EXAMINING FACTORS AFFECTING AUDIT FEES FOR DOCUMENTS AND EVIDENCE FROM VOLUNTARY REFERRAL DEPARTMENTS IN IRAN

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Abstract

Nowadays, responsiveness of corporate executives, organizations and their supervision are essential due to the increase in trading volumes, and therefore the users of financial statements, and also the users’ need for assurance about the reliability of the financial statements for making decision. One of the main tools for accountability in the field of economic activities is auditing and accounting, because the auditor's certificate supports the credit of additional financial statements from users. But, despite the need for audit work and increasing demand for it, determining the fees of this service in Iran is not based on the scientific model. Since the appropriate factors must first be identified to determine the appropriate level of fees, therefore, this research investigated the factors affecting audit fees. The objective of this study is to understand how to determine the audit fees in Iran logically. Identified factors studied in this study are the size of firm, complication of the firm's operations, the amount of resources spent on the internal auditor and risk detection by the auditor. The data of this research was obtained from the information about the companies accepted in Tehran Stock Exchange for a consecutive period from 2010 to 2015. Among all the companies, 80 companies active in the Tehran Stock Exchange were selected as samples, according to the circumstances and simple elimination method. The statistical method in this research was correlation analysis. The results of the study showed that the size of firms, the complication of the auditor's work, and the amount of resources spent on internal audit have a significant relationship with the amount of fees. But relationship of audit risk and fees were not statistically significant.

Keywords: Independent Audit of Documents and Evidence, Audit Fees, Internal Auditing, Non-Audit Services, Audit Quality, Voluntary Referrals

Introduction

The amount of audit fees is one of the factors influencing the quality of the audit work, as well as their success in competitive circumstances. Audit fees include any funds paid to the auditor or institution for the provision of audit services and according to a contract or an agreement between the firm and the director of the audit firm. When an audit firm director proposes to an independent auditor, he is interested in knowing the cost of the audit. Therefore, the audit fee is one of the first points to be agreed upon by the auditor and the firm. Of course, the importance of this issue after the formation of Iranian Institute of Certified Accountants is more visible in Iran. Because after the formation of the society, there has been intense competition between auditors and the demand for audit services and the careful consideration of the result of professional work and the subsequent consideration of its cost has also increased. Since the economic viability of any profession is a prerequisite for survival it, in fact, auditors require a fee for the provision of better quality services and in contrast to the users, there is no way to afford it.

But given the competitive conditions and competitive pressure on the market, users not only take into account the quality of the work of the auditor, but also the amount of the cost, and at the time of demand and the cost of the services, the principle of cost-benefit is taken into account and they are willing to tolerate their benefits more than
their respective costs. Therefore, audit fees are very important as a factor affecting the quality of the auditor's work, as well as the necessary condition for the survival of the profession, to the extent that it can maintain the quality and the auditors' position in the field of competition. Based on a scientific and logical model, it has to be determined in such a way that it does not reduce from the quality of the auditor's work and not lead to failure and eliminate them from the competitive society. In fact, in order to determine the fee, it is logically necessary first to identify the effective factors, because determining these factors can partly contribute to market cohesion and to reduce the confusion of profession. Also, based on these factors and the study of the extent of their association with audit fees, it can be concluded that has the amount of fee ever received by auditors in Iran in exchange for financial information certification services been sufficient?

Statement of Problem and Importance and Necessity of Research

The globalization of trade, the advancement of the industry, the application of the government's view about corporate sources, and the emergence of new laws, and following the separation of owners from their institutions and managers were created changes in the corporate governance method. Because the owners of the capital who owns the shares of these companies are often outside the managers of these institutions and this separation from managers creates a conflict of interest, because the contractual relationship entails the delegation of the authority to the representative. That is, when the owners provide their resources to the management.

In order for managers, as representatives of the powerful owners, to properly use their resources and to perform their activities satisfactorily, they need some degree of freedom and freedom to act which this freedom made them in the position of power and may, in the absence of supervision and disciplinary mechanisms, use agent position to determine the rules for reporting financial information to owners, and commit fraud. It does not decide on their interests in the interest of shareholders. In other words, people in the profession alone cannot completely and without breach external accounting reports, because the existence of a direct employment relationship leads them to accept the views of the managers of the economic units in the preparation of financial statements. Since these financial statements should estimate the needs of different user groups in the decision-making process, therefore, the reliance feature should provide the necessary assurance. But the owners, not the managers, are expecting such a trust for the reasons given, and not because of their remoteness from the organization, lack of direct access and lack of awareness in the accuracy of information can create this trust because they have neither time nor competence and not even the authority to deal with company accounts.

Therefore, in such a situation, this duty will inevitably be left to the impartial and competent persons, ie the independent auditor. In fact, the existence of auditors can be considered as a means of creating this trust as well as a discipline to reduce the moral hazard of managers and reduce such an option. But the audit fee is one of the most important factors on the quality of the auditor's work and the survival of the profession. In these circumstances, the auditors also ask for a fee in return for their services. Because their economic interests are provided through the fee agreed upon in the contract between firm and the auditor and this amount also affects the quality of their work and in contrast to the users, there is no way to afford it. But unfortunately, since in there is no clear basis for determination of fee in Iran. This amount is determined by the auditor on the basis of his assessment of the volume and risk of the audit work and is proposed to firm. But this pricing should be based on a reasonable model, to the satisfaction of firm. Currently, most organizations benefit from this service and make a bid to determine the price of these services while the bidding with the spirit of the work of an auditor, which requires an independent work, is in conflict. Most auditors may offer a high amount of money to make their work more quality but such behavior can later have bad consequences for them. Because they may be financially dependent on their customers and do not conduct the audit in a proper manner due to their concern about losing their jobs (DeAngelo, 1981).

In contrast, despite the competitive conditions, as well as due to the firm consider the principle of cost-benefit in paying fees, so the payment of any fees for these services is not logical. Because these payments are part of the cost of firm and for the firm, it is recorded as a fee and companies always try to reduce these costs and prefer to pay the lowest price. We know that in a competitive situation, the price of a product or service is the amount that the other party is willing to pay. Therefore, the firm is willing to accept and pay fees to the extent that he is required to respond and the benefit to the service is higher than the related costs. Therefore, despite the competitive conditions, the auditor's unreasonable request to receive a fee could lead to a failure in the future and remove them from the market. Therefore, in order to succeed in competitive conditions and in the same way, their survival in professional and quality work, the amount of fee must be calculated taking into account both conditions, that is, considering it as a factor.
affecting the quality of the work of the auditor and the necessary condition for the survival of these activities due to supply the interests of the auditor and also considering it as a cost to the firm which, while maintaining the quality of work, will maintain their position in the field of competition. In other words, it is not so low that it distorts the quality of the auditor's work, and not so high that it causes dissatisfaction of the applicants and causes the auditor to fail in a competitive environment. Of course, in order to achieve this goal, we need a suitable model such as the Simunic model (where the fee is a function of the audit, work hours multiplier at the rate of service cost and the risk that the auditor considers in the future due to the risk of litigation and likely losses of company) to estimate a balanced fee that the first step in creating this model is to identify the factors affecting fee which is important for auditors. Because by knowing these factors, they can properly value their services (Gist, 1994). By identifying these factors and measuring their relationship with fee and describing the relationship between these factors and audit fees, we try to be able to reach the relationship we need to achieve. Therefore, in the present study, we seek to solve the following problems:

(1) What are these factors affecting fee?
(2) What is the relationship between these factors and the amount of audit fees in Iran?
(3) Is it possible, using these existing relationships, to arrive at a relationship and logical model which the fee can be obtained as it should be calculated?

**Background of Study**

The studies show that there have been few studies about effective factors on audit fees in Iran that listed below: Hasas Yeganeh & et al (2015) in relation to audit risk factors stated that auditors usually collect more evidence to reduce detection risk of significant distortions and this will increase the cost of the audit. This increased cost can be imposed on the employers.

Khodadadi & et al (2014) has been reviewed the impact of the ownership structure on audit fees. According to the results, the existence of institutional owners in the company is lead to provide information and higher quality financial reporting that consequently, the audit risk and, subsequently, audit fees will be reduced. The existence of managerial ownership also reduces the issue between shareholders and managers by aligning their interests. In fact, managers who have invested in a company under their management tend to avoid high-risk decisions than other managers. This reduction of information asymmetry and risk reduction reduce the need for supervisory costs (audit fees). According to these studies, the existence of family ownership would increase the quality of profit, reduce abnormal accruals, increase the value of the company and, consequently, reduce risk and audit fees. Also, the percentage of government ownership in companies has increased the value of these companies. Due to the state-owned structure of the Iranian economy and the role that the government holds as a shareholder in many companies, it is expected that, owing to certain operational expectations, it will be expected to control some of the activities of state-owned companies that can reduce the complication of operations of such entities and these reductions in the complication and risk of the company will reduce the fees for audit services. In fact, the structure of ownership and its types affects auditing fees by influencing problem solving, corporate governance, and audit risk.

Moosavi & Darogheh Hazrati (2011) examined the role of companies' cash flow on audit fees. The results of this study by multivariate regression analysis showed that companies with high free cash flow have higher audit fees. Also, in these companies, the amount of debt and dividend with audit fees has statistically significant relationship. Also Khodadadi & Hajizadeh (2011) in a study titled "agency theory and independent audit fees: testing the free cash flow hypothesis", studied the effect of the cost of agency from the hypothesis of free cash flow on audit fees and the results indicate that there was a positive and significant relationship between the cost of agency from the company's free cash flow and audit fees. Also, the evidence also showed that there is a positive and significant relationship between the level of debt and audit fees in companies with high cash flows.

Nikbakht & Tanani (2000) in their research on the factors affecting audit fees, they stated that the variables of the volume of operations (size) of the company, the complication of the company's operations, the type of audit institution and inflation, have a positive and significant relationship with audit fees. In the meanwhile, the variable of complication of the company's operations in the model has one of the highest coefficients compared to other variables that have a significant relationship with the dependent variable. But, according to the findings, the audit risk variables and the education and experience responsible for the preparation of financial statements did not have a statistical relationship with the dependent variable.
Rajabi & Mohammadi (2008) studied the relationship between the cost of agency and pricing of independent auditing services on companies listed on the stock exchange. The results showed that the average variables of the total assets and operating income, the share of the first major shareholder, the end of the fiscal year and the type of auditor with audit fees have a significant relationship. However, other factors related to agency costs, such as the ratio of receivables and inventories to total assets, the ratio of total liabilities to total assets, earnings before interest and tax deductions to total assets, have no meaningful relationship with audit fees.

Hasas Yeganeh & Alavi Tabari (2003) in examining the relationship between resources spent on internal auditing and independent audit expenditures aimed at identifying the impact of the internal auditor on reducing the independent audit fees and examining the effectiveness of increased levels of management that internal auditors report on the quality of the work of internal auditors and ultimately, their usefulness as independent auditors, show that audit fees with complication of an enterprise related and increase the resources spent on the internal audit department reduces independent audit fees and this is more pronounced in firms where internal auditors report higher levels than the financial and administrative assistant. Shahbazi (2011) investigated the impact of corporate governance on independent audit fees. The results indicated that the ten factors considered (size of the board, the ratio of non-obliging managers, the percentage of ownership of governmental and quasi-governmental institutions, the percentage of free float shares of the company, the percentage of the major shareholder ownership, the facilities received from banks, the opinion of the auditor independent, type of auditor, disclosure of transactions with affiliated persons, timely payment of dividends), the two factors of ownership of governmental and quasi-governmental institutions and type of auditor have direct and meaningful relationship with independent audit fees.

Instead, considerable research has been done in countries such as the United States, England, France, New Zealand, Canada, Japan, India, Bangladesh, Taiwan, Singapore, UAE and Kuwait. Most of these researches pursue a primary goal, and it identifies the factors influencing audit fees that due to large number of these studies, the similarity of the statistical method (majority of them used the statistical regression method), their listing is ignored.

Research Hypotheses

In this research, the following hypotheses are set to answer the main questions and provide solutions and lead the research:

Main Hypothesis:
"There is a significant relationship between identified factors and audit fees."

The number of identified factors and the mentioned variables, there are sub-hypotheses. Therefore, the number of sub-hypotheses is 4 hypotheses, which are as follows:

A: There is a significant relationship between the size of the firm and the amount of audit fees.
B: There is a significant relationship between the complexity of firm operations and audit fees.
C: There is a significant relationship between the amount of resources spent on the internal auditor and audit fees.
D: There is a significant relationship between the auditor's risk (detection risk) and the amount of audit fees.

Type of Research

The present research, in terms of purpose and outcome dimension, is a (applied) research. Namely it seeks to solve a particular problem and tries to use the scientific results obtained to solve real and executive issues. In terms of data collection, research is (descriptive). It seeks to define and obtain information from a specific problem or topic and examines the relationships between variables.

Research Methodology

Given that our primary objective in this research is to determine and describe the current situation and existing relationships between factors affecting fee, thus research methodology is descriptive. Because the descriptive method uses a set of methods whose purpose is to systematically describe existing phenomena and relationships between them in the current situation and its goal is describing a component of a situation or a range of conditions and answering questions such as: how much? Who is? What are the characteristics of the variables and factors associated with the research topic? And what happens? That describes and interprets what it is. In this study, we are, in fact, seeking to determine and describe the current situation, as well as to determine and report the relationships the factors affecting audit fees. Therefore, in the classification of the research according to the method, it can be said that this research is descriptive. Correlation research is one of the types of descriptive methods. In correlation, we seek to determine the
type of relationship and the level of relationship that correlates the variables. A correlation analysis is a tool which can measure the degree of relationships of variables another linearly (Azar & Moemeni, 2012). Correlation is usually use by regression analysis, because in the regression we seek to estimate mathematical relations. That is relations which can find the amount of variable with respect to the amount of two or more other variables, or unknown variable quantity (dependent variable) using the variable (s) defined (independent variables), and according to their variations, determine or predict it in the future. Since this study finally seeks to achieve such a goal, namely, to predict the future and create a desirable model for estimating the fee (unknown variable) based on these relationships in the past and present, so this correlation study was used multivariate regression method. Therefore, the present method is a descriptive-correlation analysis and a multiple regression analysis was used and analyzing its data is also done using the Eviews software.

The method of calculating the variables of research

In this research four variables are considered as independent variables that are:

1) The size of the firm
2) The complication of business operations
3) The amount of resources spent on internal auditing
4) Auditor's risk

We also consider audit fees as an associated variable. The mathematical model proposed in this study with respect to the above factors is formulated as follows:

\[
\text{Log } \text{FEE}_{it} = b_0 + b_1 \text{Log } \text{SIZE}_{it} + b_2 \text{Log } \text{COMP}_{it} + b_3 \text{Log } \text{IAF}_{it} + b_4 \text{Log } \text{RISK}_{it} + \epsilon_{it}
\]

In this model, LFEE is the amount of company audit fees i in fiscal year t that to measure this, we consider the cost of fee. The first factor (the size variable) represents the size of the firm that it measures using the balance sheet and the total assets of the firm. The second factor represents the complication of the auditor's work, which is intended to calculate and measure the number of decision-making centers or, in other words, the number of subsidiaries. Because if the level of authority given to the lower levels be greater by management, decentralization and subsequent diversification and more decision-making centers in the unit will be addressed which makes controlling and monitoring their work harder and in such circumstances, there will be more complication in the work of the auditors.

Third factor: represents the presence of the internal auditor that to calculate it, we consider the amount of costs and resources spent on it as a criterion of measurement.

Fourth factor: indicates the auditor's risk. the ratio of audit risk-sharing divided to multiplied by the risk inherent in risk control is used to measure risk of disclosure of the auditor, which is in fact the auditor's risk that in accordance with this instruction, acceptable risk, inherent risk and control risk must first be estimated (Nikbakht & Tanani, 2010). In order to obtain inherent risk, there are three ratios: the average ratio of average accounts receivable balances and inventories to total assets - the ratio of net profit to total assets - the ratio of long-term debt to total assets and to calculate the control risk, it also use: the supplement to the annual cost sharing ratio of the company's internal audit unit (if any), on the sum of assets. Acceptable risk has been set at 5% according to the audit firm's audit guidelines for all companies (Nikbakht & Tanani, 2010). After calculating and estimating these three components, detection risk can be determined according to the formula. The coefficients b1, b2, b3 and b4 also show the amount of these changes, i.e., the degree of correlation and sensitivity of audit fees of company i, respectively, in relation to the first factor, the second factor, the third and fourth factors.

Statistical Population, Sampling Method and Data Collection Methods

Statistical population

The statistical population of this study is all companies accepted in the Tehran Stock Exchange during the years 2010-2015. Since the general release date of financial information affects the results of the research, as well as the fact that most bourse companies, their fiscal year ends by the end of March, therefore, stock companies with their fiscal year ending in March and their available information are selected as the statistical population.

1 complication
2 Internal Auditor Fees
Sample and Sampling Method

From among all the companies in the statistical population, through screening, a number of companies that qualify below were selected as sample and were examined:

A: The fiscal year is in line with the solar year (end of fiscal year is March 20).
B: Companies that have submitted their annual audited financial statements from 2010 to 2015.
C: Companies that have the information needed to calculate their research variables over the period examined are available and reliable.
D: In the aforementioned years, the shares of these companies are active, and there is no longer a continuous interruption of more than four months.
E: Companies whose financial statements are available in quantitative and qualitative and their audit has been carried out voluntarily, for the required period, and approved by the audited entities.

The number of all companies that were active on their stock exchanges during the six-year period and their shares were uninterrupted was more than 400 companies. However, because of quantitative and qualitative perspectives, some of them had problems with information deficiencies (for example: some companies did not report in the 2011's). So it was impossible to investigate all of them. Therefore, by deleting some data, a number of companies that qualify above were selected by simple elimination method. As a result, as shown in the table below, the number of samples was reduced to 80 according to the constraints, conditions and characteristics.

Tools and methods for collecting data and information

In this research, in order to collect relevant information are used library materials of domestic and foreign papers and theses, computer networks, as well as to find statistical data and financial information of the companies accepted in the stock exchange of the Tehran Stock Exchange (which are audited by the auditor) Internet sites and related databases, information published by Tehran Stock Exchange, and website: www.rdis.ir which, is prepared and adjusted according to the purpose, the nature and method of the research, as well as the type of statistical population (in terms of time domain and conditions that are considered, etc.).

Test Method for Research Hypotheses

<table>
<thead>
<tr>
<th>Tehran Stock Exchange companies for a period of 6 years (2010-2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The total number of stock companies</td>
</tr>
<tr>
<td>Number of statistical samples</td>
</tr>
</tbody>
</table>

In order to first analyze the data, the descriptive statistics of the research variables for use in multivariate linear regression of combined data are presented in Table 1. Table 1 shows the amount of descriptive parameters for each variable and includes two categories of information. The first category refers to the mean and median and the second category of information includes dispersion parameters such as standard deviation, and the maximum and minimum amount of data which represents the distribution of data around the mean axis.

Table 1: Descriptive statistics on data

<table>
<thead>
<tr>
<th></th>
<th>FEE</th>
<th>SIZE</th>
<th>COMP</th>
<th>IAF</th>
<th>RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>6.214</td>
<td>12.25</td>
<td>0.48</td>
<td>3.20</td>
<td>0.49</td>
</tr>
<tr>
<td>Median</td>
<td>6.213</td>
<td>12.20</td>
<td>0.49</td>
<td>3.20</td>
<td>0.50</td>
</tr>
<tr>
<td>Maximum</td>
<td>6.37</td>
<td>15.42</td>
<td>1.00</td>
<td>4.04</td>
<td>1.00</td>
</tr>
<tr>
<td>Minimum</td>
<td>6.06</td>
<td>9.30</td>
<td>0.00</td>
<td>2.19</td>
<td>0.00</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0.05</td>
<td>0.31</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>0.02</td>
<td>1.20</td>
<td>0.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.83</td>
<td>0.14</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

-0.02 - 0.02 | 2.84 | 2.73 | 1.88 | 1.80 |
On the other hand, the close median and mean variables indicate that all research variables have a good statistical distribution. The standard deviations of variables also indicate that there is a good coherence between the data and due to the range of data, their dispersion is low. As can be seen in Table 1, the mean and median of variable data log of audit fees is equal to 6.21 that the numbers are almost close together, so it can say that the dependent variable has a good statistical distribution. Similarly, for other variables, the mean and median values of the data are close numbers which indicates that these variables have a good statistical distribution. The first step for model estimation after the collection of statistics is to examine the characteristics of static or stable variables. For this purpose, the Phillips Perron test is used for combination data. Based on this test, P-value of all variables are stable. This means that the mean and variance of variables over time and covariance of variables have been constant between different years. As a result, the use of these variables in the model does not lead to false regression. The results of the study in Table 2 show the Stationary of all variables.

### Table 2: stationary test based on the Phillips Perron approach on the level for research variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>t statistic</th>
<th>p-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEE</td>
<td>433.652</td>
<td>0.0000</td>
<td>It is static</td>
</tr>
<tr>
<td>SIZE</td>
<td>418.874</td>
<td>0.0000</td>
<td>It is static</td>
</tr>
<tr>
<td>COMP</td>
<td>459.347</td>
<td>0.0000</td>
<td>It is static</td>
</tr>
<tr>
<td>IAF</td>
<td>394.367</td>
<td>0.0000</td>
<td>It is static</td>
</tr>
<tr>
<td>RISK</td>
<td>379.090</td>
<td>0.0000</td>
<td>It is static</td>
</tr>
</tbody>
</table>

Spearman's rank correlation coefficient between independent variables for estimating the research models is shown in table 3. The negative sign means the inverse relationship and the positive sign means the direct relation between the two variables. It should be noted that the correlation coefficient is indicated only for the relationship and it cannot be used to test the effect of a variable on another variable. As shown in this table, the correlation coefficient of the research variables is close to zero or less than 0.5 which shows a lack of correlation between the independent variables of the models. So, we can run models.

### Table 3: Results of Spearman's rank correlation test between independent variables

<table>
<thead>
<tr>
<th></th>
<th>FEE</th>
<th>SIZE</th>
<th>COMP</th>
<th>IAF</th>
<th>RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEE</td>
<td>1</td>
<td>-0.05123</td>
<td>0.359904</td>
<td>-0.85735</td>
<td>-0.13719</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.05123</td>
<td>1</td>
<td>-0.0912</td>
<td>0.061133</td>
<td>0.063792</td>
</tr>
<tr>
<td>COMP</td>
<td>0.359904</td>
<td>-0.0912</td>
<td>1</td>
<td>0.013484</td>
<td>-0.03206</td>
</tr>
<tr>
<td>IAF</td>
<td>-0.85735</td>
<td>0.061133</td>
<td>0.013484</td>
<td>1</td>
<td>0.120109</td>
</tr>
<tr>
<td>RISK</td>
<td>-0.13719</td>
<td>0.063792</td>
<td>-0.03206</td>
<td>0.120109</td>
<td>1</td>
</tr>
</tbody>
</table>

The results of hypotheses testing and their analysis

After analyzing the data and examining their normality, this section tests the hypotheses of the research using the static and cross-sectional effects method.

Based on the theoretical model of research, our model is written as follows:

\[
\log FEE_{it} = \beta_0 + \beta_1 \log SIZE_{it} + \beta_2 \log COMP_{it} + \beta_3 \log IAF_{it} + \beta_4 \log RISK_{it} + \epsilon_{it}
\]

The F Limer test was used to examine the choice between the panel data method and the Pooled data to estimate the desired function. If the probability of the statistic is less than the error level of 5%, the use of the combined model with the effects is verified, otherwise, the combined model will be used without effects. The summary of the results of this test for the model of this study is presented in table 4. These results indicate that the probability for a model is greater than the 5% error level, therefore, a pooled model without effects should be used to test the research hypothesis that we will continue to discuss it.
Table 4: Summary of F Limer test results

<table>
<thead>
<tr>
<th>Model</th>
<th>F</th>
<th>Df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research model</td>
<td>1.007122</td>
<td>(79,396)</td>
<td>0.4683</td>
</tr>
</tbody>
</table>

The present study has a main hypothesis and four sub-hypotheses. The results of the model estimation are shown below:

Table 5: Results from Model Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>standard error</th>
<th>t statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>6.637852</td>
<td>0.012753</td>
<td>520.4792</td>
<td>0.000</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.001697</td>
<td>0.000748</td>
<td>2.268775</td>
<td>0.024</td>
</tr>
<tr>
<td>COMP</td>
<td>0.073744</td>
<td>0.003214</td>
<td>22.94316</td>
<td>0.000</td>
</tr>
<tr>
<td>IAF</td>
<td>-0.151848</td>
<td>0.002885</td>
<td>-52.62497</td>
<td>0.000</td>
</tr>
<tr>
<td>RISK</td>
<td>-0.004545</td>
<td>0.003095</td>
<td>-1.468486</td>
<td>0.143</td>
</tr>
<tr>
<td>Fisher -statistic</td>
<td>830.4</td>
<td>R-squared</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td>Significance level of entire regression</td>
<td>0.000</td>
<td>Durbin-Watson</td>
<td>2.08</td>
<td></td>
</tr>
</tbody>
</table>

Independence test model residuals

Durbin-Watson test statistic has been used to examine the independence of the fitted model residuals. If the value of this statistic is limited to 1.7 to 2.5 (in some sources 1.5 to 2.5), the independence of the model's residuals will be confirmed, otherwise, evidence suggests a lack of independence or a serial correlation of the model's residuals. The amount of Durbin-Watson statistics in this model is in this range, so assuming a serial correlation between variables is rejected.

Significant test of the model

F Fisher's statistics is used to evaluate the significance of regression. The significance level of the total F statistic is smaller than 0.05, therefore, at 95% confidence level, the total value of the model is confirmed.

R-squared of Model

Value of R-squared of model is 0.87, respectively. Therefore, according to these values, this model can predict 87% of the variation of the dependent variable by explanatory variables. Or, in other words, can attribute 87% of the variations of the dependent variable y to the changes of the independent variable x.

Statistical analysis of data related to the first hypothesis

According to table 5, the value of the significant level of the firm-size variable is 0.024, thus, the first sub-hypothesis is that there is a significant relationship between the size of the firm and the amount of audit fees, is confirmed. Also, with respect to 0.001697, it can say that there is a direct and significant relationship between the size of the firm and the amount of audit fees.

Statistical analysis of data related to the second hypothesis

According to table 5, the value of the significant level of complication of firm operations variable is 0.000, thus, the second sub-hypothesis is that there is a significant relationship between complication of firm operations and audit fees, is confirmed. Also, with respect to 0.073744, it can say that there is a direct and significant relationship between
complication of firm operations and audit fees.

Statistical analysis of data related to the third hypothesis

According to table 5, the value of the significant level of resources spent on the internal auditor variable is 0.000, thus, the third sub-hypothesis is that there is a significant relationship between resources spent on the internal auditor and audit fees, is confirmed. Also, with respect to -0.151848, it can say that there is a significant negative relationship between resources spent on the internal auditor and audit fees.

Statistical analysis of data related to the fourth hypothesis

According to table 5, the significant level of the risk variable is 0.14. Thus, the fourth sub-hypothesis is that there is a significant relationship between the auditor's risk and the amount of audit fees, isn’t confirmed.

Regression Model

According to the explanations given above, based on statistical results and using the obtained regression coefficients, the general regression model that can be used to predict and estimate the dependent variable of audit fees can be as follows:

\[ y_{it} = \beta_0 + 0.001697 \text{SIZE}_{it} + 0.073744 \text{COMP}_{it} - 0.151848 \text{IAF}_{it} - 0.004545 \text{RISK}_{it} + \epsilon_{it} \]

In which, \( Y \) represents the audit fee, \( \text{SIZE} \) represents the size of the firm under investigation, \( \text{COMP} \) (complication) represents the complication of the firm's operation and \( \beta \) represents the constant factor (c).

Conclusion

Our main goal in this research is to identify the factors influencing audit fees and determine the effectiveness of these factors which can finally be identified using these factors (independent variables), understanding the effectiveness, type and severity of their relationship with audit fees, provide a proper regression model for predicting and estimating the fees of audit services in Iran. Various factors affect this pricing. But in this research are considered four variables of the size of the firm, the complication of the auditor's work, the risk and the presence of the internal auditor. According to hypotheses testing and reject and accept the hypotheses, the results obtained on the basis of their analysis are as follows:

A- There is a significant relationship between the size of firm (the size of the firm's operations) and audit fees. This hypothesis implies a firm-sized correlation with audit fees. The test results confirmed this hypothesis. The relationship between these two variables is direct. That means increasing the volume of operations and size of the firm, audit fees also increase, and vice versa. Because the size of the operation was usually high in larger companies due to more and larger transactions and thus, the balance sheet and the accumulation of assets also have a higher residue (Hay & et al, 2006). Balance sheet numbers, such as assets, are more effective in evaluating compared to periodic numbers, such as sales revenue, thus are effective indicators on fee and as the accumulation of assets of the firm increases, larger samples are required for review.

Therefore, the auditor needs more time to collect evidence and proceedings. Therefore, they require higher fee to compensate for it. Of course, in previous studies of Simunic (1980), Francis (1984) and Palmrose (1986), evidence of this direct relationship has also been reported. On the one hand, such companies are more commonly known and have more stakeholders, and consequently have a higher political relationship with high officials (Al-Harshani, 2008). Since the auditor acts as insurance policy, so if the company suffers any losses, the auditor will be questioned and in fact, the auditor's financial burden is on it. Because fee can be affected by the risk observed in relation to the company's financial ability or the loss of a job in a competitive environment (Firth, 1985). Therefore, in order to compensate for these potential future risks, the auditor considers a surplus return (risk-taking) in the pricing of its services. This shows that the volume of operations by the firm is one of the most important factors that each audit takes into consideration in its judgment. It can be said that the auditors use this factor in their professional judgments and their assessment of audit fees. Also, the firm can have an appropriate estimate of their audit fees by considering this factor in the unit under their management and comparing it with other units. In particular, in the tender for audit work, with the help of
this factor, they can make a good approximation of their cost and choose an audit that, while doing the quality work, has a minimum cost for them.

B: There is a significant relationship between the complication of firm operations and audit fees.

This hypothesis implies the correlation between audit fees and the complication of firm operations which was confirmed according to the test results and the relationship between these two variables is direct. That is, the higher the level of discretion delegated by senior executives to the lower levels, the more the number of decision-making centers and decentralization, which is called complication, is more than that. In this case, it's even more difficult to control and monitor them because the work of auditors is based on human resources and with the complication of the operation, will require more time, more experienced human resources to do the work and spending more expenses on providing and training them. On the other hand, the auditor asks higher fee to compensate or providing this increased cost. In other words, the extent of company in a sector in which management acts as a representative of the company in other companies is one of the factors that can increase the complication of this agency relationship. That is, when a company is a shareholder of several other subsidiaries and in addition to its financial statements, it is required to present consolidated financial statements with affiliated companies in accordance with accounting standards. This is expected to increase the volume and complication of the company's operations, due to the inclusion of consolidated financial reporting. Increases in audit fees. In the model presented on the basis of statistical results, this variable has an almost high coefficient. Therefore, this complication factor has been important to Iranian auditors due to the nature of the work of the audit.

C: There is a significant relationship between the amount of resources spent on the internal auditor and audit fees.

This hypothesis implies the correlation between independent audit fees and the amount of resources spent on internal auditing. The test result confirmed this hypothesis; the relationship between these two variables is inversely and negatively. Namely, the existence of internal auditors, as the main element of internal control systems of the firm, and the increase in resources spent on them, in terms of creating and strengthening internal controls, and because of the effect on reducing the scope of independent auditor audits, reduces fee of independent audit and this effect increases when the management level that the internal auditor reports is higher than the financial and administrative assistant, which results in a further reduction of independent audit fees, because the weakness of internal control affects the control risk and ultimately detection risk and increase sample size and increase time and audit proceedings. In fact, when the company's internal control is weak, time becomes more important (Hasa Yeganeh, 2009).

Therefore, in the overall audit plan, content tests are limited by relying on an internal control system, and if there is no reliance on the internal control system, content tests are more widely predicted and performed. According to previous studies, Hi and et al (2008) their governance system and its mechanisms reduce the number of audit work as well as reducing audit risk. In other words, the scope of audit tests (independent) to gather sufficient evidence based on the audit standards, with reliance on the internal control range, it has an inverse ratio. Given that internal auditors are the main element of the internal control systems of the firm, it can be expected that the existence of internal auditors in terms of creating and strengthening internal controls in reducing the independent audit fees due to their impact on the scope of their investigations is effective. (The quality of the internal auditor's work reduces the risk of control. In this case, detection risk can be at the higher level, according to the relationship between audit risk elements. Regarding the inverse relationship between detection risk and the time of the auditor's work, the auditor needs to collect evidence and spend less time and, therefore, demand lower fees). For this reason, the auditor, first, checks the internal control system of the company to determine the risk and the timing of implementing its methods, and then assesses inherent risks and controls and based on the audit risk relationship, it calculates detection risk. By identifying this risk and estimating the timing of the work of the audit, based on that, the proceedings will be carried out to the right extent and can be modified in time which will ultimately lead to a change in audit fees. According to statistical results, this variable also has a high coefficient. Therefore, auditors consider this variable in pricing their services, and estimating its implementation time and can rely heavily on its internal control system.

D: There is a significant relationship between the auditor's risk and the amount of audit fees.

This hypothesis implies a correlation between audit fees and the auditor's risk (Detection Risk). This risk is inversely related to audit fees. According to the risk audit instructions, audit risk is comprised of three components of inherent risk, control risk and detection risk. In accordance with this instruction, the risk of acceptable audit risk and inherent risk and control risk are estimated to determine detection risk and if risk of detection is less estimated, more
testing will needed. In fact, reducing the risk of detection is maximizing the discovery of significant distortions. Therefore, in order to minimize this risk, the auditor should increase his efforts to discover more distortions and gather more evidence. Its consequence is an increase in the sample size, followed by an increase in the time of audit work, an increase in audit cost and, finally, an increase in independent audit fees. But the study of this variable in Iran gives us contradictory results with the subject matter of the research. In fact, the test result of this hypothesis is rejected; there is no significant relationship between these two variables statistically in Iran. Contrary to what has been said in the audit literature of the free-market economies (developed countries), in Iran, due to the specific economic environment, the role of the government in the economy, the lack of backgrounds and assumptions that affect the economies of the countries advanced, the weakness of the culture of accountability and responding to the stakeholders who indirectly criticize the auditor for possible mistakes and negligence or perhaps because of the scientific weakness and the lack of familiarity of auditors with the concept of risk, Iranian auditors in judgments they did not pay attention to the concept of risk to determine their fee and basically, it can be said that the risks mentioned as components of audit risk in the related books are not seen in Iran.

Recommendations of Research

Due to its research results and its limitations, scientific and applied offers as well as suggestions for future users and researchers are presented as follows:

1- Institutions and the audit organization can use this model for the initial calculation of remuneration. Iranian Association of Certified Public Accountants, as a professional community supervising the work of auditors, as well as other decision-making authorities in the field of auditing, using the results of this research, can pay more attention to the factors mentioned above, to improve the quality of work of the auditors and as a result, help to the quality of the audit in country.

2- According to the conclusion of the third hypothesis and the effect of this variable on the reduction of the cost of independent audit fees, it is suggested to institutions and companies using these services that pay attention to the internal control and establishment of units and internal control systems, by hiring a specialist and spending money to raise the level of quality of the work of the internal auditors, while building power and reducing their costs, they will help the country's development and economy to work, due to providing space for more human resources.

• Researchers interested in studying this subject can use the following suggestions for future research:

3. Due to limitations of research in relation to its spatial domain which it only includes companies listed on the stock exchange, it is suggested that similar research in this field will also be carried out in non-stock companies.

4- It is recommended that, in the same study, taking into account the variables mentioned above, the effects of other important moderators and factors, such as inflation, company profitability, auditor's quality, which could influence audit fees, and report different results, as additional variables, are examined and tested.

5. The results of the fourth hypothesis showed that audit risk does not have significant statistical relationship with audit fees. However, considering the importance of this issue and the concept of risk in auditing and the extent of research that emphasizes the role of this variable in fee, it is suggested that be done a study on this issue specifically and individually.

References

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