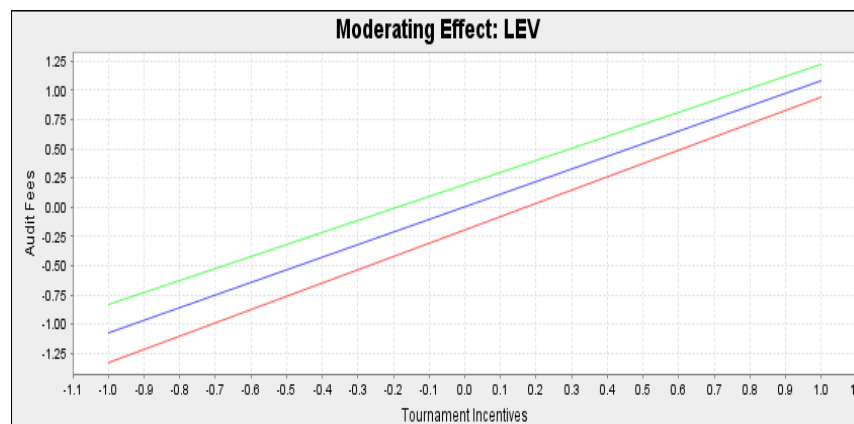
To investigate the significance of the path coefficient between independent and the dependent variables of current study, one should refer to figure (2). Since the study hypothesis path coefficient significance is less than 5%, it can be argued that there is a direct and significant relationship between tournament incentives and audit fees, considering the effect of moderating variables.

Table 2. hypothesis path coefficient significance

beginning of the path	end of the path	Standard deviation	t-statistic	p-value
tournament incentives	audit fees	0.344	3.135	0.002

Source: the research findings

Regarding the previously mentioned matter that the moderating variables increase the size of the path coefficient, so as to investigate the type of effect that each of the moderating variables has on the research hypothesis, one should refer to the figures (4), (5), (6) and (7). In these figures, the red line shows the effect of the tournament incentive variable on the audit fees, regardless of relevant moderating variable effects, while the green line demonstrates the effect of this relationship, allowing for effect of the moderating variable. And, the blue line represents the average of the two lines. In Fig. 4, the relationship between independent and dependent variables of this research is presented by allowing for the effect of the moderating variable of the debt ratio and also without considering this variable. Given that the green line slope is lower than the red line's, it can be asserted that, if the tournament incentives increase, the audit fees computed when the moderating variable of debt ratios has been taken into account increase slower than the audit fees calculated when this variable has not been taken into account. Therefore, it can be said that the intensity of the direct relationship between the two research variables is reduced by taking into account the effect of the moderating variable of the debt ratio. With regard to the path coefficient significance of 0.789, shown in Fig. 3, it can be claimed that the effect is not significant.

**Figure 4. The effect of moderating variable of debt ratio on the research hypothesis****Table 3. The significance of the effect of moderating variables**

Moderating variable	Standard deviation	t-statistic	p-value
Debt ratio (LEV)	0.199	0.267	0.789
Returns on asset rate (ROA)	0.257	0.246	0.806
Current ratio (CR)	0.104	0.685	0.493
Return on equity rate (ROE)	0.120	0.820	0.413

Source: the research findings

In Fig. 5, the relationship between the independent and dependent variables of this research is presented by taking into account the effect of the moderating variable of the returns on assets and also without considering this variable. Given the fact that the slope of the relationship



between the two variables become higher by allowing for the moderating variable, it can be claimed that the direct relationship between tournament incentives and audit fees is strengthened by incorporating the moderating variable. In view of the fact that, in table 3, the significance of the effect of moderating variables is calculated to be 0.806, it can be said that this variable does not have a significant effect on the relationship between the variable of tournament incentives and the audit fees.

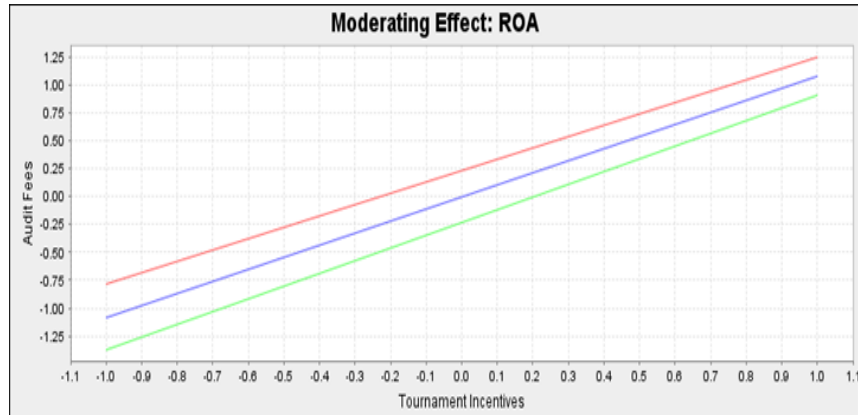


Figure 5. The effect of the moderating variable of returns on assets ratio on the research hypothesis.



Figure 6. The effect of moderating variable of current ratio on the research hypothesis

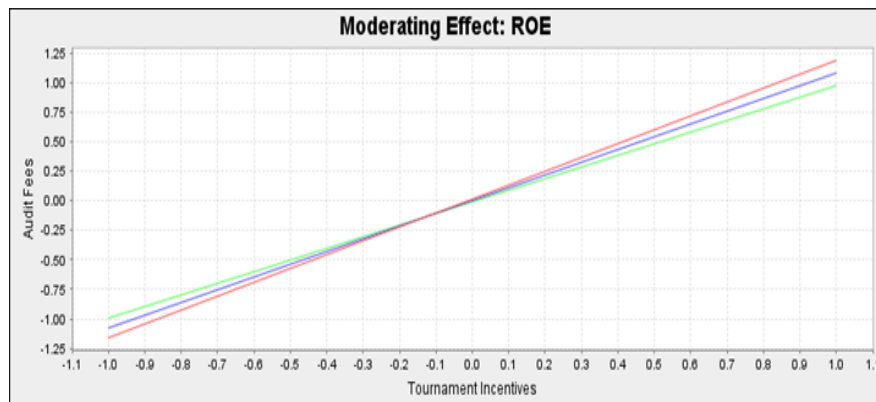


Figure 7. The effect of moderating variable of return on equity on the research hypothesis

In Fig. 6 and 7, the relationship between audit fees and tournament incentives is presented with/without taking into account the effect of the moderating variables of the current ratio and the return on equity ratio, respectively. Given the fact that the slope of the relationship between the two main variables of the research is lessened by considering the moderating variables, it can be claimed the intensity of the direct relationship between them decreases that by incorporating the moderating variables on the relationship between tournament incentives and audit fees. In view of the fact that, in table 3, the significance of the effect of moderating variables is greater than 5%, it can be said that the moderating variables do not have a significant effect on the relationship between the variable of tournament incentives and the audit fees.

CONCLUSIONS

Various researches throughout the world have admitted the intense CEO involvements in financial and administrative fraud. In Iran, it is essential to study the issue of fraud risk since domestic researchers have not given much attention to this area. According to previous research claims, one of the factors that affects audit risks and, consequently, audit fees are tournament incentives. Therefore, these research findings can be used to answer the question of whether tournament incentives affect the audit fees or not.

The main purpose of this study is to investigate the relationship between tournament incentives and audit fees. The effect of the moderating variables of total return on assets, return on equity, debt ratio, and current ratio on the relationship between tournament incentives and audit fees was further investigated. In addition, considering the fact that audit fees are influenced by factors such as company size (size of assets), auditing company type, and audit type (primary and non-primary), the effect of these variables was controlled.

The research results showed that tournament incentives have a direct and significant effect on audit fees, but none of the moderating variables of total return on assets, return on equity, debt ratio and current ratio have a significant effect on this relationship. This finding is consistent with the results of Bryan & Mason (2017), Kannan et al. (2012), Kannan et al. (2014) and Chen et al. (2015).

In order to align the goals of the chief executive officer and the company's shareholders, it is recommended that members of the board of directors do not solely rely on motivational factors such as performance-related salaries, net profit-based remunerations, and profit from a stock that is owned by the chief executive officer; because auditors perceive these kind of tournament incentives as a factor that increase the fraud risk and, consequently, request higher audit fees.

To further examine the dimensions of this topic, it is recommended that future researchers investigate the relationship between the variables of tournament incentives and audit fees by entering variables such as executive director age, executive director's tenure, auditor's tenure, and etc.

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