# EXAMINING THE RELATIONSHIP BETWEEN THE AUDIT COMMITTEE, THE INCENTIVE SYSTEM OF MANAGEMENT AND THE AUDIT FEES OF COMPANIES IN IRAN

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**Abstract.** The purpose of this study is to investigate the relationship between audit committee, management incentive system, and audit fees of companies in Tehran Stock Exchange, of which 69 were selected as a sample during the years 2012 to 2014, according to the systematic elimination rule. This research is applied in terms of purpose and is quasi-experimental in terms of research method. According to the results, the Flimer method is the used pool method. Also, hypothesis testing was performed using multivariate linear regression model. Also, hypothesis testing was performed using multivariate linear regression model. The results of the hypotheses show that there is a significant relationship between the independence, the size and expertise of the audit committee and audit fees, but there is not a significant relationship between the audit committee experience and the incentive system of management, which is derived from the remuneration, and audit fees.

Keywords: Audit Committee, management incentive system, audit fees.

**Introduction.** In Iran, for many years, the Stock Exchange Organization has been pursuing the establishment and implementation of a corporate governance system, in particular, the internal audit and audit committee, in companies admitted to the Tehran Stock Exchange and Iran Fara Bourse Co. After many years of efforts in this field, including sponsoring research, translating and compiling books, essays and guidelines, the organization has pursued this issue more seriously, which began in the early 80s after the embezzlement of 3,000 billion (Asadi, 2013). In recent years, developed countries have witnessed the emergence and rapid development of the audit committee. The expansion of international operations, the intensification of the activities of corporations to obtain competitive advantages, the increase in the liability resulting from damage to the environment, the role and impact of management estimates in the figures contained in the financial statements and forms, the lack of a valid basis for reviewing management claims regarding the adequacy of the internal control structure by independent auditors, , The spread of the use of computer systems and, consequently, the more difficult monitoring of control of these systems, has exacerbated the process of establishing and applying the audit committee (Rahimian, 2003).

On the other hand, the growth and expansion of economic activities and the development of joint stock companies have led stakeholders to concede the duty of managing and controlling their assets (company) to professional managers. These managers take all their effort, experience and expertise to work if they receive appropriate rewards for their efforts. Over the past two decades, numerous studies have examined the determinants of remuneration policies for managers, auditor selection practices, and audit fees, but, there has been very little research on the relationship between remuneration of directors and audit fees. Engel and his colleagues took the first step in examining the relationship between the remuneration of the audit committee and audit fees. They argued that the amount of remuneration paid to members of the audit committee will change over time and in different companies based on changes in stakeholder demand for more and better supervision of the company's financial reporting activities. They concluded that companies that have more independent audit fees (which indicate more demand for monitoring financial reporting by specialized individuals) pay more remuneration and wage to the audit committee (Engel et al., 2010).

**Problem statement.** The issue of separation of ownership and control in a company derives from the concept of corporate governance, which includes all actions, policies and approaches that places the interests of managers and shareholders and all other shareholders in one row. Audit has attracted much attention as a measure of corporate governance among various corporate scandals such as WorldCom and Enron. In most of these company scandals, executives behaved in their own way, which led to the collapse of their companies and the wealth of their shareholders. Kafi (2005) states that accountants are the guardians who prevent such collapse. The Sarbanes-Oxley Act passed in 2002 in response to these scandals, which had a severe impact on audit fees received by accountants afterwards. Audit fees, which reflect the company's economic costs and determines its indicators, are important for two reasons:

First, external auditing, as a form of supervision, guarantees the company's credible financial report (Cohen et al., 2002a, 2002b).

Second, audit fees, which are paid to auditors, as a measure of governance (oversight), lead to an effective reduction of profits to shareholders.

Reviewing audit fees determines a number of related indicators, such as company size, complexity, profitability, risk, and other characteristics of the audit firm. Wafez and Wigelin (2007) state that the efficiency of

the audit committee and the management incentive system as audit indices are somewhat stimulating the cost of company audit fees. An overview of the company's governance (oversight) guidelines, which are shaped by various corporate rumors and scandals, provides an important role for the audit committee. According to Cadbury (1992), the Audit Committee, as a regulatory mechanism, safeguards shareholders' equity, ensures transparent reporting and improves audit quality. This research focuses on the efficiency of the audit committee, as an indicator of audit fees in developing countries. Following the adoption of the Sarbanes-Oxley Act, the Iranian Institute for Exchange and Security requires audit committees that are directly responsible for the fees paid to foreign auditors. Pratt and Stace (1994) noted that the auditors received more audit fees from the clients in order to cover and conceal the risk of the space. An unprecedented number of supervisory and accounting scandals has launched extensive research into the use of rewards for enterprise executives (Bedrad and Johnston, 2004). Previous studies on financial history and auditing show that remunerations which have stimulus-type basis encouraged executives to manage their earnings for personal financial gain. The efficiency of the audit committee and the incentive system of management, as determinants of audit fees, have been studied in both developed and developing economies. However, all of the documents that have been dated are related to the developed countries, where the corporate oversight systems are mature and the audit committees in these countries are better defined than those in developing countries. Bush, Paitruski and Gul (2006) in their studies acknowledge differences in managerial and organizational incentives across the various nations due to political economy, security laws, tax regimes, and cultural factors. In addition, they stated that there could be a systematic difference in the concepts related to the quality of the financial reporting and the relevant guarantee processes in developed and developing countries. The above discussion confirms the unity and dependence between the efficiency of the audit committee and the management incentive system as indicators of audit fees. One of the factors affecting the decisions of investors, creditors and other interest groups is the cost of corporate agency (for example, Sajjadi, Hajizadeh and Nick Carr, 2012). Therefore, the results of this research can be effective on the decisions of investors and other interest groups.

In this research, the research question is whether there is a relationship between the audit committee, management incentive systems and company audit fees in the Tehran Stock Exchange?

Theoretical foundations

Audit committee:

The Audit Committee is one of the committees of the board of directors of the economic unit, consisting of three to five, and in some cases, seven non-executive members of the board, who have ultimate responsibility for monitoring all financial activities of the company (Arnes And Lubeck, 2003). The audit committee, by monitoring the financial reporting process, including the internal control system, and the use of accounting principles, as well as monitoring the performance of independent auditing and internal auditing, reduces deliberate and unintentional errors in accounting measurements and the disclosure of information of financially significant items as well as unlawful management practices.

The internal audit unit acts independently of management through direct reporting to the audit committee, which contributes to improving efficiency and effectiveness, and subsequently improving the performance of the internal audit unit (Rahimian, Tavakolnia, 2012). The audit committee is one of the mechanisms that is expected to be effective in protecting the interests of different groups of users of accounting information. Therefore, in general, it can be said that shareholders are not able to monitor and control the management due to the constraints on the structure of corporate governance and other constraints. The manager also needs auditors' certification in order to fulfill their stewardship role. On the other hand, the effectiveness, efficiency, and independence of the auditor entails another entity, such as the audit committee. Actually, shareholders through the mechanism of determining the company's board of directors monitor the performance of the manager indirectly, and the manager, with the approval and evaluation of the auditor, performs his responsibility for the accountability of his or her performance. Ultimately, this is an audit committee that helps to establish an appropriate relationship between the board, independent auditors, and internal auditors.

Management incentive system. The management incentive system acts as a control mechanism and is used by the board, and places the interests of the management motivation system and shareholders' wealth in the same direction. The executive director incentive system usually refers to the general form of the basic salary and bonus of management or senior executives. According to Murphy (1998), the payment package of the management incentive system consists of four basic components: 1. Basic salary, 2. Annual remuneration plan, which relates to some accounting measurements, including net sales / profit / loss, 3. Purchase or sale of stocks and long-term incentive schemes, such as limited equity projects, 4. Multi-year accounting based on the company's performance. In addition, the executives of the company are those who contribute to beneficial projects and also receive useful projects, such as retirement plans (Murphy 1998).

The remuneration is the incentive for executives to provide higher-quality financial reports and employ high-quality audit institutions to discover significant mistakes and weaknesses (Havitash, 2009). Some executives make optimal investment decisions to earn more rewards and maintain their jobs. In some cases, they also protect their position by connecting with members of the board and receive more rewards (Babchak & Fried, 2004).

Audit Fees. The audit fee reflects the economic costs of efficient auditors. From the auditor's perspective, auditors seek to minimize total costs by balancing their own resource costs (costs of doing more audit work) and future losses from legal debt. More audit effort reduces the likelihood that auditors will incur debt losses, and the auditor provides a volume of audit work that minimizes overall costs (Carselo et al., 2002). Auditor's fees will be determined based on the cost of services used in the audit process, as well as estimates of future losses arising from the auditor's liability against the issued report. The process is carried out in three stages. In the first stage, the auditor's assessment of the occurrence of future damage resulting from the auditor's judgment, which in the future, will be a incurred by a stakeholder, such as a shareholder. Second stage, the use of resources in the implementation of audit operations, for example, human resources, to the final benefits, the reduction in the present value of expected future losses arising from the audit of the financial statements is the final cost of the additional investment of the audit. Finally, the auditor determines the price to cover the cost of the audit. In the meantime, the auditor's judgment plays an important role in determining the price (Stanley, 2011). Auditor's fees can create economic dependence between the auditor and the owner of the work. This may give rise to fundamental doubts over the independence of the auditor. Because the auditor may provide a more favorable report to maintain customer and earn more fees. The audit fee includes any funds paid to the auditor or audit firm for the provision of the audit services and, in accordance with the agreement or contract.

# Research background. The background of research carried out outside Iran:

Adet et al. (2013) confirmed in a research that there is a direct relationship between managerial remuneration and the efficiency point of view on earnings management. They showed that management, in order to receive more remuneration, manages profits based on an efficiency perspective rather than on an opportunistic perspective. Atomassa et al. (2012) in Japan concluded that accounting conservatism had a negative relationship with managers' remuneration. They also found that this relationship is greater in institutions with a large reward of profit. The results of their research show that accounting conservatism reduces managers' rewards. They also found that this relationship is greater in institutions where remuneration is a large multiple of the profit. The results of their research show that accounting conservatism reduces managers' remuneration.

Mutinho et al. (2012) examined the relationship between audit fees and company performance. The sample of this study is comprised of non-financial American companies between 2000 and 2008. They used the constant effects model to examine the relationships between variables. Also, the control variables examined in this study are size, leverage, sales growth and research and development costs. In addition, they used corporate governance variables for control variable. The results of their research indicate that the company's operating profits have a significant relationship with audit fees. Toivy (2012) examines the factors influencing audit fees in Swedish listed companies. The results of the research showed that the size of the client, the audit committee and other fees have a positive effect on audit fees. Giwelt et al. (2012) studied remuneration for managers in service industries. They examined the effects of accounting-based performance metrics and market-based performance metrics on remuneration for corporate managers. The findings show that in these industries, not only the performance criteria of the company, but also the criteria related to the characteristics of the managers, are also considered for determining managers' remuneration. Alali (2010) examined the relationship between voluntary accruals and audit fees, and the effect of salaries and remunerations of financial managers on this relationship. Using 8187 data from 2000 to 2006 and applying the least squares regression model, he found that there is a strong relationship between increasing voluntary accruals with increasing audit fees and increasing remunerations for managers. This relationship is moderated by increasing the salaries of managers. Klein (2007) examined the performance of the audit committee in detail. In his studies, he concluded that the efficiency and effectiveness of the audit committee depended on factors such as the nature of the audit committee's responsibility and the personality of its members.

Norman et al. (2006), in examining the effectiveness of some of the audit committee's characteristics on management's regulatory behavior in terms of earnings management incentives, found that the existence of a fully independent committee reduces the procedures for earnings management. Dean & Tricky (2005), with the research on 36 gold mining companies in South America, from 1993 to 1999, concluded that the group of companies, which all or most of the members of their audit committee have financial education, play a more active role in risk management. After several studies on the capital market, De Fond and Han (2004) concluded that the existence of an audit committee with members independent of the board of directors and with experience in accounting and auditing has a significant impact on the information published in the market.

The background of research carried out inside Iran:

Alavi, Rabati and Yousefi Asl (2012) examined the relationship between free cash flow and audit fees, with regard to growth opportunities, the amount of dividend and financial leverage. Their research results showed that audit fees in companies with higher free cash flow and high growth opportunities are more than companies with low free cash flow but high growth opportunities. Also, the results of the research showed that in companies which have high free cash flow and growth opportunities, with the increase in debt levels, the average audit fee will increase.

Mousavi and Daroughe Hazrati (2011) investigated the relationship between audit fees and free cash flow. Their research results showed that companies with high free cash flow have higher audit fees. The results of their research indicate that audit fees have a significant relationship with the ratio of debt, dividend, company growth opportunity, type of auditor, and immediate ratio. Alavi Tabari et al. (2011) examined the relationship between the governance system and the independent audit fees of companies. The findings of the research showed that the type of auditor and the percentage of governmental and quasi-governmental institutional ownership have a significant relationship with the independent audit fees of companies, so that the higher the percentage of shares available to the government institution, the greater the audit fees.

Maharani and Avanaki (2011) examined the factors affecting the determination of audit fees. First, by reviewing the relevant research theoretical literature, the most important determinants of audit fees, including the quality of the audit report, the reputation of the client, the size of the client, the industrial expertise of the audit firm, the size of the audit firm, the time budget, the reputation of the audit, the risk of the client company and the legal claim have been determined. The resulted findings indicate that the quality of audit, the reputation of the client, the industry expertise, the time spent on the audit process, the balance sheet amount, the accumulated assets of the company and the history of the audit firms have a positive and significant impact on the fees received by the auditors. Sajjadi and Zarezadeh Mehrizi (2011) in one study investigated the effect of two variable remuneration paid to managers and their share ownership percentage on the performance of companies. The results of their research showed that there is a significant relationship between remuneration paid to managers and economic performance measures such as economic value added, market value added and adjusted economic value added. Also, the findings indicate a significant relationship between ownership percentage of managers with market value added and the lack of significant relationship with other economic measures of performance evaluation. Sajjadi et al. (2011), in a study, examined the relationship between the remuneration plans of managers and economic criteria of performance evaluation in companies listed in Tehran Stock Exchange. The results of the research showed that there is a significant relationship between the rewards of managers and the criteria of economic value added, market value added and adjusted economic value added. The results also show a significant relationship between managerial ownership and market value added. Nikbakht and Tanani (2010) examined the effect of eight factors on audit fees. For this purpose, the required information was collected from corporate financial statements and through interviews, and after sorting, the relationship between interviewing with their officials for five consecutive years (2003-2007) and audit fees was tested. The findings of this research showed that the variables of the volume of operations, the size of the company, the complexity of the company's operations, the type of audit firm and inflation, have a significant relationship with audit fees, but the audit risk variables and the education and experience of the supplier of the financial statements, did not have a statistical relationship with the dependent variable of audit fees.

Rajabi and Mohammadi Khoshuee (2008) examined the relationship between the cost of agency from the viewpoint of corporate governance and the pricing of the independent audit services in the year 2005 in the Iranian Stock Exchange. They eventually concluded that the existence of controlling institutional shareholders have a significant and negative relationship with audit fees. Seifi (2005) conducted a research entitled "Investigating the relationship between the audit committee and the independence and neutrality of internal audit." The results of the research indicated that there is a relationship between the quality of internal audit work and the composition of the audit committee (being executive or non-executive members), as well as between the independence of the audit committee and the use of the quality of internal audit work as a management education field. Beheshtian (2001) conducted a research entitled "The Impact of the Audit Committee on Independent Audit, Internal Control and Financial Reporting." He chose a random sample of forty-three companies for this research. His purpose in this study was to examine the potential impact of the audit committee on independent audits, internal controls, and financial reporting. During the conducted study, it was found that the economic units in Iran don't have the audit committee. According to the results of this study, the existence of the audit committee can significantly affect the duration of the audit process and the type of opinion of independent auditors on the desirability of presenting financial statements. Also, the possibility of deploying and enforcing effective internal controls in the economic units, which have an audit committee, will increase, and the credibility of the financial statements of these units will increase.

**Research hypotheses**. The research has used six hypotheses based on scientific literature. In this research, four practical efficiency measures of the audit committee, such as the independence of the committee, the expertise

of committee members, the size of the committee and the experience of the committee, have been taken. This research hypothesizes the positive relationship between the audit committee's efficiency measures and the fees of external auditors. The first four hypotheses are related to the unity and dependence between the efficiency of the audit committee and the audit fees of the company, and the fifth hypothesis is related to the management incentive system and audit fees, as presented below.

**Main hypothesis.** There is a significant relationship between audit committee, management incentive systems and company audit fees in Tehran Stock Exchange.

# Sub-hypotheses.

Hypothesis 1: There is a significant relationship between the independence of the audit committee and audit fees.

Hypothesis 2: There is a significant relationship between the size of the audit committee and the audit fees. Hypothesis 3: There is a significant relationship between the experience of the audit committee and the audit fees. Hypothesis 4: There is a significant relationship between the expertise of the audit committee and the audit fees. Hypothesis 5: There is a significant relationship between the management incentive system, which is based on remuneration and the audit fees.

Research methodology. This research is applied in terms of purpose and is a quasi-experimental and post-event case study in the field of positive accounting research, based on actual company information (financial statements, explanatory notes, etc.). In order to test the hypotheses, the required information is extracted from the Rahavard-e-Novin database, the Stock Exchange website, and the audited financial statements of the companies. The Excel spreadsheet software was used to categorize and summarize the data, and the EVIEWS statistical software was used to test the hypotheses. Information obtained from companies is in the form of combined data. Also, hypothesis testing was performed using a multivariate linear regression model. For the significance of the relationship between independent and dependent variables, t-test was used at the error level of 1.5 and 10 percent. Also, for the significance of the whole regression model, F test was used. Finally, the coefficient of determination was used to indicate the percentage of dependent variable changes by the independent variable.

**Statistical population.** The statistical population is a set of individuals or units that have at least one common attribute. Usually in each research, the community under study is a statistical society, which the researcher wishes to study the variable adjective (adjectives) of its units. For example, if a researcher wishes to study socioeconomic problems of Iranian students, the statistical population includes all those who have registered in the Iranian higher education system at a specified time. The definition of the statistical society should be comprehensive and impede, that is, this definition must be expressed in such a way that from the point of view of time and place, includes all the units in the study and, in addition, according to it, prevent s the inclusion of units that should not be studied (Sarmad, Bazargan, and Hejazi, 2013, p. 177). The statistical population of this research includes all the companies that have been active in Tehran Stock Exchange in the years 2012, 2013 and 2014.

**Sampling method and design.** In order to collect data about people in population, one of the following methods can be used:

- A) Data collection through complete counting of individuals (census)
- B) Data collection by sampling

In collecting data through complete counting, the desired data is collected from each individual in the community. The cost, manpower, and the time taken to complete a complete counting for data collection is to such an extent that its implementation is not usually justified. Another way to collect data is to select a sample of people in the population and collect the data they need from them. Sampling, in comparison with the complete counting, has several advantages, including:

- 1) Being more economical
- 2) The speed of operation and shorter required time
- 3) The quality of data through more precision in collecting and extracting them (Sarmad, Bazargan and Hejazi, 2013, p. 178). Due to the limited study population and in order to generalize the results, the whole population has been investigated and sampling has not been done and the process of selecting companies has been done using a systematic elimination rule.

Sample size and calculation method

In this research, it has been tried to consider the following limitations in order to make the companies studied uniform, according to the previous studies:

- 1. Company information should be available.
- 2. The financial year of the companies should end in March.
- 3. Firms should not have changed their fiscal year from 2012 to 2014.
- 4. Companies should not have changed their activity during the years 2012 to 2014.

- 5. Companies should be members of Tehran Stock Exchange from 2012 to 2014.
- 6. All non-financial companies, such as banks and holding and investment companies, are excluded from research according to their nature.

In view of the limitations mentioned above, finally, 69 companies were selected as a sample, according to the systematic elimination rule.

Conceptual and operational definitions

The independence of committee:

The Blue Ribbon Committee (1999) states that an audit committee must equip itself with external managers for effective management oversight. The independence of the committee is a dummy variable that, if at least one internal manager is employed in a committee, is equal to one, otherwise it is zero. Those members of the Audit Committee are called Independent, which do not have personal or financial ties with the company and its executives (Pearson, 2009). According to Andrew et al. (2003), it is equal to the percentage of independent members of the committee to the all members.

The financial expertise of the audit committee. The purpose of the financial expertise of the audit committee is, according to the definition of the Securities and Exchange Organization, is a university degree or a national or internationally recognized professional qualification in finance (accounting, auditing, financial management, economics and other management disciplines, with a financial or economic orientation) with the ability to analyze financial statements and reports and internal control over financial reporting. According to Uthman et al. (2014), it is equal to the percentage of independent members of the board of directors who hold a university degree or a national or internationally recognized professional degree in finance (accounting, auditing, financial management, economics, and other management disciplines with a financial or economic orientation).

Audit committee experience. Each member of the committee should have the necessary experience in some business related areas and should at least be familiar with the industry. All members should be familiar with the basic financial literature, which, according to the Blue Ribbon Committee, has the power to read and understand the financial statements, including balance sheets, profit and loss accounts, and cash flow statements. At least one member, usually the chair of the committee, must have a solid background in finance, accounting and auditing, and can help the committee through financial technical discussions. According to Hamedan et al. (2013), it is equal to the members of the audit committee, which has financial experience, to the entire committee members.

Audit committee size. The size of the audit committee can have a constructive effect on the committee. A larger audit committee can be more effective. So that the committees tend to include members with diverse specializations for more serious financial reporting procedures (Choi, Jen and Park, 2004). The Bellouribone Committee (1999) recommends that the audit committee should have at least three members. Therefore, according to Andrew et al. (2003), the size of the audit committee is equal to the number of members of the audit committee.

Management incentive system. Management incentive system acts as a control mechanism and is used by the board to place the interests of the incentive system of directors and shareholder wealth in one direction. Management incentive packages create large-scale managerial problems and provide an opportunity to managers to manipulate revenue in order to increase the value of additional rewards. This leads to higher salaries, because external auditors expect executives whose remuneration are too low to show more willingness to manage their earnings (Murphy, 1999). This variable is measured through the natural logarithm of the management remuneration, which is contained in the financial statements or explanatory notes.

**Audit fees.** The audit fee includes any funds paid to the auditor or audit firm for the provision of the audit services and, in accordance with the agreement or contract. The audit fee reflects the economic costs of efficient auditors. Auditor's fees will be determined based on the cost of services used in the audit process, as well as estimates of future losses arising from the auditor's liability to the issued report (Stanley, 2011). In this study, as the research carried out by Ebrahimi et al. (2014), the logarithm of independent audit fees for sample member firms has been used.

#### **Control variables.** The fees of non-audit services

If the company has paid non-audit fees (consulting fee), the number 1 is included and otherwise the zero number is included (Khalid Zaman et al., 2013).

**Board size.** It is the number of members of the board of directors in each of the research years (Khalid Zaman et al., 2013).

The number of board meetings

This is the number of meetings held by the board in each of the research years (Khalid Zaman et al., 2013).

The logarithm of company sales

The company's loss index

If the member company suffers a loss, then the number 1, otherwise the number zero is considered (Khalid Time et al., 2013).

The model used to confirm or reject hypotheses

In this research, in order to test the hypotheses, the following model has been used:

$$Y_{it} = \beta_0 + \beta_1 X 1_{it} + \beta_2 X 2_{it} + \beta_3 X 3_{it} + \beta_4 X 4_{it} + \beta_5 X 5_{it} + \beta_6 X 6_{it} + \beta_7 X 7_{it} + \beta_8 X 8_{it} + \beta_9 X 9_{it} + \beta_{10} X 10_{itit} + u_{it}$$
(1)

Y<sub>it</sub>: The audit fees of company i in time t

X<sub>1</sub>: The audit committee of company i in time t

X<sub>2</sub>: The audit committee independence of company i in time t

X<sub>3</sub>: The audit committee expertise of company i in time t

X<sub>4</sub>: The audit committee experience of company i in time t

X<sub>5</sub>: Annual management remuneration of company i in time t

X<sub>6</sub>: The logarithm of the amount spent on the non-audit services of company i at time t.

 $X_7$ : The board size of the company i at time t.

 $X_8$ : The logarithm of the board meetings of company i at time t

X<sub>9</sub>: The logarithm of the sales of company i at time t

X<sub>10</sub>: The loss index of company i at time t

Descriptive statistics

In a general classification, statistics science is classified into descriptive and inferential sections. Descriptive statistics are, in fact, a set of methods that classify data processing. In the table (1-4), descriptive statistics of the research variables have been categorized.

Table (1-4)

| Variable<br>type             | Variable name                 | Observ ations | Mean         | Median   | Maxim<br>um | Minimu<br>m | Sd.              | Skewness coefficient | Kurtosis |
|------------------------------|-------------------------------|---------------|--------------|----------|-------------|-------------|------------------|----------------------|----------|
| Independ<br>ent<br>variables | Committee independence        | 207           | 0.7338<br>97 | 0.666667 | 1           | 0           | 0.1<br>701<br>84 | -0.217962            | 5.23300  |
|                              | Committee financial expertise | 207           | 0.8386<br>47 | 1        | 1           | 0           | 0.2<br>595<br>95 | -1.417743            | 4.064959 |
|                              | Committee experience          | 207           | 0.7415<br>46 | 0.666667 | 1           | 0           | 0.2<br>822<br>74 | -0.915854            | 3.165146 |
|                              | Committee size                | 207           | 3.4830<br>92 | 3        | 3           | 3           | 0.7<br>494<br>04 | 1.167707             | 2.777187 |
|                              | Management remuneration       | 207           | 500.31<br>69 | 498      | 4055.5<br>0 | 6.25        | 801<br>.32<br>94 | 3.431103             | 14.32998 |
| Depende<br>nt<br>variable:   | Auditor fees                  | 207           | 2.4993<br>72 | 25       | 2.74        | 2.23        | 0.1<br>245<br>38 | 0.273580             | 2.327484 |
| Control variables :          | Non-audit services fees       | 207           | 0.2945<br>86 | 0        | 1           | 0           | 0.4<br>570<br>07 | 0.900695             | 0.811251 |
|                              | Board size                    | 207           | 6.2367<br>15 | 6        | 9           | 5           | 0.9<br>588<br>65 | 0.241497             | 2.211480 |
|                              | The number of board meetings  | 207           | 19.734<br>30 | 15       | 48          | 4           | 13.<br>078<br>25 | 0.741923             | 2.330697 |

| The logarithm  | of | 207 | 11.567 | 12.25 | 16 | 8.14 | 2.0 | -0/103813 | 1.824790 |
|----------------|----|-----|--------|-------|----|------|-----|-----------|----------|
| the sales      | of |     | 49     |       |    |      | 540 |           |          |
| company        |    |     |        |       |    |      | 66  |           |          |
| The loss index | of | 207 | 0.4685 | 0     | 1  | 0    | 0.5 | 0.125852  | 1.015839 |
| company        |    |     | 99     |       |    |      | 002 |           |          |
|                |    |     |        |       |    |      | 23  |           |          |

As it is shown in Table (4.1), the mean of the independence of the audit committee is 0.733897, which indicates that about 73% of the members of the audit committees are independent. Also, the mean expertise of the Audit Committee is 0.838647, which indicates that approximately 83% of the members of the audit committees have an academic or international degree in finance (accounting, economics, management, etc.); In other words, about 83% of the members of the audit committees are experts in finance. The mean audit committee experience also indicates that around 74% of audit committee members are financially experienced. Also, the mean size of the audit committee is 3.48, which indicates that the average number of committee members is about 3 people. The standard deviation reflects the dispersion of the data from the mean. The low standard deviation means that the data dispersion is low and the high standard deviation means that the dispersion of the data is high. As indicated in the table, among the variables, the auditor fee has the lowest standard deviation of the mean (0.12), and the manager remuneration variable has the highest standard deviation of the mean (801.32). Also, the Kurtosis coefficient of all variables is positive and indicates that their distribution is longer than normal distribution. First, it is necessary to examine the basic assumptions of classical linear regression in the research model. Given that in the previous chapter, it is explained in detail about these assumptions, so in this section only briefly refers to these assumptions.

Table (2-4)

|     | Assumptions about the error component (residuals) and its interpretation |   |  |  |  |  |
|-----|--|---|--|--|--|--|
|     | Technical symbol   | Interpretation  |  |  |  |  |
| (1) | $\mathbf{E}(\mathbf{u}_{t})=0$   | The mean of errors is zero.   |  |  |  |  |
| (2) | $Var(u_t) = \sigma^2 < \infty$   | The variance of the errors is constant and finite for the total values of $x_t$ .     |  |  |  |  |
| (3) | $cov(u_i, u_i)=0$  | Errors are linearly independent of each other.  |  |  |  |  |
| (4) | $cov(u_t, x_t) = 0$  | There is no linear relationship between the errors and the corresponding values of x. |  |  |  |  |
| (5) | $\mathbf{u_t} \qquad N(0, \mathbf{\sigma}^2)$                            | That is, u <sub>t</sub> is normally distributed.                                      |  |  |  |  |

# Checking the first assumption:

If there is a fixed component (the width of the origin) in the regression relation, this assumption will never be violated (Badri and Abdul Baghi, 2010, p. 1, p. 137). Given the existence of a constant term in the model, this assumption is established.

# Checking the second assumption:

To test this assumption, there are several tests (both graphical and non-graphical). In this research, graphical tests have been used. If the distribution of the residuals is around the zero axis and there is no specific pattern between them, this assumption is established. As you can see in the figure below, the data dispersion is around the zero axis and there is no specific pattern between them.

The third assumption is presented in the regression results table.

#### Checking the fourth assumption:

Given the assumption 1, assumption 4 can be written as E  $(x_t, u_t) = 0$ . Both formulas indicate that the regressor is independent of the component of errors (Badri and Abdul Baghi, 2010, p. 1, pp. 57-58).

# Checking the fifth assumption:

If the waste is distributed normally, the histogram must be as bell-shaped and the BJ statistic will not be significant. This means that the P-value given at the bottom of the normalization test page should be greater than 0.05, so that the null hypothesis normality is not rejected at the level of 0.05 (Badri and Abdul Baghi, 2010, p. 1, pp. 164-166). As is evident, the probability of the Jarque-Bera test statistic is 0.082146, which indicates that the error terms are normal.

3-4) F Limer test results (panel or pooling data) and Housman test (fixed or random effect pattern)

|             |       |              | Pool        | 0.806.0 | 0.525799 |
|-------------|-------|--------------|-------------|---------|----------|
| the pattern |       |              | the model   |         |          |
| Determining | Prob. | Chi - square | Determining | Prob.   | F        |
| Housman     |       |              | F Limer     |         |          |
| Table 3-4)  |       |              |             |         |          |

Given that the probability of the F Limer test is greater than 0.05, then the pool method should be used instead of the panel and there is no longer any need for a Housman test to determine the pattern of constant or random effects. Therefore, the hypotheses of this research can be estimated using the ordinary least squares method (OLS). 4-4) the regression results of research hypotheses

$$Y_{it} = \beta_0 + \beta_1 X 1_{it} + \beta_2 X 2_{it} + \beta_3 X 3_{it} + \beta_4 X 4_{it} + \beta_5 X 5_{it} + \beta_6 X 6_{it} + \beta_7 X 7_{it} + \beta_8 X 8_{it} + \beta_9 X 9_{it} + \beta_{10} X 10_{it it} + u_{it}$$

| Variables              | Symbol          | Coefficients  | T statistic         | Significance       |  |
|------------------------|-----------------|---------------|---------------------|--------------------|--|
| Committee size         | $X_1$           | 0.010566      | 4.602026            | 0.0000             |  |
| Committee              | $X_2$           | -0.036724     | -20.39978           | 0.0000             |  |
| Committee expertise    | $X_3$           | 0.07618       | 25.96255            | 0.0000             |  |
| Committee experience   | $X_4$           | -0.005305     | -1.020231           | 0.3096             |  |
| Management             | $X_5$           | -7.6807       | -0.121215           | 0.9037             |  |
| remuneration           |                 |               |                     |                    |  |
| Non-audit service fees | $X_6$           | -0.026964     | -0.026964 -6.356990 |                    |  |
| Board size             | X <sub>7</sub>  | 0.021658      | 8.572397            | 0.0000             |  |
| The number of board    | X <sub>8</sub>  | 0.000184      | 2.208414            | 0.0290             |  |
| meetings               |                 |               |                     |                    |  |
| The logarithm of       | $X_9$           | 0.000547      | 5.182756            | 0.0000             |  |
| company sales          |                 |               |                     |                    |  |
| Company loss index     | X <sub>10</sub> | 0.028313      | 90.191.1            | 0.0000             |  |
| Constant amount        | С               | 2.274273      | 90.19101            | 0.000000           |  |
| The coefficient of     | The adjusted    | Durbin-Watson | The probability     | The probability of |  |
| determination          | coefficient of  | statistic     | of F statistic      | Jarque - Bera      |  |
|                        | determination   |               |                     | statistic          |  |
| 0.587052               | 0.551001        | 2.431504      | 0.000000            | 0.082146           |  |

In the table above, the Durbin-Watson statistic value is equal to 2.43504, which indicates that there is no correlation between the values of the residuals (the Durbin-Watson statistic should be between 1.5 and 2.5). Considering that the probability of the F statistic is 0.0000, it can be concluded that the linear regression model is significant at the 99% confidence level. Also, the probability of the Jarque-Bera statistic is equal to 0.082146, which indicates the normality of the residual (error) terms (the probability value of the Jarque-Bera should be more than 0.05). The variable coefficient of the audit committee size is 0.10566 and its significance level is 0.00000, which indicates that there is a positive and significant relationship between the size of audit committee variable and auditor's fees at 99% confidence level. The coefficient of independence of the audit committee is -0.036874 and its significance level is equal to 0.0000, which indicates that there is a negative and significant relationship between the independence of the audit committee and auditor's fees at the 99% confidence level.

The variable coefficient of the audit committee expertise is 0.070618 and its significance level is 0.0000, which indicates that there is a positive and significant relationship between the audit committee expertise and auditor fees at 99% confidence level. The variable coefficient of the audit committee experience is -0.005305 and its significance level is 0.3096, which shows that there is no significant relationship between audit committee experience and auditor's fees at any level of confidence. The variable coefficient of management remuneration is equal to -7.6807 and its significance level is 0.9037, which shows that there is no significant relationship between the remuneration variable and the auditor's fees at any level of confidence. The results of the control variables are also presented in the table. As the results show, all control variables have a significant relationship with audit fees.

4-5) The results of the research hypotheses:

| Hypothesis<br>number | Hypothesis title   | Test Results          |  |
|----------------------|--|-----------------------|--|
| 1                    | There is a significant relationship between the              | The acceptance of the |  |
|                      | independence of the audit committee and audit fees.          | hypothesis            |  |
| 2                    | There is a significant relationship between the size of the  | The acceptance of the |  |
|                      | audit committee and audit fees.                              | hypothesis            |  |
| 3                    | There is a significant relationship between the experience   | The rejection of the  |  |
|                      | of the audit committee and audit fees.                       | hypothesis            |  |
| 4                    | There is a significant relationship between the expertise of | The acceptance of the |  |
|                      | the audit committee members and audit fees.                  | hypothesis            |  |
| 5                    | There is a significant relationship between the              | The rejection of the  |  |
|                      | management incentive system which drives from                | hypothesis            |  |
|                      | remunerations and audit fees.                                |                       |  |

**Overall conclusion.** The purpose of this study was to examine the relationship between audit committee, management incentive systems and company audit fees in Tehran Stock Exchange. Comparing the results of research conducted in different countries shows that the same and generalizable results can not be obtained regarding the relationship between the audit committee, the incentive systems of management and audit fees, but, this effect is mainly related to the specific economic, cultural, social and political conditions of countries, and each country has its own particular conditions. In other words, these are the unique characteristics and conditions of each country, which can determine the positive or negative effects or the lack of impact of the audit committee and the incentive system of management on the audit fees of companies.

### **Proposal for future research:**

- 1- Investigating the effect of the audit committee on the effectiveness and efficiency of the operational audit activities;
- 2- Examining the effect of the audit committee on attracting foreign investors to invest in Iranian economic units;
- 3- Investigating and determining the characteristics that, given the conditions of the economic, social and cultural environment of Iran, are essential for the effectiveness of the audit committee;
- 4- It is suggested to consider other criteria, such as risk, legal constraints, incentives and management mechanisms, to examine the management incentive system;
- 5- In this paper, one of the main axes is remuneration, so its impact on audit fees can be assessed by differentiating the types of remuneration plans.

**Research limitations.** In the scientific research process, there are a set of conditions that are beyond the control of the researcher, but can potentially affect the results of the research. Some of these limitations are inherent and some are due to environmental conditions and time constraints of the research. Scientific research results should be analyzed, considering the existing constraints. The limitation of this research has been as follows:

- \* The first limitation is the specific feature of quasi experimental research that is common in the field of social sciences. In other words, the effect of other variables, whose control is beyond the reach of the researcher, and the possibility of influencing them on the results of the research is not far from the mind.
- \* Due to limiting statistical society to the companies listed in the Tehran Stock Exchange, the generalization of the results to other economic units should be done with caution.
- \* The lack of relevant and reliable information regarding the variables studied for some companies has reduced the number of samples.
- \* In this study, only one form of disclosure (annual report of the stock exchange) was investigated for the purpose of examining the level of corporate disclosure, while companies sometimes disclose information through other channels, such as media, websites and the press.

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# INVESTIGATING THE EFFECT OF TARGETED ORGANIZATIONAL FORGETTING ON JOB PERFORMANCE THROUGH THE ORGANIZATIONAL LEARNING MEDIATING VARIABLE IN ARVAND PETROCHEMICAL COMPANY

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Abstract. The purpose of this study is to investigate the effect of targeted organizational forgetting on job performance through organizational learning mediating variable in Arvand Petrochemical Company. The current research, in terms of purpose, is in the applied research group and, in terms of research type, is in the category of descriptive-causal research. Given the data collection tools that aim to describe the circumstances or the phenomenon examined, this research is a descriptive study and since data collection in this study is supported by library studies and a questionnaire, it can be put into the field research group. The reliability of the questionnaire and its dimensions in this research was estimated using SPSS software and Cronbach's alpha. According to the result, which is above the minimum of 0.7, the reliability of the questionnaire was confirmed. Also, for the sake of optimization, the valuable comments of the professors were considered. The questionnaire consisted of three sections related to the considered variables and was ranked by Likert scale and the statistical population was measured. The coefficient between the variable of targeted organizational forgetting and the job performance equals to 0.590 and the corresponding t value is 9.649>1.96, so according to the t test, with a critical value of 0.05 at 95% confidence level, the null hypothesis can be rejected. As a result, with a 95% confidence, it can be said that targeted organizational forgetting has a significant effect on job performance. The results of the analysis of the first hypothesis of the research showed that "targeted organizational forgetting has a significant effect on job performance in Arvand Petrochemical Company". The coefficient between the targeted organizational forgetting and organizational learning equals 0.766 and the corresponding t value is 9.775>1.96, which according to t test with a critical value of 0.05 at a confidence level of 95%, the null hypothesis can be rejected. As a result, with a 95% confidence can be said that targeted organizational forgetting has a significant effect on organizational learning. The results of the analysis of the second hypothesis of the research showed that "targeted organizational forgetting has a