



# Financial Management Problems and Countermeasures of SMEs in the Context of Big Data

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**Abstract:** In recent years, the rapid development of the Internet has brought more and more new doses to the society. China has entered the era of big data. The development of big data has brought new opportunities and challenges to all walks of life. In particular, financial management, due to the high degree of dependence on data in the financial management industry, combined with big data can better play the role of financial management. The advent of the era of big data has brought historic innovation to the field of financial management. This paper first introduces the general situation of financial management of small and medium-sized enterprises, and then briefly describes the role of financial management of small and medium-sized enterprises under the background of big data. This paper analyzes the problems existing in the financial management of small and medium-sized enterprises, and puts forward solutions to the problems one by one. Finally, it lists the application example of enterprise financial management in small and medium-sized enterprises under the background of big data - ERP system. This paper expects to promote the standardization of financial management of small and medium-sized enterprises under the background of big data through the proposed financial management information system and financial early warning mechanism, improve the financial budget system and other suggestions, and then promote the healthy and sustainable development of small and medium-sized enterprises.

**Keywords:** Small and Medium-Sized Enterprises, Financial Management, Big Data

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## 1. Overview of Financial Management for Small and Medium Enterprises

Financial management is to manage the investment of enterprise assets, capital financing, working capital in operation, profit distribution and other issues under certain strategic objectives of the enterprise. Financial management is the core content of small and medium-sized enterprise management [1]. The financial management of small and medium-sized enterprises is achieved by controlling their budget in advance and avoiding risks in the face of constantly changing social environments. The role of financial management is mainly reflected in four aspects: investment and financing management, cost management, Operations management, and performance management. Through financing, investment, daily operation, profit distribution and other financial activities, the circulation and use of SMEs' funds can be realized [2].

## 2. The Role of Financial Management in Smes in the Context of Big Data

In the context of Big data, financial management can bring the following effects to SMEs:

### 2.1. Early Warning Letter Financial Data Replaces Post Recovery

The report of financial data is the basis of early traditional financial analysis, so early financial management has poor analysis and early warning ability in SMEs [3]. Therefore, it is an inevitable trend for SMEs to adopt Big data financial management system. By adopting the cloud system in the Big data financial management system, SMEs can more easily collect and sort out the internal and external information of SMEs. At the same time, cloud systems can also process a large amount of irregular data and create

graphs (tables) of customer shopping demand changes, which is beneficial for small and medium-sized enterprises to grasp the changes in customer demand and help them adjust their product, production, and sales strategies, and develop steadily in the ever-changing market. On the other hand, the analysis of Big data through the cloud system can Prediction market fluctuations in advance to set an early warning mechanism.

### ***2.2. Transforming from Precise Accounting to Comprehensive Management***

Traditional financial management systems mainly provide financial information for decision-makers, making them more likely to make incorrect decisions. Among them, the main business is bookkeeping, accounting, and withdrawal. Cloud systems utilize information from traditional financial management systems, including sales and inventory information. Small and medium-sized enterprises can develop future procurement, production, and sales plans based on their own operating conditions [4]. For example, financial cloud management systems establish connections with small and medium-sized enterprises through cloud systems by collecting commodity logistics, analyzing the best transportation routes, allocating vehicles and personnel, in order to improve work efficiency and reduce transportation costs.

### ***2.3. Improving the Processing Efficiency of Enterprise Financial Data***

Through Big data analysis, SMEs can more accurately understand customers' shopping tendencies, properly arrange product configurations, provide SMEs and their employees with business negotiation direction, provide guarantee for the maximum operating efficiency of the company, better achieve sales goals, provide SMEs with humanistic services while efficiently implementing the operation and management of the entire financial department. By using the Big data ecosystem to establish business partners, we can quickly form economies of scale at the lowest cost to ensure the long-term stable growth of the company's finance. With the development of Big data, its formic acid capacity and methods have become diversified, and the cloud system has increased its sensitivity to data. Financial managers of small and medium-sized enterprises should make better use of the strategic partners formed by Big data to reduce capital and labor investment and achieve the goal of rapid growth of enterprises [5].

## **3. Problems in Financial Management of Smes in the Context of Big Data**

### ***3.1. The Financial Management Work Method Is Outdated and Outdated***

The Big data era is characterized by the realization of online office. This new management and working method is difficult to adapt to the traditional financial management. The new

network office method is not limited by space, making financial management fast and efficient, while reducing the cost and time of information transmission [6]. In traditional financial management models, information between departments can also be transmitted to each other, but it consumes more cost and time. For the rapidly changing modern technology, excessive time can clearly lead decision-makers to make outdated decisions, which is not conducive to the allocation of resources and long-term development of small and medium-sized enterprises [7].

### ***3.2. Lack of Scientific Fund Management***

Traditional financial management lacks supervision over the use of funds, and the efficiency of fund utilization is also not high [8]. It focuses on post event reflection of fund flow, and the method of managing funds lags behind. The management of funds plays a crucial role in the financial management of small and medium-sized enterprises, and the primary task for them to improve their financial management level is to strengthen fund management. Strengthening fund management in the financial management of small and medium-sized enterprises is beneficial for promoting their long-term development.

### ***3.3. Lack of Financial Warning Mechanism, Inadequate Internal Control and Supervision***

The internal control system of small and medium-sized enterprises is not perfect, the risk assessment ability is not professional, there is a lack of financial warning mechanism, the management model is outdated, operators do not attach enough importance, and managers only rely on experience to evaluate risks, lacking scientificity. Most of the risk assessment personnel for small and medium-sized enterprises are internal managers, and external professional risk assessment personnel are only a formality and do not play a real role in risk assessment. Moreover, many small and medium-sized enterprise management focuses on external risks, but neglects the construction of internal risk control systems. There is no quantitative method for collecting organizational, decision-making, financial and other risks, which makes it difficult to accurately assess internal risks, This will affect the effectiveness and accuracy of risk control.

### ***3.4. The Quality of Financial Personnel Is not High, and Their Business Abilities Are Limited***

Due to the small scale of small and medium-sized enterprises, their business development scale is not large, and the difficulty of accounting work for small and medium-sized enterprises is not high. There are not many opportunities to use professional knowledge in investment and financing. However, when small and medium-sized enterprises make decisions, they need personnel with a certain level of accounting professional knowledge, but the requirements for the professional literacy of relevant personnel are not strict, which also leads to a lack of financial accounting talents. In

addition, small and medium-sized enterprises do not attach great importance to the improvement of their technical level, and their management of technical personnel is not in place [9]. They also neglect the management of financial and accounting personnel, and do not attach great importance to the cultivation of employees' work literacy [10]. This can lead to low work efficiency and related work abilities, and may also lead to low quality of work completion and inability to complete the work content well.

### ***3.5. Blindness in Financing Difficulties for Small and Medium-Sized Enterprises and Investment***

The country has been closely monitoring the problem of loan difficulties for small and medium-sized enterprises in China. Although the country has introduced various policies to support loans for small and medium-sized enterprises, due to the relatively single financing channels for small and medium-sized enterprises, their small business scale, and weak debt repayment ability, and the fact that many of the loans provided by financial institutions and banks require collateral, credit loans are relatively few, which leads to frequent occurrences of fund chain fractures for small and medium-sized enterprises, which is not conducive to the development of the overall market. In recent years, digital finance and digital currency have gradually developed. However, due to the special risks they hold and the incomplete development of corresponding laws and regulations in emerging industries, the process of digital enhancement has improved the level and efficiency of internal management in financial institutions. However, the problem of financing difficulties for small and medium-sized enterprises has not been greatly improved.

Continuously innovating and developing new products to expand the market is a necessary process for the early development of small and medium-sized enterprises. Small and medium-sized enterprises master more and more digital information through the digital era, but most of the data resources in the market are still Scarcity and expensive. Small and medium-sized enterprises with insufficient funds lack the necessary research and demonstration before investing in products and markets. Blind investment leads to a low success rate of projects and increases the risk of investment.

## **4. Countermeasures for Financial Management Problems of Smes in the Context of Big Data**

### ***4.1. Establishing an Information System for Financial Management to Enhance Data Management Level***

#### ***4.1.1. Strive for Government Financial Support***

With the arrival of the era of Big data, for SMEs, their development is not only dependent on their own strength, but also affected by changes in the external environment of the market. In the face of receiving massive amounts of data every

day, it is currently an undeniable task for small and medium-sized enterprises to accurately and quickly find useful information and make correct decisions before competitors through this information. To complete this task, small and medium-sized enterprises need to invest a large amount of funds, technology, and manpower, etc. For small and medium-sized enterprises that are already underfunded, this is like adding insult to injury. Therefore, it is necessary to seek government financial support. When receiving government funding and policy support, analyzing and integrating data to grasp the ever-changing market and make timely decisions will be the core competitiveness of small and medium-sized enterprises in competition.

#### ***4.1.2. Establish an Information System for Financial Management***

With the development of the Big data era, SMEs must build accounting informatization in order to achieve long-term and stable development, which is also an inevitable trend in the development of the current market economy. We need to strengthen the understanding of financial informatization among financial personnel at all levels of small and medium-sized enterprises, and build and update the management of financial and accounting informatization from the overall perspective of small and medium-sized enterprises [11]. On the basis of strengthening personnel training and emphasizing the cultivation of financial informatization talents, small and medium-sized enterprises should also combine the internal and external market environment, continuously improve and optimize existing financial management models, standardize the process of informatization construction, and strengthen the control of financial risks; To enhance the practical effectiveness of small and medium-sized enterprise management, it is necessary to fully develop and utilize financial information systems to ensure the overall economic interests and development of small and medium-sized enterprises, enhance their core competitiveness, and also contribute to the development of the national economy.

#### ***4.2. Improving the Financial Budget System and Strengthening Fund Management and Control***

Fund budget management is the key to fund control for small and medium-sized enterprises. Only by doing a good job in fund budget management can we truly manage the funds of small and medium-sized enterprises, improve the efficiency of their use of funds, and reduce financial risks for small and medium-sized enterprises. Small and medium-sized enterprises need to have a reasonable plan for the use of funds, otherwise in the increasingly fierce market competition, it will lead to high investment project costs, insufficient funds, difficult capital turnover, and even a series of butterfly benefits that endanger the survival of small and medium-sized enterprises. As a small and medium-sized enterprise, it is necessary to fully utilize the fund budget in management accounting to reduce production blindness, organically link procurement, production, and sales, and improve the ability of

small and medium-sized enterprises to avoid financial risks and their economic interests.

#### **4.3. Establishing a Financial Warning Mechanism to Strengthen Internal Control in Enterprises**

The financial early warning system for small and medium-sized enterprises refers to a mechanism that is based on the financial informatization of small and medium-sized enterprises and provides real-time monitoring of potential risks in their management activities [12]. Faced with fierce global market competition, small and medium-sized enterprises, as an economic organization with profit as its goal, can only survive through continuous development in the contradiction between survival and bankruptcy, development and contraction. The completeness of the financial risk control system and financial analysis for small and medium-sized enterprises will be an important guarantee for their rapid development. Therefore, the survival and development of small and medium-sized enterprises cannot be separated from a sound financial warning system.

#### **4.4. Introducing Financial Management Talents and Updating Financial Management Concepts**

Small and medium-sized enterprises should abandon the outdated idea of making good use of relatives and ensure the independence and rigor of their employees, especially financial personnel [13]. While ensuring independence, they should also do a good job in controlling incompatible job separation. For managers and employees of small and medium-sized enterprises, it is necessary to constantly update their work concepts and positive work attitudes, in order to achieve the goal of reducing risks in small and medium-sized enterprises, rather than just being satisfied with the current situation. Small and medium-sized enterprises can achieve a work attitude that keeps up with the times through the following two aspects: on the one hand, to ensure that small and medium-sized enterprise employees play their respective strengths, it is necessary to establish a scientific and reasonable selection mechanism. At the same time, financial personnel of small and medium-sized enterprises should receive regular and regular training, explore and study newly introduced policies, and complete continuing education as stipulated by the state; On the other hand, small and medium-sized enterprises can also hire more professional financial management personnel from outside. These management personnel can quickly lock in useful key information from a large amount of complex data, and at the same time connect the data in financial statements with real financial activities, with a more global perspective, ensuring that the overall strategic goals of small and medium-sized enterprises are aligned with the development direction of the enterprise. By analyzing the internal and external environment of enterprises, reducing loopholes and omissions in management, optimizing organizational structure, and ultimately promoting the vigorous development of enterprises [14].

#### **4.5. Use Big Data to Improve the Investment and Financing Capacity of SMEs**

For small and medium-sized enterprises, digital technology provides them with new financing channels and models, which can effectively alleviate their financing constraints. Although P2P online lending platforms in China have been heavily regulated by regulatory authorities in the past few years due to the frequent occurrence of lightning strikes, compliant online lending platforms can still provide financing services that match risk and cost for small and medium-sized enterprises [15]. The powerful information search and efficient matching capabilities of internet finance platforms provide efficient financing channels for some small and medium-sized enterprises to choose from.

In addition, by accelerating the construction of a multi-level equity financing market, China's equity financing support for small and medium-sized enterprises is also continuously increasing. The financing service capabilities of the Small and Medium sized Board, the Growth Enterprise Board, the Science and Technology Innovation Board, and the New Third Board continue to improve. Various types of angel investment, venture capital, venture capital, and the National Small and Medium sized Enterprise Development Fund complement each other, becoming an important source of financing channels for small and medium-sized enterprises.

## **5. The Application of ERP in Small and Medium-Sized Enterprises**

ERP, as a powerful tool to improve the management level of modern enterprises and promote their growth and progress, has led to a large number of small and medium-sized enterprises investing heavily in ERP and enterprise information construction. The application of ERP system is beneficial for improving the core competitiveness of enterprises. ERP mainly aims to comprehensively balance and optimize the management of comprehensive resources such as human, financial, material, information, time, and space owned by enterprises, coordinate various departments of the enterprise, and carry out business activities around market orientation. Improve the operational capabilities of enterprises to achieve maximum economic benefits and enhance their competitiveness; It is conducive to improving the process management of enterprise resources. By using an ERP system, resources are shared, information processing is more timely, and work efficiency and management efficiency are greatly improved; The application of ERP can effectively promote the modernization and scientificization of existing enterprise management models, adapt to the increasingly competitive market requirements, and is an effective way to enhance the core competitiveness of enterprises.

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