Analysis of Information Technology Application in the Financial Management of Enterprises

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Abstract. With the development of social networking and modernization, information technology (IT) plays a vital role with a significant influence on the mode and efficiency of all walks of life. In general, the financial management of enterprises has transformed from the traditional to computerized management mode, along with the significant improvement in and the efficiency of financial departments in enterprises. In this paper, the influence of IT on enterprise financial management is analyzed. The relevant strategies and methods are set out to facilitate the growth of financial departments in enterprises.

Keywords: Information Technology, Enterprise Financial Management, Application Strategy

1. Introduction
To adapt to the development of the economy and society, there has been a fundamental change in the management mode and content of the financial department[1-3]. To strengthen the competitive advantage of enterprises in the industry, enterprises should take financial management as the primary reform work[4-6]. In this way, enterprise personnel can understand the importance of the application of financial management IT in the context of the Internet as early as possible, give full play to the role of financial management so that the enterprise can achieve the improvement of financial management ability and essential economic benefits.

2. Impact of IT on financial management of enterprises
2.1. IT and management objects
The forms of payment have changed dramatically, the speed of cash flow has been accelerated, and the network security problems faced have intensified. The work required for enterprise financial...
management has increased and also faces the challenge of the risk problems.

2.2. IT and financial management tools
Through IT, financial management can be diversified, which can be distinguished from traditional financial management effectively. From the processing capacity of IT, it has significant advantages in data processing. Through computers, enterprise users can improve the decision-making ability of financial management departments in statistics, collection and storage, and implement real-time control of financial management by computer. Hence, when the relevant problems occur, it can control them in the most effective time conditions, and IT can also provide various schemes for the management of the financial management department of enterprises through the application of different computer technologies. Supported by IT, various financial tools can be used online to serve financial work better.

2.3. IT and financial information processing
The financial management of an enterprise can use technology to complete the complicated work through the intervention of IT to achieve the breakthrough of critical and challenging points in the field of industrial technology. From the perspective of the information processing ability of the financial department, the requirement for the financial information processing ability of an enterprise at this stage is a trend to conform to the development of modern society. Through IT, the financial management of an enterprise can facilitate the sharing of information, the form of database and the individualized development of enterprises, to implement the active connection among the work content, purchase transaction, production management and marketing business of enterprises by using IT under the background of Internet, and realize the effective management of financial management information and cost in a systematic production chain Control, expand the profit business with higher width, and then realize the breakthrough of traditional financial management mode.

2.4. IT and accounting
In general, the financial management of an enterprise is carried out by professionals with professional accounting qualifications. With the IT intervention, the core vocabulary theory form of traditional accounting can be weakened, and the structural method of accounting information source and information representation can form a diversified development. Hence, the accounting information involved in the accounting work can be directly reflected in the business progress, and the traditional form of accounting voucher will be gradually eliminated. Also, after the combination of enterprise information data and IT, the effective communication between enterprise managers and investors can be achieved through the Internet sharing platform, and the decision-making information can be applied by accessing the shared information in the system on the website, to realize the effective economic communication between enterprises and customers.

3. Status Quo of IT application in financial management of enterprises

3.1. Scope of IT application in enterprises
In recent years, China has emphasized IT application based on the Internet. Many enterprises have realized that society is undergoing unprecedented changes in the mode of capital flow. However, from
the perspective of enterprise financial management, information.

**Table 1.** Basic financial data of company Y in 2016-2018

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

The table shows the financial data of a company's net profit, sales revenue, total assets, total liabilities and total capital during 2016-2018. Through the DuPont analysis, short-term financial analysis of Y company's financial situation can be performed. However, there are still limitations in the analysis method, which can be used as a reference herein.

![Figure 1](image-url)

**Figure 1.** Basic financial data of the company during 2016-2018

The evaluation model can be obtained by constructing the optimization model, taking the dual programming:

\[
\begin{align*}
\min V_D &= \left[ \theta - \mathcal{E} \left( e^T s^- + e^T s^+ \right) \right] \\
\text{s.t.} & \sum_{j=1}^n x_j \lambda_j + s^- = \theta x_0 \\
& \sum_{j=1}^n x_j \lambda_j - s^+ = y_0 \\
& \lambda_j \geq 0 (j = 1, 2, \cdots, n), s^+, s^- \geq 0
\end{align*}
\]

Where \( e^T = (1, 1, \cdots, 1) \) represents the m-dimensional vector, and its elements are all 1.

To better evaluate the technical effectiveness between production departments, an evaluation model is generally required, with the structure as follows:
Then the new decision-making unit is effective compared with the original decision-making unit. The conversion equation is:

$$\begin{align*}
\min V_0 &= \left[ \varphi - \xi \left( e^T s^- + e^T s^+ \right) \right] \\
n.s. \sum_{j=1}^n x_j \lambda_j + s^- &= \varphi x_0 \\
\sum_{j=1}^n x_j \lambda_j - s^+ &= y_0 \\
\sum_{j=1}^n \lambda_j &= 1 \\
\lambda_j &\geq 0 (j = 1, 2, \cdots, n), s^+, s^- \geq 0
\end{align*}$$

(2)

Where \( (x'_0, y'_0) \) represents the “Projection” of \((x_0, y_0)\) corresponding to the decision unit \(j_0\) on the relatively effective surface of the evaluation.

According to equation (3), the adjustment amount of each input index corrected by the non-evaluation competent department can be obtained on the premise of keeping the output unchanged.

3.2 Integrated management of corporate finance and business

The close integration between the financial management of an enterprise and its business development is the goal of enterprise development. The management of integrating finance and business through information technology can be implemented through financial management software. Generally, foreign advanced technologies are introduced and applied to realize the informatization development of enterprises. The combination of actual work and system software can realize the integration and comprehensive management of the company's business, marketing, and capital flow, so that the company can achieve the basic goal of controlling costs and enhance the company's basic economic benefits.

For enterprises, financial management departments can be regarded as the “Lifeblood” of an enterprise. The financial management of an enterprise can maintain the operation of the enterprise with the development of informatization and efficiency. Enterprises should focus on the information and network development of financial management, through the development and use of relevant financial management software. It presents a new management, service and marketing mode. We should not only realize the efficient use of software but also pay attention to the production of advanced enterprise management concepts. It is necessary to focus on the assumption of the financial management system, pay attention to the scientific methods of network platform construction and application, pay attention to the safety maintenance of system platform use, and realize the development of localization through the reference of foreign advanced technologies.
3.3. Professional quality improvement of employees in corporate finance department

At present, the relevant staff of China's financial department usually pay more attention to the improvement of their accounting and financial professional literacy. However, in order to achieve the effective application of information technology in corporate financial management, new requirements are inevitably imposed on practitioners. The company should focus on the cultivation of the concept of relevant management workers, and coordinate the development of the improvement of the professional quality of financial staff and the improvement of information technology operations. It can carry out training work to familiarize employees with the improvement of financial work software and information technology knowledge, and be able to master the company's financial platform and database systematic operation.

4. Conclusions

Financial management is a crucial item related to the future development of companies. Hence, attention should be paid to the application of IT and the promotion of the construction scheme of a financial management network system to ensure that it is geared to the modern society. In addition, it is necessary to break through the key and challenging problems in financial management to drive better development of enterprises.

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