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Practice and Reflection on the Transformation of Performance-Oriented Higher Education Financial Digitization Platform

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Abstract: The realization of performance-oriented transformation of financial intelligence in universities is an inevitable choice for universities to achieve high-quality education in the new era. How to achieve deep integration of university finance and intelligence transformation based on performance, and how to optimize the allocation of university resources based on the construction of intelligent platforms, are issues that need to be studied at the current stage. This paper first introduces the background of performance-oriented transformation of financial intelligence in universities, revealing the practical background of this research. Then, it starts with the connotation and significance of performance-oriented financial intelligence transformation, focusing on the system architecture of financial intelligence transformation in universities. It elaborates on the system architecture of financial intelligence transformation from four aspects: budgeting, execution, monitoring, and evaluation. Furthermore, platform design is conducted based on this, specifically introducing the construction of three major modules of the university intelligence platform: financial service system, financial data exchange center, and financial decision system. Finally, this paper puts forward some suggestions for the intelligent transformation of university finance.

Keywords: Performance, Financial Intelligence, University Finance, High-Quality Development

1. Introduction

The report of the 20th National Congress of the Communist Party of China pointed out that high-quality development is the primary task of comprehensively building a modern socialist society [1]. Therefore, in recent years, the central task of the development of university education has been to achieve high-quality development, and the high-quality development of finance is an important and powerful support for the high-quality development of university education [2]. With the continuous development of universities, finance has become increasingly crucial. [3] Research suggests that financial management increases the value of universities through resource integration and allocation, ultimately promoting the improvement of universities' social service value. In other words, without high-quality financial management, high-quality development of universities cannot be achieved. Performance, as an important aspect of financial management and its pursued goal, has a significant impact on the high-quality development of finance.

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Performance is a management tool that combines economic, efficiency, and effectiveness aspects. It evaluates the direction of fund allocation, the goals of fund utilization, and the effectiveness of utilization through quantifiable indicators, thereby assisting in the optimization of resource allocation in university finance and enhancing the educational services and competitiveness of universities. Currently, Chinese universities are in a stage of rapid development, and the contradiction between university development and resource allocation is becoming increasingly prominent, posing new challenges to the performance management of universities. However, due to the relatively scattered theories of financial performance management in universities at present, a unified theory has not been formed, resulting in a lack of comprehensiveness in the performance management system [4], inadequate application of performance evaluation results [5], and a lack of supervision mechanisms for performance management. In the era of the digital economy, data has become an important productivity, and universities urgently need to deepen the digitization transformation of finance to achieve efficient performance management, ultimately contributing to the high-quality development of university education.

In November 2021, the Ministry of Finance issued the "Outline of Accounting Reform and the 14th Five-Year Plan," proposing to further promote the digitization transformation of accounting work. This policy provides institutional guarantees for the digital transformation of university finance, but it also requires reforms in university finance. With the upgrading and iteration of big data technology and artificial intelligence, big data has become an important driving force, promoting the digital transformation of industries. In this context, the digital transformation of university finance has become an important factor in promoting the high-quality development of universities. However, current research focuses more on the digital transformation of university finance and the construction of digital platforms, with little research on performance-oriented financial digital transformation. This paper takes advantage of the opportunity of the digital transformation of university finance to analyze financial digital transformation from a performance-oriented perspective. It analyzes and summarizes the connotation, significance, and research status of performance-oriented financial digital transformation, aiming to provide practical suggestions for the digital transformation of university finance.

2. The Connotation and Significance of Performance-Oriented Transformation of University Financial Intelligence

The connotation of performance-oriented transformation of university financial intelligence is for universities to utilize information technologies such as big data, cloud computing, and data analysis methods to shift financial management towards a performance-oriented and data-driven management model. This involves optimizing and transforming finance as a whole to maximize performance and enhance the efficiency of fund utilization. The performance-oriented approach means that financial management goals focus more on results and performance, emphasizing the evaluation and optimization of financial management outcomes, including efficiency improvement, cost reduction, and rational resource allocation. Meanwhile, the transformation of university financial intelligence involves the use of new-generation digital technologies such as big data, cloud computing, and blockchain to drive the transformation and reshaping of financial management and operations, thus improving financial efficiency and empowering the high-quality development of universities.

The performance-oriented transformation of financial intelligence plays a crucial role for universities. Firstly, it enables data-driven decision-making. By refining financial data through data mining techniques and constructing predictive models using data analysis, the results can help managers comprehensively understand performance, including revenue sources, expenditure status, and cost information. Additionally, it allows for the identification of factors influencing performance improvement and the completion status of performance indicators. This assists decision-makers in

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optimizing resource allocation based on the goals of high-quality development and existing resource conditions, thereby maximizing resource utilization efficiency and value. Secondly, it facilitates financial monitoring and risk management. Through data analysis techniques and risk estimation models, finance can monitor and prevent risks throughout the entire process, from budget allocation and disbursement to fund utilization. It helps identify anomalies in financial data and potential risks, enabling decision-makers to swiftly take measures for risk prevention and mitigation. Thirdly, it integrates multiple parties into a unified system, creating a digitalized and intelligent financial process system. By leveraging intelligent technologies, university finance can achieve connectivity between external and internal financial systems, thereby transforming and optimizing finance as a whole.

3. Research Status of Performance-Oriented Transformation of University Financial Intelligence

3.1. Research Status of Performance-Oriented University Financial Management

Under the impetus of a series of documents such as the "Opinions on the Comprehensive Implementation of Budget Performance Management" and the "Financial Rules for Public Institutions," various universities have actively joined the construction of integrated systems guided by performance goals [6]. Performance-oriented university financial management can help improve the financial management system, budget management system, and assist managers in making accurate financial decisions. In other words, performance-oriented university financial management can promote high-quality development in universities. However, there are many problems in the current development of university finance, such as insufficient funding and inefficient resource allocation [7]. It is believed that the reason for these problems is the lack of performance-oriented financial management in current university finance. Although performance-oriented university financial management is crucial for university development, it also faces many challenges. [8] The necessity of performance-oriented budget allocation is analyzed, indicating that university finance does not relate budget preparation to performance indicators, neglecting monitoring during budget execution. Furthermore, in discussing performance-oriented university financial management, it is concluded that it suffers from unclear financial management goals and needs improvement in financial budget management capabilities [9]. Addressing the problems of performance-oriented university financial management mentioned above, [10] it is believed that they face similar issues, while also pointing out the lack of effective supervision mechanisms and insufficient financial informatization in current performance management.

Based on this, it can be seen that performance-oriented university financial management plays an important role in promoting the high-quality development of university finance. However, through the above research, it is found that although universities have introduced performance-oriented management methods into budgeting, it is limited to budget formulation and execution, without incorporating performance into subsequent monitoring and evaluation processes.

3.2. Research Status of the Digital Transformation of University Finance

With the development and application of digital technologies (such as big data, cloud computing, and artificial intelligence), various industries are being driven towards digital transformation. In recent years, the introduction and implementation of documents such as the "Outline of Accounting Reform and Development for the 14th Five-Year Plan" and the "Opinions on the Comprehensive Implementation of Budget Performance Management" by the Ministry of Education have raised higher requirements for university finance. Therefore, integrating digitalization into university financial management and achieving the digital transformation of finance is the future direction of university financial reform. In order to achieve efficient utilization and optimal allocation of

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educational resources in universities and optimize financial management, some university finances have already begun to participate in digitalization initiatives. For example, [11] focuses on the digital construction of finance at Shanghai Jiao Tong University, achieving data collection and processing of financial and business data through intelligent technologies, thereby realizing data sharing. However, this construction is limited to digitization, but digitization does not equate to digitalization. Similarly, [5] analyzes the intelligent construction of finance at a central university, forming a full-process intelligent construction, although this practice mainly emphasizes intelligence. As the level of digitalization continues to rise, the digitalization of financial management in universities is also constantly improving. [12] An analysis of the digitalization of financial management at Harbin Medical University reveals that the university has achieved digital transformation in reimbursement, management of non-tax revenue, and management of shared scientific research instruments and equipment. However, it has not achieved full-process digitalization of finance, and the digitalization construction is based on intelligent data analysis. The potential value of data has not yet been fully realized.

From the perspective of the practical implementation of digital transformation in university finance, it can be observed that there is a relative lack in areas such as data sharing, intelligent top-level design, and the integration of business and finance, without fundamentally realizing the value of data [13]. Therefore, universities need to strengthen the digital transformation of finance and further improve financial management capabilities.

In summary, current domestic scholars have engaged in valuable discussions on performance-oriented university financial management and the digital transformation of finance. However, as university education reform progresses, universities have seen growth in financial and material resources, but the contradiction between resource allocation and limited resources remains prominent. Although universities have employed various measures including budget performance management and digitization to address resource allocation issues, these measures lack scientifically effective performance-oriented management. Additionally, in the process of digitalization construction, performance management has not been introduced to achieve full-process digital transformation of finance.

Therefore, this paper studies the performance-oriented digital transformation of university finance. Through digitalization technology, it aims to collect and analyze financial and business data, while incorporating performance into financial management, achieving full-process digital transformation of finance from budget formulation and execution to monitoring and evaluation. Simultaneously, in this process, digitalization technology is utilized for full-process monitoring and risk prevention, realizing high-quality financial management and promoting the high-quality development of universities.

4. Performance-Oriented System Architecture for the Digital Transformation of University Finance

4.1. Overall Architecture of Performance-Oriented Digital Transformation of University Finance

The performance-oriented digital transformation of university finance aims to meet the requirements of financial informatization transitioning to digitalization while optimizing the allocation of educational resources. Therefore, to ensure the operability of the performance-oriented digital transformation of university finance, its construction approach centers around the data exchange center. It sets performance-oriented backend requirements and analytical demands as goals, seeks the integration points of finance and business at the frontend, embeds the value chains and processes of

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different businesses into the financial information system, achieves data sharing between finance and business, and thereby realizes the digital transformation of finance.

In the overall architecture of the financial system, the specific implementation contents involve budgeting, execution, monitoring, and evaluation. These four aspects reflect different focuses and management requirements in the digital transformation process, while effectively connecting systems in different fields through digitalization construction, thereby achieving full-process financial management. See Figure 1 below. Budget indicators are introduced during budget formulation, forming a cycle of budgeting, execution, monitoring, and evaluation.

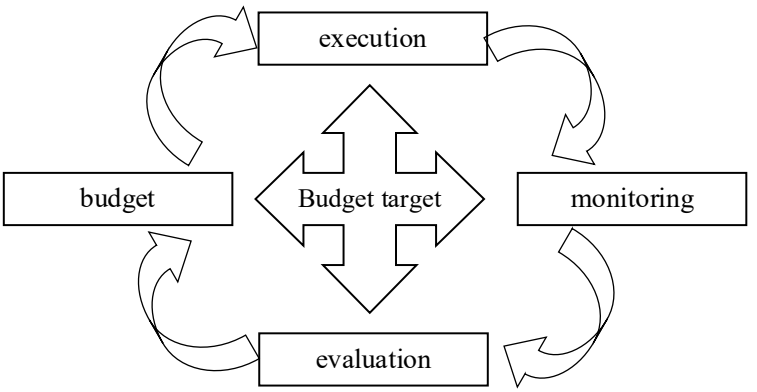

Figure 1: Overall Architecture of the Financial System

4.1.1. Budget

As a core task in financial management, budget management is an important component of the digital transformation of finance. A well-established budget management system facilitates subsequent centralized financial management and the prevention and resolution of risks. Currently, university finances mainly rely on the experience of financial personnel for budgeting, which often leads to disagreements between the financial department and business departments. However, leveraging technologies such as big data can improve the level of budgeting and resource allocation. Firstly, university finances utilize automation technology to obtain historical data from systems, such as research funding expenditures and income. After data cleansing and integration, mathematical models are constructed to establish scientific budget indicators and the performance drivers of various university operations. This integrates performance drivers with budget indicators, allowing for budget design according to different business departments. Secondly, machine learning (deep learning) can be employed to construct predictive models for budgeting, enhancing the scientificity and effectiveness of budget project forecasts. Additionally, based on the requirements of financial management work and the different business needs of universities, the financial department can validate the reasonableness of budget demands from business departments. Adjustments can be made to unreasonable budget demands to optimize the school's resource allocation, thereby extending financial decision support capabilities from post-decision to pre-decision.

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4.1.2. Execution

After analyzing the budget and making budget decisions, financial personnel need to execute the decisions, such as disbursing research funds, salary payments, and settling major financial matters of the school (social security settlements, medical insurance, infrastructure, loan repayments, etc.), as well as reimbursement work. Currently, business departments do not pay enough attention to budget execution, leading to problems such as fund redundancy or insufficiency. Digitalization of budget execution can help universities achieve their goals and improve the efficiency of fund utilization. Firstly, in the process of executing the budget, automated tools can be introduced to achieve digitization and automation of financial processes, including financial self-approval and reimbursement, reducing the workload of financial personnel, and improving the efficiency and accuracy of financial work. Secondly, during budget execution, the financial department utilizes technologies such as big data mining to statistically analyze financial and business data, understand the status of budget execution, and utilize digitalization technology to gain insight into factors affecting budget execution and differences between established performance targets. Timely communication with business departments is also necessary to propose corresponding improvement measures.

4.1.3. Monitoring

Financial monitoring can reflect financial information and conditions, providing support for decision-makers' decisions. However, due to the current imperfect financial system, problems such as exceeding the budget or insufficient budget still occur during financial execution. The digital transformation of monitoring can provide early warnings for risks, thereby strengthening supervision. Firstly, the financial department can use data technology to construct mathematical models for analyzing historical financial data. By setting reasonable thresholds for financial indicators and utilizing the system to monitor these indicators in real-time, relevant information will be automatically sent to the financial department once certain indicators exceed safety thresholds, enabling adjustments. Secondly, financial personnel can further explore financial-related data and information by combining the university's accounting function system with intelligent technology. They can set up safety alarms and warning mechanisms for financial matters that may pose financial risks. Financial monitoring reports can be sent to decision-makers to keep them informed of the financial situation, thereby enhancing the timeliness and effectiveness of decision-making.

4.1.4. Evaluation

Financial evaluation reflects a university's financial condition, financial management, and financial performance, identifying problems and areas for improvement, thereby facilitating high-quality development of the university. Performance-oriented digital transformation of university finance provides decision-makers with comprehensive performance information by constructing a data-based performance evaluation system, promoting overall improvement in university performance. Firstly, a scientifically sound performance evaluation mechanism is constructed using digitalization technology. Performance evaluation should also consider budget target completion and budget execution. Qualitative and quantitative evaluation methods are used to assess the quality of the budget, facilitating improvement. Secondly, by modeling the relationship between performance and business activities and utilizing data analysis technology to analyze factors affecting performance, scientific support is provided for budget decisions for the next quarter.

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4.2. Platform Design for Performance-oriented Digital Transformation of University Finance

The core task of the performance-oriented digital transformation of university finance is to construct an intelligent platform and introduce a performance-oriented management approach based on this foundation to achieve a new financial management model. Therefore, based on the needs of high-quality development, resource allocation, performance management requirements, and combining relevant concepts of digital transformation with innovative thinking, platform design was carried out as shown in Figure 2. According to the overall architecture of the performance-oriented digital transformation of university finance, it is evident that the flow between different systems is realized, achieving full-process management and monitoring of financial management. In the overall construction of the performance-oriented digital transformation of university finance, specific content involves financial service systems, data exchange centers, and financial decision-making systems.

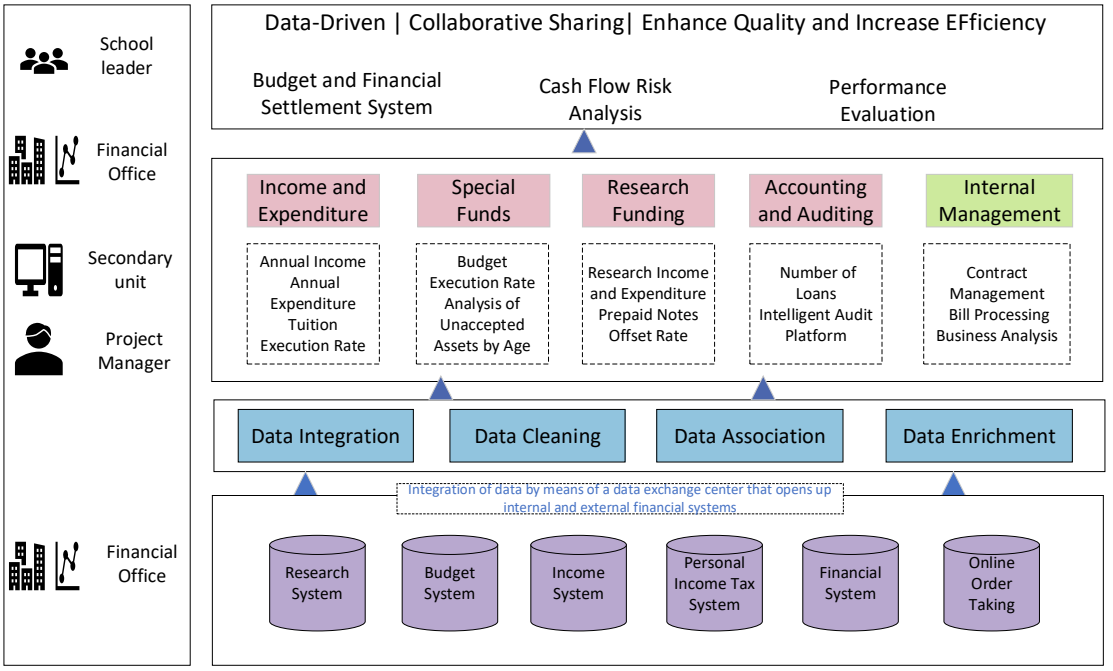

Figure 2: Platform Design for Digital Transformation of Finance

4.2.1. Financial Service System

Business systems and financial systems are the cornerstones of achieving digital transformation. The business and financial systems of universities include research services, teaching, income, procurement payments, and asset management. Although the specific contents of these business and financial systems vary, the key junctures affecting financial decision-making can be summarized as research systems, budget systems, income systems, personal tax systems, financial systems, and online application systems. Therefore, achieving digitalization and intelligence of the financial service system is crucial for achieving performance-oriented digital transformation of university finance. The digital transformation of the financial service system can be approached from the following points. First, constructing an integrated income system is essential. The main sources of university financial income come from government appropriations, education fees, and research project funding. Therefore, in the process of system construction, it is necessary to integrate multiple systems such as electronic receipt systems, student fee systems, and bill management systems, closely connecting research management systems and other business systems to form an integrated income management platform. Initially, the finance department needs to register the sources of income to

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facilitate later decision-makers in understanding the sources and nature of income. During the income project initiation phase, business departments submit applications for income project initiation on the platform and submit the corresponding materials. After approval and confirmation by the finance department, the platform will automatically generate invoices and provide invoice information to the reimbursement system, greatly improving the efficiency of financial management. Additionally, the platform will provide feedback on income distribution to the finance and business departments. This enables timely understanding of income distribution for decision-making adjustments. Second, building an intelligent online application acceptance system is crucial. This system combines the front-end expense acceptance system for travel expenses, equipment fees, and conference expenses, the mid-end reimbursement processing system, and the back-end electronic archive system. In the construction process, faculty and students submit expense reimbursement applications through the front-end system, along with electronic materials. Then, secondary units accept reimbursement business on the mid-end, review the voucher materials, and if approved, the system will proceed with business reporting and submit it to the project leader. Finally, the project leader signs off at the back-end, and the platform proceeds with fund disbursement, thereby achieving paperless, zero-contact intelligent reimbursement.

4.2.2. Financial Data Exchange Center

The financial data exchange center connects the front-end financial service system, mid-end databases, and back-end financial decision-making system through intelligent technology. To achieve digital transformation, it is first necessary to use automated technology to collect data from the front-end financial service system and then use intelligent technology to clean this data. Secondly, through data mining and machine learning, the correlations and patterns between data are discovered, and various algorithms such as clustering, classification, and association analysis are applied to establish connections between data, thereby forming multiple databases such as income and expenditure, and research funding. Finally, through artificial intelligence techniques such as deep learning, massive data is deeply mined and analyzed to identify potential data value, uncover trends in financial data development, and identify potential risks, providing strong support for the financial decision-making system.

(1) Financial Data Collection

Financial data collection is the process of obtaining raw data materials. Scientific and comprehensive data collection can drive the value chain of data. With the continuous advancement of digitalization, the functions of university finance are also evolving. Financial data is not limited to outcome data alone. Finance needs to collect and aggregate various types of data such as result data, transaction data, and behavioral data comprehensively. In the process of financial intelligence transformation, it is necessary to utilize sensing technology and tools to collect financial data carriers including vouchers and invoices, while also delving into research and development, scientific research, procurement, and other business processes to collect internal financial data. For example, invoice information can be obtained using an invoice system. Through intelligent technology, financial internal and external data can be comprehensively collected and aggregated into the financial data exchange center.

(2) Financial Data Cleaning

Due to the diverse sources of financial data, the raw data collected by the data exchange center often contain various problems such as missing values, inconsistent formats, and outliers. Therefore, financial data need to be cleaned. In the process of performance-oriented university financial intelligence transformation, rules for data inspection are set in artificial intelligence technology to automatically clean and process data, thereby effectively reducing data errors and improving the

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accuracy, standardization, and reliability of data, providing reliable support for subsequent complex data analysis.

(3) Financial Data Association

Financial data association refers to the use of data analysis technology to discover hidden and regular relationships between different financial data from massive financial data. It can eliminate data redundancy and inconsistency, improve data usability and analyzability. Financial data association is an important part of financial intelligence transformation. By using intelligent technology to associate different financial data elements, university finance can conduct more comprehensive and integrated data analysis, discover hidden trends, and perform predictive analysis by associating historical financial data with other relevant data, thereby providing reliable basis for university decision-makers.

(4) Financial Data Value-added

Financial data value-added refers to the creation of greater value through the analysis and mining of financial data using intelligent technology and methods. After associating financial data, various data analysis methods and algorithms are used to model and analyze financial data. This can unearth and analyze the financial status and future trends of university finance, enabling university financial decision-makers to make adjustments and decisions based on the results of financial data analysis in a more informed manner.

4.2.3. Financial Decision-making System

After analyzing and associating the data from the data exchange center, university financial managers have determined three major objectives of financial management: budgeting and final accounts system, cash flow risk analysis, and performance evaluation.

(1) Budgeting and Final Accounts System

The budgeting and final accounts system consists of budgeting and final accounts, both of which play a crucial role in maintaining the normal operation of universities. The level of budgeting and final accounts management determines whether university finance can truly fulfill its function. In other words, only scientific and systematic budgeting and final accounts management can guarantee the high-quality development of universities. Through this system, universities collect and organize financial-related data through the data exchange center, then utilize big data and other analysis technologies to analyze financial data, thus formulating budget plans and final account reports. Budget execution and final account analysis are also conducted. In this process, intelligent technology is used to monitor and analyze the budget execution, promptly identifying deviations and risks between the execution and the plan, and taking corresponding measures for adjustments. The intelligent platform can meet the diversified and complex budget management needs of schools, providing strong support for resource allocation in schools.

(2) Cash Flow Risk Analysis

Cash flow risk refers to the risk that cash flow instability or insufficient cash flow during the daily operation of a university may lead to the inability to meet operational needs. Due to the diverse sources of funds for universities, if students' tuition fees are overdue or government subsidies are delayed, it may result in the university being unable to pay salaries on time or purchase teaching equipment, thereby affecting the quality of education and student life. Therefore, university finances need to analyze cash flow risks. The intelligent platform, with the assistance of the data exchange center, conducts mathematical modeling and algorithm analysis on a large amount of financial data to identify potential risks in university financial cash flows. Based on the analysis results of intelligence, a set of risk indicators is established to evaluate the stability and sustainability of university cash flows, thereby assisting university financial departments in formulating risk response strategies, optimizing fund operations, reducing cash flow risks, and improving teaching quality.

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(3) Performance Evaluation

Financial performance evaluation measures the effectiveness and results of university financial operations through analysis and evaluation of financial data. Through performance evaluation of financial data, the strengths and weaknesses of university financial management can be identified for improvement and optimization. The intelligent platform utilizes the data exchange center to obtain data from internal and external financial systems, and employs data analysis techniques to analyze and process financial data, identifying key factors affecting performance evaluation and driving data-driven decisions. Simultaneously, based on the analysis results of intelligence, a performance evaluation index system can be constructed to help quantify university financial performance and conduct performance predictions, aiding decision-makers in optimizing performance decisions.

5. Strategies and Recommendations for Performance-Oriented Financial Digitization Transformation in Universities

Through the performance-oriented financial digitization transformation, universities have achieved online digitalization, process automation, and intelligent management of their main operations. This transformation has realized the digitization of budgeting, execution, monitoring, and evaluation stages, enabling comprehensive information management of research funding, contract information, project details, and special funds. It has enhanced the standardization, streamlining, and regularization of financial management, facilitating data sharing and collaborative operations among different departments. Consequently, it has significantly improved the quality and efficiency of financial management in universities. However, achieving financial digitization transformation under the current system poses certain requirements for both institutional frameworks and financial personnel. Therefore, some strategies and recommendations are proposed for the financial departments.

5.1. Enhancing the Strategic Position of Finance in Universities

The financial digitization transformation in universities can provide real and accurate financial data analysis. To effectively enhance the strategic position of finance in universities, financial decision-makers need to understand the strategic goals of the institution. They should utilize data technology to develop effective budget management and performance management strategies, aligning financial objectives with those of the university. Additionally, efforts should be made to cultivate secondary units in preparing high-quality financial analysis reports. Financial decision-makers should actively participate in the decision-making process of university management, using the results of data analysis to demonstrate to university management the contribution of finance in decision-making, resource allocation, and performance evaluation. This will lead university administrators to reconsider the status of finance and emphasize its importance, thereby elevating the strategic position of finance in universities and prioritizing its development. After understanding the financial development status of the institution, university administrators will focus more on controlling the flow of financial funds, emphasizing cost control, and rational resource allocation, thereby supporting the high-quality development of universities.

5.2. Enhancing the Quality of Financial Personnel

In recent years, with the revolution of new technologies such as big data and artificial intelligence, the financial digitization transformation in universities has become an inevitable trend, imposing higher requirements on financial personnel. However, many financial personnel currently have a vague understanding of the concept of digitization transformation and how to achieve it. Therefore, universities should strengthen the training of financial personnel, enabling them to understand what digitization is and how to achieve it, and encouraging their participation in the digitization

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transformation process. Financial personnel should also actively change their mindset and proactively learn professional knowledge related to data analysis, such as statistics and econometrics. Additionally, they should supplement their knowledge with management-related subjects such as strategic management and innovation management. By accumulating a wealth of knowledge, financial personnel can understand the necessary data, data sources, and how to utilize data for analysis to make informed decisions, thereby providing support for financial performance and benefits, and promoting the high-quality development of universities. Furthermore, it is important to improve incentive and evaluation mechanisms [14], strengthen skills assessment and professional ethics assessment for financial personnel, incentivize employee progress, and enhance the overall business level of the financial team.

5.3. Cultivating Professional Talent

In addition to strengthening the training of financial personnel, considering the professional and age structure of financial personnel, university finances should enhance the reserve of talents in statistics, computer science, and other related fields to optimize the talent structure. This helps to address the deficiencies in the professional skills of financial personnel and build an accounting team that is proficient in both business and familiar with digital transformation. With the advancement of financial digitization, it is necessary to strengthen prevention against risks such as system and network security threats. Introducing talent from computer science disciplines into the financial workforce helps prevent various interferences and risks from inside and outside the system, providing a secure and stable environment for the financial digitization transformation. Meanwhile, talent from statistics disciplines can assist financial personnel in preparing multidimensional financial reports to improve data quality and support the high-quality development of universities. Furthermore, universities can utilize their educational resources to cultivate excellent talent. For example, for financial accounting majors, universities can offer courses related to statistics to enhance students' ability to handle financial data and meet the requirements of digital transformation.

5.4. Establishing a Sound Security Mechanism

The transformation of financial digitization requires coordination and sharing of information among different departments. To ensure the smooth implementation of financial digitization transformation, universities should establish a comprehensive organizational security system and institutional security system. In terms of the organizational security system, it is important to enhance cooperation and collaboration among departments to promptly address any issues encountered during the digitization transformation process. Regarding the institutional security system, financial personnel need to develop a system that is compatible with digital transformation, defining the standards for digitization transformation and clarifying the responsibilities and work standards of relevant departments and personnel. Additionally, the institutional security system should clearly outline the standards for financial data and the requirements for ensuring the security and confidentiality of financial data.

6. Conclusion

As key institutions for scientific research and talent cultivation, universities rely on sound financial management as the foundation of their economic administration, bearing responsibilities such as internal control, resource allocation, and serving the vast faculty and students. With the advent of the new generation of technological revolution, the transformation of financial digitization has become an inevitable trend. Managers in universities must realize that the transition to financial digitization is not an immediate process but rather a long-term journey of continuous exploration and adjustment.

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Simultaneously, achieving financial digitization requires a performance-oriented approach, with a focus on perfecting institutional safeguards in areas such as systems, management, and talent development. This ensures comprehensive digitization throughout the entire financial process. It is essential to integrate data between financial and operational departments, facilitating connectivity between internal and external financial systems. This integration provides robust support for the internal control construction of university finances, ultimately aiding in the achievement of the central mission of high-quality development in universities.

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