Development of Computer Technology Application in Financial Accounting

Jing Huang*

Huang Jing, Institute of finance and economics, Hainan Radio and Television University, Haikou, Hainan, 570208

*Corresponding author e-mail: Jinghuang@163.com

Abstract. With the rapid development of China's economy, network technologies are emerging in an endless stream. Various advanced network technologies have driven the progress of society and the growth of enterprises. The rise of computer technology plays a vital role in corporate management and development. With the advent of the Internet era, major changes have occurred in the business environment of enterprises, which have not only broken the regional boundaries but also formed a global business market. Given the unprecedented trade volume of enterprises, the traditional manual financial accounting work can no longer meet the present demand. The introduction of computer technology has dramatically improved the efficiency of financial accounting while bringing substantial problems and challenges to the internal financial accounting at the same time. Modern network and communication technology make information increasingly open and transparent, which has not only broken the territory concept and boundary but also formed a global competitive market. Driven by advanced technology, enterprises have quickly launched new products to the market with a significantly shortened product life cycle. Facing such a fiercely competitive environment, for survival or development, enterprises have to reconsider and plan their business approaches, management models, operation procedures, organizational structures, and internal control systems based on future IT development.

Keywords: Computer Technology, Financial Accounting Information, Automatic Management

1. Introduction

They always stay in the former traditional financial accounting management mode[1-2]. They think that the management of financial accounting by computer network is not very good for the privacy of enterprise finance. And some will think that although computer technology can speed up the work efficiency[3-4], it will increase the error rate, which is not conducive to troubleshooting, and that the
traditional one is more reliable. The calculation level has a strong calculation ability and operation speed\cite{5,6}, which is an essential part of social development and corporate development. The financial accounting business is realized by computer technology, which can not only speed up the efficiency, but also the operation result is very accurate. Even if there is a mistake, it can be quickly checked out, and it is also conducive to the storage and search of data. It's very efficient.

Therefore, in today's computer technology developed situation, to improve the effect of the application of computer technology in financial accounting, first of all, to improve the enterprise's understanding of computer technology, not only to recognize the computing speed of computer, but also to know the completeness of computer and its future development trend.

2. Computer Technology and Financial Accounting

With the development of computer technology, it has not been popularized. Most of the employees can't use computers, let alone software. In our country, there is a lack of talents in the computer industry. Computer technology can't perfectly integrate with complicated and tedious financial accounting business. Therefore, there is a situation where the financial specialist does not understand the code and the financial specialist does not understand the financial affairs of the computer. At present, the cultivation of computer talents in Colleges and universities can only cultivate one-sided talents, which can only be a code farmer with a version of code. They do not understand the business logic, and the works they produce are not perfect, so what is needed most now is to cultivate the programmers of the financial accounting business of the directors. Only in this way can we perfectly explain the complicated logical relationship of financial accounting business and make customers and financial accounting practitioners better use it.

Given the sample data set:

$$D = \{x_1, x_2, \ldots, x_n\}, \ x_j \in R^d, i = 1, \ldots, n.$$  

Assuming that l samples are labeled as $\varepsilon = (x_i, x_2, \ldots, x_l)$, the corresponding label $\eta = \{y_1, y_2, \ldots, y_l\}$.

The importance of each feature dimension is different in classification. To a certain extent, financial approval data can overcome the shortcoming that financial approval data treat each feature dimension equally. Its definition is as follows:

$$d_A(x_i, x_j) = \sqrt{(x_i - x_j)^\top A(x_i - x_j)}$$  \hspace{1cm} (1)

$x_i \in R^d$, $A \in R^{d \times d}$ is a symmetric positive semidefinite matrix.

According to the properties of positive semidefinite matrix, $A$ decomposable into $A = L^\top L$, the above formula is:
\[ d_d(x_i, x_j) = \sqrt{(x_i - x_j)^T A(x_i - x_j)} = \sqrt{(x_i - x_j)^T L^T L(x_i - x_j)} \\
= \sqrt{(Lx_i - Lx_j)^T (Lx_i - Lx_j)} \] (2)

It is equivalent to the matrix as a mapping, mapping the data of the original space to the new space, and converting the financial approval data of the original space to the financial approval data of the new space.

3. Computer Technology in Financial Management Solutions

In view of the above difficulties and problems, how can we deal with them, so that the computer can get a good solution in the financial automation management of enterprises. According to the above problems, the following solutions are summarized to improve the comprehensive professional talents, improve the enterprise's awareness of computer technology in financial accounting management, and enhance the humanization and security of automatic management tools.

3.1. Improving the Output of Professional Talents

According to our analysis, at present, the computer talents trained by the state are only limited to the computer technology. For some other industry knowledge and business logic, they cannot be well understood, which leads to the failure to show the complicated logic of financial accounting. Therefore, it is necessary to train the relevant professional knowledge while training the computer professionals, can better understand the professional knowledge, to make a practical, easy to use management tools, to better manage the information of the enterprise.

3.2. Improving Corporate Cognition of Computer Technology

China's technology development is relatively late, many enterprises have been the traditional way of processing, for the new technology, cannot have a good understanding, therefore, the application of computer technology in enterprises cannot be recognized. Therefore, we need to carry on the advanced education to the managers of enterprises, so that they can better understand the role and benefits of computers, so that they can have a better understanding of computer technology as early as possible, to apply computer technology in enterprises. In addition, we also need to train relevant personnel, use computer software and relevant professional office software. So that all enterprise personnel can use management software very well, faster, more convenient and more accurate office.

4. Importance of Computer Technology in Financial Management

Financial management is the core content of corporate management. It plays an important role in the company's economy and financial circulation. Moreover, it is the lifeblood of the company. The convenience of computer brings a lot of convenience to the enterprise. Next, we will discuss the importance of computer technology in the financial management of the enterprise, mainly in the following aspects.

For some large-scale enterprises, the transaction volume of enterprises is very large. In the past, the traditional manual bookkeeping method was used for financial accounting management, which not
only requires a large number of financial accounting personnel, but also has a lot of workload. Therefore, the application will bring financial accounting personnel Great convenience, at the same time, will reduce the financial management errors, but also promote the quality of the whole business financial accounting, reduce the number of financial accounting staff, reduce expenses.

The calculation of computer technology is very accurate, and it is very convenient to record, which is helpful for financial accounting management. It can not only reduce the occurrence of irregular operation, wrong account recording and missing account in the process of financial accounting, but also be very convenient when checking the account, to improve the quality of enterprise financial accounting. Due to the deviation of business development orientation, excessive attention to the implementation of marketing strategy, and insufficient attention to the internal financial accounting work, many problems appear in the financial affairs processing, which greatly hinders the optimization and improvement of business management mode.

5. Application of Computer Technology in Financial Management
The traditional work of financial management is basically done by hand. The fineness and load of its work increase the workload of financial personnel. This is not only easy to make mistakes in the work, but also spent a lot of energy and time.

![Financial approval risk control system](image-url)

**Figure 1.** Software architecture of the financial management information system.

The close combination of financial management and business development is the goal of corporate development. The integration of Finance and business management through information technology can be implemented through financial management software. Generally, it will introduce and apply foreign advanced technology to realize the information development within the enterprise. The combination of practical work and system software can realize the integration and comprehensive management of the company's business, marketing and capital flow, so that the enterprise can achieve the basic goal of cost control and improve the basic economic benefits of the enterprise.
Table 1. Basic financial data of company Y in 2016-2018.

| Particular year | Net profit | sales revenue | Average assets | Total liabilities | All capital |
|-----------------|------------|---------------|----------------|------------------|-------------|
| 2016            | 2000       | 16000         | 10500          | 3020             | 19700       |
| 2017            | 3000       | 28000         | 12800          | 5500             | 23500       |
| 2018            | 4100       | 3500          | 19800          | 8800             | 28800       |

The above table shows the financial data of a company's net profit, sales revenue, total assets, total liabilities and total capital from 2016 to 2018. According to DuPont analysis, we can make a short-term financial analysis of Y company's financial situation, but there are still limitations in the analysis method, which we can refer to here.

Computer technology strengthens the powerful storage technology, changes the storage method and financial accounting form of financial accounting information, and puts forward new requirements for the supervision of financial accounting data. The first is the change of audit form. The traditional storage is paper storage. In the age of mature computer technology, storage becomes a magnetic medium. Hence, financial accounting data are more accurate and the logic is more balanced. In addition, it can save manpower and material resources to a great extent. When traditional financial accounting data is calculated by computer, a large number of financial accounting personnel are required to check and calculate the corresponding work. With the help of computer automation management technology, the task of financial accounting staff is greatly reduced, the work efficiency is improved, and the number of financial accounting staff is saved, that is to say, the cost of this aspect is reduced. The development of industry plays a great role in promoting. Meanwhile, computer technology will develop more mature in practical application.

6. Conclusions

In this paper, the problems of computer technology in financial work management are analyzed, and the corresponding solutions to the problems are proposed. Finally, its significance is analyzed. In conclusion, computer technology plays a crucial role in financial work management. As financial accounting and corporate management personnel in the new era, they have to keep up with the pace of the times, apply the latest technology, and accomplish their tasks with the highest efficiency, to promote the economic development of our country better.

References

[1] K P Pradhan, S K Mohapatra, & P K Sahu. (2015). Design equivalent scaling on double gate finfet towards analog and rf figures of merits: a technology computer aided design estimation. Journal of Low Power Electronics, 11(3), 1-7.

[2] V.I. Piterbarg, K.T. Wong, & Y.I. Wu. (2010). Spatial correlation-coefficient across a receiving sensor-array - accounting for propagation loss. Electronics Letters, 46(19), 1351-1353.

[3] Marcin Bienkowski, Nadi Sarrar, Stefan Schmid, & Steve Uhlig. (2018). Online aggregation of the forwarding information base: accounting for locality and churn. IEEE/ACM Transactions on Networking, PP(99), 1-14.
[4] Ralph Kühne, George B. Huitema, & Georg Carle. (2011). A simple distributed mechanism for accounting system self-configuration in next-generation charging and billing. Computer Communications, 34(7), 898-920.

[5] P. I. A. Kinnell. (2015). Accounting for the influence of runoff on event soil erodibilities associated with the ei30 index in rusle2. Hydrological Processes, 29(6), 1397-1405.

[6] George Strawn, & Candace Strawn. (2017). Erich bloch: mastermind of computer technology and science administration. It Professional, 19(2), 70-72.