Audit-risk Relationship Model Optimization of the Risk Factors Systems Supported

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Abstract: Aiming at the existing auditing standards between the audit risk model of international auditing standards established apply difficult to adapt to the objective reality of domestic independent audit risk prevention and control application, combined with the independent auditing body by the special ethnic traditional culture and CPA certified environmental impact, using factor analysis method, comparative method, inductive and summary method, logic method and graphic method and so on, elaborated the audit risk model and its limitations, and summed up the impact of related audit risk type of audit risk factors, analyzes the important elements of risk index and variable relationship between active in the audit organization life running and the CPA executive auditing process, thus created the new audit risk relationship model to elements of comprehensive, the structure level to clear, index, diversification, and evaluated the application and optimization of the new audit risk model.

Introduction

The risk-based audit has led into China for many years, China has also established the audit risk standards with international standards. However, in recent years a huge fraud of Guangxia, Lam Tin myth and the case of Daqing have become the red electronic cases continued interrogating with torture to the accounting firms and certified public accountants (CPA), audit failure cases happened so frequently one after another that many domestic audit organizations and CPA were like treading on thin ice. This can not ignore the questionable dual cultural differences of the environment co-exist between China and Western in the audit environment while copying to lead into International Auditing and audit risk relational model which was issued by Assurance Standards Board (IAASB), this method will inevitably result in the application "acclimatized." For this reason, we should combine with the development of our country audit objective requirements and construction of the system called the "Chinese-style audit risk relationship model" with the support of the Risk factors systems.

Current Audit Risk Relationship Model and Its Limitations

The Audit risk relationship model

In 2003, IAASB amended the traditional Audit risk relationship model which was based on the inherent risk (hereinafter referred to as "audit model"), and implemented from the provisions on 15 December 2004. The new audit model is defined as follows:

Audit Risk = Financial Statements risks of material misstatement × Detection risk

Our Auditing Standards fully agreed with this model. On November 1, 2010 the Ministry of Finance issued and started to carry out the "Chinese Certified Public Accountants Auditing Standards (CSA)" (Finance and Accounting[2010] No. 21) from 2012, in which the No. 1101 - The overall objective of the CPA and the basic requirements for auditing Article 13 states: "The audit risk refers to the time when the financial statements exist material misstatement, the possibility of the CPA published the inappropriate audit opinions. Audit risk depends on the risk of material
misstatement and the detection risk." It indicates that China has formally led into and carried out the Internationally accepted audit model\(^1\). Although the risk of material misstatement is the possibility of the financial statements which are free of the material misstatement before the audit, because of its very important influence on the further implementation of the audit test procedures, it is the predictability tip to the audit detection risk. So, CPA focus on a reasonable assessment to identify risks of material misstatement of financial statements is a prerequisite to reduce the level of the detection risk\(^2\).

**Application Limitations of the Current audit Model**

**Ignore audit body caused by differences in value is not high**

Any country and region to develop specialized laws and policies must develop closely to combined with local cultural, political background, professional education and work environment, make sure that it can play its directly to standardize and guide function. International auditing standards which are the international common criteria were developed by the internationally recognized auditing international organizations and based on the audit management audit development authority background of Western countries. Western national culture is very different from Chinese, Our country almost copy and apply the international auditing standards, failed to appropriate the relevant provisions of the introduction of international auditing standards, based on the weak foundation to develop and implement this objective which is control of practical and progressively of fully integrated national independent audit of the main risk theory, the not deep awareness level, the lower ability to manage, risk prevention, but adopted a "leapfrog" audit risk management, audit risk is led directly into the relational model ignoring its own national conditions and auditing conditions which decided to review the situation of other important risk factors, particularly the CPA practicing ethics and audit reports, the audit organization using the model for risk assessment can not achieve the desired control effect. Over the years the cases of domestic audit failure causes the attitudes: Treasury is enough to prove it.

**The risk factors of audit procedures were excluded from the risk relationship model**

Independent audit is a procedural motion, but also the risk of latent and always accompanied by a process\(^6\). Such as the engagement letter signed audit time is too short will cause the problem that some programs can not perform the necessary tests and the risk can not achieve the desired effect of commission; audit report writing author specializing in literacy is poor, resulting in improper diction. Lack of the necessary emotional gripe, resulting in audit reports departing specifications leaving users of the report misleading. CPA breaches the professional ethics of accepting bribes and require the unit under review to help to settle down the staff, will result in the loss of impartiality audit evaluation; Audit report type selection mistakes, improper evaluation of words and the principal use the audit reports out of range, also will bury risk even severe risk. At present, China reflects the relationship between audit risk model guidelines, blindly emphasized that "audit risk depending on risk of material misstatement and detection risk", so the system level flatly rejected the risk factors in all aspects of the audit process, so that existing audit model design lack sound and systematic consideration of risk factors index system.

**Total Factor Audit Risk System of Adaptation Audit Model Optimization**

**Important risk factors affecting audit model optimization**

1. **Principal Contracts**

Independent audits must be according to their engagement letter which is signed with the clients to carry out the audit. If the firm is in the business negotiations, signing and fulfillment process, there is the possibility of causing damage and loss of the audit, which will form a "contract risk." Such as audit fees can not be charged full and on time, fails to submit the audit report and other circumstances. The contracts risks include two risks that are the Engagement Risk and the Contractual Risk.
2. Internal control of the audited entity

The soundness and implementation of the results to the Internal control of the audited entity will affect the quality of financial statements that is the major factor in whether a material misstatement exists. Before the implementation of CPA audit, the internal control and accounting for quality of the unit under review did not know the circumstance, so we can not conclude whether the trial level accounting data and the financial statements are the types of transactions, account balances, presentation (including disclosure, the same below), and other distortions phenomena and problems, but once is free of material misstatement, it may result in audit failures. Therefore, the auditee internal factors will affect the quality of financial statements, and thus form the audit risk of material misstatement \[2\].

Audit force

The most important measure of the INTOSAI scale is the CPA team, and the most important influence factors of development and growth of the INTOSAI is auditors. The higher CPA professional skills, technical training, practicing moral, cultural level, the smaller the probability of generating audit risk; on the contrary, the greater Probability of audit risk. Description audit size and strength with a negative correlation between audit risk, thus negating the view of the individual scholars is that "audit-scale positive correlation with Audit Risk" \[3\]. Be visible, the number of auditors and audit expertise, practicing ethical and cultural connotation of quality and other training, have become the decisive factor during the audit examination of detection risk and audit report risk which can produce, the amount and strength of production or not, as well as have become an important measure of the relationship between audit risk variable index.

TFP-based audit program audit risk architecture

The audit risk can be according to forms divided into inherent risk, control risk and detection risk. According to the sources of risk, it can be divided into exogenous risk-the risk of material misstatement and endogenous risk-detection risk, and according to the risk management it can be divided into controllable risks and uncontrollable risks \[4\]. However, consider about the reality of our country, it should be more emphasized in accordance with the distribution of risk factors to establish the link audit risk system. Firstly, the audit risk factors distributed in the audit process has always been, therefore audit risk should be dependent audit procedures as the standard, divided into risk audit preparation phase, the implementation phase of the audit risk and audit risk of end stage. Then, according to the nature and characteristics of various types of audit risk, audit risk (AR) can be divided into audit contract risk (CR), material misstatement risk (MR), Detection risk (DR), audit reporting risks (ARR) and other four categories, which Contract of risk and risk of material misstatement belong to the risk of audit preparation phase. The check risk belongs to the audit implementation phase risks; the audit report risk produced in the end stage of the audit, The audit report risk naturally belongs to the end of stage risk.

Audit risk has Conduction effect. Audit risk having conduction effect from the first then formed overall audit risk through a variety of functions and variables relationships. At the same time, many types of risk also constituted by a number of specific risks, it can be subdivided into a number of three risk assessment, such as the Contract risks include the engagement risk and the contractual risk, the detection risk should include the technical control risk and the performance of moral hazard risk, the audit reports risks include the risk of selecting the type of report, writing risk, risk and execution risk review, as shown in Figure 1.

Visible, compared with the existing system of audit risk factors more sound and perfect to maximize adapt audit risk management needs. But the audit risk are not free to zoom and artificial expansion \[4\], blindly regarding environmental risks (impact statements authenticity economic environment), legal risks (Report Inappropriate be prosecuted according to law), credit risk (issue a report on the subject of undue influence or note will be the industry itself), quality risk audit report (the report did not detect a material misstatement of reporting risk), risk of incorrect rejection relationship as audit risk measurement elements \[5\], is difficult to pass practice test.
Total Factor Model Perspective Audit Optimization and Application

Relationship between the various risk factors and their impact on audit risk

In the audit guidelines, the relationship between audit risk to the risk of material misstatement and detection risk has been very thorough presentation, this does not repeat. Needless to say, the relationship between audit risks, detection risk is the most concern core of an independent audit. In Audit work any risk factors are associated with linear to audit risk, audit contract risk is the same way. Therefore, audit contract risk should be used as a function of audit risk variable. However, it doesn’t exist the linear relationship about interdependence and constraints among the risk of material misstatement, detection risk and audit report risk. So, it should be a separate variable reflects about audit risk. The detection risk will directly transmit to the audit report and impact its type selection, evaluation and use of reaction direction. Therefore, the higher level of detection risk assessment, the stronger effect of controlling, the audit report risk will be correspondingly lower; On the contrary, the lower the detection risk valuation, the higher of the audit report risk. Visible, the risk of material misstatement, the detection risk and the report risk are positively correlated to the argument with audit risk, and the elements of the audit is to determine the risk of index variable multiplication factor.

Audit model based on risk factors that influence the optimization

The organization contract risks latent a direct interference of audit risk, so it is a constant; if the risk of material misstatement due to the controlling environment of the units under review, audit report risk is derived from a combination of dual independent audit body and the client. Audit body is more lax to the control of risk factors related to the audit report, we need to intensify the detection risk in order to ensure that it can reduce the audit risk; On the contrary, the audit body can select the right type of audit report and appointed effective manpower writing, prior to the submission conscientiously, perform their review and submit after the implementation of strict its use of follow-up visits, the inspection may appropriate to estimate the risk. Therefore, the audit report risk is an important argument of audit risk. Accordingly, the current audit model can be optimized for:

\[ AR = CR + MR \cdot DR \cdot ARR \]  

(1)

It should be emphasized, whether to the audit organization or CPA, each audit task is executed after the audit engagement letter is completed, but the organization contract risk does not mean gild the lily or unfounded. Audit risk is often performed for the organization risk or legal risk. For the firms, they are not worried about how much more can earn audit fees, but often can defend the hard-won audit fees or not, and can keep the survival of audit capital or not. Therefore, the determination of audit risk formula is not just for audit risk test individual using to CPA, not just to the audit firm to perform specific task applications, but standing the point of view of firms to conduct comprehensive study designed to evaluate and fully test the organizational risks. Urging the
audit organizations to establish risk awareness systematic, pay attention to the pre-trial and post-trial risk prevention and risk control, is an important value reflects to the full feature set of the concept in audit risk.

Optimization Design Model elements support the use of sound

1. Related indicators setting

First it stressed audit model can not simply understand as a mathematical formula. It is more important that putting forward the audit risk warning, it means that alerts of the audit should focus on identifying the main types and related audit risk factors, promote CPA firmly to establish the audit risk awareness and strengthen cultural enrichment, later is the assessment of risk characteristics, combined with audit importance and the principle of prudence measure horizontal to calculating audit risk. According to the unaudited statements related indicators provided by units under review, combined with the experience of actual fixed ratio setting a fixed percentage (government and non-profit organizations are now accrual is 0.5% to 2% of total revenue; accrual of enterprises can selected 0.5% -1% of total assets, it may also be 1% -2% of current assets or net assets, but also from 0.5% to 1% and 5% -10% of net revenues). When select multiple index calculation method according to a fixed rate were calculated after base value judgment, CPA should be based on the principle of prudence, whichever is the lowest level of importance as the financial statements level.

Importance level determines the audit report presentation related to the existence of the account balance and misstatements of material misstatement nature judgment, directly affects the CPA assessment of the risks of material misstatement of the financial statements. In developing the audit program, the audit body need to assess the degree of risk of audit firm to determine acceptable firstly (height ≤5%, moderate ≤3%, low-grade ≤1% but not to zero); Then the audit review group will do the risk assessment of oral engagement letter or written risk assessment, risk tolerance value should generally be controlled at 1% ± 0.5%, but the company continued to audit statements of listed fixed commitment undertaken by the audit firm, it can be reduced to zero; Meanwhile, CPA based on the calculation of the importance level, combined with the financial statements or audit report user information which concerned the direction and intent, and fully think the internal control system construction over units under review environment and internal control implementation of quality, assess the risks of material misstatement of the report. It can be divided into low (sound and effective internal control), medium (internal part of the effective portion of missing or invalid), high (implementation of internal control is invalid or failure), zero (no internal) four grades, risk values were:

DR=(AR-CR)/MR·ARR (2)

2. Application of innovation audit risk relation model

An accounting firm called Longxing according to the partnership agreement, the director has responsible for external audit engagement letter, delivery of audit reports and perform monitoring work, the risk associated with the responsible party is limited to: the risk of total contracted 4.5 percent compliance, audit report risk is 20% .On February 2015, the trustee selected A and B, the two CPA audited the annual financial statements of LY Ltd in 2014. According to the information on the financial statements that provided by principal, the audit identified the main business income statement to reflect the net profit, total assets and shareholders’ equity (net assets) ratio of the importance of 0.5%, 5%, 0.5% and 1%, and calculate Analyzing the basis of results as shown in Table:

According to the principle of prudence, CPA who select the lowest amount of 1.4 million RMB for the importance level. Judgment based on the importance level, the firm determines an acceptable overall risk level of 5% of material misstatement on the financial statements to confirm the risk assessment is 80%. In accordance with the current audit model, measure the level of risk of audit inspection should control:

DR= AR/MR=0.05/0.8=6.25% (3)

It is shown that audit is in accordance with conventional procedures and methods to check its quality level to ensure the authenticity of the results need to reach 93.75%, in order to making the
audit firm acceptable risk control at the 5% level. In other words, only detection risk within 6.25% of the audit mandate can ensure security.

Newly constructed in accordance with the audit model, we should improve the auditing contract risk (CR) and the audit report risk (RR), then:

Table 1. The annual financial statements of LY Limited liability company Ltd in 2014.

<table>
<thead>
<tr>
<th>FY2014 Project</th>
<th>Amount</th>
<th>Fixed rate</th>
<th>Analyzing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main business income</td>
<td>44000</td>
<td>0.50%</td>
<td>220</td>
</tr>
<tr>
<td>Major business cost</td>
<td>36000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The total profit</td>
<td>6400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net profit</td>
<td>5250</td>
<td>5%</td>
<td>262.5</td>
</tr>
<tr>
<td>Total assets on December 31</td>
<td>28000</td>
<td>0.50%</td>
<td>140</td>
</tr>
<tr>
<td>Shareholders' equity on December 31</td>
<td>14800</td>
<td>1%</td>
<td>148</td>
</tr>
</tbody>
</table>

\[ DR = \frac{(0.05 - 0.045)}{0.8 \times 0.2} = 3.125\% \]

Obviously, CPA examination in accordance with conventional procedures and methods, its quality level that ensure the authenticity of the results needs to reach 96.875%, in order to making the audit firm acceptable risk control at the 5% level. Seen by calculating, the result in CPA audit to the level of detection risk higher than the existing models is mainly the audit report risk, followed by the signing performance risk. You can also say that after the firm improves the audit report risk and the signing performance risk, detection risk needs more stringent requirements, limited risk value should be less, audit inspection requirements are higher. In this example, when considering both the upstream and downstream sectors about audit detection risk, detection risk narrowing exactly half, equal to double the effectiveness of testing techniques, forensics effect and other requirements, but also means the firm of CPA’s personal risk allocation of responsibilities increasing. To do this requires:

1. Focus on comprehensive risk management. Audit is in the macro-economic environment of oversight, to ensure a neutral attitude and position is very difficult, it needs to be completely impartial but must be adhered to. This objective requires audit institutions and personnel must establish total factor risk thinking, understand audit practice in perpetuity, it may be in crisis anywhere at any time, so we must prevent any possible things. Therefore, it is necessary to carefully assess the risks of material misstatement and detection risk report existing guidelines set regulations and take into account risk and audit reports commissioned by contract risks; It is necessary to take into the four key risk factors in the structural formula, and also carefully consider each element of the associated sub-elements.

2. Strengthen risk management details. The newly created audit models are not only increase the audit structural risk indicators after a previous two-node, more importantly it improves the risk management aspects. Warning audit organization to audit risk management and attention to detail, it is necessary to strengthen human resources training and education, improve the management structure, especially to establish a sound system of internal control audit, strict control and management a clear responsibility to strengthen the CPA and the appointment of auditors, ethics and values culture, attaches great importance to the audit process required inspection, audit and evaluation of the evidence reviewed, the audit report usage tracking and so on. If necessary, contrary to specific audit work, discuss the risk of setting the value of each element, such as the meeting of the Board of Directors who define the form, manner established risk contract negotiations, post-trial review and report views the use of tracking risks.

References


