

# The Relationship between the Tenure, the Power and Diligence of the CEO with Real Earnings Management

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## Abstract

The purpose of this study was to investigate the relationship between CEO's (Chief Executive Officer) tenure, power and diligence with the management of earnings in companies admitted to Tehran Stock Exchange. This research is applied and includes 131 companies listed in Tehran Stock Exchange between 2013 and 2017. This research was tested in three hypotheses using multi variate regression in Eviwes software version 9. The findings of three hypotheses showed that among the independent and controlling variables, between CEO tenure (negative and significant), CEO's (positive and significant), CEO's diligence (negative and significant), market value to book value (negative and significant), the return on assets (negative and significant), and the size of the audit firm (negative and significant) have a meaningful relationship with real earnings management. As a result, it is imperative that managers and investors focus on this issue in order to see better management and investment.

**Keywords:** CEO's Tenure, CEO's Power, CEO's Diligence, Real Earnings Management.

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## Introduction

The Chief Executive Officer (CEO) is considered as the most influential person in the organization. The CEO decides about financial information, the formation of the board of directors and, in general, he supervises and manages the company's performance. Due to the CEO's responsibility in the company's performance, he may also perform earnings management (Chu and Chan, 2018). In this regard, the theory of representation is based on the principle that managers at the expense of the interests of shareholders have the incentive to pursue their interests (Jensen, 1986). Hence, investigating the significant relationship between the CEO's characteristics and the company's earnings management requires further researches.

Previous researches have widely concluded that the CEO's characteristics such as tenure period, experience, service compensation and the power of CEO were related to earnings management (Klein, 2002; Fich and Shivdasani, 2006; Bergstresser and Philippon, 2006; Korent et al., 2008; Lax and Lax, 2009; Chiu et al., 2013). For example, an experienced CEO should improve the company's performance through effective management and also receive higher salary (Falato et al., 2015; Wang et al., 2016), thus, the probability of earnings management would be lower (Chu and Chan, 2018). In addition, other findings have shown that managers would seek earnings management more at the time of increasing the number of shareholders (Abudi and Kaznick, 2000, Klein, 2002, Codia, 2003, Cheng and Warfield, 2005, Shoto, 2007).

Haley and Wahlen (1999) have defined earnings management as the judgment in financial reporting and transactions formation in order to manipulate financial reports with the aim of misleading certain stakeholders in relation to the company's economic performance. Earnings management is a change in the company's profit figure through accounting principles and allowing managers to manipulate reported profits.

After the financial crisis in 2008, the huge rewards of the CEOs of companies were challenged seriously by the question of whether the CEO was doing his usual duty or earned more wages and rewards by earnings management. Thus, an investigation regarding the CEO's characteristics' relation to earnings management can be conducted. In researches studied in the field of earnings management, there has been a great deal of emphasis on accruals based management profit (Dechow et al., 1995; Kothari et al., 2005; Haley & Wahlen, 1999; Fields et al., 2001). On the other hand, actual earnings management has attracted much attention to itself and in particular after publishing the Hypothesis of Miller and Modigliani's (1961) Profit Association, this issue has been addressed more in the empirical and theoretical researches.

The reported profits in the current period can be managed through two methods (Zare Bahnamiri et al., 2015):

Firstly, managers can manage the reported profits through the selection of discretionary accruals that are permitted by accepted general principles of accounting. Accruals based earnings management typically occurs at the end of the accounting period and after completing many real operational activities. While this directly affects the ratio

of accounting accruals, actual earnings management would not have any direct effect on cash flows.

Secondly, managers can manage the reported profits through the definition of real activities. In this case, they can change the time and ratio of real activities such as production, sales, investment, and financing activities throughout the accounting period, to achieve a specific revenue target. For example, reported profit can be temporarily increased by accelerating production timing, as well as by reducing or postponing arbitrary costs at the time of sale. Following Roychoudhuri (2006), this type of management departs from ordinary business practices and having the aim of manipulating the profit of current period, it is introduced as a earnings management obtained from real activities. Contrary to the accruals earnings management, the earnings management obtained from actual activities that can directly have undesirable consequences on the current and future cash flows is far more difficult for investors to understand, and it is less commonly monitored and investigated by the board of directors, auditors, financial statements regulators and other stakeholders (Kim and Sun, 2013). Compared to accruals based earnings management, the use of actual earnings management as a tool of earnings management is not conveniently recognizable by auditors and individuals outside the organization both (Chu and Chan, 2018). According to Graham et al. (2005), 78 percent of under studied CEOs pursue actual earnings management to change the expected profit of analysts and investors to the reality in order to prevent market serious reaction.

Regarding the raised points, as a result of which the CEO's characteristics affect actual earnings management, the purpose of this research was to investigate the relationship between CEO's tenure period, power and hard-working with actual earnings management. Since this issue has not been investigated by the researchers in the country's environment, its findings can be useful for future planning. As a result, considering that the researchers wouldn't interfere in the issue, the necessity of the research becomes highlighted.

In the following sections, theoretical foundations and research history are presented first, and afterwards, findings, discussions and conclusions have been presented.

### **Theoretical Foundations and Research Hypotheses**

Accrual based traditional earnings management is easily recognizable by auditors because this method is based on accounting methods. It investigates the methods required for explicit explanation in financial reports and statements. In contrast, actual earnings management is neither related to generally acceptable accounting principles, nor is used by accounting law-makers (Jervinen and Mile Macchi, 2016). Roychoudhuri (2006) concluded that managers try to manage reported profits through actual earnings management criterion from the viewpoint of normal operational decisions such as providing price discount, surplus production, and reducing arbitrary costs. Actual earnings management is typically based on the short-term performance of stocks, but according to the accruals based earnings management criterion, it is not useful for the company's value or cash flow enhancement (Roychoudhuri, 2006; Bhojraj et al., 2009; Baber et al., 2011). Many studies have emphasized the point that in order to prevent market negative reactions to the bad news (such as disclosing weaknesses in internal

control) management uses actual earnings management criterion to achieve the goals related to profits such as the annual prediction of analysts (Roychoudhuri, 2006; Jervinen and Mile Macchi, 2016).

In addition to different measurements in earnings management, there are also differences in timing and related costs between accruals based earnings management and actual earnings management. Accruals based earnings management is likely to be manipulated even after the fiscal year, but the criterion of actual earnings management must be realized during the fiscal year (Chu and Chan, 2018). Decision making regarding the selection of accruals based earnings management and real items depends on the cost associated with these two, while both the actual and accrual based earnings management are costly. In addition, in order to achieve the desired goals, the managers probably use multiple methods at the same time (Kohen et al., 2008; Zang 2012). Contrary to most previous researches that focus on accruals based earnings management, the present research was based on actual earnings management and investigated the effect of CEO's characteristics on actual earnings management. Accordingly, due to the lack of entry of researchers and similar domestic samples, it has innovation.

Regarding CEO's characteristics, many researches have investigated the effect of CEO's characteristics on the performance of the company and its associated risks (Makki, 2008; Hambrick & Quigley; 2014; Bernil et al., 2017). As more actual earnings management is the CEO's responsibility, he is recognized to be the most powerful person to implement the earnings management rules. Hence, it definitely plays an important role in financial reports (Cho and Chan, 2018).

The reward incentive of CEO leads to raise this question that whether the increase in earnings management is associated with the reward of the CEO or not (Armstrong et al., 2013). For example, Bergstresser and Philippon, (2006) believed that CEOs, especially when their wealth was closely related to the stock price of a company, tended more towards earnings management (Korent et al., 2008; Lax and Lax, 2009).

Therefore, the present research emphasized the CEO's characteristics and investigated its impact on actual earnings management. Initially, it can be said that the experience and tenure period of CEO would help the effectiveness of management and understanding the financial report process and ultimately would lead to a better performance of the company, because an experienced manager with a lot of experiences gathered during his service time, has helped improving the company's performance by effective management. As a result, he expects to receive higher salary (Falato et al., 2015; Wang et al., 2016). Korent et al. (2008) also concluded that the increase of company's performance led to the decrease of earnings management, which was lower in coming years than the early years of CEO's services (Ali and Zhang, 2015). As a result, the first hypothesis of the research would be as follows:

**First Hypothesis:** There is a negative and significant relationship between the CEO's tenure period and actual earnings management.

Moreover, the high power of CEO would also increase the likelihood of actual earnings management (Cho and Chan, 2018). Previous researches have widely used the dichotomy of the CEO's duty to measure the CEO's power in the strategies of company and related decisions (Daily and Johnson 1997, Kambiz et al., 2007). Based on the theory of representation, the CEO's activities, in particular the dichotomy of CEO's duty highly contribute to reducing the effectiveness of the board of directors' supervision. The dichotomy of CEO's duty limits the flow of information received to the board of directors and reduces the negligence of the board of directors towards managers and leads to poor performance of the company (Tagel et al., 2010). John and Kian's (2003) research findings also showed that the high power of CEO and inefficient supervision due to the dichotomy of CEO's duty led to an increase in the possibility of actual earnings management criterion. Based on the representation theory, this study was grounded on the basis that the CEO's power would have a positive and significant relationship with actual earnings management.

**Second Hypothesis:** There is a positive and significant relationship between the CEO's power and actual earnings management.

In addition to the mentioned cases, hard-working managers have a good relationship with the board of directors and other people outside the organization. In particular, it is possible to associate widespread participation of the CEOs in the board of directors' sessions with more careful monitoring and reduction of actual earnings management (Cho and Chan, 2018). For example, Fich and Shivdasani (2006) and Chiu et al. (2013) believed that there was a significant negative relationship between the lack of CEO's membership in the board of directors or the audit committee and the poor performance of the company and the extent of earnings management. Thus, the third hypothesis of research is as follows:

**Third Hypothesis:** There is a negative and significant relationship between the CEO's hard-working and actual earnings management.

## Literature review

Reviewing the studies conducted in Iran showed that, for example, Aghaie and Chalaki (2009) investigated the relationship between corporate governance and earnings management using abnormal accruals. They found that there was no significant relationship between the CEO's influence and earnings management using accruals. Safa'i (2013) also investigated the "Board of directors' characteristics and corporate governance mechanisms in earnings management" and found that there was a positive and significant relationship between the CEO's influence and actual earnings management. Molazadeh et al. (2016) also found that the manager's financial knowledge did not affect the company's earnings management according to the actual events and discretionary accruals. On the other hand, there was no significant difference between the discretionary accruals based and the actual events based earnings management in the companies with the CEO having financial knowledge and other companies. In addition, Khakpour (2016) found that the CEOs in the early years of their tenure performed earnings management through abnormal products. Therefore, no evidence was provided concerning earnings

management through operational cash flow and abnormal discretionary costs in the early years of the CEO's tenure. Moreover, the findings indicated that the CEOs did not perform actual earnings management in the final years of their tenure. Recently, Khodamipour and Sheibani (2018) found that the positive relationship between customer focus and tax avoidance was more prominent when the company was less involved in actual earnings management.

Investigating the studies conducted outside Iran also showed that, Norhayati et al. (2013) in a research found that there was a negative and significant relationship between financial leverage and actual earnings management criteria. Furthermore, Sun et al. (2014) investigated the relationship between the independence ratio and the level of expertise and rotation, and the size of audit committee and the board of directors committee with the actual earnings management of American companies. Their research findings indicated that none of the characteristics of audit committee had a significant relationship with actual earnings management. In addition, Nakhili et al. (2016) found that managers had opportunistic behavior in the presence of free cash flow. In particular, they investigated the increase in the reported profit regarding the earnings management practices. Also, corporate governance mechanisms such as the independence of audit committee and audit quality, in addition to institutional investors and managerial ownership reduced the ratio of earnings management and could have a supervisory role on managers' behavior in reducing earnings management in the presence of free cash flow. Recently Chu and Chan (2018) also found that there was a negative and significant relationship between the CEO's tenure and the CEO's hard-working with actual earnings management. Moreover, there was a positive and significant relationship between the CEO's power and the CEO's service compensation with actual earnings management.

Investigating the research history showed that although useful researches have been done on the impact of CEO's characteristics on earnings management and also valuable findings have been achieved, so far there has not been performed any comprehensive research concerning the CEO's characteristics and actual earnings management in Iran. Moreover, the general variables related to the CEO's characteristics (especially CEO's hard-working) have not been investigated in a research, and the answer to the question that what impact the CEO's characteristics has on actual earnings management, still remains unanswered. Consequently, it is required to acquire a better understanding of the problem in the economic environment of the country through an empirical test. Based on the findings, it is needed to consider better planning accordingly.

### **Research Methodology**

This research was a quantitative research type, in which the scientific method of empirical constructing and proofing was used. This was performed based on predetermined research hypotheses and plans. This category of researches is used when the data measurement criterion is quantitative and statistical methods are used to extract the results.

### Research Variables

In this research, three groups of independent, dependent and control variables were used. The independent variables of research included variables related to the CEO's characteristics (tenure period, power, and hard-working). Moreover, the dependent variable of research was the actual earnings management. The control variables of research also, following the researches of Watts and Zimmerman (1986), Roychoudhuri (2006), Chi et al. (2011), Zhang (2012) and Cho and Chan (2018), included variables of the ratio of market value to book value, size, and return on assets, financial leverage, and the audit institute size. It should be mentioned that in the following, the method of measuring each one of the mentioned variables has been described.

**CEO's Tenure Period:** This was equal to the number of years of the CEO's tenure period (Ahmadpour et al., 2015).

**CEO's Power:** If in a company the CEO be the president or the vice president of the board of directors, it would be equal to one (high power) and contrary to it, it would be zero (low power) (Chu and Chan, 2018).

**CEO's Hard-Working:** If the CEO be a member of audit committee or the board of directors, it would be equal to one indicating hard-working, otherwise it would be equal to zero (Chu and Chan, 2018).

**Actual Earnings management:** In this research, following Roychoudhuri (2006), to measure the actual earnings management, three criteria of the abnormal level of operational cash flow, the abnormal level of production costs, and the abnormal level of abnormal costs were used. To measure these three criteria, regression models of (1), (2) and (3) were respectively used, in all of which, the regression remainder component indicated the abnormal level of the estimated regression.

$$\epsilon_{it} + K_{3t} \frac{\Delta Sales_{it}}{Assets_{it-1}} + K_{2t} \frac{Sales_{it}}{Assets_{it-1}} + \frac{CFO_{it}}{Assets_{it-1}} = K_{1t} \frac{1}{Assets_{it-1}} \quad (1)$$

$$\epsilon_{it} + K_{4t} \frac{\Delta Sales_{it-1}}{Assets_{it-1}} + K_{3t} \frac{\Delta Sales_{it}}{Assets_{it-1}} + K_{2t} \frac{Sales_{it}}{Assets_{it-1}} + \frac{PROUD_{it}}{Assets_{it-1}} = K_{1t} \frac{1}{Assets_{it-1}} \quad (2)$$

$$\epsilon_{it} + K_{2t} \frac{Sales_{it-1}}{Assets_{it-1}} + \frac{DiscExp_{it}}{Assets_{it-1}} = K_{1t} \frac{1}{Assets_{it-1}} \quad (3)$$

According to the equations:

CFO: Chief Financial Officer,

Assets: Assets,

Sales: Sales,

PROUD: The production costs of the period which include the total cost of the sold product and changes in inventory,

DiscExp: Discretionary expenses of the period including the advertising costs, general costs, sales and administrative, organizational costs.

Following Roychoudhuri (2006) and Kohen (2008), in order to obtain actual earnings management variable, the above remaining three high regression models are standardized and aggregated with each other.

**Control Variables:** Market value is calculated in relation to book value in order to control the effect of companies' growth rate. The size of the company is also measured by the logarithm of sales and used aiming to control the size. The return on assets is also calculated as profits before the interest and a tax divided by the mean of total assets, and has been used to control the business performance. The financial leverage, which is calculated by dividing the debts to total assets, has been used aiming to control the effect of debts. Also, the audit institute size has also been used to control the potential influence in earnings management (Chu and Chan, 2018). In order to calculate the variable of audit institute size, in most of the researches conducted in Iran, the Audit Organization has been considered as a major audit institute and other exchange-trusted audit institutes as minor audit institutes. Consequently, if the audit institute is considered as the auditor of the company, the variable would be one, otherwise it would be considered as zero (Bozorgasl et al., 2018).

Moreover, based on the raised points and the research of Chu and Chan (2018), the research model can be prepared as equation (4):

$$REM_{it} = \alpha_0 + \alpha_1 CEO\ TEN_{it} + \alpha_2 CEO\ Power_{it} + \alpha_3 CEO\ Compensation_{it} + \epsilon_t + \alpha_4 MB_{it} + \alpha_5 Size_{it} + \alpha_6 ROA_{it} + \alpha_7 LEV_{it} + \alpha_8 AudSize_{it} \quad (4)$$

#### *Statistical Population and Research Sample*

In this research, the whole desired population was selected and then the statistical sample was specified by applying the following constraints. For this purpose, the following five criteria were considered. If a company had all the criteria, it would be selected as the research sample.

- The company has been accepted in the exchange before 2012 and should be active in the exchange until the end of 2016.
- Due to the specific nature of holding companies' activity, financial intermediaries and investment companies, and high difference of their nature with manufacturing and commercial companies, the selected company should not be among the mentioned industries.
- In order to increase the comparability, the company's fiscal year would end at the end of March. It should not have the fiscal year change or activity change during the time period under study.
- The companies' financial statements and accompanying notes should totally be available on the Stock Exchange website during the mentioned time period.



- Required information for the research variables should be available in the company's disclosed information.

Based on the above criteria, 131 companies accepted in the Tehran Stock Exchange were selected as the research samples.

### *Analysis Instrument*

In this research, at first the research variables were selected from the raw data using Excel software and they were prepared using the Rahavard Novin 3 software. Later on, the finan analysis has been performed using the software of EVIEWS, SPSS and STATA.

## **Research Findings**

### *Descriptive Statistics of Research Variables*

In table 1 the descriptive statistics of studied variables have been shown. It should be mentioned that the number of observations investigated for the calculation of mentioned dependent, independent and control variables were 655 year-company.

Table 1: Descriptive Statistics of Research Variables

Variable	Mean	Maximum	Minimum	Standard Deviation
CEO's tenure period	4	15	1	3
CEO's power	-	1	0	-
CEO's hard-working	-	1	0	-
Actual earnings management	0.0010	4.6693	-4.1384	1.1448
Ratio of market value to book value	0.9640	4.4853	0.0184	0.7881
Size	13.7116	18.4275	10.6164	1.4181
Return on assets	0.1289	0.6309	-0.2384	0.1227
Financial leverage	0.6248	1.5655	0.0901	0.2199
Audit institute size	-	1	0	-

It should be mentioned that considering the variables of the CEO's power, the CEO's hard-working and the audit institute size were nominal, thus their mean and standard deviation could not be calculated, and therefore they were not presented. It should be mentioned that the company had a CEO with high power for 73 years and the company had a hard-working CEO for 466 years. Moreover, the company has been audited by the Audit Organization for 152 years (as a large size audit institute). In addition, among the variables of research, the size of the company had the highest mean and the CEO's tenure period had allocated the highest standard deviation to itself. The mean of financial leverage (0.62) also indicated that the companies' debt was typically more than half of the companies' assets, which represented a high ratio of financial leverage in the sample companies.

*Investigating the Stability (Reliability) of Research Variables*

Table 2 shows the findings obtained from investigating the stability of research variables.

Table 2: Findings Obtained from the Test of Levine, Lynn and Chu

Variable	Test Statistics	Significance
CEO's tenure period	-13.4714	0.0000
CEO's power	-11.5846	0.0000
CEO's hard-working	-2.0263	0.0214
Actual earnings management	-10.7458	0.0000
The ratio of market value to book value	-13.0586	0.0000
Return on assets	-8.7060	0.0000
Financial leverage	-10.3305	0.0000
Audit institute size	-7.3805	0.0089

According to the findings of table 2, the significance level in the unit root test for all variables was less than 0.05, which indicated that the research variables were stable and the mean and variance of the variables over the time and the covariance of the variables between various years were constant. Consequently, the investigated companies did not have structural changes and the use of these variables in the model did not lead to the creation of false regression.

*Testing Research Hypotheses*

*Investigating Linearity*

When there be a linearity problem between the independent variables in the studied data, the findings would not be reliable and the multivariate linear regression could not be used. In order to investigate the problem of multiple co-linearity, the inflation variance and tolerance factors were used in this research. When the inflation variance factor was less than 5 and the tolerance factor was less than 1, a lack of co-linearity in data was observed (Bozorgasl et al., 2018). Table 3 shows the findings of this test.

Table 3: Findings Related to Investigating the Co-Linearity between Variables

Variable	Inflation Variance	Tolerance
CEO's tenure period	1.032	0.969
CEO's power	1.021	0.880
CEO's hard-working	1.003	0.897
The ratio of market value to book value	1.140	0.877
Size	1.116	0.858
Return on assets	1.088	0.925

Financial leverage	1.035	0.966
Audit institute size	1.101	0.990

According to the findings, in all cases the inflation variance factor was less than 5 and the tolerance factor was also less than 1, therefore there was no co-linearity in the data.

#### Investigating the Heterogeneity Variance

In this research, White's test was used to investigate the heterogeneity variance. Table 4 shows the findings of this section.

Table 4: Findings Related to Investigating the Heterogeneity Variance between Variables

F Statistics	1.849
Significance	0.216

The findings showed that the probability ratio of the mentioned statistics was greater than 0.05. As a result, the research model did not have the heterogeneity variance problem.

#### Model Selection Testing

The findings obtained from the estimation of appropriate regression model have been presented in table 5.

Table 5: Findings Related to the Model Selection for Testing Hypotheses

Hypothesis	Test	Test Statistics	Significance
Research Model	Chow's test	2.3124	0.0000
	Hausman's test	17.2768	0.0274

Considering the findings presented in table 5, and as the significance level of Chow test and Hausman test was less than 0.05, a fixed effect model could be used to test the research hypothesis.

#### Testing Research Hypotheses

Table 6 shows the findings related to testing research hypotheses.

Table 6: Findings of the Estimation of Regression Models Related to Testing Research Hypotheses

Dependent Variable: Actual Earnings management			
Variables	Coefficient	T Statistics	Significance
CEO's tenure period	-8.8447	-4.1760	0.0000
CEO's power	5.8427	3.9044	0.0125
CEO's hard-working	-8.0157	-4.0039	0.0018
The ratio of market value to book value	-4.0488	-3.2428	0.0381
Size	1.8463	1.3453	0.6827
Return on assets	-5.4320	-3.6652	0.0176
Financial leverage	-2.1164	-1.7186	0.5019
Audit institute size	-5.1385	-3.6278	0.0183
Fixed value	1.0189	1.1035	0.7826
Determination coefficient		0.4124	
Adjusted determination coefficient		0.3792	
F statistics		15.5564	
Significance of F statistics		0.0000	
Durbin-Watson		2.0233	

Based on the research findings, the cases obtained from investigating self-correlation of error sentences through using Durbin-Watson statistics, indicated no self-correlation error. Moreover, the value of F statistic and the significance level related to this statistics indicated that the hypothesis of insignificance of the whole model (all of the coefficients being zero) was rejected and the estimated regression model was significant in general. On the other hand, investigating the adjusted determination coefficient of the investigated variables also showed that the maximum of 37% of the changes in the actual earnings management could be explained using the investigated variables. Likewise, the research findings indicated that there was a significant relationship between CEO's tenure period (negative and significant), CEO's power (positive and significant), CEO's hard-working (negative and significant), the ratio of market value to book value (negative and significant), return on assets (negative and significant) and the audit institute size (negative and significant) and actual earnings management.

## Discussion and Conclusion

The purpose of this research was to investigate the relationship between the CEO's tenure period, power and hard-working and the actual earnings management in the companies accepted in the Tehran Stock Exchange. The findings of the first hypothesis showed that there was a negative and significant relationship between the CEO's tenure period and actual earnings management. Since increasing the CEO's experience, a better understanding of the financial reporting process is created. This issue improves the company's performance, so a reduction in earnings management is also expected in this

regard. The findings of this section were in line with the findings of Khakpour (2016), Ali and Zhang (2015) and Chu and Chan (2018).

In the second hypothesis, a positive and significant relationship was observed between the CEO's power and actual earnings management. Since the CEO's power is measured by the criterion related to the dichotomy of CEO, if the CEO becomes the president or vice president of the board of directors, it greatly would contribute to reduce the effectiveness of the supervision of the board of directors. Also, inefficient supervision due to the dichotomy of the CEO's duty led to an increase in the possibility of actual earnings management criterion. The findings of this section were in line with the findings of Safaie (2013), John and Kiyan (2003) and Chu and Chan (2018).

The third hypothesis also showed that there was a negative and significant relationship between the CEO's hard-working and actual earnings management. Hard-working managers have a good relationship with the board of directors and other people outside the organization. Through their attendance in the board of directors' sessions and the audit committee, and by implementing appropriate mechanisms, the audit quality is increased and the earnings management is reduced. The findings of this section were also in line with the findings of Fich and Shivdasani (2006), Chiu et al. (2013) and Chu and Chan (2018).

According to the research findings, the investors are suggested to consider the investigated cases in this research to have a better investment. Also, supervisory institutions such as Tehran Stock Exchange (TSE) should pay attention to the findings of this research in order to increase the quality and efficiency of the market. Future researchers can also test cases such as investigating the relationship between various levels of managerial ownership and the CEO's compensation service with actual earnings management.

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