Research Article

Financial Operation Revenue Management Method from the Perspective of Big Data

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With the rapid development of science and technology, information has become the theme of the 21st century. The development of network-based e-commerce has changed the global economic model, business management model, and people’s work, life, and consumption patterns, forming a global information economy. As the core part of enterprise management, financial management has been strongly impacted by the management environment, application of technical methods to function execution, and management concepts. Under the background of big data, how to manage financial affairs of enterprises has become a problem worth exploring. This paper mainly discusses the financial operation revenue management from the perspective of big data, briefly discusses the big data and financial operation revenue management, and analyzes the relevant strategies for the effective development of financial operation revenue management combined with case studies.

1. Introduction

In the perspective of my country’s rapid economic development, the cost control of enterprises is becoming more and more important. Only by doing well in cost control can enterprises benefit and consolidate their market position, which is conducive to the long-term development of enterprises. At present, there are many problems in the financial operation [1, 2] and cost control of enterprises, which need to be intervened and solved in time, so that the financial operation [3, 4] and cost control of enterprises will develop in a scientific and rational direction [5–8].

The object of enterprise financial operation [9–12] is the total funds flowing in the enterprise, and the efficiency of enterprise financial operation refers to the efficiency of the enterprise’s working capital. The profit of a company often refers to the profit in operation, which shows the importance of the financial operation of a company. A good corporate financial operation not only invests effort in reaping profits [13], but also improves the layout of the company’s debt repayment and analyzes market conditions and capital use risks, which can provide a reliable reference for corporate investors and creditors.

Cost control refers to the measures taken by enterprises to prevent and control production-consumption in order to achieve profitability. This can not only allow enterprises to successfully complete the set goals, but also retain costs as much as possible to maximize profits. Language is an effective help to achieve long-term development. Cost control involves many aspects, such as the cost control of raw material purchase in the early stage of production, and also includes the cost control of manpower and material resources in the production process. The expenses incurred by the enterprise department in the management process should also be included in the scope of cost control. What is more, the transportation and sales expenses incurred after the production is completed also need to be included in the content of cost control. It can be said that cost control covers all aspects of enterprise operation and management and is the key to enhancing enterprise profitability.

Although there are not a lot of financial management personnel in many enterprises [14–16], the quality of
financial management personnel is uneven [17], resulting in a low overall level of financial management [18]. Here, it is particularly important to pay attention to the financial personnel who are in line with international affairs [19], communicate, and contact. Since many enterprises are currently paying great attention to economic development, there is a situation in which scientific and technological personnel despise financial management personnel. Although financial management personnel have higher authority and rank in some enterprises [20], their work still revolves around transactional work, a huge amount of work. Pressure and complicated management matters have caused many financial managers to fail to take the time to learn management knowledge and improve management skills [21]. This is also the root cause of the generally low quality of financial managers in many enterprises [22]. In order to make the financial operation and management cost control of the enterprise return to the right path and play an active role, it is necessary for the enterprise to strengthen its attention. It is necessary not only to conduct regular reviews and inquiries on financial management [23], but also to go deep into the financial interior to explore the progress of financial management [24] and actively assist the financial management department to solve the problems encountered. In addition, it can also increase the investment and support for the financial department, which can be manpower support or capital investment, so as to effectively strengthen the position of financial management in enterprise operation management.

In addition, we must pay close attention to the control of cost stages, including preproduction control, in-production control, and circulation control, and set up a “one-to-one” supervision team for these three stages of cost control to effectively implement raw material purchase, product packaging, publicity, and planning, as shown in Figure 1. Infiltrate the supervision function in multiple links such as long-distance transportation, effectively control the cost expenditure, do a good job in the cost budget of each stage, reasonably divide the cost consumption ratio, and effectively control the overall operating cost of the enterprise within the planning scope.

2. Current Status of Corporate Financial Management

2.1. The Traditional Concept Has Not Changed. In the context of the rapid development of the Internet, big data is the main development direction at present, and the application of big data in work and life will become more and more common. The most significant feature of big data is the integration of resources to facilitate financial management. At the same time, big data also has strong data analysis and computing capabilities. Since there are still some problems in the process of financial enterprise management informatization construction in my country, it has caused certain obstacles to the construction of accounting informatization, thus limiting the value of big data services to play their due value. The method of financial management generally includes five basic links: financial analysis, financial forecasting, financial decision-making, financial budgeting, and financial control. Each link has professional business methods and mathematical models; for example, the capital asset pricing model, accounts receivable turnover rate, capital structure, leverage principle, etc. are all important methods in financial management. At present, many enterprises still focus their financial management on fund management, and their work is limited to the settlement of accounts [25]. Enterprise financial management in the information age should first change the thinking of financial personnel, letting them clarify their responsibilities, not only limited to the statistics and comparison of accounts, but they should also focus on asset management, investment management, and financing management throughout the economic activities of enterprises.

In the case of technical limitations, the overall development level of big data services in my country is relatively low, the service methods provided by big data service providers are relatively simple, and the software service functions are relatively small. For the construction of enterprise financial management informatization, the services provided by big data are still difficult to meet the diversified needs of their own construction. At this stage, there are relatively few service providers providing big data in the Chinese market, and the main target groups of these providers are e-commerce companies, and they mainly provide financial management services for e-commerce companies. From this perspective, the research and development of big data in my country are simply optimized and upgraded according to the relevant needs of financial management, so as to meet the daily financial management needs of e-commerce companies. Since the content of big data services cannot fully meet the needs of e-commerce companies' financial management informatization construction, e-commerce companies should not rely too much on big data in the construction process; otherwise, it will limit the integration of e-commerce companies and hinder e-commerce companies. The development of financial management reduces the efficiency of financial management of e-commerce enterprises.

2.2. Provide Good Service for Enterprise Decision-Making. Although computers have been used in the financial management of enterprises, they have not played an important
role. In the past, financial work focused on statistical billing, bookkeeping, and bookkeeping and did not pay attention to the decision-making of the enterprise. The relevant staff of the enterprise did not pay much attention to the impact of the accounting statements on the future development of the enterprise and could not provide good services for the enterprise’s decision-making.

2.3. Lack of Support for Management Information. When many enterprises carry out information-based financial management activities, they do not carry out overall planning and do not have a complete management system. In the past, financial management used specific financial software, and there was almost no communication with other departments. The accounting department had no business dealings with other departments. The only beneficiary of informatization in financial management was the accounting department, which could not effectively improve the efficiency of the entire enterprise.

Big data financial accounting information security can be divided into physical equipment security, network security, and business data security. Among them, physical equipment security refers to whether online accounting services are unblocked; network security refers to the protection of hardware, software, and data in the network system; commercial data security refers to whether it can provide timely and accurate services to customers, whether e-commerce enterprises and commercial information resources will be tampered with and leaked, etc. Therefore, in the field of information technology, the mentioned security is a relative concept, and absolute information technology security does not exist yet. In addition, big data platforms, data, etc. are managed by big data service providers, and these data are transmitted between users and the cloud, which is very likely to face risks such as interception or destruction by third parties. At the same time, due to the complex configuration of big data equipment and systems, and a large amount of data storage, once a risk occurs, it will cause irreparable losses. Therefore, in the construction of financial enterprise management informatization, the most important point is to ensure the security of financial information, which is of great significance to the long-term development of the enterprise. Under the background of big data, the scope of financial calculation is extremely wide, and if financial calculation cannot be combined with management, it will affect the transformation from accounting to enterprise management.

Accountants are the main participants in the construction of enterprise financial management informatization, and to a certain extent, the security awareness of accountants will have an impact on the security of accounting information. Because some accountants associate the effect of accounting work with managers and believe that the security of information depends on managers, accounting practitioners are not fully aware of accounting informatization. When the security awareness of accounting practitioners is weak, or the cognition of accounting informatization is lacking, accounting information loss events will occur frequently. Although big data services can provide convenience for e-commerce enterprises' financial management informatization construction, it is also difficult to avoid security problems.

In addition, in the construction of enterprise management informatization, there is a lack of effective application of new technologies, which leads to problems in the enterprise's informatization risk early warning mechanism. Due to the lack of an information-based risk early warning mechanism, the security of corporate financial data has been adversely affected. Restricted by factors such as low technical level and insufficient professional quality of staff, various technical problems are faced in the process of big data application. Therefore, it is of great significance to build an information-based risk early warning mechanism.

3. The Impact of Big Data on Financial Management

3.1. Informatization Promotes Business Process Reorganization in Financial Management. Although traditional financial management also uses computers, it only records the accounts and simply applies the computer. The financial work is separated from other work, the financial work efficiency is not high, and the waste of funds is serious. The informatization of financial management is to eliminate the information isolation of various departments and realize the integrated management of finance. Therefore, financial management must undergo a thorough change. The new financial management is different from the traditional financial management [25]. It conducts a comprehensive and in-depth analysis of financial work, improves the key links of financial management, and realizes the reorganization of business processes.

Financial management in the traditional sense cannot adapt to today’s economic development situation, so we are urgently required to improve the business process of financial management. We need to analyze every link in the business process. Accounting after the fact is a major feature of traditional financial management. This method is not conducive to taking advantage of computers and cannot preprocess finances. Therefore, it is necessary to change this model of traditional financial management and strengthen the connection between the financial department and other departments. Financial personnel have changed from former information processors to administrators of business work. Relying on information technology, they focus on business process processing and finally achieve the goal of enterprise management. In addition, the big data platform has certain limitations in network transmission. Frequent data access and massive data exchange will lead to network congestion and data delay, and the weak network transmission capacity limits the development of financial enterprise management informatization. Figure 2 shows the trend chart of financial management informatization.

Judging from the financial management work of Chinese enterprises, although many enterprises have recognized the importance of big data application and have also
begun to actively explore specific countermeasures for the application of big data in the construction of financial enterprise management informatization, due to the lack of various mature technologies, the overall level of financial enterprise management informatization construction is relatively low. At the same time, due to the limitations of capital and technology, the service scope of big data is relatively small. In recent years, my country's scientific information technology has developed rapidly. As a new type of network technology, big data technology has entered the public's field of vision. Most e-commerce enterprise managers have limited awareness of big data, so they choose big data. There is certain blindness in data service providers, and it is difficult to correctly view big data service providers. Many business managers believe that the big data service provider with the largest number of users is the best. In addition, big data is still in the processing and development stage; further, development is still required, and a lot of costs must be invested in this process, which will limit the development of big data to a certain extent, but also increase the development of big data. risks faced. Compared with Western countries, my country's scientific research capabilities and financial support are relatively weak, resulting in the relatively weak competitiveness of my country's big data.

3.2. Informatization Promotes Internal Control of Financial Management. The internal control of financial management is to strengthen the protection of the funds of the enterprise, ensure the integrity of financial-related information, ensure the smooth implementation of relevant policies, improve the efficiency of financial management, effectively reduce the risk of financial management, and promote the realization of financial goals. The informatization of financial management has changed the traditional concept of financial management and expanded the scope of financial management. The use of informatization has led to internal changes in financial management, providing opportunities for further improvement of financial management, but also bringing risks. Information-based financial management is the comprehensive control and overall control of the enterprise. With the large-scale use of the network in life, people are paying more and more attention to the application of the network in financial management. Practice shows that the use of information technology solves the problems that cannot be solved by the traditional management model but increases the data risk of financial management. Therefore, it is necessary to strengthen the training of financial-related staff, accelerate the integration of financial management and information technology, focus on solving problems that arise, establish a financial management model that is compatible with social development, meet the development needs of enterprises, and bring more benefits to enterprises.

3.3. Informatization Increases the Risk of Investment. Information is the most important factor of production in today’s era and an indispensable part of the operation of an enterprise. Information occupies a dominant position in enterprises, and investment in intangible assets is favored by business leaders. The proportion of an enterprise’s intangible assets determines its position in the market. The development cost of information products is extremely high, which increases the business risk of enterprises. Market instability and changes in financial structure result in the variability and diversity of financial risks. There is a certain amount of uncertainty when developing information resources. Therefore, enterprises should strengthen the identification of risks and adopt reasonable control strategies. Figure 3 shows risks of Informatization Investment.
4. Management Strategies of Enterprise Financial Operation Revenue from the Perspective of Big Data

4.1. Increase Capital Investment and Build a Big Data Platform. Adequate funds are an important guarantee for the research and development of big data technology, which can promote the development of big data technology. Therefore, from the national level, further improving the development level of big data technology can improve the comprehensive strength of the country. In this context, government departments need to give full play to their guiding role, actively deal with the problems of capital and technology of national big data technology research enterprises, comprehensively integrate the country's human, technical and financial resources, and promote complementary advantages between enterprises, achieve common development, and solve the problems of the insufficient national technology and insufficient funds. In addition, government departments can also consider establishing domestic demonstration projects for building big data platforms independently, guiding and regulating the research and development of big data platforms, and strengthening network construction to improve network transmission speed and efficiency. Figure 4 shows financial operation model from the perspective of big data.

4.2. Increase Service Content and Provide Rich Big Data Services. Providing rich big data services is the main direction of big data development in the future. Especially with the rapid development of science and technology, the healthy and sustainable development of various fields requires the technical support of big data. First of all, big data service providers need to fully understand the various needs of enterprises to ensure that each field can realize the construction of enterprise management informatization. In the process of developing and researching big data, big data suppliers need to maintain close contact with various industries, take meeting the actual needs of users as the guide, and improve the existing service content, so as to ensure that the big data service content can be more complete and more diversified service functions and fully meet the diversified needs of enterprise financial management informatization construction. For example, the analysis of financial statements and information decision-making can more comprehensively integrate all the management work of the enterprise, thereby helping the enterprise achieve the goal of informatization construction. Secondly, big data suppliers also need to provide customized services for enterprises, so as to meet the individual needs of enterprise financial management informatization construction and promote the sustainable and healthy development of enterprises.

4.3. Improve the Security of Big Data Services. The security of financial information has a direct impact on the development of enterprises. In this regard, enterprises must attach great importance to the processing and storage of financial information, and this is also an important factor affecting enterprise data security. In the process of enterprise financial management informatization construction, it is particularly necessary to pay attention to the security of big data services. Specifically, we can start from the following aspects. First, improve the technical level and strengthen the flexible application of various security technologies, so as to ensure the reliability and security of big data at the technical level, especially to solve the problem of data storage. For example, enterprises can develop various protection software to ensure the security of accounting data and information, and design-related usage protocols to ensure that various accounting information and data are more comprehensively protected to avoid threats to data security caused by hackers or viruses. Second, in the process of selecting a big data service provider, we must fully consider our own needs and try to choose a supplier with high quality in terms of reputation, so as to provide a stronger security guarantee for the construction of enterprise financial management.
informatization. Third, from a legal perspective, protect big data services. The state needs to introduce corresponding policies and measures to further standardize the big data service market and create a good environment to ensure the security of corporate financial information.

4.4. Strengthen Safety Awareness and Improve Safety Management. In the process of informatization construction of financial enterprise management, it is necessary to strengthen the safety awareness of relevant staff, which is an important prerequisite for informatization construction. First of all, enterprises can establish an information security publicity and education platform to ensure that every accounting practitioner can recognize the importance of information security and apply this awareness to future work to avoid accounting information leakage. Secondly, government departments need to attach great importance to and strengthen the interaction with relevant technical departments, increase the introduction of big data technology-related guarantee resources, actively learn advanced cloud technology experience, and provide strong support for the application of big data in the construction of accounting informatization. Finally, big data service providers need to increase the construction of industrial parks, demonstration projects, and other projects under the guidance of advanced technical means, so as to improve the security level of big data services.

4.5. Optimize the Current Management System of E-Commerce Enterprises. In the context of the era of big data, in order to effectively exert the advantages of big data, we should pay attention to the rational use of management software systems and optimize and improve the actual needs of enterprise development. In addition, enterprises should pay attention to the introduction of advanced technology, which can ensure that the management system is further improved and can also ensure the work effect, thereby minimizing the operating cost of e-commerce enterprises.

5. Innovations in Financial Management Technology Methods from the Perspective of Big Data

In the network economy society, traditional financial management methods and methods are facing new challenges, and some new financial management technical methods have emerged as the times require.

(1) Network financial management. It is the enterprise that uses the network to realize the financial management function. Enterprises apply network technology to financial management, so as to solve a series of problems that cannot be solved by the current financial activities, such as cross-regional financial data transmission, accounting statement consolidation, and dynamic analysis of financial and
resource status, forming a brand-new financial management system. Network financial management relies on network financial software to complete the implementation, and network financial software will complete the collaborative management of finance and business, online management, and management of e-commerce. Through the network financial software, dynamic accounting and online economic resource management can be realized, and remote financial management, material management, and remote control behaviors such as remote reporting, accounting, auditing, and auditing of branches can be realized.

(2) Flexible financial management (as shown in Figure 5). In order to enhance survivability in the unpredictable and changeable environment in the network age, enterprises must implement flexible management and launch new products and personalized products to meet the dynamic and continuous innovation of the network economy. The flexible management of enterprises includes the management of production, personnel, information, and other aspects. The flexible management of finance is to realize the optimization of financial information resources through network technology from the perspective of financial accounting, planning, control, and analysis. Flexibility, in order to promote enterprises to improve the degree to which various financial information resources are used in a variety of ways, thereby promotes the comprehensive management of enterprises.

(3) Financial regeneration management. Business process regeneration is a new idea put forward by the American management scholars Michael and Hamer in the early 1990s. The goal of enterprise process regeneration management is to revive the vitality of the enterprise, rebuild the organizational structure and strategic planning, and restart the new life. Financial regeneration management is the revolutionary adjustment of financial activities and financial relations and the reallocation of financial resources; the purpose is to adapt to the needs of enterprises inside and outside and to adapt to the goals of enterprise management. Financial regeneration management is an important financial strategy to assist enterprises in their efforts to reduce product costs and improve economic efficiency. The development of electronic commerce and the development of network financial software make it necessary and possible for enterprise financial regeneration management. Enterprise financial regeneration management not only reduces labor costs and improves work efficiency, but also brings a series of new changes to enterprise management, such as customer orientation of values, employees implementing self-management, and the measurement of performance being transformed into the measurement of group results. Financial regeneration management brings new opportunities and challenges to enterprise management and also highlights the status of financial management.

(4) Financial virtual management. Virtual financial management must be implemented for virtual enterprises based on e-commerce. A virtual enterprise is a dynamic short-term strategic alliance consisting of several companies with common goals and cooperation agreements. Relying on the network, virtual enterprises break through the physical boundaries of enterprises. Although there are functions such as production, marketing, design, and finance on the surface, there is no organization within the enterprise to perform these functions. In the case of limited resources, in order to gain an advantageous position in the competition, the enterprise only masters the core functions; that is, the high value-added part that is highly dependent on enterprise knowledge and technology is in its own hands, and other low value-added departments are virtualized. Financial virtual management is to take the core functions of the enterprise as the center of financial management and to carry out centralized and coordinated financial management for each virtualized functional department. The supervising and coordinating functions of the middle managers of virtual enterprises are replaced by computer networks, and the organizational structure of enterprises tends to be flat. Financial virtual management is horizontal management that adapts to it, which can remove many intermediate links and enable the generation and confirmation of value. Financial virtual management also includes the management of virtual operations through the network, financial information, and other information generated by virtual transactions. Financial virtual management is a comprehensive and innovative financial management strategy based on a network technology to realize the optimization of financial information resources.

6. Conclusion

To sum up, as the process of economic globalization is gradually accelerating, under such an economic background, the competition of enterprises is becoming more and more
fierce, and the financial operation and cost control of enterprises will play a crucial role in helping enterprises to improve their competitiveness to enable enterprises to emerge suddenly and gain an advantage in the market. In view of this, enterprises should pay attention to cost control and control costs from all aspects, so as to improve the economic benefits of enterprises. This paper focuses on financial operation revenue management from the perspective of big data, hoping to make some achievements in financial operation management.

Data Availability

The dataset can be obtained from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

References