

# Research on the Problems and Countermeasures of Financial Management Transformation in Enterprises in the Digital Era

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## Abstract

In the digital age, enterprise financial management is no longer limited to traditional basic work such as accounting, reporting, and budgeting, but needs to move towards new fields of digitization, intelligence, and refinement to adapt to the rapid changes in the market and achieve sustainable development of enterprises. However, in the transformation of financial management, enterprises face many problems and challenges, which to some extent restrict the smooth progress of the transformation of financial management. This paper analyzes the transformation of financial management in enterprises in the digital age and formulates corresponding solutions, aiming to help enterprises better cope with these challenges and problems, and achieve digital transformation and upgrading of financial management.

## Keywords

Digital Age; Enterprises; Financial Management; Transformation Problems; Countermeasure.

## 1. Introduction

On September 4, 2023, the State owned Assets Supervision and Administration Commission of the State Council held a meeting to promote the construction of the central enterprise treasury system. The meeting required all central enterprises to aim to build world-class enterprises, based on the construction of the treasury system, accelerate the digital transformation and upgrading of financial management, and assist its high-quality development. This policy provides effective guidance and support for the digital transformation of enterprise financial management. The financial management transformation of enterprises in the current digital era should be based on these policy requirements, combined with their own actual situation, actively respond to various challenges, and formulate specific financial management transformation strategies to improve the efficiency and quality of financial management.

## 2. The Transformation Problems of Financial Management in Enterprises in the Digital Era

### 2.1. Insufficient Integration of Business and Finance Leads to Information Silos

In the era of digital economy, the integration of business and finance is the core content of enterprise financial management transformation. However, in the trend of financial digital transformation, the insufficient integration of business and finance is a key issue that urgently needs to be solved. The separation of finance and business not only brings many problems to operation, but also leads to information silos in financial management. The main manifestations are as follows. Firstly, business and financial data are independent of each other and lack sufficient sharing. Due to the use of different information processing systems by the business and finance departments, there may be some differences in data formats and standards, resulting in the inability to achieve automatic docking and real-time synchronization of data

between the two. Not only will it increase the workload of manually obtaining financial data in financial management work, but it is also prone to errors, affecting the quality of work. The second is the untimely transmission of information. When communicating and transmitting information between business departments and finance departments, there is usually a time difference, which leads to the inability to update and share information in real time, resulting in the inability of enterprises to respond in a timely manner to market changes and business dynamics, and reducing decision-making efficiency.

## **2.2. The Application of Digital Technology is Still Lagging Behind**

The application of digital technology in financial management of enterprises in the digital age has not yet achieved the expected goals, mainly manifested as: firstly, low technology integration. Although digital technology has made significant progress, the integration of these technologies in the field of enterprise financial management is still not high enough, such as financial data processing systems being incompatible with other systems and lacking integration; Difficulty in fully utilizing and analyzing data collection can easily lead to low collaboration efficiency between financial management systems and other business systems. The second is insufficient utilization of data. The application of digital technology can fully tap into the value of financial data, but due to insufficient application, most enterprises have not been able to use these digital technologies to conduct in-depth analysis and mining of financial data, limiting their ability to perceive market trends and business, and affecting the scientific and accurate decision-making of financial management. Thirdly, the level of intelligence needs to be improved. The effective application of digital technology can achieve intelligent and automated financial management, improve the quality and efficiency of financial management. However, due to insufficient application, most enterprise financial management processes still rely on manual operations, resulting in a low level of intelligence and inability to meet the needs of financial management transformation.

## **2.3. Security Risks in Financial Data**

One is the risk of data leakage. The rapid development of network technology in the digital age poses a risk of illegal acquisition of corporate financial data by external attackers. Once hackers invade or internal personnel intentionally leak, sensitive data such as corporate financial statements, customer information, and supplier information may be stolen, leading to the risk of trade secret leakage and significant economic losses for the enterprise. The second is the risk of data tampering. The storage and transmission of financial data in the digital age rely on information systems. However, information systems themselves may have vulnerabilities and security risks, which can lead to illegal tampering of financial data, transaction records, and other data, resulting in financial data distortion and seriously affecting the judgment of decision-makers. The third is the risk of data loss. In financial management, enterprises may face the risk of financial data loss due to hardware failures, software errors, or human errors, which can result in the inability to accurately record historical transactions and generate complete financial statements, affecting the daily operation and decision-making of the enterprise. The fourth is the risk of internal fraud. Although digital technology can improve the transparency and efficiency of financial management, it also provides opportunities for internal personnel to engage in fraud. By manipulating information system parameters, forging transaction records, and other means, internal personnel can conceal the true financial situation and profit from it.

## **2.4. Shortage of Composite Digital Talents**

One is the insufficient supply of composite talents with financial expertise and digital skills. Currently, most financial management teams in enterprises do not lack experienced financial personnel, but they often face the dilemma of insufficient digital skills when dealing with digital

transformation. Mastering this skill is not achieved overnight and requires long-term learning and practical accumulation. Meanwhile, although there are some talents with digital skills in the market, they often lack in-depth understanding of the financial field and find it difficult to effectively apply digital technology in financial management practices. This supply-demand contradiction further exacerbates the shortage of composite digital talents. The second issue is the imperfect mechanism for cultivating and introducing composite digital talents. Currently, most enterprises have not established a relatively complete system for cultivating composite digital talents, especially in the transformation of financial management, which lacks training on digital skills for financial management personnel. Moreover, in terms of talent introduction, enterprises find it difficult to recruit composite digital talents that meet the requirements, resulting in the inability to find suitable talents to support the transformation work in financial management transformation.

### **3. Strategies for the Transformation of Enterprise Financial Management in the Digital Age**

#### **3.1. Promote the Integration of Business and Finance to Achieve Data Sharing**

One is to build an integrated data information management platform that integrates business and finance. In the digital era of enterprise financial management transformation, advanced technologies such as big data and artificial intelligence should be actively utilized to build an integrated data information management platform for business and finance integration, achieving business and finance integration and data sharing. Not only does it help eliminate information silos, but it also enhances the analysis and application value of data information. Firstly, it is necessary to unify the management of various business data calibers. In response to the situation where business and financial data information systems are independent of each other, enterprises should unify the management of each business data caliber and solve the problem of mismatched data transmission calibers. And, enterprises build an integrated database to achieve data sharing and interaction. Secondly, it is necessary to develop a business finance integration function module. Enterprises should develop a series of business finance integration functional modules based on business needs, such as financial management, budget management, business analysis, etc., to promote cross departmental collaboration and provide decision-making support for management. For example, a state-owned enterprise constructed an integrated data information management platform for business and finance, successfully incorporating a total of 35 core main businesses into the platform's management, achieving a large amount of basic data review, calibration, and interface development. This demonstrates the enormous potential of the integrated data information management platform for business and finance integration in improving enterprise management efficiency and decision-making level.

The second is to build a financial sharing system. Firstly, it is necessary to clarify the strategic positioning and goals of the financial sharing system, ensuring that it is consistent with the overall strategic goals of the enterprise. Moreover, in terms of strategic positioning, it is necessary to further streamline and optimize financial processes, concentrate and optimize accounting work, and improve work efficiency and quality. Secondly, it is necessary to build an efficient information exchange platform. Through this platform, intensive processing of financial data can be achieved, enabling rapid transmission and sharing of data. Moreover, with the help of this platform, financial and business information can be collected and integrated in real-time, providing comprehensive and accurate data support for management and helping enterprises make wiser decisions. In addition, in order to fully leverage the role of the financial sharing system, multiple functional modules should be set up. In the functional module settings, comprehensive consideration should be given to the requirements of enterprise financial

management transformation and business finance integration. Funds accounting, assets and costs, expenses and salaries, financial statements, system maintenance, auditing, business management, tax management, data analysis and other modules can be set up. These functional modules can integrate business and financial department data information into the platform for unified management and application, achieving seamless connection and efficient collaboration of business and financial data. For example, Luxi Enterprises collaborated with UFIDA to jointly create a financial sharing system with Luxi Enterprise characteristics. Through system settings, the last mile of business and finance was fully connected, achieving modularization and sharing of business and financial data.

### **3.2. Improving the Application Level of Digital Technology**

One is to develop a plan for the application of digital technology. Enterprises should clarify the application goals and importance of digital technology in financial management transformation, and develop long-term planning plans, including key areas of technology application, expected results, and implementation steps. At the same time, unified technical standards and specifications should be established to ensure data exchange and interoperability between different systems, platforms, and tools, providing a foundation for the integrated application of technology. The second is to strengthen the construction of digital technology application infrastructure. Enterprises should invest necessary resources to upgrade and improve their digital technology infrastructure, including hardware equipment, network facilities, data storage and processing systems, which can provide stable and efficient support for the application of digital technology. At the same time, enterprises should actively introduce advanced technologies such as artificial intelligence and cloud computing, improve the intelligence level of financial management systems, and achieve functions such as automated decision-making and intelligent prediction. The third is to promote the application of digital financial management tools. Enterprises should actively promote and apply various digital financial management tools, such as cloud computing, artificial intelligence, etc., to help enterprises achieve real-time collection, processing, and analysis of financial data, improve decision-making efficiency and accuracy. And enterprises should combine the characteristics of digital technology, optimize financial management processes, reduce tedious manual operations, and improve work efficiency. For example, a certain intelligent manufacturing enterprise collaborates with Fenbeitong. In this financial management tool, multiple invoicing entities can be supported by customizing billing fields, and billing can be automatically split based on department dimensions. Fenbeitong provides monthly billing, and financial personnel only need to confirm the billing before directly applying for invoicing. This financial management tool can not only collect, process, and analyze financial bill data in real-time, but also optimize the reimbursement and review processes of financial bills, reduce tedious manual operations, and effectively improve work efficiency.

### **3.3. Building a Digital Security System**

One is to strengthen the data protection mechanism. Firstly, it is necessary to build data encryption and access permissions. Enterprises can adopt advanced encryption algorithms to ensure the confidentiality and integrity of their financial information. Moreover, enterprises can set strict access permissions in the financial management process, effectively preventing unauthorized access and data leakage. And it is necessary to establish a regular backup and recovery mechanism. Enterprises should establish a regular data backup system to prevent data loss or damage. At the same time, it is necessary to establish a data recovery mechanism to ensure that data can be quickly recovered and losses can be reduced in case of security issues. The second is to improve the safety management system. Firstly, clarify the goals of data security management. In enterprise financial management, clear data security objectives, principles, and requirements should be established, and detailed data security operation

standards and processes should be developed to ensure that financial management personnel strictly follow security regulations when processing financial data. Secondly, it is necessary to enhance the safety awareness of financial personnel. Enterprises should regularly provide data security training to financial personnel, guiding them on how to handle financial data correctly and safely. And it is necessary to establish a reward and punishment system, and appropriate punishment should be given to personnel who fail to process financial data in accordance with safety regulations. It can enhance the importance and prevention awareness of financial data security among employees, ensuring that they can identify and respond to potential security risks. The third is to introduce advanced security technologies. Enterprises can introduce intelligent firewall technology, intrusion detection systems, and establish a multi-level security protection system to effectively block external attacks and illegal access. And through security auditing and monitoring technology, the access and usage of financial data are monitored in real-time, anomalies are detected in a timely manner, and corresponding measures are taken. In case of abnormal situations, a secure emergency response mechanism should be established, such as emergency response processes, handling measures, and recovery plans, to ensure timely handling of data security incidents and reduce losses.

### 3.4. Strengthening the Cultivation and Introduction of Digital Talents

Firstly, enterprises should strengthen cooperation with universities and research institutions to jointly cultivate versatile digital talents. In the digital age, enterprises should jointly carry out practical training and internship projects with universities, so that financial management students can better master digital skills in practice, and cultivate composite digital talents that meet the needs of enterprises. For example, ZTE New Cloud Enterprise has strengthened cooperation with Nanjing University to jointly create a high-quality textbook called "Intelligent Finance Tutorial". And with the help of intelligent finance cloud VR laboratory, financial sharing practical operation laboratory, artificial intelligence laboratory, big data laboratory, etc., it helps students reconstruct the integrated knowledge system of business and finance and construct cutting-edge technological capabilities, which can jointly cultivate composite digital talents. At the same time, enterprises can also strengthen cooperation with research institutions, invite experts from research institutions to provide employees with the latest digital knowledge and technology through lectures, guide employees to learn digital technology, and effectively apply it in financial management work. The second is to develop a comprehensive talent training and introduction plan. Enterprises can provide digital skills training for existing employees, including advanced technology operation skills such as data analysis and processing, cloud computing and artificial intelligence, digital financial management knowledge and methods, etc. Enterprises can improve employees' digital literacy and professional skills through regular training and learning. In terms of talent introduction, enterprises can introduce composite digital talents through high salary recruitment, raise the employment threshold, and require the hired financial personnel to have relevant digital skills. The third is to establish incentive mechanisms to encourage employees to actively learn and master digital skills. Enterprises can establish digital skill enhancement rewards to encourage financial personnel to actively learn and enhance their digital skills, effectively integrating digital skills with financial management skills, transforming them into actual results for employees, and providing guidance and analysis for the transformation of enterprise financial management. In this regard, rewards and commendations will be given to employees who have achieved significant results in digital learning, motivating them to continuously improve their digital skills.

## 4. Conclusion

In short, the traditional financial management model in the digital age has gradually revealed its limitations, making it difficult to adapt to development needs, and transformation has

become an inevitable trend. However, in the process of moving towards digital financial management, enterprises also face numerous challenges and problems, such as insufficient integration of business and finance leads to information silos, lagging application of digital technology, security risks in financial data, and a shortage of composite digital talents. In response to these issues, a series of targeted solutions have been explored to promote the digital transformation of enterprise financial management and ensure the sustainable and stable development of the enterprise.

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