Investigation on Accounting Professional Informatization Based on the Integration Mechanism of Block Chain and Cloud Computing

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Abstract: Accounting major occupies an important position in the social development, is a very high status of social science. The development of accounting profession is highly susceptible to the influence of social environment. With the constant change of social environment, the accounting profession is constantly changing. At present, accounting specialty is changing from accounting computerization to accounting informatization. Accounting information is the result of the development of Internet information technology, in line with the development trend of society. The generation of block chain and cloud computing fusion mechanism provides a new development path for accounting professional informatization. The purpose of this paper is to effectively solve the main problems existing in the construction of accounting informatization and promote the comprehensive realization of accounting informatization through the study of accounting professional informatization based on the integration mechanism of block chain and cloud computing. This paper firstly discusses the connotation of accounting professional informatization and the integration mechanism of block chain and cloud computing, and then analyzes the influence of this integration mechanism on accounting informatization. Then, the paper analyzes the problems existing in the construction of accounting informatization by means of literature method, and puts forward the corresponding strategies. This paper shows that there are still many problems in the construction of accounting informatization, which need to be solved effectively with long-term efforts.

1. Introduction

The wave of informatization has gradually spread across the globe, exerting a profound impact on the overall development of the world and bringing about profound changes in various fields. Accounting is an important management major, which is directly related to social development. With the constant change of social environment, accounting profession is moving towards informatization from the beginning of computerization, accounting informatization has become its inevitable trend. Block chain and cloud computing, as two important components of information technology, have attracted the attention of experts and scholars since their emergence, especially in the current data era. Therefore, the integration mechanism of cloud computing and block chain can effectively promote the rapid development of accounting informatization.

Scholars at home and abroad have conducted a series of studies on blockchain and cloud computing technology. In [1], the author made an in-depth analysis on the feasibility of the integration of the two from the definition, specific operation and technology of the two. In [2], by means of theoretical analysis, the author shows that cloud computing is an inevitable trend in the development of accounting informatization for a long time in the future. In [3], the author respectively discusses three different application modes of cloud computing and block chain technology, and on this basis, makes feasible plans for the construction of accounting informatization.

Since information technology entered the accounting industry, scholars at home and abroad have begun to study accounting informatization. In [4], the author combines accounting industry and information technology for the first time, and discusses the specific impact of information technology on the construction of accounting informatization.
technology on accounting industry in detail. In [5], the author studies the construction of accounting informatization of enterprises by means of questionnaire survey and field research, and finds many problems existing in the construction of accounting informatization of enterprises, such as insufficient preliminary research and unscientific planning. In [6], the author discusses the fusion of block chain and accounting informatization, and gives a detailed explanation on the fusion of the two in data transmission mode, data security, data processing and other specific aspects.

In order to promote the rapid construction of accounting informatization, this paper firstly discusses the connotation of accounting informatization and the integration mechanism of block chain and cloud computing, and then analyzes the influence of this integration mechanism on accounting informatization. Then, problems existing in the construction of accounting informatization are analyzed by means of questionnaire survey based on literature method, and corresponding strategies are proposed [7-8]. The research in this paper not only greatly promotes the informatization construction of accounting major, but also provides certain reference significance for future relevant researches [9].

2. Method

2.1 Connotation of Accounting Professional Informatization

Accounting informatization is the inevitable demand of the development of Internet information age and the inevitable trend of the future development of accounting major. This concept is put forward in the context of the disconnection between the traditional accounting profession and the contemporary information society. Supported by network information technology, accounting informatization realizes the acquisition, processing and transmission of accounting professional information. The realization of this process has the characteristics of intelligence, which can effectively play the information data management function of accounting professional. Accounting informatization can promote the development and progress of enterprises and society [10-11]. Accounting informatization has the characteristics of interactivity, timeliness and sharing. Interactivity means that accounting information platform can be established with the help of Internet information technology to realize the timely communication and interaction between the two parties. Real-time, that is, information technology makes the dissemination of accounting information break through the limitation of time and space, and can carry out real-time transmission, processing and even decision-making of relevant accounting data, which reduces the difficulty of accounting informatization and greatly improves the work efficiency of accounting personnel. Sharing means the dissemination of accounting information with the help of network technology, and the maximum sharing of data information to different demand objects [12-13].

2.2 Integration Mechanism of Block Chain and Cloud Computing

Blockchain technology and cloud computing technology are both products of the Internet information technology era. Cloud computing is the splitting and processing of data information with the help of computer network, which is often applied in the analysis and processing of massive data, effectively solving the difficult computing problem that is easy to occur in the traditional computing method in the processing of massive data. The application of cloud computing to accounting specialty can give full play to its characteristics of efficient computation and effectively solve the problem of massive computation in accounting specialty. Compared with cloud computing, block chain technology emerged relatively late, which can combine data into specific chain structure according to the data time sequence, and realize the safe storage of data with the help of encryption technology. Blockchain technology has the characteristics of information tamperability, decentralization and anonymity, which make blockchain technology show great advantages in information storage. Block chain technology applied to accounting can effectively solve the problem of data deletion and tamper-proof. In this light, cloud computing and block chain can give full play to their respective advantages in the accounting profession. Therefore, the establishment of their integration mechanism can make up for their respective shortcomings in the
construction of accounting informatization, give full play to their advantages, and realize their coordinated promotion. For example, college storage and computing in cloud computing can effectively make up for the large resource consumption and long transmission time of block chain. To sum up, the integration mechanism of block chain and cloud computing plays an irreplaceable role in promoting the informatization construction of accounting major.

3. The Specific Impact of Fusion Mechanism on Accounting Professional Informatization

Through consulting relevant materials, we can find that the integration mechanism based on block chain and cloud computing has effectively solved the two main problems existing in the accounting profession and promoted the construction of accounting profession informatization. First, under the fusion mechanism of the two, the hierarchical control of important accounting data can be realized. On the basis of classifying the level and scenario of accounting information, the hierarchical access control of accounting data is realized by means of their different access control mechanisms. Secondly, with the help of the fusion mechanism of the two can be classified accounting data storage. The quantity and type of accounting data information is large, and its storage is directly related to the efficiency of accounting work. Under the fusion mechanism, some solidified but difficult to tamper data can be stored on the block chain. Cloud computing is used to store the initial data and archived data. Not only that, you can also convert the initial data stored in the cloud into metadata stored on the blockchain. Under the integration system of block chain and cloud computing, the classified management of accounting data is realized, which is conducive to the development of accounting informatization.

4. Discuss
4.1 Main Problems Existing in Accounting Informatization

In order to deeply analyze the problems existing in the process of accounting informatization construction, this paper studies by means of literature method and questionnaire method. In this paper, the research materials in this field in the past five years are reviewed and classified. The objects of the questionnaire survey were accounting practitioners, experts and students majoring in accounting. A total of 300 questionnaires were issued and 287 valid questionnaires were finally collected. Statistical analysis was conducted with the help of SPSS software, and the following statistical data were finally obtained. The specific statistical data are shown in table 1 and figure 1.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Propotion</th>
<th>Impact</th>
<th>Composite scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low system security</td>
<td>51%</td>
<td>62%</td>
<td>62.15</td>
</tr>
<tr>
<td>Supporting system is not perfect</td>
<td>34%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Management system construction is weak</td>
<td>15%</td>
<td>17%</td>
<td></td>
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*Data came from the in-depth analysis of the questionnaire survey*
It can be seen from the data in table 1 that the main problems existing in accounting informatization are data security, system construction and imperfect management. It can be seen from figure 1 that these problems have a certain impact on the development speed and security of current accounting informatization. It can be seen from the data in table 1 that the comprehensive score of China's accounting informatization construction is only 62.15, indicating that it still needs a long time to achieve the ideal state.

4.2 Corresponding Strategy

(1) Constantly improve the security of accounting information system based on the fusion mechanism

As can be seen from table 1, the security of accounting information system is the most frequent problem in the construction of accounting informatization, and its influence on accounting informatization is as high as 62%. As mentioned above, accounting informatization is supported by network technology, which indicates that accounting profession has great dependence on network system. At present, due to the chaos of the network environment, there are all kinds of trojans, which pose a great threat to the security of accounting data information. In order to ensure the security of accounting data, it is necessary to store and transmit the data safely. The integration mechanism of block chain and cloud computing can realize classification management and encryption of data. Therefore, the integration mechanism of the two should be introduced into the construction of the accounting information system to store the data directly related to information security on the block chain, while the less important data should be put on the cloud. The protection of data can also be accomplished by virtue of the massive storage resources of cloud computing. And regularly update the network equipment, so that the hardware equipment to meet the needs of the fusion mechanism; In addition, government departments should also strengthen the supervision of the network environment, and strive to establish a safe network virus protection system to provide a relatively safe network environment for accounting informatization.

(2) To promote the continuous improvement of accounting information management system

In order to promote the continuous development of accounting informatization, China should establish a systematic accounting informatization system in the field of financial management, scientifically and rationally plan its development process, and promote the continuous improvement
of the management system. First, we should realize the organic integration of accounting management system and accounting professional knowledge, so as to realize the continuous improvement of the management system; Secondly, in the formal implementation of the accounting management system, to continue to improve the relevant content, and strive to create a safe environment; Finally, strengthen the market supervision of the accounting profession, provide policy guarantee for the accounting information security.

5. Conclusion

With the continuous development of information technology, the application of the integration mechanism of block chain and cloud computing in the accounting industry will be more and more in-depth, providing a certain guarantee for the sustainable development of accounting work. After a period of time, accounting professional information will be more in-depth development. Therefore, China should attach importance to the application of the integration mechanism of block chain and cloud computing in the accounting profession and promote the organic integration of information technology and accounting profession.

References