Influence and Control of Cloud Computing on Audit under the Background of Internet

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Abstract

Under the condition of cloud computing, the audit content has changed. Whether the processing of the system is compliant, legal, safe and reliable is directly related to the processing and control functions of the computer system. After the implementation of cloud computing, while the efficiency of accounting work has been greatly improved, great changes have taken place in the environment of accounting and accounting audit, and many different control points have appeared, which has brought great influence to the internal audit work. This paper analyzes the specific impact of cloud computing on auditing under the background of Internet from five aspects: audit clues, audit work content, audit technology, accounting internal control and auditors, and on this basis puts forward the prevention and control measures of computer audit risk.

Keywords

Internet; Cloud Computing; Audit; Impact; Control.

1. Introduction

The implementation of cloud computing has greatly improved the speed and accuracy of accounting information processing, and can provide users with timely and accurate accounting information, which is an unprecedented leap in the history of accounting development [1]. It not only reduces the labor intensity of accountants, improves the work efficiency, but also greatly improves the speed and accuracy of accounting information processing, can provide accounting information timely and accurately, and is helpful to strengthen enterprise management and improve the competitiveness of enterprises. However, it can't be ignored that the Internet brings both opportunities and challenges to accounting work. Under the background of Internet, compared with the traditional manual audit, audit has made great changes in audit content, internal control of accounting system and audit technology [2]. Therefore, it is an unavoidable problem for domestic accounting firms to improve their service level, customer satisfaction and competitiveness, and how to combine their own staff quality and economic strength to increase the level and degree of computer application in auditing. In recent years, China's audit level has been significantly improved, audit cloud computing has been widely used in the field of environmental governance, which all benefits from the unique process of China's environmental governance:
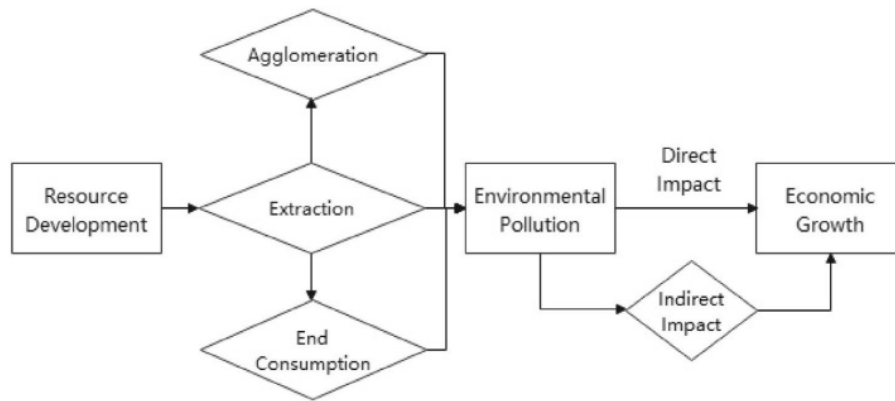
Fig 1. Audit cloud computing applied to the field of environmental governance

2. Characteristics of Cloud Computing

Under manual accounting, managers can form an internal control system through functional division and division of labor, and combine it with the mutual restraint system among vouchers, account books and statements to ensure the control of information correctness and security. The data storage in cloud computing takes files as the main form, which is different from the traditional accounting book recording mode. The medium used in this file storage is generally magnetic materials, and its main characteristics are that it can be stored conveniently and quickly without leaving traces after modification or deletion. Accounting departments not only use computers to complete basic accounting business, but also use computers to complete various more complex business activities that were not previously available or completed by other departments, such as sales forecasting, human resource planning and so on. In the cloud computing system, the cash receipts and payments vouchers are filled out by the cash accountants, passed to the electronic data processing department after accounting review and coding, and input by the computer operators to the computer for processing, and the processed cash receipts and payments vouchers are sent back to the accounting department for archiving and keeping [3]. To enable relevant financial software suppliers and software users to reserve audit interfaces to collect data according to the requirements of audit departments in accordance with the provisions of the audit law. In recent years, the market size of cloud computing in China has increased significantly, and it has been widely used both in the workplace and in individual families.
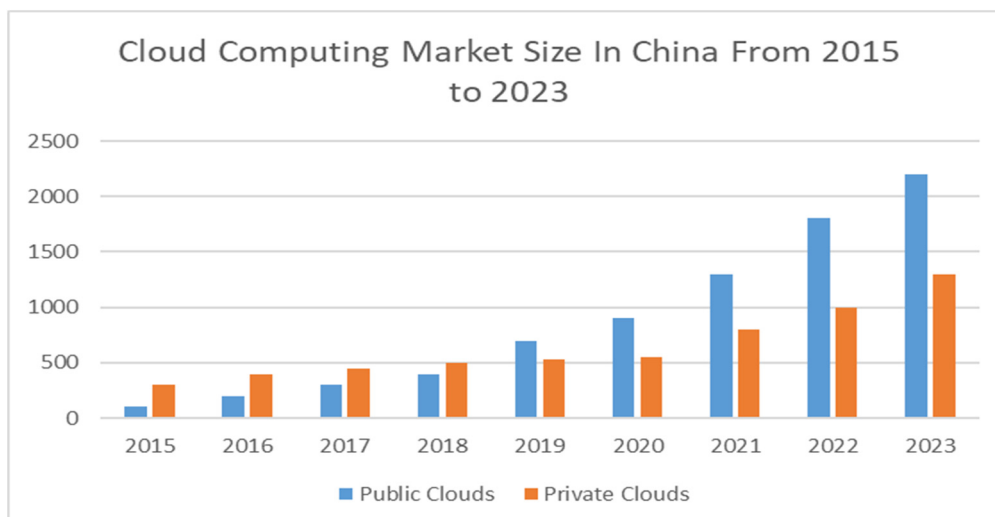

Fig 2. Cloud computing market size in China from 2015 to 2023

3. The Influence of Cloud Computing on Audit under the Background of Internet

3.1. Impact on Audit Trail

Due to the cloud computing of accounting, great changes have taken place in audit clues, and the audit clues in traditional manual bookkeeping will be interrupted or even disappeared in the computerized system. At the present stage, although the Ministry of Finance stipulates in the relevant cloud computing system that all vouchers, account books and statements should still be printed out, the auditors have added audit clues in the audit work [4]. Whether the cloud computing program is correct or not directly affects the correctness of the processing results, so the audit under the cloud computing system must review the cloud computing program; Under the condition of cloud computing, it is necessary to review the correctness of accounting data input, the processing and output functions of accounting software, the operation and control functions of computer system, the protection and control of electronic accounting files, the security and confidentiality measures of accounting system and the soundness of computerized management system. With the development of cloud computing, it is not far off to enter the original vouchers and then fill in the accounting vouchers by the system itself. For the transfer vouchers automatically generated in each accounting subsystem, the data collection comes from the records after internal distribution and carry-over.

3.2. The Influence of Cloud Computing on Audit Work Content

The characteristics and risks of the cloud computing system require that the accounting audit work has the tasks of processing computers and examining and controlling functions. Therefore, the design work under cloud computing includes the design and development of the system, auditing accounting software programs, internal control and data files, etc. In the computerized system, accounting items are automatically processed by computers in sequence, which greatly reduces the chance of errors caused by negligence compared with manual accounting. However, if the application program of the system has errors or is illegally modified, the computer will only process all relevant accounting information in the wrong way according to the program, and the consequences will be unimaginable. The accounting software that has passed the evaluation of the financial department has been strictly examined in the evaluation, so the reliability is high. However, because the secondary development of the enterprise involves more contents and directly affects the correctness of the program execution, it is still necessary to audit the program; In this way, a large number of intangible audit clues force auditors to change the original audit methods, learn and master computer technology, so as to be able to use computers for direct review [5]. Up to now, the proportion of the global cloud computing market has basically taken shape.
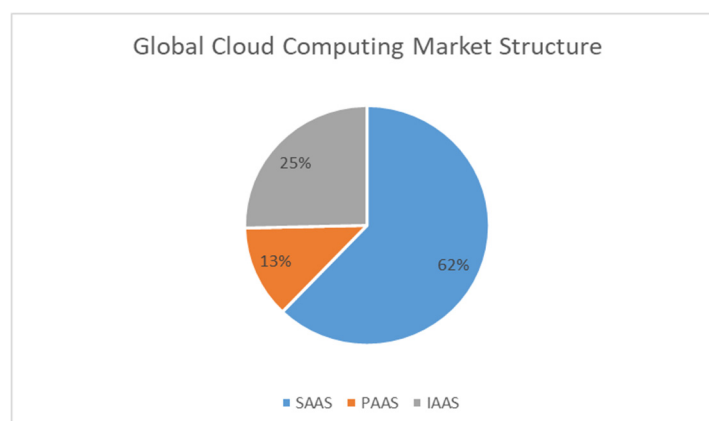

Fig 3. Global cloud computing market structure

3.3.   Impact on Audit Technology

If the audit of cloud computing information system still adopts the audit technology of conventional manual system, it is impossible to achieve the purpose of audit. In the electronic data processing system, the computer adopts a double circuit control method to ensure that every operation is carried out simultaneously on two independent circuits, and automatically check the operation results. For example, the parallel recording of general ledger and subsidiary ledger under manual conditions, and the reconciliation of accounts and certificates at the end of the period are all carried out by computers in cloud computing, and these controls have lost their real meaning [6]. For those who have been conducting manual audits for a long time, the audit methods used in the past can no longer meet the requirements of the existing audit work. Under the condition of cloud computing, although the above-mentioned manual auditing method is still effective, due to the changes of audit clues, security control and audit content, computer-aided auditing technology is an indispensable and more efficient auditing technology. With the development of network, the functions of software are diversified and intelligent, which can replace accountants to complete many basic data processing, which also makes accountants threatened and impacted, and the requirements for accountants' sophisticated business ability are gradually improving.

3.4.   Influence of Cloud Computing on Accounting Internal Control

Accounting internal control is the basis of audit, and auditors should review and evaluate the internal control of accounting system, which can be used as the basis for formulating audit plans and deciding the scope of spot checks. Accounting practitioners use big data, cloud computing and other information technologies to obtain the original data, and automatically collate the data by using accounting software to directly export financial reports. Cloud computing has not changed the goal of internal audit, but it has changed the collection method of audit clues to a certain extent, and can expand the scope of audit by computer to a certain extent, so that the internal audit of enterprises can play a greater role. An important feature of cloud computing system is its proceduralization. How to identify, analyze and evaluate these procedural internal controls is a new problem that cloud computing brings to audit. The focus of internal control review also shifts to the test of internal control in electronic data processing. Before auditing, internal control must be fully studied and tested, and feasible audit plans and methods should be worked out to complete the audit task of computer system.

3.5.   Impact on Auditors

In this audit work, auditors still play a decisive role. From the formulation of audit plans to the determination of audit procedures, from the selection of audit techniques to the adoption of audit methods, auditors must operate and direct them. Because of the change of audit trail content control, content and audit technology, the requirements for auditors are high. Auditors who don't know computers can't participate in the audit because of the change of audit clues; Therefore, auditors are incompetent to rely on their original knowledge and skills, and those who do not know how to operate computers will be unable to participate in the audit due to the change of audit clues, and unable to identify and audit the internal control system [7]. With the continuous development of big data, cloud computing and mobile Internet technology, the influence of Internet on accounting industry has penetrated all aspects of its work. In order to adapt to the development of cloud computing, in the long run, it is necessary for audit staff to learn various audit software and establish a scientific computerized audit system.

4. Prevention and Control of Computer Audit Risk

4.1. Increase the Intensity of Pre-audit and In-process Audit

It is the key to audit the cloud computing information system. Pre-audit can directly supervise the system development process, which must be carried out according to the standard development procedures and methods to ensure that the system program and application control meet the needs of accounting management and achieve the due quality. Specifically, enterprises should purchase legal and formal information processing software, adopt encryption and other technologies, regularly check the security of computers and other related equipment, repair system vulnerabilities and upgrade firewalls in time, and strengthen password security construction. Under the condition of cloud computing, a large amount of evidence is stored on invisible magnetic media. The current auditing rules are far from enough, and a relatively complete standard system for computer auditing has not been formed for data collection, collation and the formation of papers. In this process, we should not only pay attention to the function of traditional auditing means and methods, but also check the test results with the expected results by computer, and pay attention to the test of accounting calculation formula.

4.2. Strengthen the Development Audit of Cloud Computing System

The development audit of cloud computing system is the examination and verification of the feasibility study, design and trial implementation of cloud computing system by auditors. Under the background of cloud computing, audit content extends to the development and design of computerized system and system programs. Auditors use computer-aided auditing technology to make computers perform various operations and processes, understand and examine the processing and control functions of the computer system of the audited entity, and verify the legitimacy, correctness and integrity of its processing. The evaluation of the system is mainly to find out the weak links of control, which are the risk factors that affect control. Risk analysis is linked with traditional control evaluation methods to analyze whether potential risk factors exist and whether they can be prevented. Examine whether the control of the working environment of the system is perfect, whether to establish and improve the control system for the use of machinery and equipment, and whether to formulate and implement scientific operating procedures to ensure the accuracy and reliability of accounting information. Relevant departments should formulate and improve the rules and regulations of accounting industry based on Internet, promote the in-depth integration of accounting and Internet, and create a good atmosphere for the development of accounting industry.

5. Summary

Undoubtedly, under the background of Internet era, the upgrading of information technology has a profound impact on accounting work. With the extensive application of computerized system and network tools in accounting work, the information storage method, accounting form and internal control mode of accounting have changed, which also brings higher requirements to audit work. Computer auditors and non-computer auditors will be combined into a comprehensive audit team, making full use of the advantages of comprehensive personnel, doing a good job in the distribution and coordination of audit work, and widely using general audit software and special audit software, so that most of the work in the whole audit process can be automated. Auditors should have a full understanding of auditing under the background of Internet, adhere to study, study and discuss carefully from the requirements of science and development, and make comprehensive arrangements for auditing work to adapt to new challenges.

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