Exploring the Innovation and Practice of Enterprise Finance Shared Service Model in the Background of Digital Economy

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Abstract: Under the background of rapid development of digital economy, enterprise financial management mode is experiencing profound changes, and the financial shared service (FSS) mode, as an important means to enhance the efficiency of enterprise financial management and optimize the allocation of resources, has received widespread attention. Based on the characteristics of the digital economy, this paper analyzes the evolution trend of the FSS model and explores its innovation path in the digital transformation process, including the deep empowerment of digital technology, the organizational optimization of the financial sharing center, and the practical exploration of the integration of industry and finance. Combined with typical enterprise cases, this paper analyzes the effectiveness of the application of the financial sharing model in different enterprises, and summarizes its value in promoting enterprise cost reduction and efficiency, and enhancing the level of financial management intelligence. Finally, this paper looks forward to the future development trend of the financial sharing model, and puts forward corresponding optimization strategies, in order to provide a reference for enterprises to build an efficient and intelligent financial management system under the digital economy environment.

1. Introduction

With the booming development of digital economy, enterprise financial management is transforming from traditional functional management to intensification and intelligence[1]. In this context, the Financial Shared Services (FSS) model has become an important way to improve the efficiency of corporate financial management and reduce operating costs by virtue of its advantages of centralized processing, process standardization, and optimal allocation of resources[2]. Financial Shared Services model not only changes the operation of corporate finance functions, but also realizes the integrated management of business and finance through the deep integration of digital technology, helping enterprises to build an efficient and intelligent financial system.

In practice, the financial sharing model still faces many challenges, such as how to optimize the organizational structure of the sharing center, how to achieve the deep integration of business and finance, and how to further improve the efficiency of financial management with the help of big data, artificial intelligence and other digital technologies[3]. Therefore, it is of great practical significance to explore the innovative mode of financial shared service that adapts to the development of digital economy and promotes the evolution of financial functions to a higher level[4].

This paper first analyzes the role of the digital economy in promoting the shared service model of enterprise finance, and then discusses the innovation path of the financial sharing model, including the empowerment of digital technology, the optimization of the financial sharing center, and the practical exploration of the integration of industry and finance[5]. It analyzes the effectiveness of the application of the financial sharing model with practical cases and looks forward to its future development direction, in order to provide reference for the innovation and optimization of enterprise financial management[6].

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2. The Digital Economy's Driving Effect on Corporate Finance Shared Service Models

The rapid development of the digital economy is profoundly changing the mode of operation of enterprises, in which financial management, as one of the core functions of enterprises, is also under the impetus of the wave of digitalization and continuous change[7]. The traditional financial management model often exists in information silos, long processes, high costs and other issues, while the financial shared service model through the intensive, standardized, automated way to achieve the reconstruction of financial management functions[8]. In the digital economy environment, enterprises can make use of cloud computing, big data, artificial intelligence and other advanced technologies to promote the intelligent upgrading of financial sharing centers, thereby improving overall management efficiency. Return on Investment:

$$ROI = \frac{\text{Net Profit}}{\text{Total Investment}} \times 100\% \tag{1}$$

Net Present Value (NPV):

$$NPV = \sum_{t=1}^{n} \frac{C_t}{(1+r)^t} - C_0 \tag{2}$$

The wide application of digital technology provides technical support for the optimization of the financial shared service model[9]. The popularity of cloud computing enables enterprises to build a flexible and secure financial sharing platform, realizing real-time data sharing and remote collaboration; big data analysis technology is able to tap the potential value of enterprise operational data, providing accurate support for financial decision-making; the application of artificial intelligence and RPA (Robotic Process Automation) and other technologies enables enterprises to automate the processing of financial processes, reduce manual operations, and The application of technologies such as artificial intelligence and RPA (Robotic Process Automation) enables enterprises to automate financial processes, reduce manual operations, and improve data processing accuracy and efficiency[10].

The digital economy has promoted the innovation of enterprise management mode, and also prompted the transformation of the finance function from the traditional accounting center to the value creation center. Under the financial sharing model, the financial staff of enterprises can be liberated from tedious transactional work and become more involved in high value-added business such as financial analysis, risk control and strategic decision-making. The integration of industry and finance has become a trend, and financial sharing centers are gradually evolving into intelligent financial centers, realizing the transformation of financial functions from supporting business to guiding business,showed in Figure 1 :

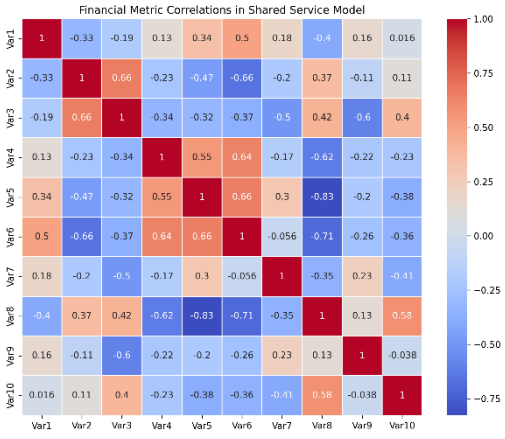

Figure 1 Financial Metric Correlations in Shared Service Model

In the digital economy, the promotion of the financial shared service model still faces certain challenges, such as data security, the difficulty of information integration, cross-regional financial

policy differences and other issues[11]. Therefore, when promoting the innovation of the financial sharing model, enterprises need to combine their own development needs, reasonably plan the organizational structure of the financial sharing center, improve the digital infrastructure, and enhance the data governance capabilities, in order to ensure that the financial shared service model can continue to play its advantages in the context of the digital economy[12].

3. Innovative Paths for Financial Shared Service Models

In the context of the digital economy, the innovation of the enterprise finance shared service model needs to rely on advanced digital technology, optimize the organizational structure and strengthen the integration of industry and finance, in order to comprehensively improve the level of financial management intelligence and decision-making support capabilities. The wide application of digital technology provides strong technical support for financial sharing centers, and through artificial intelligence, big data, blockchain and other technologies, enterprises can realize the automation and intelligence of financial processes. Organizational optimization of the financial sharing center is the key to improving the effectiveness of shared services, and enterprises need to reasonably plan the division of financial functions and optimize the process structure in order to improve the operational efficiency of the sharing center. The integration of industry and finance is an important direction for the development of financial sharing mode. By strengthening the in-depth integration of financial and business data, enterprises can enhance the value creation ability of financial management and promote the transformation of financial functions from supporting business to guiding business. This paper discusses the innovation path of financial shared service model from the following three aspects.

3.1 Digital technology empowers financial shared services

With the rapid development of the digital economy, the application of digital technology in enterprise financial management is increasingly deepening, providing strong technical support for the optimization and upgrading of the financial shared service model. The traditional financial sharing model mainly relies on standardized processes and centralized management, while empowered by digital technology, financial shared services can further realize automation, intelligence and refined management, significantly improving the efficiency of corporate financial operations and decision-making support capabilities. Cost-to-Income Ratio (CIR):

$$CIR = \frac{\text{Operating Expenses}}{\text{Operating Income}} \times 100\% \tag{3}$$

The application of Artificial Intelligence (AI) and Robotic Process Automation (RPA) technology in the Finance Sharing Center effectively reduces manual operations and improves the automation level of financial processing.RPA can automatically perform repetitive and well-defined financial tasks, such as invoice processing, bill review, reimbursement approval, etc., thus reducing human errors and improving the accuracy of data processing. AI technology utilizes Natural Language Processing (NLP) and machine learning algorithms to achieve intelligent analysis and prediction of financial data, providing enterprises with more forward-looking financial management solutions, as shown in Figure 2.

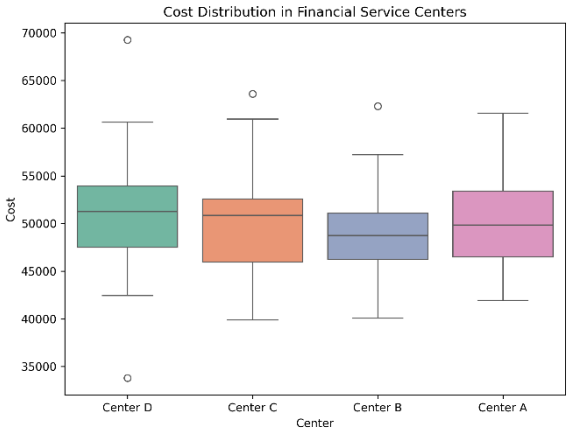

Figure 2 Cost Distribution in Financial Service Centers

Big data analytics technology promotes the transformation of financial shared services from traditional account processing to intelligent decision support. Enterprises can integrate various types of financial data with the help of big data platforms, build real-time monitoring and analysis systems, accurately identify financial risks, optimize fund management, and provide data-driven financial forecasts. Through the deep mining of historical financial data, enterprises establish dynamic budget models, improve the accuracy and flexibility of financial planning, and enhance the foresight of financial management.

The application of blockchain technology enhances the security and transparency of financial shared services. As blockchain has the characteristics of decentralization, non-tampering and traceability, it has a wide range of application potential in the fields of financial data storage, contract management and cross-border payment. Enterprises utilize blockchain technology to build a credible financial data sharing platform, ensure the security of financial transaction data, reduce audit and compliance costs, and improve the transparency and credibility of financial processes. The empowerment of digital technology not only improves the operational efficiency of the financial sharing center, but also promotes the deep change of the enterprise financial management model. In the future, with the further development and application of technology, the financial shared service model will be more intelligent and precise, and play a more important role in the enterprise financial management system.

3.2 Organizational Optimization of Finance Sharing Centers

In the process of building a financial shared service model, a reasonable organizational structure design is the key to improving the operational efficiency of the shared center and guaranteeing service quality. With the in-depth application of digital technology, the organizational model of the traditional financial sharing center is evolving from a single-function type to a more flexible and intelligent structure. Enterprises need to optimize the organizational structure of finance sharing centers according to their own business needs, organizational scale, and division of financial functions, in order to improve financial operational efficiency and business synergy.

The organizational model of finance sharing center needs to evolve from centralized to distributed and multi-tier architecture. Traditional finance sharing centers mostly adopt a single centralized model, i.e., all financial functions are centralized in a single sharing center for unified processing, but in the context of multinational enterprises or business diversification, a single model may be difficult to meet the differentiated needs of different regions and business segments. Therefore, more and more enterprises are adopting a multi-tier model combining regional sharing centers and global sharing centers to achieve an efficient financial operation system that can maintain the centralized advantages of financial management while taking into account the business needs of each region. Break-even Point (BEP) in Units:

$$BEP = \frac{\text{Fixed Costs}}{\text{Price per Unit} - \text{Variable Cost per Unit}} \quad (4)$$

The standardization and intelligence of business processes is an important direction for optimizing the organizational structure of financial sharing centers. The core of the financial sharing model is to improve the efficiency and consistency of financial processing through process standardization, while the introduction of intelligent means can further enhance the business synergy of the sharing center. Enterprises can use process automation (RPA) technology to optimize financial auditing, reimbursement approval, cost sharing and other processes to reduce manual intervention and improve business processing efficiency. Intelligent workflow systems are used to achieve automatic allocation and optimization of financial tasks, improving the response speed and service quality of shared centers, showed in Figure 3 :

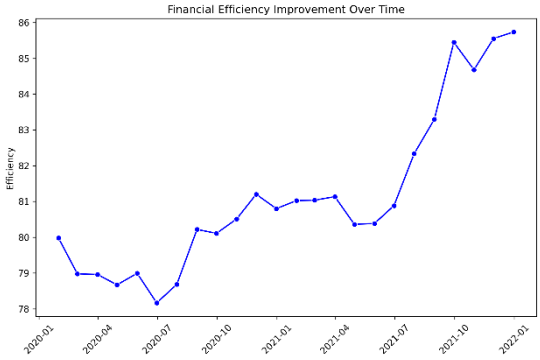

Figure 3 Financial Efficiency Improvement Over Time

The talent structure of finance sharing centers also needs to be optimized to meet the needs of digital transformation. While traditional finance personnel are mainly responsible for accounting, report preparation and other transactional work, in the context of digital economy, sharing centers need more high-end finance talents with data analysis, financial strategic planning and cross-departmental collaboration capabilities. Therefore, enterprises should pay attention to talent cultivation and introduction, and strengthen the ability of financial personnel in digital technology application, data analysis and risk management, so that they can be competent in more valuable and creative financial management functions. Organizational optimization of financial sharing centers involves not only structural adjustment, but also process standardization and intelligent upgrading, as well as optimal allocation of talent structure. Enterprises should build a flexible and efficient sharing center organization model according to their own business characteristics, in order to give full play to the value of financial shared services and promote the development of corporate financial management to a higher level.

3.3 Industry-Finance Integration and Data-Driven Decision Making

Under the background of digital economy, enterprise financial management is no longer limited to the traditional accounting and supervision functions, but gradually evolved to the direction of in-depth business integration and strategic decision-making support. One of the core objectives of the financial shared service model is to realize the transformation of the financial function from a cost center to a value center through Finance & Business Integration. The rise of Data-Driven Decision Making (DDDM) enables enterprises to improve the accuracy and foresight of financial management with the help of big data analysis and intelligent tools.

The key to the integration of industry and finance lies in the deep integration of financial and business data. Under the traditional enterprise management model, finance and business are often in a fragmented state, with the finance department mainly responsible for after-the-fact accounting, while the business department focuses on market development and operational management, lacking synergy. Under the financial sharing model, enterprises can collect and analyze business data in real time by building a unified data platform, so that finance can intervene in business decisions earlier. Enterprises can use data analysis tools to monitor sales revenue, cost changes and inventory turnover

in real time, thus providing accurate financial support for business departments and improving the efficiency of capital utilization. Weighted Average Cost of Capital (WACC):

$$WACC = \frac{E}{V} r_e + \frac{D}{V} r_d (1 - T) \tag{5}$$

Data-driven financial decision-making helps improve the science and accuracy of management. Empowered by big data and artificial intelligence technology, enterprise financial management is dynamically adjusted based on real-time data. By analyzing historical financial data through machine learning algorithms, enterprises predict future cash flow trends, optimize budgeting, and make timely adjustments to financial strategies. The application of data visualization technology makes financial data more intuitive, and enterprise management can quickly understand key financial indicators and improve decision-making efficiency through tools such as dashboards (Dashboard),showed in Figure 4 :

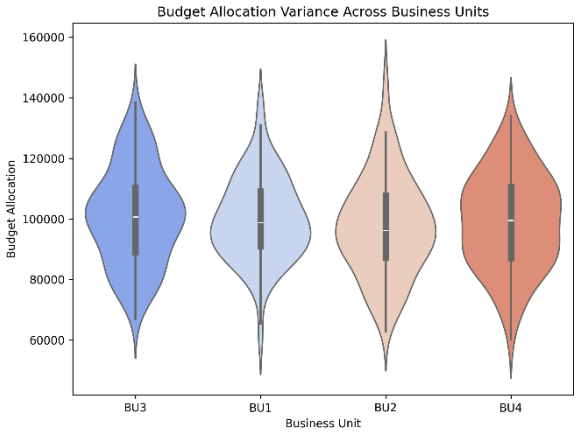

Figure 4 Budget Allocation Variance Across Business Units

Data-driven integration of industry and finance not only improves the risk management and control ability of enterprises, but also enhances the strategic value of financial management. Through the intelligent risk control system, factors such as abnormal financial transactions, credit risks, market fluctuations and other factors are monitored in real time, so that potential risks are warned in advance and major financial losses are avoided. In terms of capital investment, cost control, supply chain management, etc., the finance team relies on data analysis to provide accurate advice, enabling the enterprise to maintain its leading position in market competition. The combination of industry-finance integration and data-driven decision-making has transformed the financial shared service model from a traditional accounting function to a strategic value creation function. With the further development of data analysis technology and artificial intelligence, financial management will become more intelligent and dynamic, and become an important supporting force for the digital transformation of enterprises.

4. Practical Exploration and Application Cases of Financial Shared Service Model

As an important change direction of modern enterprise financial management, the financial shared service model has been widely used in many industries and enterprises . When implementing financial shared services, enterprises of different scales and types often combine their own business characteristics, management needs, and the development trend of digital technology to explore innovative practice models suitable for them. Through the analysis of typical cases, we will gain a deeper understanding of the landing strategy of financial shared services and its role in improving the efficiency of enterprise financial management and decision-making support capability,showed in Figure 5 :

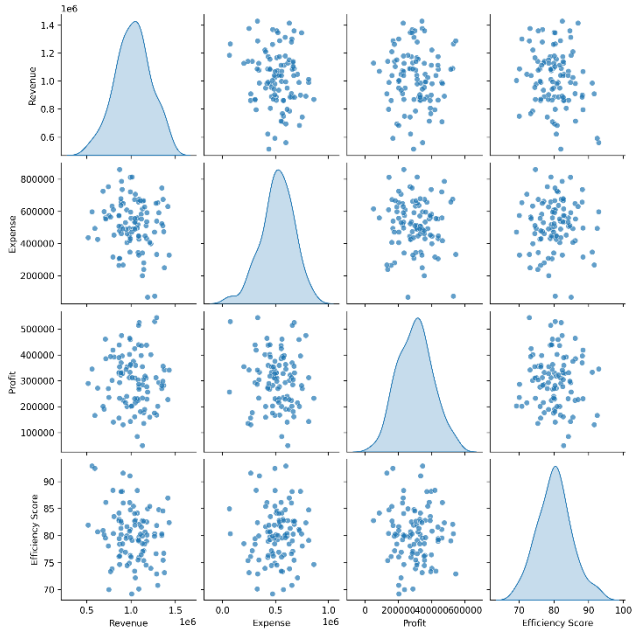

Figure 5 Pairplot Analysis of Financial KPIs in Shared Services

In large multinational enterprises, the financial shared service model mainly combines centralized management with globalized collaboration to achieve standardization and efficiency in financial operations. A well-known manufacturing enterprise establishes multiple regional finance sharing centers globally, using intelligent automation technology to optimize financial processes so that each business unit can share financial resources while maintaining flexibility and adaptability to each regional market. By introducing Robotic Process Automation (RPA) and Artificial Intelligence (AI) technologies, the enterprise has automated invoice processing, expense reimbursement, and fund settlement, reducing operational costs and improving the accuracy and timeliness of financial processing.

In Internet and technology companies, the exploration of financial sharing models focuses on data-driven financial management. Relying on a big data platform and cloud computing technology, an Internet giant company has built an intelligent financial sharing center, which realizes real-time collection, analysis and prediction of financial data. The enterprise has optimized its financial budgeting, cost control and capital allocation processes through data visualization and intelligent analysis tools, making financial decision-making more accurate and business departments able to make more scientific operational judgments based on financial data. The enterprise also combined blockchain technology to enhance the transparency and security of financial data, effectively reducing financial risks. Earnings Before Interest, Taxes, Depreciation, and Amortization:

$$EBITDA = \text{Revenue} - \text{Operating Expenses} + \text{Depreciation} + \text{Amortization} \quad (6)$$

In the financial sharing practice of a large domestic retail enterprise, the enterprise has realized the upgrading of its financial functions through the in-depth promotion of industry-finance integration. The enterprise has established a nationwide financial sharing center, which uniformly handles account settlement, supply chain financial management and sales revenue accounting for each store. Through the operation of the sharing center, financial data can be quickly integrated, providing accurate data support for procurement, inventory management and marketing. The enterprise also uses AI intelligent customer service technology to automate financial consulting and services, which improves the service efficiency of the finance department and frees the finance team from repetitive tasks to focus on high-value financial analysis and strategic support work.

The practical exploration of the financial shared service model has achieved remarkable results in different types of enterprises, whether multinationals, Internet companies, or the retail industry, all of which are making use of digital technology to optimize their financial management processes and enhance their decision support capabilities. In the future, with the further development of technology

and the continuous optimization of the financial sharing model, enterprises will explore deeper financial management changes in terms of intelligence, automation and data-driven decision-making, in order to achieve more efficient and accurate financial operations.

5. Conclusion

Under the wave of digital economy, enterprise financial management is experiencing profound changes, and the financial shared service model has become an important means to improve financial operation efficiency, optimize resource allocation and enhance decision-making support capabilities. This paper analyzes the core value of the financial shared service model in corporate financial management by discussing the innovation path of the model, the empowerment of digital technology, and the integration of business finance and data-driven decision-making, and demonstrates the specific application of the model in combination with practical cases.

The financial shared service model can not only effectively integrate financial resources within the enterprise and achieve standardization and automation of financial processes, but also leverage digital technologies, such as big data analysis, artificial intelligence and blockchain, to enhance the intelligent processing of financial data and promote the upgrading of corporate finance functions from traditional accounting management to strategic decision-making support. The in-depth promotion of industry-finance integration enables the finance department to work more closely with the business, provide high-quality data support for enterprise operation and management, and improve the market response capability and risk management and control level.

The implementation of the financial sharing model still faces many challenges, such as organizational restructuring, data security, and upgrading the capabilities of financial personnel. Therefore, in the process of promoting the landing of financial sharing services, enterprises need to combine their own business characteristics, build a flexible and efficient sharing center organizational model, strengthen the synergistic mechanism between finance and business, and accelerate the in-depth application of digital technology, in order to ensure the smooth operation and continuous optimization of the financial sharing model.With the continuous development of the digital economy, the financial shared service model will be promoted in more industries and enterprises, and further evolve in the direction of intelligence, globalization and personalization. Enterprises should actively embrace technological change and build a data-driven financial management system to achieve more efficient and accurate financial decision support and lay a solid foundation for sustainable development.

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