IT Audit of Cloud Accounting Platform Based on Big Data

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Abstract. So far, the level of science and technology in China has experienced unprecedented development, at the same time, the computer level of our country has improved significantly. At present, more and more Big data technologies are gradually entering the field of vision of people, in most industries of our country they are dedicated to the research and application of big data technology. Big data, these can provide people with more and more reliable information. At the same time, it also brings great convenience to people's daily life and brings creativity to enterprises. With the development of the times and the progress of science and technology, the application of modern computer technology can achieve the digitization of information technology audit. That is, the audit project data of digital IT are kept and stored according to actual needs. According to the relationship between different electronic documents, link and combine them to improve the efficiency of IT audit and minimize audit costs. In recent years, Our country's informatization process has become deeper and deeper, which has brought great convenience to all walks of life. In traditional IT auditing, it has been unable to meet the current development needs. This requires redesigning IT auditing thinking, establishing a new framework, and creating digital IT auditing to meet the needs of the times and improve IT auditing efficiency. In this article, we will study all kinds of data in the digital IT audit project, and we will discuss the application audit of the cloud-based computing platform. Big Data, mainly the audit of cloud computing platform data, and whether it is effective in the input, processing and output process, in order to achieve the effect of high speed and high quality. Finally, summarize the research results. The efficiency of IT verification has improved significantly.

Keywords: Big Data, Cloud Accounting, IT Audit, Platform Research

1. Introduction
In the era of big data, more and more industries use big data and cloud computing. Especially after experiencing the new crown pneumonia epidemic, the advantages and trends of cloud office have become more and more obvious [1]. The combination of big data and cloud computing technology in the accounting industry gave rise to the term cloud accounting. Its birth has made it easier and faster for the accounting industry to collect accounting information and analyze data. Big data literally means that analysis and understanding is a collection of data. When it runs, it uses professional data processing methods and platforms to calculate and organize the collected data [2]. Its main feature is
that the database is very large and diverse. Some data itself cannot be used directly, but its value should be brought into full play in the corresponding professional data processing and analysis. Analyzing from the perspective of practical application, we can find that there is a very close relationship between big data. At this stage, many companies in our country have begun to apply it widely, which can ensure that the basic operating costs of their companies are reduced. Under the premise, it can also maximize the work efficiency of the enterprise [3]. Because big data itself is flexible, the problem is a little more complicated. If you can find a suitable platform to use big data, and find suitable corresponding information, the most important thing to do is to build a basic platform for comparison, and then use some data to understand, investigate, analyze, and summarize other data for future financial The development provides certain support, and finally it can increase the visibility and the degree of informationization [4].

Cloud computing is actually a different type of computer model, which is completely different from ordinary models. The most important thing is to build a very large cluster under the modern network architecture, and then provide support and assistance for data storage and computing. Cloud computing is a special kind of calculation that is unevenly distributed. Then a system composed of many small servers, and processes these small programs And analyze, and then get the result and return the result to the customer [5]. Earlier, cloud accounting was simple, distributed computing, task allocation, and the integration of calculation results. At the current stage, the so-called service is not just a single centralized calculation, but a distributed calculation. It is a calculation of distribution and decentralization, and it is an efficient calculation. At the same time, balance can be measured, and calculations, network storage, and other computer technologies can be more comprehensively developed and real results can be obtained at the same time [6]. The application of cloud billing uses the Internet as a medium, organically integrates the operating system, cloud and browser, and integrates the tripartite resource information on the Internet into a complete Internet resource information system, thereby realizing billing and billing. Nowadays, the development of enterprises has been towards the direction of network data management [7]. In this era, data sources and data scales themselves have reached a very complex level. If an enterprise wants to ensure that the information collected has a certain accuracy and feasibility, it must use cloud computing. When enterprises use cloud computing, they should arrange various service items according to actual needs, and set billing standards according to service content and time. In this mode, the corresponding data will be backed up to ensure the reuse of billing data and increase the speed of cloud billing information processing. Usually, its data information can be directly stored in the cloud of its module [8].

Or I term "big data" from the IT industry, it refers to a set of data that cannot be captured, manipulated and processed by conventional software ainas in a period of time. There is a large amount of data available [9]. Literally, big data is a collection of data. Its data base is very large and has many types, including some data that cannot be used directly; in the process of application, the collected data is calculated and sorted. And the value of data needs to be reflected through professional data processing methods and platforms [10].

2. Distributed IT audit algorithm

Based on the above technical methods and existing research results, based on the application algorithm in the design platform, the application algorithm in the IT audit design of the RBF Cloud Accounting Platform is branch 161 of the digital chemistry department. The range of applications of the algorithms applied in digital design is also quite extensive, whereby PER image functions are used for training:

$$\text{PER} = 1 - (1 - \text{BER})$$  \hspace{1cm} (1)

First, you put the application mode in the design, then process, get the result by the digital algorithm, and learn, then use the pattern recognition of the algorithm in digital design to get the result, when digitization can not provide the current classification decision, it will perform error detection and require more digitization training modes until the correct digitization application algorithm is
achieved again. The most important part is the function extraction and selection which will affect the positioning accuracy of the application algorithm in the final digital design.

\[
U_{\text{QAM}} = 1 - \prod_{j=1}^{n_p} \left(1 - P(k) \right) \log_2(r_j) - \prod_{x=1}^{n_p} \left(1 - P(x) \right) \log_2(r_j) \tag{2}
\]

It can be achieved uniformly with the specified PER expression. According to the calculation formula of PER, the calculation formula of PER can be determined in each mode:

\[
\text{PER}_n(y) \approx \begin{cases} 
1, & 0 < y \leq y_n \\
0 & y_n < y
\end{cases}
\tag{3}
\]

\[
an \exp(-g_n y), \quad y \geq y_n
\tag{4}
\]

From the above-described application algorithm information algorithm in digital design, it can be seen that the application algorithm in digital design has been greatly accelerated, which solves the problems of poor efficiency and slow operation speed, and improves speed and security. By analyzing the algorithm in the digital system, it can be concluded that when the algorithm is applied in digital design, the initialization selection is randomly distributed and the overall efficiency and computation speed are improved.

In the corresponding digital audit algorithm, the digital IT system represented by the d-b-c variable is determined on the large data cloud accounting platform IT audit equation, provided that the IT system is idealized in the research podium, namely:

\[
U_{abc} = R_1 I_{abc_1} + \frac{D R_{abc_1}}{D T} \tag{5}
\]

\[
U_{abc_2} = R_2 I_{abc_2} + \frac{D R_{abc_2}}{D T} \tag{6}
\]

\[
F_{abc_1} = [F_{a1}, F_{b1}, F_{c1}'] \tag{7}
\]

\[
F_{abc_2} = [F_{a2}, F_{b2}, F_{c2}'] \tag{8}
\]

The symbol for the variation "F" will be used to represent variables such as "U", "I", or "R".

\[
R_{abc_1} \tag{9}
\]

\[
R_{abc_2} \tag{10}
\]

\[
R_{abc_1} = L_{11} \ast I_{abc_1} + L_{12} \ast I_{abc_2} \tag{11}
\]

\[
R_{abc_2} = L_{22} \ast I_{abc_2} + L_{22} \ast I_{abc_2} \tag{12}
\]

\[
L_{11} = [L_{a1a1} L_{a1b1} L_{a1c1}] \tag{13}
\]

\[
L_{11} = [L_{b1a1} L_{b1b1} L_{b1c1}] \tag{14}
\]

\[
L_{11} = [L_{c1a1} L_{c1b1} L_{c1c1}] \tag{15}
\]

It could be seen that the IT digital revision algorithm has high practicability in the system, and the theory and/or method of analysis of the IT digital revision algorithm model are more intuitive, than the efficiency of the system or experiment of mixing efficiency.

3. Experiment

3.1. Experimental investigation objects
In order to be able to analyze the status quo of the employment and entrepreneurship network platform construction in the "Internet +" more in-depth, this article selected 100 traditional IT audits and digital IT audits in a certain place to conduct related investigations and studies, through the digital IT audit platform participants. According to the survey results and data, finally concluded that the big data
cloud accounting platform audit is mainly for testing and analyzing a large amount of network data. The efficiency of IT auditing is obviously compared. On the basis of a comprehensive review of the research results of the research objects, based on the data obtained, the problems and causes of traditional IT auditing and digital IT auditing are analyzed.

3.2. Experimental research design
This survey is aimed at the link of field investigation and testing. The traditional IT audit and digital IT audit are selective 100 IT respectively. An experimental investigation is carried out. Whether the traditional IT audit and digital IT audit are efficient in the input, processing and output process Very high, to achieve the effect of high speed and high quality. Secondly, understand the current status of functions in traditional IT auditing and digital IT auditing. The application audit of the platform is mainly to audit the data of the cloud accounting platform, which is a countermeasure compared with other functions.

4. Results

Table 1. Comparison of input process between traditional IT audit and digital IT audit

| Compared          | Total times | Stuttering times | Speed | Time  | Overall   |
|-------------------|-------------|------------------|-------|-------|-----------|
| Traditional IT audit | 100         | 9                | 1/s   | 100s  | general   |
| Digital IT audit   | 100         | 1                | 2/s   | 50s   | satisfaction |

According to the data of the practice test survey in Table 1, we are not very satisfied with the traditional IT audit input process, but the degree of satisfaction with the digital IT audit input process is much better than that of the traditional IT audit. This can be seen in the cloud of big data. Accounting platform IT auditing is relatively satisfactory. Research on various platforms can solve some of the problems in traditional IT auditing methods to a large extent. Through comprehensive data analysis, platform construction in IT auditing on the cloud accounting platform of big data can be improved. Further research and improvement are needed to better bring people great convenience.

Figure 1. Comparison of traditional IT audit and digital IT audit process

From the data shown in Figure 1, it can be seen that the current traditional IT auditing and digital IT auditing processes are compared. According to the data, the survey results show that the satisfaction level of using the traditional IT auditing platform is only 80%, and the effect of the
improvement of the level can be seen. At the same time, the traditional speed is only 1/s. It can be seen that there is no improvement. The traditional calculation degree is 85%, which is not much behind the digitalization. At the same time, it can be seen that the utilization speed and satisfaction degree of the digital IT audit process are higher than the traditional ones.

![Figure 2. Comparison of output process between traditional IT audit and digital IT audit](image)

**Figure 2.** Comparison of output process between traditional IT audit and digital IT audit

From the data display of the test results in Figure 2, we can see the comparison between the traditional IT audit and the digital IT audit output process. According to the data display, the results show that there is a great improvement in the traditional IT audit output process, compared with the digital IT audit output. There is still a certain gap in the process. The digital IT audit output is one step ahead of the traditional in terms of speed or time. It can be seen from the figure that the highest performance is achieved in the process of the big data cloud accounting platform IT audit output, and the highest performance is after certification.

5. **Conclusion**

To sum up, the data of the cloud accounting platform is audited, whether the speed is high in the process of input, processing and output, whether the quality is high, and the effect of high speed and high quality is achieved. The experimental results show the application of big data cloud accounting platform Auditing is mainly about data. Compared with other IT, the efficiency of IT auditing is significantly improved. Establish a new framework and create a digital IT audit to meet the needs of the development of the times and improve the speed and quality of IT audit work. With the continuous development of science and technology in the world and the continuous improvement and improvement of computer systems, our society has become an information society, and more and more companies use it for auditing. IT audit can not only improve audit efficiency, but also find various problems in the system more comprehensively and timely. The world's information technology has paid more attention to the integration of information technology in the development process. Big data has gradually entered the public eye during the continuous development of the Internet. Reasonable use of cloud accounting services can bring more guidance to development and provide a clearer direction for development. It can not only improve work efficiency, but also reduce the costs incurred in the accounting process. Nowadays, the development of enterprises has moved in the direction of network data management. In this context, the scale of the data source and the data itself has reached a very complex level. In this mode, the corresponding data will be backed up to ensure the reuse of billing data.

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