The Auditing Firm Size Effect on the Actual Auditing Quality

Ali Jafari
Department of Accounting, Ghaemshahr Branch, Islamic Azad University, Ghaemshahr, Iran.

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ABSTRACT

The main objective of this study was to investigate the relationship between the auditing firm's sizes on the auditing quality. To determine the size of the auditor, the audit firms are divided into large enterprises (in the study auditing agency as representative of large auditing firms) and other non-large institutions (in this study audit institutions membered in Iranian Association of Certified Public Accountants as representative of non-large institutions). In this study, the quality of the audit, the audit firm's ability to detect significant distortions in the financial statements and the report is defined. The study populations are companies listed in Tehran Stock Exchange that in 2008 has been a member of the Iranian Association of Certified Public Accountants by the audit agency or audit firms. Information extracted from the sample consisted of 2008 audit reports of listed companies in Tehran Stock Exchange and compared with annual adjustments to the flow of retained earnings of the company in 1388 shows that by increasing the size of the audit firm, audit quality is improved.

KEY WORDS: the quality of the audit, the auditing firm, the actual quality of the audit, the audit quality harvest

INTRODUCTION

In accounting and auditing Researches, the word audit quality meaning is clear. If an audit is a tool for monitoring the performance of managers, especially in the financial reporting to users, with other conditions being constant, the company's financial statements with high quality auditing is more reliable than the audited financial statements of the company that has low quality. Therefore, many studies have been done to improve the understanding of quality audits and many investigations were done to have a better understanding of the concept and audits quality relationship with other variables to be determined. Among the factors affecting the quality of accounting, auditing firm size has used more attention.

In the accounting literature, assessment of the quality of auditing of the audit firm, based on variables such as the size of the auditing firm, auditing firm reputation, auditor's specialization, is said Perceived Audit Quality by users of financial statements and audit reports. However, the actual quality of the audit refers to the auditor's ability to detect and report significant distortions in the financial statements. Is the perceived quality of audit quality can be a representative of an actual audit quality? Have the larger audit institutions higher audit quality? However, users may not want to evaluate the quality of audit reports and consequently, due to the unwillingness of the market to evaluate the quality of audits of large institutions, these institutes has not a real incentive to improve the quality of audit - ability to detect and motivation to report important distortions. Or on the other hand, larger institutions have higher audit quality due to specialization. It can be deduced that the auditor's reputation impact on audit quality is so important that Market (consumers) may evaluate the reputation of an auditing firm (perceptions of audit quality) instead of the actual quality of the audit based on the auditor's ability to detect and report distorted. It should also be noted that the perception of users of audit quality may not be representative of the actual quality of the audit. For example, the audit firm may have a reputation among consumers, but its actual auditing quality is questionable.

The theoretical discussion, has led us to have to do research in the field of audit firm size and its relation to audit quality. In this study, we seek to answer the question of whether the audit firm can represent the actual quality of the accounting firm. Simply, do the bigger audit institutions, does necessarily provide higher quality of audits? Therefore, in this study we are looking for answers to the question: "is there relationship between the actual quality of the audit and audit firm size?"

Definition of audit quality

A common definition of audit quality in 1981 by De Angelo (DE Angelo, 1981) is as follows: "Evaluation of the market about the auditor's ability in discovering and reporting the significant distortions which they have found." Thus, by definition of De Angelo audit quality, is assessing ability of detecting distortions in accounting, and auditor independence in reporting significant distortion detected by the market. Di Angelo defined audit quality as consisting of two probabilities. First, auditor should detect client's accounting system defects. Second, he had to report the failure. The discovery of defects measures the audit quality in the form of knowledge and ability of the auditors. While their reporting are due to the auditor's intension for the disclosure. Palmrose, Z.
As mentioned above, the most common definition of audit quality which accounting researchers have looked at are:

1. Market perception of the probability that the financial statements contain a material misstatement and the auditors are able to discover and report it. (De Angelo, 1981).
2. The possibility that the auditor's report about the financial statements contain material misstatement is not acceptable. (Tom Lee, 1999).

These definitions include various aspects of independence and competence of auditors and involving perception of the audit quality by the users. Although perceptions of audit quality is associated with the actual quality of the audit, but in practice has not the same meaning. Therefore, to maintain the distinction between them, the words "qualified auditor" and "auditor reputation" in order to describe the "real quality audit" and "perceptions of audit quality" is used. The ability of the auditor, affect the quality of the information of the financial statements. The higher the auditor's ability to oversee and monitor, the higher quality of financial reports of the client's economic status. Effectiveness can be directly supervised by the auditor competence and independence. Auditor reputation shows the stakeholder perceptions of credibility or reliability of the information. Auditor reputation is related to user's inference from the competence and external independence of the auditor and indicate added value for the data for the auditing of financial statements. Therefore, reputation must be studied from the all auditing done by the auditing firm perspective, while auditor's monitoring on all the auditing projects must be analyzed separately.

**Audit quality and audit firm size variable**

Research has shown that the auditing firm structure also has an effect on audit quality. Based on the researches, the quality of audit of institutions having stronger structure differs in the audit procedures, with other institutions. Audit institutions integration and homogenization methods used in different institutions, made the hypothesis less important. Most researchers have proposed the theory that, in general, there is a direct relationship between audit quality and audit fees and if the clients are imposed additional fees by larger institutions means that they have more desirable quality of audit services. Research, however, has also raised the hypothesis that larger institutions due to more experience and a better structure, can transfer part of its cost savings to the customer and demand lower fees from their client.

De Angelo (1981) in his study on the size of the auditing firm concludes that the larger audit institutions, more motivated to maintain honest reports as a tool for their reputation. Larger audit institutes have two advantages than the small audit institutions: One is the measure of the collateral and the other is the mutual monitoring, larger auditing firm compared to the small auditing firm can provide collateral for their audit fees. This collateral not only involves the firm assets and the assets of each partner institution, but also human capital of the partners. Great collateral could mean that larger audit institutions more than apersonal institute resist in front of the pressures from clients against not to report distortions. Great audit institutions have many customers. Therefore, the value of lost profits due to loss of client work in large institutions is much less than the effect of a failure to report violations of the brand and audit fees. As stated earlier, in the present study audit agency assumed as large and audit institutions of Iranian Association of Certified Public Accountants as non-large.

Larger audit institutions, providing audit services with higher quality because they are interested in the job market to gain a better reputation and as the number of clients is large, they are not afraid of losing them. Such institutions for greater access to resources and facilities for the training of auditors and conduct various tests, provide a higher quality audit services. Recent research indicates that between auditor industry specialization and quality of audit reports there is a positive relationship. In other words, auditor who are experts in the industry because of the ability to identify and deal with special problems in the industry can have a higher quality of auditing. Moreover, whenever an auditing firm has much more experience in a particular industry, because of the positive reputation, will have greater interest to acquire high quality audit services.

**Done research Background**

The most researches on the approach of presentation of auditing as a quality audit are on the auditing institutions size. For example, studies of David Sun Neu (1993), De Angelo (1981), and Becker et al (1998) support empirically the positive relationship between firm size and audit quality. De Angelo (1981) argues that the bigger audit institutions have stronger incentives to provide higher quality audits. They are interested to get more popularity in the market because the number of clients is large and they are not afraid of losing. Such
institutions for greater access to resources and facilities for the training of auditors and conduct various tests, provide a higher quality audit services. Neo and Davidson (1993) have shown that large audit institutions have larger clients, therefore, the market expect to detect distortions in the financial statements of auditors increases. Moreover, empirical evidence suggests that larger audit institutions have superior quality audits, because they have resources and better facilities for the training of auditors in carrying out the audit than smaller institutions. Linux Clio (1984) showed that a large proportion of larger audit institutions are more motivated to issue a report honestly compared to the small audit institutions. His research shows that whenever the financial interests in audited units are more; the independence of the auditors also becomes more important.

Since the actual audit quality is not visible and measurable, many researchers have tried to measure it directly or indirectly. De Angelo (1981) has attempted to prove analytically that the size of an auditing is directly related audit quality. In his analysis, auditing firm size is measured by the number of its clients. He argues that since the auditor has the interests of the client, auditors who have more clients, bear more loss due to the failure to detect and report significant distortions. Based on the study, De Angelo (1981) mot of the further researches assess the quality of audit auditing firm size, especially large institutions compared to small institutions. Apart from the size which is the most common variable in assessing the quality of the audit, other parameters are also used.

Many studies about the quality of audit have indicated that large audit institutions have higher audit quality than small audit institutions. However, other studies show that all large audit institutions are not necessarily better audit quality than small institutions. Kim et al (2003) have shown that the difference in the effectiveness of large audit institutions and small audit institutions emerge of conflict between managers and auditors' reporting incentives. Whenever the managers have enough incentive to increase profits through the use of accounting methods to increase the profits, auditor's neutrality maintaining, lead to conflicts between directors and the auditors. The researchers have used the index of the current period to determine the motives of management. They found that large audit institutions in the prevention of profit manipulation are more effective than small institutions (assuming there is a conflict between management and auditors).

Lam and Chang (1994) have investigated the relationship between audit quality and audit firm size by detecting errors in the prediction of stock market investment income in Singapore. They found that, in general, large audit institutions deliver not necessarily better audit quality than small audit institutions. Tat (2001, p. 76) in his comparative analysis of audit of large audit institutions compared to small audit institutions to the conclusion that large audit institutions issue less probation report and report weaknesses in internal controls.

Clive Lennox (1984) has shown that large institutions have stronger incentives to maintain the reputation by the issuance of the audit honest report, because failure to detect significant distortions lead to a weakening of the audit services market. Since the large audit institutions have higher and more financial interests of their client, loss of profits for the larger institutions is much more than smaller institutions. Thus, larger institutions are more motivated to issue a fair report.

De Angelo (1981), using the analytical method proves that between the auditing firm size and market perceptions of audit quality, there is a positive relationship. However, the basic assumption is faced with uncertainty. It means that the market ability in evaluation of audit quality is uncertain. Auditing firm size may be due to the market valuation of audit quality, be important because for larger audit institutions to maintain the reputation is more important rather than representing the actual auditor's ability to detect and report significant distortions in the financial statements. The results show that the size may represent only the user's perceived quality of audit without being representative of the actual quality of the audit.

Nelson (1989) study to examine the relationship between service quality and size of audit institutions and he found that audit institutions and large audit institutions don't have always provide better service than smaller institutions. For example, small business entities are more satisfied from smaller audit services.

In Hogan's study (1997) he found that larger audit institutions usually provide better service than smaller institutions. But in some cases, the smaller institutions give better advice to its clients. The staffs of small audit institutions have usually closed and long-term relationship with the local business community. Therefore, the smaller audit institutions are better and suited to the needs of small business companies.

From the auditor's perspective, the ability of auditors and economic incentives affect audit quality. The professional and experienced auditor's have a greater understanding of mistakes in preparing the financial statements which can increase the quality of the audit decisions. From an auditor perspective, an auditing firm size is as one of the factors which affect the quality of the audit.

In short, many previous studies have shown that audit quality is correlated with the size of the audit institutions. However; other evidence suggests that large audit institutions do not always offer audit quality better than small audit institutions. The question whether the measure can be scrutinized to the quality, created an innovation about the audits quality. In particular, such studies provide evidence on the users' evaluation of the relationship between the size of audit institutions and actual audit quality.
Hypothesis

General hypothesis of this research are as follows:
- There is a significant relationship between the size of the audit firm and audit quality.
- Particular hypotheses, conclusions regarding the general hypotheses, in particular are as follows:
  - Between the size of the audit firm and the discovery of significant distortions in the application of law, there is a significant relationship.
  - Between the size of the audit firm and the discovery of significant distortions in accounting estimates there is a significant relationship.
  - Between the size of the audit firm and the discovery of significant distortions in the application of law, there is a significant relationship.
  - Between the size of the audit firm and the discovery of significant distortions in the application of accounting principles, there is a significant relationship.
  - Between the importance of the relationship between the size of the audit firm and the discovery of significant distortions, there is a significant relationship.

METHODOLOGY

This study is of the two-dimensional. It compares the large auditing firm's audit quality with other non-large audit firms. In this research, the audit agency of the Islamic Republic of Iran is assumed as a large auditing firm and audit institutions membered in Iranian official accountants' community as non-large firms. In this study, we compared the distortions discovered and reported in separate audit reports on five types of distortion, by comparing the current year's audit report and the corresponding turnover of retained earnings in the coming year. (Audit report 1387 compared to Profit and loss accumulated in 1388).

<table>
<thead>
<tr>
<th>Table 1. method for measurement of real quality of audit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial statements for 2009</td>
</tr>
<tr>
<td>Accumulated income account is investigated and annular adjustments are classified</td>
</tr>
<tr>
<td>A comparison of distortions reported in audit report of 2008 with annular adjustments in 2009</td>
</tr>
</tbody>
</table>

Distortions in the study were divided into five categories:
1. Important distortions resulting from incorrect estimates of tax over function
2. Important distortions caused by improper accounting estimates
3. Important distortions resulting from non-compliance with laws and regulations
4. The important distortions caused by incorrect application of accounting methods
5. Other important distortions

Statistical population

The study population consisted of all companies listed in Tehran Stock which their common issue is that in the years 1387 and 1388 by the auditors or audit firms of Iranian Association of Certified Public Accountants, are audited. The population for this study consisted of two population first sample which consists of companies listed in Tehran Stock Exchange, which are audited by the Auditor in 1387 and 1388 and The second sample consists of companies listed in Tehran Stock Exchange audited by one of the founding members of the Iranian Association of Certified Public Accountants in 1387 and 1388. That the total number of accepted companies in Tehran Stock Exchange above conditions was only 286 companies. It means that are audited in 1388 and 1387 by the auditor or audit firm has been a member of the Iranian Association of Certified Public Accountants. And from this population and the total number of members, the number of elements in the first target population was of 113 companies that has been audited in the mentioned year by the auditor of the audit agency and the number of elements in the second target population of 173 companies that are audited in the mentioned years by the firms which are members of the Iranian Association of Certified Public Accountants.

The sampling method

The population of the first population involves 113 companies listed in Tehran Stock Exchange for the fiscal years 1387 and 1388 have been audited by the audit organization. The sample is extracted by using the following formula. Given the number of elements of the statistical population consisting of 173 companies listed in Tehran Stock Exchange which in fiscal year 1387 and 1388 are audited by audit institutions which are members of the Iranian Association of Certified Public Accountants, the samples extracted from the population, according to the formula, are 42 companies. Using the following formula \((\alpha=\%5)\) and the acceptable error rate of
\( \varepsilon = 0/15 \) and there is not available estimate of the rate \( P = 0/5 \) we consider, so the sample size is calculated as Formula 1.

Formula 1:
\[
 n = \frac{z^2}{\varepsilon^2} \times \frac{P(1-P)}{} = \frac{(1/96)^2 \times (0/5)(1-0/5)}{(0/15)^2} = 42
\]

Thus, the number of our sample population consisted of 42 companies. On the other hand, in this study, since the companies listed on the stock market is not homogeneous, the kind of congruence with each other, it cannot be used a simple random sampling in each of the two population, because it is possible that all selected samples are of a group, in this case the results cannot be sure.

Therefore, the researcher thought that first all companies listed on the Stock Exchange qualified statistical societies are divided in groups of homogeneous and heterogeneous and then is done the stratified sampling based on probability sampling. For this purpose, all the companies listed in Tehran Stock Exchange are put in a classification of six groups, the population structure of first population and then the samples were selected from the first community (Companies have been audited which are listed on the Stock Exchange by the Auditor,) have been arranged in a separate table. The population and sample of the target population of the second (by auditing companies listed on the Stock Exchange of Iranian Association of Certified Public Accountants which have audited) are listed in the table.

**Data collection methods (Research Tools)**

Sources of information for this study are as follows:

1. The audited financial statements for the 12 months to the end of 1387 and 1388 companies listed in Tehran Stock Exchange
2. The financial statements for the 12 months to the end of 1388 and 1387 companies listed in Tehran Stock Exchange
3. Researcher extracted the needed information from the Exchange Server database after wards the sampling process information relating to sample each of the communities has entered into two separate tables.

Statistical test statistic - Comparison of success in the two communities

The researcher of this study was to evaluate the success of the two populations that was expressed using the assumption that the two population samples were assumed to be two different which represents the ratio of success in the sample taken from the first Statistical Society and the ratio of success in the sample is extracted from the statistical community. Therefore, in the assumption \( H_0 \) researcher states that found no significant relation between the auditing firm size and distortions, in \( H_1 \) researcher says that there was meaningful relation between the size of the audit firm and important distortions discovery. Simply, researcher \( H_0 \) express claims are conflicting and \( H_1 \) involve the researcher's claims. In this study, the test statistic for comparing the success of the \( z \) type, since the sample was selected in each of the two populations is bigger than 30, the \( z \)-test defined as formula 2 below:

Formula 2.
\[
 Z = \frac{(\bar{P}_1 - \bar{P}_2) - (P_1 - P_2)}{\sqrt{\frac{\bar{P}(1-\bar{P})}{n_1} + \frac{\bar{P}(1-\bar{P})}{n_2}}} \]

The common prepared denominator of the test according to \( \bar{P} \) is defined; the common \( \bar{P} \) is defined as formula (3):

Formula 3.
\[
 \bar{P} = \frac{X_1 + X_2}{n_1 + n_2}
\]

\( X_1 \) is success value in \( n_1 \) and \( X_2 \) is success value in \( n_2 \). Therefore, formula \( Z \) can be rewritten in the form of formula 4:

\[
 Z = \frac{(\bar{P}_1 - \bar{P}_2)}{\sqrt{\bar{P}(1-\bar{P}) \cdot \frac{1}{n_1} + \frac{1}{n_2}}}
\]

In formula 4, \( P_1 \) and \( P_2 \) are as depicted in formula 5:

\[
 \bar{P}_1 = \frac{X_1}{n_1} \quad \bar{P}_2 = \frac{X_2}{n_2}
\]

Critical values based on a significance level of \( \alpha \) and obtained by using the standard normal table. In this study, the value of \( \alpha \) was equal to 0/05 of the error, in which the hypothesis correctness is investigated. Since the value of \( \alpha \) at 5% determined, the critical values by the following is: \( Z_{\alpha} = Z_{0/05} = 2/575 \). As usual at this stage as regards the second part of the test statistic that is obtained is compared with the critical value. If the test
statistic is in the reception area, sufficient empirical evidence with a confidence level to support the assumption of H0 is present and H0 is otherwise rejected.

**Comparison of statistical hypothesis testing, particular hypothesis (1)**

In the researcher’s first particular hypothesis, the ratio of discovered tax distortions are detected as a measure of success, the H0 implies that found no significant relation between the size of the audit firm and the importance of tax distortions. In H1 expressed that there is meaningful relation between the size of the audit firm and important distortions discovery:

\[
\begin{align*}
H_0 : P_1 & \leq P_2 \\
H_1 : P_1 & > P_2
\end{align*}
\]

**B - Test statistic:**

The following information is extracted to calculate the test statistic:

<table>
<thead>
<tr>
<th>Table 2: Comparison of found tax distortion with tax distortions in the financial statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institute type</td>
</tr>
<tr>
<td>Auditing organization</td>
</tr>
<tr>
<td>Community of accountants</td>
</tr>
</tbody>
</table>

Reference: research findings

\[\bar{p}_1 = \frac{24}{45} = 0.53 \quad \bar{p}_2 = \frac{16}{58} = 0.27 \quad \bar{p} = \frac{24 + 16}{45 + 58} = 0.39 \quad \text{formula 4}\]

Considering table 2, the test statistic is equal to:

\[
Z = \frac{\bar{p}_1 - \bar{p}_2}{\sqrt{\frac{\bar{p}(1-\bar{p})}{n_1} + \frac{\bar{p}(1-\bar{p})}{n_2}}} = \frac{2}{765}
\]

**Critical value**

Critical value at the 5% tolerance test is:

\[Z_\alpha = Z_{0.05} = 1.96\]

The statistical hypothesis testing, first particular hypothesis 1: Since the test statistic \((Z = 2/765)\) is in exclusion zone, the research hypothesis is not confirmed H0 at error level of 5%. The research hypothesis is confirmed by H1: thus; there is important relationship between the size of the audit firm and the discovery of important tax distortions.

**Statistical hypothesis testing, particular hypothesis 2**

In particular hypothesis number two distortions found in the accounting estimates was the basis of the success that H0 states that between the size of the audit firm and the discovery of significant distortions in accounting estimates, there is no significant relationship and H1 states that between the size of the audit firm and the discovery of significant distortions in accounting estimates there was significant relationship. Statistical assumption to be expressed as follows:

\[
\begin{align*}
H_0 : P_1 & \leq P_2 \\
H_1 : P_1 & > P_2
\end{align*}
\]

**The test statistic**

The following information is extracted from the test statistic to calculate the test statistic:

<table>
<thead>
<tr>
<th>Table 3: Comparison of distortion in the accounting estimates have been found to distort in the accounting estimates of the financial statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institute type</td>
</tr>
<tr>
<td>Auditing organization</td>
</tr>
<tr>
<td>Community of accountants</td>
</tr>
</tbody>
</table>

Reference: research findings

\[\bar{p}_1 = \frac{17}{23} = 0.73 \quad \bar{p}_2 = \frac{11}{23} = 0.27 \quad \bar{p} = \frac{17 + 11}{23 + 23} = 0.60\]
Considering table 3, the test statistic value is equal to:

\[ Z = \frac{(0.73 - 0.27)}{\sqrt{0.6(1 - 0.67) \left( \frac{1}{23} + \frac{1}{23} \right)}} = 3/2 \]

C- Critical value

The critical value in the error level of %5 is as follows;

\[ Z_{0.05} = 2/575 \]

The statistical hypothesis testing, particular hypothesis 2: Since the test statistic \((Z = 3/2)\) is in the rejection zone, thus, the research theory of \(H_0\) at the 5% error level is not confirmed and research hypothesis of \(H_1\) is confirmed. So, between the size of the audit firm and the discovery of important distortions in accounting estimates, there was no significant relationship.

A - Particular hypothesis No (3)

In this hypothesis, the hypothesis of distortions found in the application of the rules assumed as the criteria of success and that \(H_0\) represents that between the size of the audit firm and the discovery of significant distortions in the application of law, there is no significant relationship. And \(H_1\) states that between the auditing firm size and important distortions detection in applying laws, there is significant relationship. The following two-dimensioned assumption has been developed for the above hypothesis.

\[ \begin{align*}
H_0 : P_1 & \leq P_2 \\
H_1 : P_1 & > P_2
\end{align*} \]

(B) The test statistic

To calculate the test statistic, the following tables consist of the information extracted from the sample:

<table>
<thead>
<tr>
<th>Institute type</th>
<th>The number of tax distortions discovered</th>
<th>The number of tax distortions not discovered</th>
<th>Sum of present tax distortions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditing organization</td>
<td>18</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>Community of accountants</td>
<td>13</td>
<td>18</td>
<td>31</td>
</tr>
</tbody>
</table>

Considering table 4, the test statistic is equal to:

\[ Z = \frac{(0.78 - 0.42)}{\sqrt{0.57(1 - 0.57) \left( \frac{1}{23} + \frac{1}{31} \right)}} = 2.748 \]

Critical value of the test in 5% error level is equal to:

\[ Z_{0.05} = 2/575 \]

The statistical hypothesis testing, particular hypothesis 3; since the test statistic \((Z = 2.748)\) is rejected at the 5% error level to confirm the hypothesis of \(H_1\), \(H_1\) research hypothesis is not confirmed. So, between the size of the audit firm and the discovery of important distortions in the application of the laws and regulations, there was no significant relationship.

Particular hypothesis (4)

In this research hypothesis the success criteria are based on distortions found in the application of accounting practices and accounting procedures and the researcher states \(H_0\) as follows that between the size of the audit firm and the discovery of significant distortions in the application of accounting practices and procedures, there is no significant relationship. In \(H_1\) states that between the size of the audit firm and the discovery of important distortions in the application of accounting practices and accounting procedures there was significant relationship. The following assumption is formulated:

\[ \begin{align*}
H_0 : P_1 & \leq P_2 \\
H_1 : P_1 & > P_2
\end{align*} \]
The test statistic:
The test statistic used to compute the test statistic at the following table, the table consists of the data extracted from the sample:

Table 5: Comparison of distorted accounting practices were found to the distort in accounting practices in the financial statements

<table>
<thead>
<tr>
<th>Institute type</th>
<th>The number of tax distortions discovered</th>
<th>The number of tax distortions not discovered</th>
<th>Sum of present tax distortions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditing organization</td>
<td>48</td>
<td>15</td>
<td>63</td>
</tr>
<tr>
<td>Community of accountants</td>
<td>60</td>
<td>58</td>
<td>113</td>
</tr>
</tbody>
</table>

Considering table 5, the statistic of the hypothesis test is equal to:

\[ Z = \frac{\bar{P}_1 - \bar{P}_2}{\sqrt{\frac{1}{63} + \frac{1}{118} - 0.54(1-0.54)}} \]

Critical value of the test in 5% error level is equal to: \( Z_{0.05} = 2/575 \)

The statistical hypothesis testing, particular hypothesis (4); since the test statistic \( Z = 3.7 \), so the hypothesis is rejected at the five percent error level and H 0 is not confirmed. So, between the size of the audit firm and the discovery of important distortions in applying accounting principles and procedures, there is a significant relationship.

Particular hypothesis (5)

In this hypothesis, success criteria, is the proportion of the other discovered important distortions. H0 indicates that between the size of the audit firm and the discovery of significant distortions, there is no significant relationship. And H1 shows that between the size of the audit firm and other distortions important discovery there was significant relationship. The following assumption has been developed based on the following definitions:

\[ \left\{ \begin{array}{l}
H_0 : P_1 \leq P_2 \\
H_1 : P_1 > P_2 
\end{array} \right. \]

To calculate the test statistic of the following table, the table consists of the data extracted from the sample:

Table 6: Comparison of discovered significant distortions with the other important accounting distortions in the financial statements

<table>
<thead>
<tr>
<th>Institute type</th>
<th>The number of tax distortions discovered</th>
<th>The number of tax distortions not discovered</th>
<th>Sum of present tax distortions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditing organization</td>
<td>30</td>
<td>9</td>
<td>39</td>
</tr>
<tr>
<td>Community of accountants</td>
<td>25</td>
<td>31</td>
<td>56</td>
</tr>
</tbody>
</table>

Considering table 6, hypothesis test statistic is equal to:

\[ Z = \frac{\bar{P}_1 - \bar{P}_2}{\sqrt{\frac{1}{39} + \frac{1}{56} - 0.58(1-0.58)}} = 3 / 2 \]

Critical value of the test in 5% error level is equal to: \( Z_{0.05} = 2/575 \)

The statistical hypothesis testing, particular hypothesis (5): Since the test statistic \( Z = 3/2 \) is in the rejection area. The research hypothesis H0 is not confirmed at error level of 5% and the research hypothesis H1 is confirmed so: between the size of the audit firm and the discovery of significant distortions, there is a meaningful relationship.
Statistical hypothesis testing of comparison of the success rate, the general hypothesis

In the general hypothesis of this study, \( H_0 \) indicates that there is no significant relationship between the size of the audit firm and audit quality and \( H_1 \) shows that there is a significant relationship between the size of the audit firm and audit quality. The following two dimensioned assumption is developed as follows;

\[
\begin{align*}
H_0 & : P_1 \leq P_2 \\
H_1 & : P_1 > P_2
\end{align*}
\]

The test statistic; is based on the aggregation of tables with sample data, we formed the following table:

<table>
<thead>
<tr>
<th>Institute type</th>
<th>The number of tax distortions discovered</th>
<th>The number of tax distortions not discovered</th>
<th>Sum of present tax distortions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditing organization</td>
<td>136</td>
<td>57</td>
<td>193</td>
</tr>
<tr>
<td>Community of accountants</td>
<td>125</td>
<td>161</td>
<td>286</td>
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<tr>
<td>Reference: research findings</td>
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\[
\frac{p_1}{n_1} = \frac{136}{193} = 0.7, \quad \frac{p_2}{n_2} = \frac{125}{286} = 0.44, \quad \frac{p_3}{n_3} = \frac{136 + 125}{193 + 286} = 0.54
\]

The whole of distortion means that they contain important tax distortions, significant distortions in accounting estimates, significant distortions in the application of rules, practices and procedures and other distortions in the application of important distortions. According to the table above hypothesis test statistic is:

\[
Z = \sqrt{\frac{(0.7 - 0.44)}{0.54(1 - 0.54)}} = 5 / 7
\]

The statistical hypothesis test of the general hypothesis; since the test statistic \( Z = 5.7 \) is in the rejection area of the theory research hypothesis of \( H_0 \) at \( \alpha = 0.05 \) error level is not confirmed and the research hypothesis \( H_1 \) is confirmed so; between the auditing firm size and audit quality, there was significant relationship.

Conclusion

Conclusions and hypotheses of this study indicate that an auditing firm size and audit quality are related. According to the model of this research and its results it could be argued that large auditing institutions compared with other non-large audit firms at error level of 5% had better quality or large audit firms in the discovery of significant distortions in the financial statements have been successful and have been able to report significant distortions.

Suggestions

The following suggestions are offered based on research findings.

1. Creating the laws and regulations as mentioned in the second chapter of this thesis. Research in other countries shows that a necessary condition to improve the quality of auditing, is legal protections needed in this area. Research shows that if there is no legal protection, the improvement in the quality of audit services does not exceed from the theoretical discussions. Therefore, it is necessary that the associations and organizations which undertake the task of developing standards and procedures provide developing performance measures necessary in the theoretical framework of the audit. Theoretical framework compilation, provide the necessary fields to negotiate with the legal authority to enact laws to necessary support for the auditors. Since the Society of Certified Accountants is the official custodian and have the law supports, is essential for the formation of a committee, to develop theoretical foundations of the field to pass laws protecting provide the quality of audits and negotiations with regulatory authorities. On the other hand, in law or criminal law of Iran there are not clear standards for the protection of the rights of auditors or obligations auditors to comply with labor standards. However, in recent years through the establishment of Iranian Association of Certified Public Accountants restrictive measures in this regard has been conducted, But this requirement is not sufficient protection against the pressures to auditors by the contractors to provide a reconciliation of objectivity. And, on the other hand, in civil and criminal laws of the country it cannot be seen anticipation of any penalty against the offense of improper professional auditors. Thus, some claim that the environment of the audit, the auditor’s legal liability does not exist. The proposed results show that binding rules developed by the professional associations.
2. Merging smaller firms to form larger audit firms

One of the main variables affecting the quality of the audit is the audit firm size. The results proved that the larger audit firms have stronger incentives to maintain their reputation by issuing reports which are true, because any failure tends to undermine the market for audit services. Moreover, as the auditors for auditing larger employers have greater financial gain coefficient, loss of profits are much higher for larger firms than smaller institutions. Thus, larger firms have more incentives to export fair reports. Legislation by which, combined together the smaller audit firms and form larger institutions, will follow the quality of audit. Fewer but larger audit firms would be less affected by the pressure of the auditors for failing to report the important distortions.

3. Improving auditors' accountability, certified accountants, as professionals, have a moral responsibility in society. Therefore, they should be aware of responsibilities for in the audit and the audit contractors. Based on the findings, auditors may respond in different ways to know the quality of audit services: First, if they do not comply with the requirements of the profession, face penalties in the profession, including dismissal. Second, in the agreement between the auditor and the client explicitly stated that third parties have the right to legal remedies in case of auditor negligence; if auditors in performing the audit and reporting of discovered significant distortions negligence shall be directly responsible to compensate for the losses sustained.

REFERENCES


