

A Research on the Application of XBRL in the Independent Audit

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ABSTRACT

XBRL (extensibility commercial language) network financial report is gradually extending in our country, which will have a far-reaching impact on independent audit. The research on the application of XBRL's principle, operation process and the improvement of the audit process in the audit work is helpful for bringing some developing measures for independent audit based on XBRL.

Keywords: XBRL; the Independent Audit; Audit Quality

1. Introduction

In January 2011, The Treasury and the securities regulatory commission issued "the notice about some matters of implementing enterprise accounting standard general classification standards", according to which, the first implemented public accounting firms with qualification of Securities and futures business and their relevant business shall report XBRL2010 annual financial reports instance document and expansion classification standards made by their auditing customers of a-share listing company to the Treasury, through the certified public accountants industry management system between May 1, 2011 to June 30.

China's listed company formally strides into the network financial statements era, the network financial report based on XBRL will have great effect on the audit of China's capital market.

2. The Application Principle of XBRL in Audit

To understand the application of XBRL in audit, you should first understand how XBRL works. Application of XBRL asks to understand a few major terms: specifications, taxonomies and instance documents

The XBRL specifications are the software code to describe financial information forms. Technical specifications help software developers and programmers to create mutual exchange of digital file, it allows users of financial information do comparison to different com-

pany's financial statements, even if the original format of the financial statements is completely incompatible. Specifications are not only for financial statements, but for dealing with all the digital report, the general ledger and the non-financial information.

XBRL taxonomies are the describing standard to present business information and accounting statements. It is made up by an XML schema file and the link library which is within the mode file or directly referred to it. Through XBRL, financial report producers can store the link data elements in accounting database. It forms a standard way of using XBRL to code that based on the classification standard [1]. For example, an annual report including management decision and analysis, financial statements, note disclosure, the audit opinions can use XBRL coded.

XBRL instance documents are used to record the actual value of the business, and to provide the necessary background information to explain the fact value. A XBRL instance file usually consists of one or more classification standard, different classification standard links, expands, modifies in different ways between each other, the explaining of XBRL instance document requires consideration of related classification standards [2]. For example, one instance documents can include a company's annual report, surplus disclosure and general ledger and other detailed data. Instance document can make the filing work of external financial information and internal financial information more easily, because XBRL can output different types of data for different financial information terminal users through the computer program and its operation. Instance document can also provide

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style form for users to print output through the browser or other format.

After understanding the basic working principles of XBRL, we come to the application principle of the XBRL in independent audit, which can be understood through a graphics: as shown in **Figure 1**:

3. Influence of Which XBRL does to the Traditional Audit

3.1. Influence of which XBRL does to Audit Efficiency

The application of XBRL technology will greatly expand the auditor's audit scope. Make the auditor can real-time monitor the auditees' financial data. At the same time, because of the using of XBRL computer technology, the auditor would liberate from simple trial test program, they can generate corresponding audit report in real time.

3.2. Influence of which XBRL does to Audit Risk

Because of XBRL, financial information can achieve real-time disclosure. So the misstatement risk of financial statements would be much higher. Since the financial statements are made with XBRL, auditors need to do controlling test to XBRL's technical standard, classification standard, instance document, in addition to substantive test.

3.3. Influence of which XBRL does to Audit Quality

Because of the application of XBRL technology, computer technology and Internet technology, the auditor can reduce the time for the entry, conversion, inquiry, index of data, so auditors have more time on reviewing auditees' financial information analytically. This is helpful to improve the efficiency and effectiveness of the analytical review. They can take a lot of substantive tests as well,

and this substantial test could not be done due to the high cost of artificial testing time, so that using the XBRL will improve the audit quality to a certain extent. Empirical studies on the influence of XBRL's application in audit quality will be a hot spot of theory research after XBRL is applied in China's enterprises.

On the other hand, because XBRL is based on computer technology and Internet technology, therefore there are corrupt and security problems. Compare to paper document, electronic data is easier to be maliciously tampered and leave no trace [2]. At the same time, the existence of network attack is also an important problem to affect the quality of audit based on XBRL.

4. The Improvement of Audit Program in XBRL

4.1. The Audit Preparations for Application of XBRL

XBRL to be universal in our country is just a question of time. After the company is in full implementation of XBRL network financial report, as for auditors, their risks mainly focus on if the financial information and accounting data are accurate and complete mapping to mark. So the audit should focus on whether the company designed a full and effective internal control system for XBRL, and whether the internal control system should be able to ensure the exchange of relevant financial data efficiently and accurately, and the financial data is recorded in a proper accounting period.

Another key that auditor concerns are whether all relevant data in data sources is already marked, namely, whether the report is finished. This involves reviewing markers system in the software system to ensure the information is new and the data element or new account included in the process of mark. This work can be done with the control function of the computer program [3].

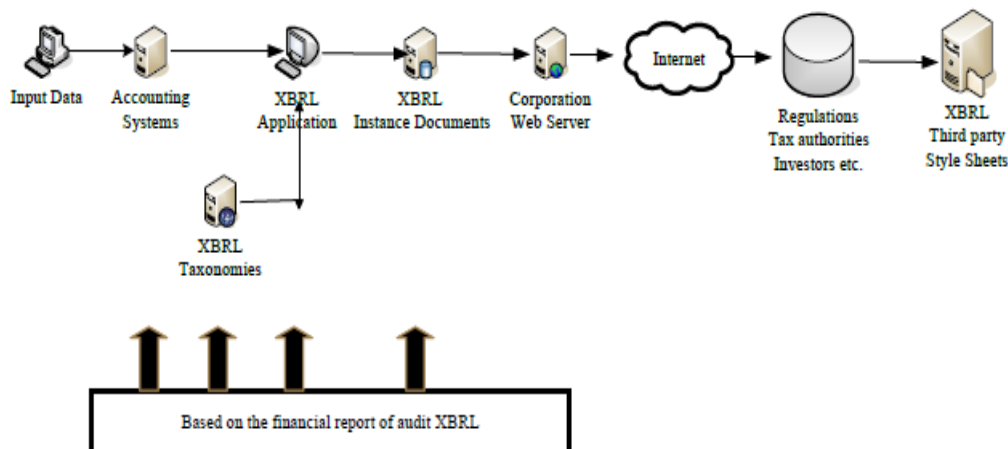


Figure 1. The application process of XBRL in independent audit.

4.2. XBRL Operating Environment

Besides pay attention to the XBRL internal control system of auditee company, the auditors need to design corresponding tests to determine whether the XBRL technical criteria, classification standards, and instance document is fit for financial statements. Auditors should have relevant expertise for these test programs, and are quite familiar with industry standards and any specific generally accepted accounting principles. The audit procedure should focus on the technical specifications, classification standard and instance document background, check into the details of XBRL to ensure that they are the latest and the most appropriate [4]. The internal control system designed on the base of XBRL should focus on operation and effectiveness of operation competence, to ensure that a complete, consistency, specific classification standards were applied in a new entity. General XBRL audit control procedures include network operation, application development and maintenance, and access control. XBRL application program control includes address input, error correction and output. For example, when a classification is newly set, modified or added, the auditor should verify or check the file classification standard examples to ensure that the labels being used are from classification standard.

4.3. The Network Security

Because XBRL is the financial report based on Internet, and can provide dynamic link from the financial information file to the foundation database. In this case, the substantial safety risk exists in operating systems, applications and database. For example the wrong configuration could lead to unauthorized change or the destruction

of the data, and influences the correctness of the financial statements. When these links appear, the auditor should consider the security of the entity and adequacy of the procedures, including setting up a firewall, enhancing the operating system and other relevant safety control, and backup the most primitive data.

The specific improvement process of audit procedure is as shown in **Figure 2**.

5. New Requirements for the Application of XBRL Technology

5.1. Requirements to Auditors

With the application of XBRL network financial report, the financial report which the auditors confront is no longer of the financial information isolated, but an Internet database [5]. This requires the auditor should not only put on practical test procedures, but also need to identify whether the XBRL technical specification, classification standard, and instance document of the auditee unit is appropriate. On the one hand, it increased the auditor's audit risk. On the other hand, it put forward new requirements to the auditor's knowledge system. Not only requires the auditors be proficient in professional knowledge, but also requires them have in-depth understand for the principle and process of XBRL.

5.2. Requirements to Accounting Firms

From the notice of The Treasury, accounting firms have an important role in applying XBRL in our country. So accounting firms should first be informative.

On the one hand, accounting firms should well train their auditors, let them grasp XBRL audit technology proficiently to prepare for audit technological reformation;

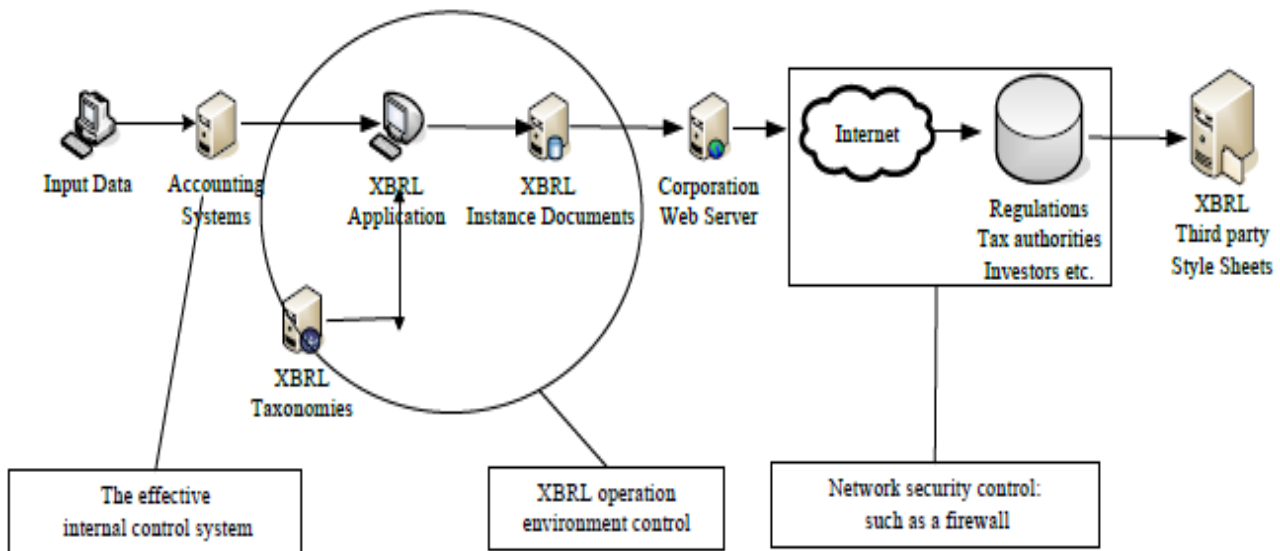


Figure 2. The improvement of audit procedures based on XBRL.

On the other hand, accounting firm itself should get informative reformation. The main goal of accounting firm information is to establish and perfect the information technology standard system, establish and improve data standard system and large database, promote the inter-communication and information sharing and business cooperation, focus on the development and application of series software[4]. So the accounting firm the information should become a turning point for XBRL technology promotion. Through the information of accounting firms, we can realize the purpose of promoting XBRL technology.

To continue with, accounting firm should control risk. Because of XBRL, the auditor's risk will increase, so the public accounting firm should control risk more strictly, in order to improve auditing quality.

5.3. Requirements to the Auditee Unit

With the implication of XBRL network financial report, enterprises should establish special XBRL internal control system, and make appropriate choose to the XBRL technical criteria, classification standards, examples document for their own unit. Because of the first application of XBRL, enterprises should take double system operation, so that they can get both XBRL financial report and the traditional financial report, in order to verify the relevant technology and internal control system of XBRL. On the other hand, the auditees should actively cooperate with the auditor, make detailed introduction for XBRL application and accounting information system of their company, to help the auditor be familiar with the environment quickly, and make a right judgment.

5.4. Requirements to the Government and Stakeholders

As for the application of XBRL network financial report,

in our country, the government has played an important role. But for the moment, XBRL corresponding doesn't sound. The government should implement the relevant decrees to promote enterprises to take XBRL reform quickly, and put on rewards or punishment on their reform results. And timely organize related training for accountant and auditor, so that they can be familiar with XBRL and correctly use it in a short time.

And from the point of their own interests, enterprise stakeholders should also pay attention to the enterprise's XBRL reform, and deepen their understanding of XBRL working principle by learning.

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