

# Research on the Development Strategy of Rural Accounting Informatization in the Data Age

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## ABSTRACT

The big data era has provided the precondition for the development of accounting informationization, especially with the country's attention to rural economic development, more and more rural enterprises begin to become the main force of rural revitalization, and the awareness and ability of accounting risk prevention of rural enterprises are obviously insufficient, which to some extent limits the healthy and sustainable development of rural enterprises. Regarding the rural enterprise, must realize the accountant informationization the superiority and the risk, and promotes own risk guard ability unceasingly.

**Keywords:** *Big data, Rural accounting, Informatization development, Strategy research*

## 1. INTRODUCTION

Since the beginning of the new century, with the continuous development of network information technology, the traditional accounting mode has been difficult to adapt to the needs of enterprises and economic development. Accounting informationization refers to the use of computerized accounting methods to process various accounting information by relying on modern information systems. Accounting informatization is the inevitable result of the effective integration of traditional accounting work and modern information technology. With the help of big data, accounting information processing is highly automated, and accounting information can be fed back to enterprises in a timely manner, so as to provide data support for the financial work of enterprises, effectively prevent accounting risks and improve the level of modern management of enterprises. But on the other hand, in the accounting management of rural enterprises was weak, with accounting information and big data to improve accounting work to reduce accounting risk has become a hot topic.

Although most enterprises have listed management accounting informationization as the key direction of sustainable development, there are still some problems to be solved in the process of implementation. For example, some enterprises pay less attention to the development of management accounting informatization, and the management concept of management personnel

is relatively backward, resulting in the incoherent development of enterprise management accounting informatization; it is unable to practically apply big data technology and cloud computing platform to management accounting work, resulting in low level of output data informatization, which seriously inhibits the development of the industry; although big data technology provides conditions for data processing, it also provides access channels for network illegal intruders, resulting in certain security risks in the enterprise accounting department. Therefore, this study proposes the development strategy of rural accounting informatization in the data age.

## 2. VALUE AND DEVELOPMENT TREND OF DEVELOPING RURAL ACCOUNTING INFORMATIZATION

### 2.1. Value of rural accounting informatization

The rural area usually refers to the rural collective economic organization accounting, the rural accounting informationization construction is affected and restricted by the rural economic and social development condition, has manifested the bright step by step progressive characteristic [1]. Rural accounting informationization requires rural financial managers to combine information technology and financial accounting organically, base on the basic theory, practice and method of accounting, and match with the accounting

information system with strong pertinence to meet the needs of the rapid development of rural economy and society. It should be pointed out that the organic combination of rural accounting and information technology aims at promoting the development and expansion of rural economy and society. Accounting informationization can automatically, safely and efficiently process accounting business, and the quality of accounting information can be significantly improved, and it is easy to find and correct errors. By optimizing and improving the form of data storage, accounting methods and data processing procedures, the field of accounting data is expanded, and the quality and level of accounting information are effectively enhanced [2].

Secondly, it optimizes the relevant control techniques and methods within the accounting, and improves the accounting management system. It can enhance the effectiveness of rural collective economic management, and provide scientific and accurate information and data for the village committee to make correct decisions. It also facilitates the inspection and supervision of relevant personnel at any time, effectively sharing various resources, effectively improving work efficiency, compressing and optimizing work flow, and enhancing the reliability and security of accounting information and materials. It can enhance the transparency of financial accounting information. Leaders can effectively restrict and supervise financial managers, and provide accurate and reliable information for leaders to make decisions, so that leaders can timely identify, analyze and summarize problems and avoid possible financial risks [3]. Accounting informatization can strengthen the function of beforehand prevention and effectively reduce the risk of rural financial funds. Do a good job in overall supervision and take preventive measures in advance. Do a good job in budget early warning, and effectively control productive management expenses. Dynamic disclosure of the use of funds. Strengthening the all-round supervision function of the financial management system through relevant links [4]. The accounting informationization has broken the former financial supervision pattern, from the traditional fund management to the dynamic physical management. Thirdly, the use of funds of different management nature in rural areas can be displayed accurately. People can use accounting information equipment and platform to display the use benefit, quantity, management unit and relevant evaluation value of management materials clearly and intuitively. Fourthly, it expands the ways and channels of rural financial openness [5]. Nowadays, accounting informationization is more and more popular in rural financial management. WeChat information push, electronic text, electronic touch screen and other means enrich villagers' supervision methods, provide more convenient inquiry conditions for the masses, and can play the role of supervision of villagers and public

opinions. Accounting informationization to a large extent to meet the broad masses of villagers on the open and transparent financial information, openness, standardization of the strong demand.

## ***2.2. The development trend of accounting informatization in the era of big data***

In order to prevent the accounting risk, we must consider the external environment, accounting informationization is the inevitable trend of the accounting work in the big data era, accounting informationization is the profound reform of the traditional accounting work mode, and the deep development and utilization of accounting information resources with the help of network information technology, and the effective integration of accounting information and economic business on the basis of economic and social development. For the accounting information construction, we should build a more convenient and efficient accounting information resource system, and better serve for enterprises and social organizations. In the era of big data, accounting informatization can effectively sort out and analyze the relevant accounting information in a specific industry or field, provide more accurate and accurate information for enterprises or a specific industry, further improve the utilization efficiency of accounting information resources, and effectively realize the sharing of accounting information resources [6]. Under the big data background, the current enterprise accounting function has had the profound change, the accounting informationization pays more attention to the accounting management function in the enterprise department. Traditional accounting work is more mainly records and data collection, and finally provide accounting information for the decision-makers through the corresponding calculation, in the whole accounting process, it takes some time and energy. Big data not only promotes the development of accounting informationization, but also indicates that the development of accounting informationization will be towards the direction of resource sharing and low cost. The cost of accounting informatization is gradually reduced. Many managers of rural enterprises are too conservative in management concept, and think it is necessary to invest a lot of money in promoting the accounting informationization of rural enterprises, especially in the big data era, which is a heavy cost for the development of rural enterprises. But along with the information technology unceasing innovation development, has reduced the accounting informationization cost effectively. The accounting informatization construction of rural enterprises mainly focuses on infrastructure investment, software investment and later maintenance investment, although rural enterprises need to take out the necessary funds. However, with the continuous development of network

information technology, especially the emergence of cloud computing and big data, a lot of costs have been saved for the investment in the late stage of accounting informatization of rural enterprises. With the continuous reduction of the investment cost of accounting informatization, more and more rural enterprises will increase the investment in accounting informatization of enterprises in order to better avoid accounting risks [7].

### **3. DEVELOPMENT STRATEGY OF RURAL ACCOUNTING INFORMATIZATION IN DATA ERA**

#### ***3.1. Establishing a Management Accounting Information Processing Platform***

In order to avoid the above problems, the following will, based on the background of big data [8], carry out the research on the development strategy of enterprise management accounting informatization, accelerate the development process of market economy informatization, standardize the enterprise management accounting management system, and improve the work quality of enterprise management accounting. Based on big data, it is an inevitable trend to build information processing platform for the development of management accounting information. The following will be two aspects of the management of accounting information processing platform research. On the one hand, improve the coverage of the network in the enterprise, under the condition of intranet sharing, deal with multiple items involved in the production activities of enterprises, obtain information and data from multiple channels, and provide real data support for enterprise decision-making. Introduction of the Apache Hadoop platform building technology [9], combined with the distributed platform framework, the use of large memory platform data storage card, computing and collection of large quantities of data. A C/S three-tier architecture shall be adopted to store, analyze, filter and process accounting management data and information, extract the characteristic data groups in the data set, analyze the potential risk values of project data in the market operation, and ensure the timeliness of information and data and the timeliness of output data. On the other hand, the open platform is adopted to ensure the transparent management of data and excavate the depth and breadth of management accounting data. In the process of informationization, because the designed data flow is large, data mining technology [10] is introduced to deeply analyze the relevance among large quantities of data sets. Mark objective information, finished product production process, generation time, expected cost and output cost variance. Design platform genetic algorithm function, use neural network to determine data fuzzy set, use big data return platform data decision tree to evaluate data flow. Adopting the

method of smoothing the data and dividing the data boundary to integrate the processed data can promote the development of enterprise management accounting information.

#### ***3.2. Adding safety supervision departments for management accounting data***

The authenticity of project data is the basis for ensuring the development of enterprise management accounting informatization, ensuring the safety of data and information, adding safety supervision departments for enterprise management accounting data, and improving the timeliness of data and information. First of all, improve the enterprise internal multi-network architecture, installation of computer accounting firewall, the establishment of virus and illegal intrusion barriers. Build ports for internal network and external information contact, and set up access channels for user identity information. The employees of the accounting department shall, when logging into the network, input the correct work number and password as required, and may log into the website to work if they pass the authentication. If they fail to pass the authentication for more than three times, the network early-warning device will be triggered, and the computer will automatically investigate and punish the edge information of the account, detect whether the user is carrying viruses, and filter the valid data in the database according to the user's login request to prevent the user from illegally invading.

Secondly, we should strengthen the management and control of the input data of management accounting, combine the application of artificial intelligence technology in enterprises, turn on the function of computer face recognition, take the data encryption technology as the core of guaranteeing the information security, make use of the basic security protection mechanism and information guarantee function of enterprises, and set up a data management center. If the data output by the financial management department of an enterprise is transmitted in the form of encrypted files, the receiving end shall open the designated documents or rewrite the information data according to the key of the input end so as to avoid the problem of data tampering affecting the security of the enterprise. Big data technology is used to unify the final data of financial accounting into financial statements according to the basic accounting method, and data conversion line graph is automatically generated in combination with data classification, so as to complete the collection and processing of information in financial statement accounting. Finally, the tasks of the management accounting department and the project department shall be coordinated to deal with, on the premise of sharing data and information, use the original vouchers and electronic sheet numbers to sort out the project

development of the enterprise in the past three to five months, and in combination with the statistical methods of information flow, check the inflow methods and data vouchers of management accounting funds to ensure the informatization development of all aspects of internal management accounting of the enterprise.

### **3.3. Improving the Security of Accounting Information Resource Sharing System**

In order to improve the security of accounting information resources sharing system, we can strengthen it from the following two aspects. First, use a more sophisticated approach to identity authentication. Set up a variety of different permissions, make the operation protection mechanism more systematic, to ensure the security of information resources sharing platform data information; The security of accounting information storage and transmission can be ensured by increasing the R&D of virtual machine software and better simulating information system. Through the virtual running system, the information system can be isolated from the outside system, so that the system operating alone will be more secure, and can resist hacker's attack during the system running. Also can pass to build more effective firewall, resist the intrusion of hacker and virus, protect data information thereby safe.

### **3.4. Improve the quality of accountants**

In the big data era, accounting informationization can not be carried out smoothly without the support of professional technology, and the ability of accounting personnel will face greater challenges. Therefore, small and micro enterprises in rural areas should strengthen the professional training of accounting personnel, fundamentally improve the basic quality of accounting personnel, reduce the accounting risks caused by operational errors, and better promote the construction of accounting information. It is necessary for the accountants in rural enterprises to have a full understanding of relevant technologies, improve their understanding of accounting informationization, and reduce their repulsion to informationization. Reduce the risk of accounting informatization. In addition, it is also very important to train the managers of rural enterprises, which can make the managers of rural small enterprises pay more attention to the accounting informationization construction and promote it actively.

## **4. CONCLUSION**

Under the big data time background, the rural enterprise obtained the new development opportunity, especially in the rural enterprise accounting informationization construction process, has not only enriched the accounting informationization method with the big data resources, simultaneously also promoted the

rural enterprise accounting management level, further reduced the rural enterprise accounting risk. For the development of rural economy, rural enterprises are the main force. In order to realize the modernization of agriculture and the rapid development of rural economy, we must rely on the vigorous development of rural enterprises. In the process of accounting informationization construction, rural enterprises can enrich accounting means with big data resources, improve the level of accounting personnel in rural enterprises, improve accounting efficiency, and reduce the accounting risks of rural enterprises. The traditional accounting operation model can not meet the needs of today's times, therefore, the accounting informationization of rural small and micro enterprises is inevitable for its development. However, there are still many problems and risks in the process of accounting informatization of rural small and micro enterprises, and effective measures should be taken to prevent them. Therefore, governments at all levels should attach importance to the accounting informatization construction of rural enterprises and give relevant policy and talent support to further enhance the level of accounting informatization of rural enterprises, realize the sustainable development of enterprises and vigorously promote the economic and social development of rural areas.

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