Investigating Problems and Obstacles of the Risk-Based Auditing in Iran and Prioritizing them

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ABSTRACT

In this study, we investigate the problems and obstacles of implementing the risk-based auditing in Iran. We set four hypotheses and used questionnaire containing 45 questions to collect the required data. The questionnaires were distributed between Iranian certified public accountants who were partners or directors of audit firms and audit organizations member of Iranian certified public accountant institute.

To determine the validity of the research questionnaire limited number of questionnaires distributed between small sample of respondents and their views taken into account. The Cronbach’s alpha test is used to measure reliability of the questionnaire.

The results of this study indicated that, lack of the theoretical foundations and regulations of risk-based auditing in Iran, structure and function of auditors and audit firms and factors related to the clients are the obstacles and limitations on implementation of risk-based auditing in Iran.

Then the most important factors prioritized using fuzzy hierarchy analysis. For this reason, a questionnaire was developed with 16 factors from approved hypotheses. Results revealed that related factors with the auditors and unfamiliarity of auditors with IT and lack of educational resources were the most important obstacles and limitations on implementation of the risk-based auditing in Iran.

Keywords:
limitations on implementation of risk-based auditing, auditors, employers, rules and regulations.
1. Introduction

The subject of risk-based auditing was followed for the first time in statement No.47 of financial auditing standard board of IACPA called audit risk and its importance in international audit (statement number 25, auditing risk) and IACPA (standard No. 55, checking the structure of internal controls of financial statements).

The main reason that most of the big audit firms are currently looking for implementation risk-based auditing is the close relationship between risk methodology and statistical sampling techniques. In other words, they want to make sure about the adequacy of the extracted samples due to their low percentage in comparison of statistical classic methods. So, the auditors should prepare enough evidence for professional opinion so that their audit reports become reliable. Audit researchers made audit models for providing the reliability until the auditing process become reliable.

During the audit time when a new model is introduced, if it is was efficient and effective, quickly is going to be replaced with the previous model.

The system-based audit model introduced in 1940 and the auditors use it until now. After the universal economic growth in nineties and after auditing has changed rapidly and fundamentally in fact quantitative growth and complexity of activities related to the business, increased defensive ability of audit reports, increasing public trust about audit reports and client challenges, competition and alternations (generally decrease time and costs) are the major reasons of changing in audit process and use of technology in audit risk management.

Today we can see the fact that the auditors have gone beyond their initial aims (verifying the financial statements) new auditing continue to develop by presenting the business risk in their audit approach. The new approach is based on this view that understanding a wide spectrum of clients' trade risks, puts the auditors in better position in auditing process.

Followers of this view believe that lots of uncontrolled risks effect on the financial statements so with a comprehensive understanding of the entity's risks, the auditors have a better situation for identify the size and importance and relations of these risks with auditing profession. (Lee et al. 2008).

The effective risk-based auditing program due to the organization risks observation, overcome all the limitations mentioned above and allows the auditor to make the audit more targeted and efficient, also this audit program through relation between organization risks with the organization's business goals will make risk reduction plans more accurate, faster and more clear; (Risk Management Magazine, 2015).

Many frauds detection factor is coordinate with the auditing methods used by the auditors. Using an efficient and effective audit methods such as risk-based auditing could be a big step in detecting frauds in an independent audit, (Naderian and Safar, 2001). (Ghorbani 2014) states that auditors in Iran experimentally and with a practical view have been aware of the importance of recognizing and classifying audit risks and practically they have considered audit risks in their own planning.

Currently, due to the expansion of economic activities and the complexity of the business environments, the expansion of ownership of shares of corporate entities among the public, the importance of users' rights to the financial statements, and also lawsuit against auditors, auditing has found more scientific and technical approaches.

However, implementation of risk-based auditing in Iran has been with difficulties.

In this regard by setting principles of risk-based auditing through committees of professional people in the auditing field and testing the implementation of risk-based auditing in several auditing environments, we can do something about it. This can lead to a greater understanding of the model and provides the means of implementing it.

Therefore, this research seeks to answer the question of what are the obstacles or limitations for implementation risk-based auditing in Iran, and why implementation of risk-based auditing in Iran has not been paid attention by auditors, and this method of auditing in Iran has not fully exercised.

2. Literature Review

Amahalu et al. (2017), in a study entitle the risk-based audit effect on internal quality control of selected deposited banks in Nigeria stated that the purpose of this study was to investigate the effect of risk-based auditing on internal quality control of selected deposited banks in Nigeria. The method of sampling in this research was random.

The statistical method used in this study is the Paired Comparison test also to determine the validity.
of the questionnaire used from Cronbach's Alpha and SPSS 20 software used to analyze the data.

The data collected using a questionnaire as a research tool. Early findings showed that risk-based auditing had a significant statistical effect on the quality of internal control of banks at a 95% confidence level.

Based on the findings, the study recommends that internal audits based on risk-based audits be approved through the adoption of a better risk assessment to improve the quality of internal control in Nigerian commercial banks.

Naimar et al. (2015) explores the effect of risk-based auditing approach on the implementation of internal control systems. The results of this study showed that the implementation of this system should be taken into account both internal auditors and shareholders as the owners of the companies. Accordingly, internal auditors should be in implementation of risk-based auditing and financially backed by shareholders, and mutually the shareholders' expectations about receiving reports from the risk-taking sections of the portfolio made by internal auditors.

Messier Jr et al. (2014), in a research entitled "Training approach in risk-based auditing" states that the role of practical training in risk-based audit learning is very necessary for students, and based on this, a number of students implementing the risk-based auditing on the basis of theoretical training in sample companies. The results showed that the role of training in implementing risk-based audits is very influential.

In a research study, Ayagre (2014) examined the implementation of risk-based audits in Ghana and identified factors influencing the adoption or non-acceptance of internal risk-based audits in Ghana companies. The results showed that at the 5% error rate, internal risk-based auditing accepted in the country, and its main reason was to help these companies identify the areas of high internal risks.

Salehi Mahdi. (2011). "A study of risk-based auditing barriers Some Iranian. The aim of this study is to find out the main barriers experienced due to risk-based auditing in Iran. The results show firstly the individual competency and ability in using statistical methods; secondly, the professional and legislation references effort in selecting risk-based auditing standards; thirdly, the timely financial information prepared by accountants; and finally, the auditors training via risk-based auditing are the main barriers to the members of Iranian Certified Public Accountants to implementing risk-based auditing in Iran.

Amiri et al. (2018) in a research entitled "Investigating the relationship between the audit committee activities and the quality of the internal control system in companies admitted to the Tehran Stock Exchange" states that there is a significant relationship between the size of the audit committee and the type of audit firm and internal control quality. Also, the number of audit committee members (general weakness) has a significant relationship with internal control quality. Finally, the type of audit firm adjusts the relationship between activities of the audit committee (the number of audit committee members) and the quality of internal control (weakness at the general level and weakness at the level of income).

According to the results obtained from the hypothesis test, it can conclude that the size of the audit committee and the type of audit firm is effective on the quality of internal control, but considering the number of audit committee members of this work on the internal control criteria and its effective indicators has not been.

Akrami Moghadam (2016) explains in his research that risk-based auditing not only stabilizes the value-adding role in auditing for a customer's product but also makes audit work more profitable. Absence of sufficient evidence and limitations in audit activity, lack of planning in the audit process, lack of internal control system in companies, size of the company and its type of operation, limitation in the implementation of substantive tests with audit risk are affecting factors on risk-based audit. Since auditors are confronted with limitations in their operations, they can’t achieve an ideal outcome and are not able to provide reliable reports.

Shokry et al. (2014) in their research argue companies that follow the risk management process are less risky in auditing, and their review is likely to be less costly. Auditors should monitor the whole organization and its environment in order to understand the nature of the audit challenges that they will face. An internal audit is a necessary mechanism to prevent fraud and errors, and to ensure compliance with policies and procedures, and increase efficiency and effectiveness. Also, IT requires specific considerations in auditing, especially risk-based audits. Acquiring an understanding in the full sense of the role
of IT for financial purposes gives the auditor an opportunity to an effective understand how information technology influences on inherent risk and control.

Ghorbani et al. (2014), in a research entitled “Reviewing the failures of a system-based auditing model and its replacement possibility with a risk-based audit model in Iran’’ states that, a risk-based audit model has more efficiency and effectiveness than a system-based audit model and based on these the audit managers can provide more reliable audit reports.

Molainejad et al. (2014) identify and prioritize the barriers and limitations of implementing a risk-based audit project using the fuzzy hierarchy method. The results of this study indicate that most of the obstacles to implementing audit based on Risks are in the early stages, and this suggests that the life of the risk-based audit in Iran is not long, and its completion and implementation requires more time and training.

Pourali et al. (2012) in a research entitled “Risk-Based Auditing, A New Approach” states that risk-based auditing is a realistic example of the conditions for gaining mutual benefit from both the auditor and the client. Also, that public opinion and financial statements users believe that this audit methodology is more in the interests of the auditors, because it only serves to reduce audit costs and create accountability for auditors and does not contribute to increasing the ability to detect diversions.

Bagherpour et al. (2012) in a research paper entitled “An Empirical Model for implementing Risk-Based Internal Audits in Iran” stated that their main objective was to provide a comprehensive and practical model for implementing risk-based auditing in Iranian companies and organizations. The model is based on the theoretical foundations presented in the scientific sources and related research, and the professional experience of the authors and considering the specific circumstances and conditions of Iranian companies. The model has implemented in one of the major organizations in Iran, which adds to its value and its implementation ability.

Hajiha (2010) conducted a study to differentiate between the perception of senior auditors in both public and private sectors from auditing risk assessment in Iran's auditing environment. His research results indicated a significant difference between the perception of public and private senior auditors of the influencing factors in assessment of control risk and detection risk. Also, there was no significant difference between these two groups in terms of understanding the influencing factors on audit risk and inherent risk.

Hajiha (2010) measured the relationship between inherent risk and control in risk-based audits. The results of the research showed that there is no significant relationship between inherent risk and control. A separate assessment of risks is preferable to an integrated assessment in Iran's auditing environment.

3. Methodology
3.1. Research hypotheses
1) Non-comprehensiveness guidelines and theoretical basis of risk-based auditing are obstacles to the implementation of risk-based audits.
2) The inadequacy of the rules and regulations is one of the obstacles to the implementation of risk-based auditing.
3) The structure and performance of auditors and audit firms are obstacles to the implementation of risk-based auditing.
4) Factors related to the clients are obstacles to the implementation of risk-based auditing.
5) The prospects and future conditions represent the implementation of future risk-based auditing.

3.2. Population and sampling selection
The statistical population of this research is the certified public accountants working in the audit firms and auditing organizations. The number of members of the community at the time of the research is 1,527 persons. Sampling method is simple random method. Accordingly, 227 persons are selected using Cochran’s method. Four hundred fifty questionnaires distributed among the firms. Finally, 236 questionnaires used as a sample of the statistical population.

\[
n = \frac{Nz^2pq}{Nd^2 + z^2pq}
\]

N: Population size
Z: 1.96
p=q=0.5
d: The allowable value of the errors that can be between 5% and 10%, which is considered to be 6% in this research.

3.3. Validity and reliability of the questionnaire

The questions of this questionnaire consist of 5-scaled Likert type, which 1 corresponds to totally disagree, 2 corresponds to disagree, 3 corresponds to indifferent, 4 corresponds to agree and 5 corresponds to totally agree. The questionnaire designed after studying related texts and articles and interview the professional persons related to the risk-based auditing. Then, to determine the validity of the research questionnaire, few questionnaires distributed to the small sample of the experts and their comments were taken into account in amending the questionnaire questions. Cronbach's alpha test was conducted to measure the reliability of the questionnaire. Due to the high value of 91% of Cronbach's alpha indicating a high reliability of the questionnaire.

Table 1 shows the result as follows:

<table>
<thead>
<tr>
<th>Number of distributed questionnaire</th>
<th>Number of questions in the questionnaire</th>
<th>Cronbach's alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>236</td>
<td>45</td>
<td>0.913</td>
</tr>
</tbody>
</table>

Descriptive statistics

Information about independent auditors reflected in terms of field of study, work experience and educational degrees in table 2.

Inferential statistics

To the research hypotheses statistical method of comparing the means of a population is used, the results of which are as follows.

Table 2 - Descriptive statistics

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency</th>
<th>Frequency (%)</th>
<th>Cumulative Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor</td>
<td>65</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>Master</td>
<td>152</td>
<td>64%</td>
<td>91%</td>
</tr>
<tr>
<td>P.H.D</td>
<td>19</td>
<td>9%</td>
<td>100%</td>
</tr>
<tr>
<td>work experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 6 to 10 Years</td>
<td>48</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Between 11 and 15 Years</td>
<td>42</td>
<td>18%</td>
<td>38%</td>
</tr>
<tr>
<td>Over 15 years</td>
<td>146</td>
<td>62%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3 - The results of the first hypothesis test

<table>
<thead>
<tr>
<th>Description</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Deviation error from criterion</th>
<th>95% confidence interval in mean difference</th>
<th>t-statistic</th>
<th>Degree of freedom</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>hypothesis 1</td>
<td>3.5339</td>
<td>0.63699</td>
<td>0.04146</td>
<td>0.4522</td>
<td>6.6156</td>
<td>12.876</td>
<td>235</td>
</tr>
<tr>
<td>hypothesis 2</td>
<td>3.4004</td>
<td>0.61452</td>
<td>0.04000</td>
<td>0.3216</td>
<td>0.4792</td>
<td>10.010</td>
<td>235</td>
</tr>
<tr>
<td>hypothesis 3</td>
<td>3.4665</td>
<td>0.53220</td>
<td>0.03464</td>
<td>0.3983</td>
<td>0.5348</td>
<td>13.467</td>
<td>235</td>
</tr>
<tr>
<td>hypothesis 4</td>
<td>3.5869</td>
<td>0.56745</td>
<td>0.3694</td>
<td>0.5141</td>
<td>0.6596</td>
<td>15.888</td>
<td>235</td>
</tr>
<tr>
<td>hypothesis 5</td>
<td>3.6025</td>
<td>0.53839</td>
<td>0.03505</td>
<td>0.5335</td>
<td>0.6716</td>
<td>17.193</td>
<td>235</td>
</tr>
</tbody>
</table>
Testing hypothesis 1
In hypothesis 1 of this study, the non-comprehensiveness of guidelines and theoretical fundamentals in risk-based audit are studied and these include four questions. The lack of an audit standard for risk-based audits, the lack of sufficient training resources, lack of teaching risk-based auditing in universities, and lack of integrity of guidelines, which the results of testing this hypothesis are as follows:

In table, since the significance level is less than 0.05, then hypothesis 1 is verified. This means that the incompleteness of the guidelines and the theoretical basis of risk-based audit and the relevant rules and regulations are the obstacles to the implementation of risk-based audits.

Testing hypothesis 2
In hypothesis 2 the inadequacy of relevant rules and regulations is tested by 6 questions in the questionnaire: The lack of supervision and lack of support from the Association of certified public accountants, shortages of supervisor and senior supervisor familiar with risk-based audits due to the rules are the upgrading problems, and the results of testing this hypothesis are as follows:

According to the above table, since the significance level is less than 0.05, then hypothesis 1 is verified. This means that the incompleteness of the risk-based audit based on the guidelines and the relevant rules and regulations is a complete obstacle to the implementation of risk-based audits.

Testing Hypothesis 3
In the third hypothesis, auditors and audit firms is tested by 20 questions in the questionnaire:

Auditors did not attempt to identify the internal control structure, lack of transfer of training to lower grades by auditors. The absence or lack of using risk-based audit software, the cost of early-stage risk-based audits, the smallness of the client's environment, the lack of expertise of auditors on software systems, the inappropriateness of audit firms with international firms, lack of expertise of auditors in identifying areas of client activity, The continuity of the relationship between the auditor and the client is tested, the results of which are as follows:

According to Table 5, since the significance level is less than 0.05, then the second hypothesis is also confirmed This means that auditors and audit firms are effective factors in not implementing risk-based audits.

Testing hypothesis 4
In hypothesis 4 of this research, the factors related to the client investigated by 10 questions in the questionnaire: These factors include: the high risk inherent to the clients due to the undeveloped and immature economic environment, the lack of mechanisms for corporate governance in companies, the lack of audit committees and internal audit unit effectively in the company, lack of a risk management committee in the client environment, the inability to rely on the internal controls of most of the clients, the absence of a board member with financial expertise with sufficient corporate incentive in companies, the indifference of financial reporting stakeholders regarding the use of risk-based auditing or auditing with common approaches, excessive variety information systems (including hardware and software) on the client's environment, the results of which are as follows:

According to the above table, since the significance level is less than 0.05, then the third hypothesis is also confirmed this means that the agents related to the client are completely obstacles in implementing risk-based audits.

Testing hypothesis 5
In hypothesis 5, the future perspective of risk-based audit is investigated by 5 questions in the questionnaire. These include implementing an Risk-Based Audit System in the future in an affordable and necessary way, and use of risk-based auditing systems will increase the efficiency and effectiveness in future, as also auditors is seeking for financial resources and necessary knowledge to implementing risk-based audits in the future. The statistical results of this hypothesis test are as follows:

According to table 7, since the significance level is greater than 0.05, the fourth hypothesis is also confirmed. This means that auditors believe in the full implementation of risk-based audits in the future.

Prioritization:
The prioritization of implementing obstacles is complex and uncertain because the major decision makers of the business organizations regard the
assessment of implementation obstacles as somewhat simpler and more practical, there is usually a kind of ambiguity and uncertainty in such assessments. In these cases, due to the complexity of the subject and the lack of accurate information, it is necessary to consider the judgment of individuals. The theory of fuzzy is a powerful tool that can display results in an appropriate and natural way. In the fuzzy hierarchical method, uncertainty associated with individual judgment in making decision does not play a role, but combining fuzzy theories with fuzzy hierarchy makes it possible to compensate for these fuzzy hierarchical limitations. The first time Tysus and Kahraman in 2006 used from the fuzzy hierarchy for evaluation.

For of the advantages of the above mentioned method and the hierarchical structure of it, the fuzzy hierarchy approach is used to prioritize the obstacles of implementing the risk-based auditing. A questionnaire is used to collect expert opinions in this regard.

Statistical population of the research and sampling method in the priority section:
The statistical population of this research is the certified public accountants working in the audit firms. The number of members of the community at the time of the research is about 1,527. The sampling method is simple random sampling. Accordingly, a total of 190 people were selected by the Cochran Method as a sample and 360 questionnaires were distributed among the members of the community. Finally, 190 questionnaires examined as a sample of the statistical population.

Reliability and credit of the questionnaire
To determine the reliability of the questionnaire using the SPSS, Cronbach’s alpha were calculated, which is a numerical value of 0.94 that is in practice an acceptable result. In accessing the validity of the questionnaire, after designing the questions was discussed with several professors and experienced experts in accounting and financial management and after that desired options were chose, the information is as follows.

<table>
<thead>
<tr>
<th>Number of distributed questionnaires</th>
<th>Number of questions in the questionnaire</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>190</td>
<td>123</td>
<td>0.942</td>
</tr>
</tbody>
</table>

Framework proposed
This study based on distributed questionnaires to the experts and analyzing their opinions and use of previous studies. The following are considered as obstacles to implementing risk-based auditing in Iran.

Fuzzy Hierarchy Analysis
Prioritizing performance barriers is complex and uncertain, since the major decision makers of the business units consider the assessment of implementation barriers in form of simpler and more practical terms, there is usually a kind of ambiguity and uncertainty in such an assessment. In such cases, due to the complexity of the subject and the absence of accurate information, it is necessary to take into account the judgments and ideas of individuals, Fuzzy theory systems is a powerful tool that can represent knowledge in a proper and natural way. In the AHP method, uncertainty which is related to individual judgment does not play a role in choosing and decision making, but the combination of fuzzy theories with the AHP is able to compensate for this AHP shortcoming. The first time in 2006 Tysus and Kahraman used Fuzzy AHP to evaluate.

Because of the advantages of this mentioned method on the one hand and the hierarchical structure of the introduced framework in this paper on the other, Fuzzy AHP has been used in this research for prioritizing the implementation barriers of management accounting. Therefore To collect expert opinions, the questionnaire has been used. The questionnaire was distributed among the directors and financial managers of the companies which were accepted in the Tehran Stock Exchange, and at last by examining the compatibility rate of the experts’ replies, 18 people refused to response the questions, and the responses of 190 managers were accepted to prioritize the management accounting obstacles.
lack of familiarity of audit colleagues with information technology areas and the absence of a comprehensive plan to quantify the results of internal control assessments based on certain indicators.

lack of financial resources in audit institutions which allows to develop their qualitative and quantitative structure for risk-based auditing.

remoteness of Iran's audit profession from universal progresses and developments.

absence or non-utilizing of audit software.

lack of teaching audit at academic level.

Misalignment of the capacity of the audit institutions in Iran with international audit institutions.

Lack of sufficient experience and resource utilization.

absence of supporting mechanisms and lack of establishing the substructure from the public accountants community.

Absence of professional requirements from the public accountants community.

Lack of sufficient educational resources as well as educational weaknesses of some of the employed auditors.

lack of publication of articles on the justification of the proper application of the risk-based audit approach.

Failure to present the results of the meetings of the Audit Committee in the establishment of the internal control system in writing by drawing the chart, the workflow, the description of the organizational unit's tasks and the software regular communication.

lack of an effective risk-based internal audit unit in the employer's firm.

lack of an audit committee effectively in the employer's firm.

indifference of financial reporting beneficiaries about the use of a risk-based audit approach or auditing in routine procedures.

absence or inability to rely on the codified and accessible internal control.

Figure 1: Barriers to the implementation of risk-based audits
Table 5 - The results of the Fuzzy’s Analysis

<table>
<thead>
<tr>
<th>The first level factor</th>
<th>Weights First Level Factors</th>
<th>Sub-factor number of second level</th>
<th>Weights of sub- factors of second level</th>
<th>Final weight factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-universal instructions and principles</td>
<td>3.5339</td>
<td>1</td>
<td>0.078138526</td>
<td>0.2761337</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>0.07565949</td>
<td>0.2673731</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>0.063855389</td>
<td>0.2290429</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>0.059528342</td>
<td>0.2135222</td>
</tr>
<tr>
<td>Related factors with the employer</td>
<td>3.5869</td>
<td>5</td>
<td>0.055893924</td>
<td>0.2004859</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>0.055436393</td>
<td>0.1988448</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7</td>
<td>0.050386091</td>
<td>0.1807299</td>
</tr>
<tr>
<td>The structure and function of auditors and audit firms</td>
<td>3.4665</td>
<td>8</td>
<td>0.091888667</td>
<td>0.3185321</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>0.065441456</td>
<td>0.2268528</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
<td>0.057506394</td>
<td>0.1993459</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>0.055892903</td>
<td>0.1937527</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>0.054896898</td>
<td>0.1903001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>0.054162811</td>
<td>0.1877554</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14</td>
<td>0.049871132</td>
<td>0.1728783</td>
</tr>
<tr>
<td>Incomplete rules and regulations</td>
<td>3.4004</td>
<td>15</td>
<td>0.073570322</td>
<td>0.2501685</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>0.057871262</td>
<td>0.1967854</td>
</tr>
</tbody>
</table>

As outlined in the table above, the most important factor is the lack of familiarity of audit colleagues with information technology, and the subsequent factors are mainly due to the lack of training and the lack of educational resources on risk-based audits. Based on the results, the proposed model for risk-based audit is completely described in Figure 12 in Iran.

Figure 6 - The proposed model for conducting risk-based audits is fully implemented in Iran

<table>
<thead>
<tr>
<th>Row</th>
<th>Description</th>
<th>The proposed model of this research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The lack of familiarity of audit colleagues with information technology areas and the lack of a comprehensive plan to quantify the results of the assessment of internal controls based on certain indicators.</td>
<td>1-1) Conducting training classes by mandatory audit firms for all members of the public accountants' community from the L_ICDL level of information technology fields 1-2) Establishing a committee by the community of accountants as responsible for implementing quality audits to address the shortcomings of the 150 risk publication and providing a domestic control questionnaire with percentages for each internal control with respect to their importance coefficients.</td>
</tr>
<tr>
<td>2</td>
<td>Lack of sufficient educational resources as well as educational weaknesses of some of the employed auditors</td>
<td>Providing a complete guide to the implementation of the audit risk process including checklists, forms, along with numerical examples based on the latest audit standards, by the reference authority for the compilation of mandatory annual curricula and compulsory education curricula for all levels of audit, in accordance with relevant audit standards</td>
</tr>
<tr>
<td>3</td>
<td>The absence of supportive mechanisms and lack of infrastructure from the public accountants' community</td>
<td>Creating a supportive mechanism including significant scoring in quality control review of the work of the audit, the designation of sample audit firms in the implementation of auditing management, the support of the publication of related books and related articles, and the provision of software for users, and conducting ongoing professional seminars in relation to audit-based Breisk also raised the quality control privileges for cases involving risk-based audits.</td>
</tr>
<tr>
<td>4</td>
<td>The lack of publication of articles on the justification of the proper application of the risk-based audit approach</td>
<td>Provide topics for risk-based audits from the community of formal accountants for undergraduate and postgraduate students leading to the presentation of applied papers in this regard.</td>
</tr>
<tr>
<td>5</td>
<td>The lack of financial resources in audit firms that allow them to develop a qualitative and quantitative structure for risk-based auditing</td>
<td>Integrating institutions to reduce fixed costs that provide funding for risk-based audits.</td>
</tr>
<tr>
<td>Row</td>
<td>Description</td>
<td>The proposed model of this research</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>6</td>
<td>Not presenting the results of meetings of the Audit Committee in the establishment of the internal control system in writing by plotting the chart, workflow, describing organizational tasks and systematic communication of software</td>
<td>The serious attention of the board of directors and audit committees regarding the implementation of components of internal controls including the discretionary control environment, control activities, information and communications, and monitoring in three levels of financial reporting, compliance with the law, regulations and cooperation between the internal audit company and independent auditors in order to control the control system Internal</td>
</tr>
<tr>
<td>7</td>
<td>Absence of professional requirements from the public accountants' community</td>
<td>The serious attention of the public accountants' community to the implementation of risk-based auditing when reviewing the quality control of the audit work of the audit firms and the rating of the audit firms if they do not use a scrutiny audit</td>
</tr>
<tr>
<td>8</td>
<td>The remoteness of Iran's audit profession from global audit developments</td>
<td>Translation of handbooks, articles, foreign professional and academic theses, inviting foreign researchers and institutions for professional training within and their companies at internal seminars and visiting foreign professional information sites.</td>
</tr>
<tr>
<td>9</td>
<td>The lack of an effective risk-based internal audit unit in the company's owner</td>
<td>-Risk-Based Internal Audit Implementation Based on the guidance issued by official authorities such as the Stock Exchange and the Iranian Internal Audit Society.</td>
</tr>
<tr>
<td>10</td>
<td>Absence of an audit committee effectively in the company of the owner</td>
<td>The supervision of institutions such as the Stock Exchange regarding the control of internal risk-based auditing by internal audit committees</td>
</tr>
<tr>
<td>11</td>
<td>Absence or non-use of risk-based audit software</td>
<td>Insert and audit software based on education, and make them available by official authorities such as the Iranian Public Accountants Association</td>
</tr>
<tr>
<td>12</td>
<td>The indifference of financial reporting stakeholders is to apply a risk-based audit approach or audit with common methods.</td>
<td>Training and informing financial reporting stakeholders based on the fact that audit risk management will greatly reduce the time and cost of auditing and increase the quality of work.</td>
</tr>
<tr>
<td>13</td>
<td>Lack of teaching risk-based accreditation at university level</td>
<td>An increase of 2 or 3 units in a higher education system with the prerequisites for auditing 1 and 2 for teaching a risk-based audit and teaching this lesson by experienced risk-based auditors.</td>
</tr>
<tr>
<td>14</td>
<td>Inability to rely on the built-in and accessible internal control structure</td>
<td>Demonstrate weaknesses in the internal control of the client by auditors and for professional bodies and users, including the securities and tax organization, and the tax authorities, companies that lack an internal control system.</td>
</tr>
<tr>
<td>15</td>
<td>Disproportionate size of audit institutions in Iranian compare of international audit institutions</td>
<td>The merger of audit firms to increase institutions and training capability and the possibility of investing in a risk-based audit</td>
</tr>
<tr>
<td>16</td>
<td>Lack of required experience and lack of training resources</td>
<td>Increasing applied training to raise the level of senior management experience, including supervisors and senior managers</td>
</tr>
</tbody>
</table>

5. Discussion and Conclusions

Based on the results obtained in this study, as well as considering the proposed factors, the most important factors in the first hypothesis are considered as follow: lack of comprehensiveness of the guidelines and theoretical basis of risk-based auditing, lack of adequate educational resources, as well as the educational weakness of some of the employed auditors. Therefore, it is suggested that there is a need to increase educational resources as well as the continuously and specialized training of auditors. These findings are similar to the findings of Williams Mozilla's (2014).

According to Salehi Mahdi. (2011) research the result show firstly the individual competency and ability in using statistical methods; secondly, the professional and legislation references effort in selecting risk-based auditing standards; thirdly, the timely financial information prepared by accountants; and finally, the auditors training via risk-based auditing are the main barriers to the members of Iranian Certified Public Accountants to implementing risk-based auditing in Iran.

The most important factor in the third hypothesis (the structure and performance of auditors and audit firms), the lack of familiarity of auditor colleagues with information technology and the lack of a comprehensive plan to quantify the results of the assessment of internal controls based on certain indexes. That shows the auditors do not have enough
familiarity with the audit software. Ghaviandam (2014) results show that the complex calculations used to calculate different levels of audit risk do not lead to a risk-based audit process performed by audit firms and different auditors. Typically, most audit firms are only do the first part this process that relates to the audit planning and they refuse to continue the supplementary parts of the instructions because of saving time. Therefore, it is natural that if an appropriate software provided to auditors they fully perform and store the required calculations, it will increase significantly both the speed and accuracy of determining the different levels of auditor's risk, (Ghaviandam; 2014). Accordingly, Beattie et al. (2002) divided the factors influencing audit risk in two main categories the risk of "auditor" and the risk of "audited firm".

By "auditor" they mean the inability to detect significant distortions, and also include, such factors as: professional knowledge of the auditor, professional judgment of the auditor, willingness of the auditor to the risk, the auditor's understanding of the audited firm, the auditor's relationship with the audited firm and etc., which may lead to the wrong opinion of the auditors.

"Audited firm" includes the impact of incorrect audit report that is given to the users of the financial statements by auditors, also, the size of the audited firm, the level of importance, the degree of reliance of financial statements users.

Indeed, the quantitative growth and complexity of business activities, increasing the ability to defend the auditing reports in the case of law suits, raising public confidence in auditing reports and the presence of customer challenges, competition and change (mainly reducing the time and cost of doing work) are the main reasons for changing audit technology and the use of audit risk management technology. We can see today that the auditors have exceeded their primary purpose that is, the approval of financial statements.

The new auditing continues to develop with the presentation of Client's Business Risk approach. The new approach is based on the idea that a wide range of business risks of their clients are related to auditors. Proponents of this approach believe that there are too many uncontrolled business risk effects on financial statements. Therefore, with a comprehensive understanding of the range of risks in the client's unit, auditors will be in a better position to identify the size and significance of these risks to the audit profession (Lee et al., 2008).

The most important factors in the fourth hypothesis (factors related to client), are the absence of audit committee that has been required by the client company. Since auditors are not continuously present at the audited firms, the existence of an effective audit committee can smooth the way for implementation of the risk-based auditing.

Accordingly (Asadi et al., 2014) states that auditors should make and develop written guidelines on the use of risk assessment tools and review these guidelines with the audit committee and the board of directors, the reliability and formalize the guidelines for the firms individually depending on the size, complexity, activities area, geographic diversity, and different technologies used. The firm can rely on industry standard or on its experiences in risk rating. Auditors should use guidelines for rating or assessing the main areas of risk and specifying the scope of privileges or evaluations (Asadi et al., 2014).

Accordingly, the results of various research studies show that in general, although audit committees have seen in the structure of some companies, the organizational structure and responsibilities of this committee appear to have effective results in strengthening the internal control system through promote the status of the internal audit unit. And will significantly reduce the problems and obstacles in implementing effective internal controls, and will make effective internal control of the priority of entities that more exposed to the risk and help effectively to business processes in adherence with the rules governing financial reporting and the operational activities of the business unit as well as the performance of independent auditors.

Given the importance and position of the audit committees, as well as the role of the internal control system and risk management in business entities, if these mechanisms are dim, the implementation of risk-based audits is naturally difficult and the auditor will have to use a different approach. (Shalile, 2009).

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