A CASE STUDY OF FINANCIAL MANAGEMENT INFORMATION CONSTRUCTION IN LESHAN NORMAL UNIVERSITY

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AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION GRADUATE SCHOOL OF BUSINESS
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This Independent Study has been Approved as a Partial Fulfillment of the Requirements for the Degree of Master of Business Administration

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ABSTRACT

The development of information technology in the education sector has become a focus of attention as the country is increasingly concerned about the development of information technology in education in the present day. With the spread of information technology in schools, there is a growing interest in financial information technology as an important component. It is worthwhile to pay attention to how to build a financial management information system that is suitable for the development of higher education institutions and to fundamentally improve the overall financial management of schools. The objectives of this study were: 1) To analyze the level of financial management information construction of Leshan Normal University, 2) To analyze the current situation and problems of financial management of Leshan Normal University, 3) To determine countermeasures for the financial information management capability of Leshan Normal University.

This paper took Leshan Normal University as the main subject for case study research, using the documentary research. Combining the insights gained from both the coupling theory and the process reengineering theory, the study provided a detailed analysis of the status and inherent problems of financial management at Leshan Normal University.

This study identified critical inefficiencies in the current financial informatization processes at Leshan Normal University, highlighting the lack of

effective budget preparation control, the challenges in adapting to new business needs due to traditional management thinking, and the existence of "information silos" due to disparate software systems. Additionally, the study found significant room for improvement in the standardization of data collection and a pressing need for personnel skilled in both finance and information technology. 2) For countermeasures, the study recommends optimizing the budget management system and enhancing internal control management through the integration of cloud accounting platforms and improved data sharing between departments. It also suggests the establishment of a reasonable assessment and evaluation system for the financial informatization management capability, along with the development of a financial information exchange platform, standardization of data formats, and the promotion of online expense reporting and electronic approval to streamline processes and improve efficiency. These recommendations are aimed at addressing the gaps identified in the financial informatization process and enhancing the financial management capabilities of Leshan Normal University.

Keywords: higher education, financial management, financial informatization, business process reengineering

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Declaration

I, ZI WANGXIWEN, hereby certify that the work embodied in this independent study entitled "A CASE STUDY OF FINANCIAL MANAGEMENT INFORMATION CONSTRUCTION IN LESHAN NORMAL UNIVERSITY" is result of original research and has not been submitted for a higher degree to any other university or institution.

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(ZI WANGXIWEN)

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CONTENTS

FIGURE CONTENTS

Chapter 1 Introduction

1.1 Background of the study

Since the Third Plenary Session of the 11th Central Committee, China's higher education has witnessed unprecedented growth, leading to increasingly complex challenges and contradictions in financial management within educational institutions. This study, "Optimization Study of Financial Management Information Construction in Leshan Normal University," delves into these complexities, focusing on the intricate dynamics of financial management in the context of a rapidly expanding higher education sector.

The scale of schooling in China's higher education institutions has been expanding consistently, leading to diverse forms and distinct characteristics of education. Huang and Shuai (2013) noted that this expansion necessitates a correspondingly larger financial budget, presenting new challenges in financial management. The growth is not just in terms of student numbers and academic programs but also in the complexity and diversity of financial operations within these institutions.

Moreover, the evolution of financial management in higher education has been marked by significant reforms and advancements. Liu, Guo, and Wang (2012) highlighted the implementation of comprehensive public finance measures such as the comprehensive budget management system, the centralized payment system of the State Treasury, and the centralized government procurement system. These reforms have significantly improved the financial management system of higher education institutions, establishing effective internal controls within schools. These measures signify a shift towards more sophisticated, transparent, and accountable financial management practices, aligning with global standards.

In the realm of information technology, the sector has seen substantial advancements. The development of information technology for teaching, education, and student management has formed a solid foundation. The initiation of "digital campus construction" has begun to yield positive outcomes, reflecting in more efficient and effective management processes. This digital transformation is crucial for the

modernization of financial management systems in universities, allowing for better integration, analysis, and reporting of financial data.

At Leshan Normal University, these national trends reflect in its own growth and the evolving complexity of its financial management needs. The university's expanding scale and the introduction of diverse educational programs necessitate an advanced financial management information system that can handle increasing complexity and ensure efficiency and transparency. This study aims to analyze the current state of FMIS at Leshan Normal University, identify areas for optimization, and propose a framework for an advanced system that can meet the university's growing needs while aligning with national trends in financial management in higher education.

1.2 Problems of the study

In the face of the increasing demand for financial services, financial software that was originally limited to accounting has gradually revealed its inadequate functional design and limited construction planning. Therefore, there is an urgent need for financial managers in higher education institutions to restructure and upgrade their existing financial business processes and financial information systems, to bring in information technology that is adapted to their own development, and to integrate and innovate with the financial management theories and systems of higher education institutions to build a new financial information platform that meets the needs of financial operations and management control, so as to achieve a comprehensive upgrading of financial management in higher education institutions (Pang, & Wen, 2014). This will lead to a comprehensive upgrading of the financial management of higher education institutions.

1.3 Objectives of the study

Based on the above-mentioned information analysis, the establishment of an information system for financial management in higher education institutions to meet the needs of the new era of information technology and financial development has become a core task in the establishment of financial management systems in higher education institutions. The main objective of this paper is to examine how to apply the financial management information system to the specific financial management work of Leshan Normal University and to achieve the expected good results.

1. To analyze the level of financial management information construction of Leshan Normal University.

2. To analyze the current situation and problems of financial management of Leshan Normal University.

3. To determine countermeasures for the financial information management capability of Leshan Normal University.

1.4 Scope of the study

This study embarks on an in-depth analysis of the financial information management system at Leshan Normal University, aiming to provide a comprehensive overview of its current state and potential areas for improvement. The investigation begins with a meticulous evaluation of the existing financial information infrastructure, scrutinizing the software, hardware, data management practices, and the integration of various financial functions. This initial assessment is crucial for identifying the strengths and weaknesses of the current system, setting the stage for further exploration.

A significant focus of our study is to analyze how well the existing system aligns with the continuously evolving accounting standards. As these standards are crucial for accurate financial reporting and compliance, our evaluation seeks to determine the system's adaptability to new regulations and its capacity to maintain the integrity of financial data. In tandem with this analysis, we delve into the internal control mechanisms of the university's financial system. This examination is vital for understanding how the university safeguards the accuracy of its financial data and prevents fraudulent activities, thereby ensuring the reliability and integrity of its financial reporting. The necessity for upgrading the financial information system is a key area of focus. Through our assessments, we aim to pinpoint specific areas where technological and procedural enhancements are needed. This aspect of the study not only highlights the immediate improvements required but also sets a foundation for long-term strategic planning in financial management.

The culmination of our study involves proposing effective and practical solutions to optimize the university's financial information system. These recommendations are tailored to address the identified challenges, with an emphasis on enhancing efficiency, ensuring compliance, and improving the overall effectiveness of financial management

practices at Leshan Normal University. Additionally, we consider the future-readiness and scalability of the system, ensuring that it is equipped to handle the university's anticipated growth and the dynamic nature of the higher education financial landscape.

1.5 Significance of the study

Informatization construction is the inevitable direction of the development of today's era, and the financial management informatization construction of higher education institutions is an important part of the information construction of colleges and universities, which is the key to the smooth operation of the "digital campus" system. The use of computer and Internet technology, personnel, teaching, research, logistics, financial and other data resources centralized, after screening, categorization, integration to form a targeted financial information, so as to meet the needs of faculty, staff and students, in particular, to meet the size of the budget, the implementation of the progress of the payment query and other financial information needs, so as to effectively improve the integrity of the management chain of colleges and universities and coherence. Therefore, the study of financial management informatization construction of higher education institutions has a significant role to play in supplementing the theory of informatization construction of higher education institutions and has an extremely far-reaching impact. At this stage, domestic and foreign researchers' analysis on the theory of financial management informatization in colleges and universities focuses on the discussion of the meaning of financial informatization, such as how to define the difference between accounting informatization and financial informatization, as well as the theoretical discussion on the structure of the financial management information platform, the establishment of regulations and so on, and there are fewer case studies, especially from the microscopic point of view, with the grass-roots business perspective of the study. There are fewer case studies, especially from the micro perspective and from the perspective of grassroots business. This paper analyzes and researches the examples to add reference cases for the research of financial informatization construction in higher education institutions, and hopes that the research results can further expand and supplement the research ideas of financial informatization in higher education institutions in terms of internal control construction and process reengineering.

From the National Education Development Statistics Bulletin published by the Ministry of Education, it is known that as of 2017, there are 2,631 ordinary higher

education institutions in China, an increase of 35 institutions over the previous year, with a growth rate of 1.35%. Among them, there are 1,243 undergraduate colleges and universities, an increase of 6 over the previous year, and the scale of colleges and universities is constantly expanding. At present, China's colleges and universities have entered the stage of financial information technology construction, but the degree of development of the construction of each school there is a big difference, part of the higher education institutions located in remote areas of the west or less developed areas of economic development, by the impact of the amount of funds is small, limited investment, the degree of development and construction of its financial information technology is far lower than the average level of the national information technology construction of colleges and universities. The improvement and refinement countermeasures proposed in the study of financial informatization construction of Leshan Normal University can provide some experience and guidance for other higher education institutions in similar predicament and with lower informatization level.

Chapter 2 Literature Review

2.1 Financial Information Technology

The initial stage of financial information technology in higher education institutions is to simplify the workload of the accounting process and to meet the daily reporting needs of schools. According to Tang (2008), the main ways to build financial information in higher education include speeding up the process of reporting, improving the information level of the financial staff concerned, updating, and maintaining the network system on a timely basis, and raising the attention of the management. Chen (2009) suggests that the construction of financial information technology in universities should identify the information needs in accounting, define the service targets and contents, compile service guidelines, improve the basic network and expand the functions of financial software.

With the improvement of financial regulations and a greater awareness of internal control, the financial information system of higher education institutions is changing from accounting reconciliation and clearing to financial management. Ouyang (2011) pointed out that there are many shortcomings in the construction of information technology for financial management in higher education institutions, such as the data structure cannot support the growing needs of business management; the separation of existing financial information and business information of the university has led to the phenomenon of "islands" of information; the design of financial system software cannot meet the needs of the development of flat management of the university. The design of the financial system software does not meet the needs of the trend of flat management in schools, etc. Cai (2013) believes that the financial management of higher education institutions should make use of modern control tools and technologies, and reasonably design control measures to establish a defense system in a complex network environment, forming a technical firewall to ensure the safety of financial data in higher education institutions. Qin and Qin (2015) analyze the non-cash reporting model for higher education institutions and optimize the process. The key to implementing this model is to establish a seamless connection between the bank and the university, increase internal control, change the mindset of finance staff, and improve business standards. The study also provides an analysis of theories related to financial management in higher education and explains

the problems of financial management in higher education in terms of public budget, debt management and cost management.

With the maturity of Internet technology and the advent of the Big Data era, financial information systems are not only limited to stand-alone installations but are beginning to be extended through Internet technology to the various departments connected to financial services. Yao and Liu (2016) argue that a "cloud computing" environment can be used to build a financial information platform for higher education institutions to enhance their digital information capabilities, reduce the cost of information implementation, solve the phenomenon of information silos, and fully realize the effective sharing of financial information resources. Zhang (2016) argues that the development of financial information in higher education based on big data requires an analysis of the financial management needs of both financial and non-financial staff, a reorganization of system planning, a gradual transformation to an intelligent system, and the harmonization of associated data collection standards. Lin (2018) believes that the establishment of "online and offline" reporting, the expansion of mobile services, the promotion of a variety of reporting channels, and the facilitation of reporting methods will help speed up reporting, enhance work efficiency, and promote the effective use of funds. Zhang (2018) has built an Internet Plus online reporting system that integrates business reporting, accounting and Internet technology to improve the quality of accounting information and efficiency in the use of funds.

2.2 Concepts of Financial Management in Higher Education

Financial management is an important part of the organization of the unit, is based on financial laws and regulations, in accordance with the principles of financial management, fundraising, investment, operation, distribution of funds and other financial activities, and deal with all aspects of the relationship with the owners, creditors, debtors, employees, government agencies and other comprehensive and extensive economic management work: financial management of colleges and universities refers to the establishment of a special fund management department to review and control all kinds of economic activities in the operation of the school, assess and forecast the current situation and adjust the distribution structure, and ultimately achieve the enhancement of school efficiency and increase social reputation. The financial management of higher education refers to the review and

control of various economic activities in the operation of the school by setting up a special fund management department, evaluating and predicting the current situation, understanding the dynamic situation of monetary funds and adjusting the distribution structure in a timely manner, coordinating the internal organization of the school, and ultimately realizing the purpose of enhancing the efficiency of school operation and increasing social reputation, and promoting the benign development of the school towards the strategic goals. Financial management of universities mainly consists of budget preparation, accounting, research audit, government bonds, state-owned assets, infrastructure projects, financial reporting and analysis of administrative institutions, audit supervision and other components. The goal of financial management in colleges and universities is to continuously reduce the cost of school teaching and management, improve the school's ability to run schools and comprehensive competitiveness, improve the overall value of the school, and improve the school's social influence.

Financial management of colleges and universities has its own characteristics: first, the source of funds of colleges and universities is mainly based on financial allocations, although it is also self-financed in many ways, but the financial funds still occupy a large part of the overall funds. With the gradual improvement of the national laws and regulations for the management of education funds, the trend of budget refinement is obvious, the use of financial funds is constantly standardized, and the requirements for financial management are also getting higher and higher. Secondly, the national public finance policy is an important basis for the financial management of colleges and universities, which makes the establishment of financial management of colleges and universities must follow the budget system, the centralized payment authorized by the treasury, the government procurement system and other public finance policies and systems, and strictly abide by the relevant public finance regulations. Again, the university fully enjoys the school's own personnel, funds, facilities and equipment, independent of the right to dispose of the school's internal organizational setup, staffing, discipline planning, the introduction of talent, etc. have full autonomy, which makes the financial management of colleges and universities more flexible.

Based on the above characteristics can be summarized, the main task of financial management of colleges and universities is to limited financial resources, in line with

the framework of the public finance policy system, the flexible use of autonomy, to achieve the optimal allocation of resources, the maximum efficiency of the performance of the goal.

2.3 Coupling Theory

Coupling theory, a concept extensively explored and refined in various academic domains, offers a unique lens through which we can examine the interdependencies and interactions within organizational systems. Central to this theory is the idea that two or more systems, when coupled, interact in multifaceted ways, influencing and enhancing each other to create a unified entity. This concept, originally derived from group psychology, posits that the interconnectedness of coupled systems manifests as a phenomenon where they act upon each other in a synergistic manner, fostering mutual enhancement (Zhang & Ni, 2011). The relevance of this theory to the development of web-based information technology in educational institutions is profound, particularly in the context of integrating diverse departmental systems.

The concept of coupling in the realm of financial management information systems (FMIS) and other functional business systems within higher education institutions is critical. Presently, many higher education institutions exhibit a disconnect between these systems, often operating in isolated "silos." This separation impedes the efficient functioning of internal departments and the overall effectiveness of the institution's operations. Wu (2015) emphasizes the importance of initiating integration at the foundational level – designing business data entry formats, establishing financial information collection standards, and setting departmental master codes. These steps are essential for building a robust data foundation, which is a prerequisite for creating a financial information sharing platform.

Chen (2011) further elaborates on the significance of constructing a comprehensive financial management information system. Such a system not only provides the groundwork for harmonious coupling between various departmental systems but also facilitates the creation of a comprehensive financial database management system. This integration leads to effective sharing of financial data and information, satisfying the mutual needs of financial and business information departments. When financial departments and other functional departments assist each

other in their respective processes, a positive dynamic relationship emerges, indicative of a successful coupling effect.

The theory's application in the context of higher education financial management extends beyond mere data sharing. Liu and Yang (2014) discuss how coupling theory can enhance decision-making processes, enabling financial managers and department heads to make more informed decisions based on a comprehensive understanding of the institution's financial and operational data. Furthermore, Li and Zhang (2016) highlight the role of technology in facilitating this coupling. They argue that advanced information systems and digital technologies can significantly improve the interaction and interdependence between financial and operational departments, leading to more streamlined and effective institutional management.

The literature underscores the critical importance of applying coupling theory in the context of FMIS in higher education. By fostering an integrated approach, institutions can break down silos, enhance cooperation, and create a more cohesive and effective operational environment. This integrated approach not only improves the functionality and efficiency of financial management but also contributes to the overall strategic objectives of the university.

2.4 Process Reengineering Theory

The process reengineering theory plays a pivotal role in the transformation and modernization of financial management systems in higher education. This theory, which focuses on fundamentally rethinking and radically redesigning business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service, and speed, is particularly relevant in the context of evolving financial management practices in universities.

The journey of financial management in higher education from traditional manual bookkeeping to computerized accounting, and further to networked management, highlights the need for reengineering outdated processes. Liu, Guo, & Wang (2012) note that the original business processes in many higher education institutions have become not only inefficient and prolonged but also increasingly misaligned with the needs of modern financial management. This inefficiency results

in lowered operational efficiency and hampers the effective management of financial resources.

The application of process reengineering theory in higher education financial management involves scrutinizing and redesigning existing processes that no longer serve the evolving needs of universities. This reengineering is essential to align these processes with the advancements in financial information systems. Yan (2012) emphasizes that as universities continue to develop, the limitations of previous internal control systems become more apparent, necessitating a reassessment and overhaul of these systems to maintain adequate control capacity.

Further supporting this view, Zhang (2014) discusses the importance of integrating process reengineering with technological advancements in financial information systems. This integration is crucial for ensuring that the reengineered processes are not only efficient but also compatible with new technological platforms. Moreover, Wang and Li (2015) illustrate how reengineered processes can lead to more transparent and accountable financial management, which is increasingly important in the context of higher education governance.

The role of process reengineering in facilitating better decision-making and resource allocation in universities is highlighted by Zhou and Xu (2013). They argue that reengineered financial processes, supported by advanced information systems, can provide university administrators with more accurate and timely financial data, aiding in more effective decision-making.

The literature underscores the significance of process reengineering theory in the evolution of financial management in higher education. By fundamentally rethinking and redesigning financial processes, universities can achieve significant improvements in efficiency, transparency, and adaptability to technological advancements. This reengineering is not only a response to the shortcomings of existing processes but also a proactive approach to aligning financial management practices with the dynamic and complex environment of modern higher education.

Chapter 3 Research Methodology

3.1 Research Desgin

This paper used the documentary method, using a case study to explore the problems in the practical work of Leshan Normal University in terms of the design of accounting processes and the construction of a financial information platform.

Since the establishment of Leshan Normal University, the university has consolidated its resources and focused on building up specialized majors and has now developed into a comprehensive undergraduate institution with a focus on teacher education, including general undergraduate education, higher vocational education, adult higher education, and education for international students. Leshan Normal University is an institution of higher education that relies on the training of professional teachers at the secondary, primary and pre-school levels. The increasing scale of operation and business needs mean that the financial management of the university is diverse, complex and large scale.

3.2 Research Framework

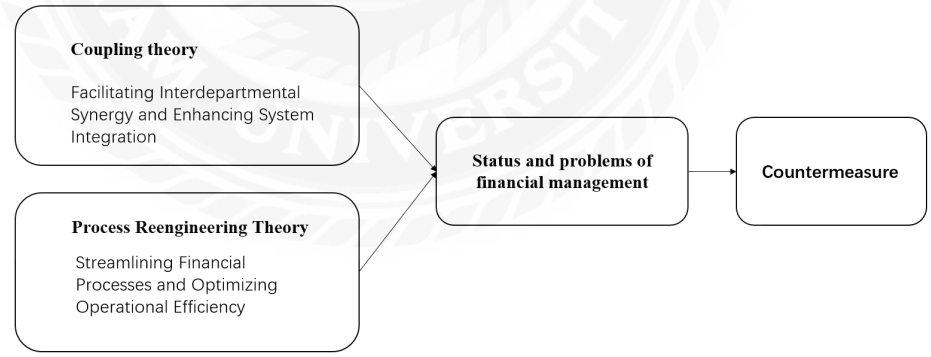

Figure 3.1 Research framework

The research framework presented illustrates a structured approach to analyzing the status and problems of financial management within Leshan Normal University. Through the application of coupling theory, the study explored the existing level of interdepartmental synergy and system integration. This theory guided the investigation into how various departmental systems within the university interact

with each other and the extent to which these interactions support or hinder the effective management of financial information. By identifying the current interconnections and dependencies, the research pinpointed areas where improved integration could lead to enhanced overall system performance.

Simultaneously, the study employed process reengineering theory to scrutinize and potentially redesign the financial processes of the university. This aspect of the framework was centered on evaluating the efficiency and effectiveness of current financial operations. The goal was to identify cumbersome, outdated, or inefficient processes that may benefit from reengineering. By streamlining these processes, the university can optimize operational efficiency, thereby improving the quality and speed of financial operations and decision-making.

Combining the insights gained from both coupling theory and process reengineering theory, the study then provided a detailed analysis of the current status and inherent problems of financial management at Leshan Normal University. This analysis was the foundation upon which the study built its suggestions. The recommendations will stem from a deep understanding of how enhanced system integration and streamlined financial processes can collectively contribute to a more robust and effective financial management system.

Ultimately, this dual-theoretical approach allowed for a holistic view of the university's financial management system. It not only addressed the micro-level processes that occurred within individual departments but also considered the macro-level interactions that shaped the financial information environment as a whole. The resulting suggestions are expected to be comprehensive, addressing both the technical and organizational aspects of financial management, thus providing a pathway towards a more efficient, integrated, and responsive financial management system at Leshan Normal University.

Chapter 4 Findings

4.1 Current Status of Financial Informatization

In accordance with the requirements related to teaching and management, Leshan Normal University has divided its organizational structure into four parts: party affairs and school affairs management institutions, teaching, teaching-aid and research institutions, group organizations, and other organizations. The party affairs and school affairs management institutions include 17 departments such as Party Committee Office (President's Office), Discipline Inspection Office, Personnel Office (Retirement Office), Finance Office, etc., the teaching and teaching-aided scientific research institutions include 18 second-level teaching colleges, 22 institutions such as Educational Technology Center (Experimental Facilities Center), and the Institute of Big Data Research, etc., and the group organizations include the trade unions and the Youth League Committee, and the other organizations include 4 departments such as the Alumni Association and the University Hospital. Departments. Each department has set up its own information management system through independent research and development or external introduction according to the needs of its own economic business, so as to carry out information zed management of its business.

From 2015 onwards, with the continuous development of teaching and learning, the school has continued to increase its investment in teaching and learning resources as the teaching reform progresses. In 2016, total income grew at a rate of 3% and total expenditure grew at a rate of 1%; in 2017, total income grew at a rate of 1% and total expenditure grew at a rate of 2%, showing a steady increase. In 2018, in response to the national call to build a "double first-class" university, the university expanded its fundraising channels, increased its funding and actively participated in the development of first-class academic disciplines, focusing on brand-name specialties. In the face of such a situation, the limited functions of the original financial management system have gradually been exposed, and the lack of functions in project classification management, detailed management of funds and monitoring of progress implementation can no longer meet the needs of the huge scale of funds management. The information needs that cannot be handled by the system can only be handled manually by collecting, filtering and organizing the scattered data in the system, which is time-consuming and reduces the efficiency of financial work.

As the scale of funding increases and the pace of school construction increases, the concept of "using good steel to the edge" is advocated by the school leadership, which makes it particularly important to monitor the evaluation indicators in real time. For example, the proportion of daily operating expenses for undergraduate teaching is an important indicator for assessing the investment in undergraduate teaching, specifically by calculating the ratio of daily operating expenses for undergraduate teaching to the sum of education funding and undergraduate fee income. The amount of money spent on day-to-day operations and teaching reforms should be controlled to maximise the benefits of the funds. Due to the large volume of work and the complexity of the data, schools can only report this important indicator semi-annually or annually, and the data often lags, which is not conducive to timely decision-making by financial or school leaders and the effective use of school funds.

4.2 Analysis of Problems with Financial Informatization

4.2.1 Control activities at the time of budget preparation are not effective and the process is not well connected and takes a long time.

The school has not established a budget preparation validation system, and almost all budget preparation for each year is the responsibility of each functional department to prepare its own budget, which is approved by the head of the budget preparation department and then directly handed over to the Finance Office for compilation into the school budget. In the process of project identification and budgeting, some major projects are decided based on the opinions of the submitting departments only, with insufficient communication between departments and less discussion at the school leadership level. Although the campus office network is now digital, finance staff still rely on Word and Excel to overcome data gaps in the budget process due to poor system connectivity and to update data manually.

4.2.2 New business needs are driving change and traditional management thinking is hindering development.

The lack of internal control in schools is that the control environment is not aligned with control activities, and the information system is still in use, but leaders are still stuck in traditional approval habits, which hampers the process of information building and makes it less efficient. In order to break the original business process, we

need to change the habitual thinking, top-down process re-engineering and optimization, especially need the understanding and support of the leadership.

4.2.3 There are serious "information silos" and a high demand for financial information from functional departments.

The wide range of software and the number of different software development companies in each department make it impossible to link data between departments and related operations through manual means. For example, when the Personnel Department sends monthly staff salaries to the Finance Department, the system port cannot be connected due to different software development companies, resulting in data information not being shared and information between the two systems being transferred manually. The lack of connectivity between the collection system and the shop floor management system has resulted in a high volume of manual statistical work and low efficiency, which has hindered the management of shop floor revenue by the relevant departments.

4.2.4 The lack of uniformity in the collection of information and data has led to poor communication.

The school leadership wants to improve the living standards of staff and needs to raise the remuneration of staff within a reasonable range of policies, but there is a conflict between the calculations of the Finance Office and the Personnel Office. The annual income per staff member drawn from the Treasury's payroll system is RMB10.4 million. This is higher than the performance pay rate of RMB100,000. However, the per capita annual income of staff drawn from the Personnel Management System of the Personnel Office was RMB 9.7 million, which was lower than the performance pay standard of RMB 1.2 million. However, the average annual income of the teaching staff extracted from the personnel management system of the Personnel Office was RMB 9.76 million, which was lower than the performance pay standard of RMB 10.2 million. The result of the calculation was that the transfer was allowed. The reason for these two contrasting findings is the difference in statistical interface between the Personnel Division and the Finance Division, resulting in a mismatch of information between the business-related functions. The difference in the number of people counted is since the Personnel Department uses the number of staff on the rolls of the administrative and business units as the basis for calculation, while the Finance Department uses the number of all staff on duty as the basis.

4.2.5 The quality of staff needs to be improved, and there is an urgent need for complex talents.

The staff of the Finance Office generally have a solid knowledge of finance, but they lack knowledge of computer information technology, and they do not know much about software design. When technical problems arise in the course of their work, they usually must seek help from specialist technology companies outside the university, which greatly reduces the speed of work and makes it easier for confidential information to be leaked.

Among the staff of the financial department, except for the financial management staff who have the title of deputy high school and above accounting, the rest of the staff are almost the title of other economic and management categories, and there is a lack of professionals in information technology, not to mention the composite talents who take into account both financial and computer information technology. Once the work of technical problems, usually need to turn to professional technology companies outside the school, the speed of work is greatly reduced, and the relationship between the school's confidential information is also easy to leak. This is a shortage of talent in the financial sector of all institutions of higher learning across the country. Composite talents with computer expertise and financial expertise, because of the financial process familiar with the existing financial system at the same time understand the defects of the point, to solve problems in the work of more targeted, such as in the procurement of financial software for secondary development, can accurately convey the system to the financial software engineers to develop demand. In the current financial management of universities in the process of information technology, network technology is changing rapidly, which is a huge demand for information technology in the field of high-tech personnel, especially with financial expertise and computer information technology is a strong demand for composite talents. However, by the school personnel management system constraints, in the financial sector to introduce a large number of information technology personnel may be very limited, the current introduction of computer technicians are mainly used to meet the day-to-day maintenance of equipment, it is difficult to specialize in the construction of financial management information system. If we can increase the scale of the introduction of information technology personnel or composite talents, the establishment of a professional team or talent pool, will

promote the construction of financial management information technology to produce substantial progress.

4.3 Countermeasures to Enhance the Financial Informatization Management Capability

4.3.1 Optimize the budget management system and strengthen internal control management.

To break the traditional thinking of budgeting, with the goal of refined management, to form a management structure of ex ante management, control and supervision, and to consolidate the core of the main body of internal control, it is necessary to establish a scientific, comprehensive and reasonable budget management system, to improve the financial management system, and to promote the development of information technology in financial management. The cloud accounting platform can provide financial decision-making services quickly and easily through its powerful storage and calculation capabilities, and is the infrastructure for huge data processing, especially in budgeting and management. Through the network channel connected with each port, the budgeting information of each department is uploaded to the cloud storage server, changing the previous crude preparation method of packaging all annual items into one total item, and entering each budget detail into it to realize refined management and control. To truly build such a cloud accounting platform, structural design is very important. Reshape the management of the school with information technology thinking, make full use of advanced big data technology and cloud technology to establish a cloud accounting platform, analyze the school development and teaching and scientific research data, formulate a budget plan for the actual situation, and truly achieve a unified combination of information technology means and budget management platform. After the budget is passed and issued, it is necessary to pay dynamic attention to the budget execution control, realize the uploading and downloading of data during the operation of the budget, so that the budget management from the formulation of objectives to the final assessment and evaluation of the link is based on evidence.

Data sharing between departments is realized through the cloud storage server, and the budget data is directly reported to the cloud storage through the standard format data uploading, avoiding errors generated by manual operation, reducing the

workload of budgeting financial personnel and improving the accuracy rate. At this initial stage of budgeting in second-tier organizations, financial staff can participate in budgeting through this system, increasing the rationality and compliance of budgeting and reducing the budget variance rate. Through electronic data transmission, the speed of information sharing is greatly improved, and it allows staff and leaders to prepare and approve budgets not limited to the office as a place, but through the network login system platform can make timely changes to the departmental upload data and review feedback. The grass-roots budget opinions can be directly reacted to the higher leadership, and the higher leadership can also directly approve the budget opinions, which not only maintains the enthusiasm of the grass-roots staff, but also allows the leadership to coordinate the school's resources from the macro level, and realizes the effective control activities and information communication of the internal control. At the same time, the audit department can also carry out risk control and supervision of the whole process.

Optimized budget information system to provide operational security is the budget implementation progress assessment into the department's annual performance appraisal, from March each year, the performance of all departments of the school progress assessment, the first quarter of the budget completion needs to be up to 25%, the second quarter needs to be up to 50%, the third quarter needs to be up to 75%, and the fourth quarter needs to be up to 95% or more. The first three quarters can not complete the budget progress, need to report on the situation, the end of the departmental budget completion can not be completed 95% of the department, the department head to report on the situation of the material and rectification program. Through the establishment of department heads accountability mechanism, strengthen the budget refinement management, enhance the school's internal control construction, improve the efficiency of the use of funds.

4.3.2 Establish a reasonable assessment and evaluation system and implement supervision and evaluation.

The performance assessment system of financial management informatization in institutions of higher education should not be oriented to the construction of infrastructure equipment and information resources, but should be an index system combining multiple elements with the goal of the continuous operation and development of the system and the improvement of the school's own management

capability. To transform the input of material, human and financial resources in reality into actual management effectiveness, a performance evaluation mechanism should be established in the system: in terms of budget implementation, the annual budget variance rate is incorporated into the performance evaluation, and the total performance points of the department will be deducted for the departments that have not completed the required budget progress, and the departments with less than 95% of the annual performance implementation progress will be deducted from the budget of the second year with the corresponding proportion; in terms of the usage of funds, the In terms of the use of funds, the input of project funds and the completion rate of the project will be included in the scope of the evaluation of excellence and priority and the assessment of the standard, and rewards will be given according to the completion of the situation, and priority will be given when the next project is declared; on the other hand, those who fail to complete the progress of the project within the budget period will be punished, and it will affect the declaration of the next project. In terms of business approval and meeting flow, according to the degree of urgency of the business, set up "ordinary", "expedited", "special emergency" and other signs of urgency, and add the processing time limit requirements for the documents that are not completed within the specified time for review. The time limit for processing is added, and the review of documents not completed within the specified time is recorded and included in the year-end performance appraisal of the department or individual. At the same time, a supervisory and evaluation mechanism for financial management informatization of higher education institutions is introduced, such as hiring a third party to conduct regular evaluations, and selecting supervisory agencies from social institutions not related to higher education institutions. Supervisory bodies should not only perform the responsibility of effective supervision, but more importantly, communicate with the school in a timely manner, give timely feedback to the school on the problems found in the process of supervision and evaluation, review one by one and check for gaps compared to the evaluation index system that has been set up, and guide the school to think about and realize the reasons for the problems in various aspects, summarize and collate the summary, and find out the core of the problem as early as possible, and rectify the problem in time, so as to make the university The supervisory assessment of financial management informatization is put into practice, effectively promoting the construction of informatization, thus enhancing the management capacity of universities and improving the level of university education.

4.3.3 Develop a financial information exchange platform to meet the information needs of all departments.

For the financial office is the key department of the school funds in and out of the various departments of the demand for financial information has a very high demand for timeliness and accuracy. Due to the different management style of each functional department, the establishment of different information technology software systems and different starting time, resulting in the functional departments of the system between the data can not be connected and transmission, the formation of "information silos", the school's internal control caused some obstacles, so the need to build a data exchange platform.

Financial information exchange means that financial information can be easily accessed and shared between stakeholders according to their own needs. To achieve this goal, the first step is to collate the data already available in the business systems of the various functions and select the data that is of value to the Finance Division for import into the information exchange platform. Secondly, the data from the imported functional departments were used effectively to build up information modules that are compatible with the financial processes. Finally, the financial information of the finance department is extracted and organized, and transferred to the information exchange platform so that it can be read by the relevant departmental systems. This enables the transfer of data between different information systems, improves the accuracy and utilization of data, enhances the efficiency of various functional departments, and strengthens financial management control.

4.3.4 Establish data format standards to enable effective communication of financial data.

Effective communication of information is crucial throughout the entire financial process. Although it may not be a specific business operation, it plays a significant role in connecting various aspects of the business. It should be highly prioritized and treated as an important project. Without smooth information communication, financial informatization cannot be effectively implemented. To advance financial informatization, it is essential to enhance the efficiency of financial information transmission, starting with innovating the financial information service model. Breaking down existing data barriers, establishing data standards, creating

interconnected data communication pathways, facilitating data sharing, and eliminating "information silos" are necessary steps.

In the procurement process at Leshan Normal University, there are workflow issues involving redundant tasks. Due to the lack of interconnected system data, the Financial Department and the State-owned Asset Management Center rely on manual processes to transmit data. When the Financial Department enters the paper-based data provided by the State-owned Asset Management Center, they end up duplicating much of the information input from the previous stage. This redundancy not only wastes manpower and resources but also hampers workflow efficiency, impedes financial information communication, and reduces the efficiency of fund utilization.

To improve this situation, it is essential to establish standardized data entry guidelines at the initial stages of economic operations. This allows subsequent stages to directly access shared data from the previous stage, reducing redundant work. In the initial stages of asset procurement, the State-owned Asset Management Center should establish a standardized asset procurement information form in line with the entire process's requirements. This creates an information-sharing platform that enables sharing with the Financial Department and equipment usage departments. Once information channels are established and connected, timely data updates can be conducted. Through the system's query interface, the procurement department can track the procurement progress and make adjustments for various unforeseen circumstances.

By redesigning the processes in which there is inefficient communication within the school's internal controls, reducing redundant work stages, optimizing the structure of business processes, improving the speed of financial information flow, accelerating the pace of operations, and enhancing the efficiency of fund utilization.

4.3.5 Establish a financial information sharing platform to promote online expense reporting and electronic approval.

As universities continue to expand their operations, their business scope widens, and their financial resources grow. Consequently, the exchange of data between the financial department and various functional departments becomes increasingly extensive. Traditional data transmission methods are not only labor-intensive,

time-consuming, and inefficient but also prone to errors and lack flexibility. To address this situation, it is essential to aggregate the necessary information onto an information sharing platform. The university's financial information sharing platform integrates various departmental activities with financial data, processes financial information generated from educational, research, state asset management, personnel management, and other economic activities through a data sharing platform, meeting the requirements of higher education institution financial management.

Building upon the existing financial information system, additional components are developed to cater to the evolving needs of the university. These components include real-time updates of fee collection account data, online progress tracking of expense reporting, online approval of travel expenses, online handling of research projects, among others. These improvements eliminate the need for manual communication, saving time, reducing the workload of financial staff, and increasing work efficiency and information utilization. Simultaneously, the online expense reporting platform is connected to the network office platform within the digital campus, integrating business approvals with financial approvals, such as budget review, payroll distribution, and procurement verification. This streamlines online operations, enhances the speed of information flow between departments, reduces information distortion, and, as a result, strengthens financial management capabilities through the use of shared financial information.

The impetus for university process reengineering is the realization that outdated financial business processes are no longer suitable for the rapid growth and expanding economic operations of the institution. For instance, in the common economic operation of travel expense reimbursement, the university still relies on manual submission and approval processes, which clearly do not align with the current development requirements of the institution. With the trend towards multi-campus development, the adoption of online expense reporting is the way forward. By establishing a financial information sharing platform, faculty and staff can upload their travel approval requests and expense materials for easy review and retrieval by financial personnel. Moreover, this approach overcomes the previous limitation where personnel from other campus locations had to physically visit the main campus for expense reporting, breaking down spatial constraints.

However, it is important to note that the establishment of online expense reporting and electronic approval systems must align with the university's internal control system, with a particular focus on financial management. Financial management is crucial for ensuring the smooth operation of funds within the university, making supervision of fund usage essential. The university's information system assigns appropriate permissions based on the nature of users' positions, integrating the internal control system with the information system to ensure effective fund supervision. The system monitors the flow of funds and authorization processes, reducing the risk of unauthorized operations. For high-value transactions that require multiple department approvals, funds can only be disbursed once authorization becomes effective. The financial information system monitors the entire process and sends reminders to relevant personnel within specified time frames. The establishment of the internal control system serves as the foundation for financial management and is the starting point for the development of financial management informatization. Positional permission settings within the system are based on the internal control system and financial management regulations, adhering to the fundamental principle of "separation of incompatible duties," with the primary goal of achieving effective fund supervision.

4.3.6 Introduce versatile talents, emphasizing employee education, and enhance the quality of financial personnel.

All institutional reforms require the cooperation of every staff member, and the high level of competency among financial personnel directly impacts the effectiveness of these reforms. The overall level of financial management in the university is influenced by the quality of its personnel, and the quality of financial work directly affects the strategic development of the institution. An outstanding financial team can provide high-quality financial services, helping the university achieve its financial goals. Conversely, low-quality financial services can hinder the achievement of financial goals and even lead the university into financial crises. Therefore, building a reservoir of financial talent is crucial. In the construction of financial management informatization, the focus is on establishing a high-quality team through three aspects: the introduction of accountants with both financial expertise and computer information technology skills, attention to the ongoing development of existing staff, and a commitment to lifelong learning.

(1) Attracting accountants who possess both financial expertise and computer information technology skills is the key to talent renewal. In the era of big data and rapid development of internet technology, as technological capabilities continue to advance, machines and artificial intelligence will eventually free financial personnel from traditional mechanical and repetitive tasks, making them managers of financial robots. In the current stage of financial informatization construction, as progress continues, the demands on talent increase. Thus, the primary focus of talent renewal is to attract versatile individuals with a combination of financial theoretical knowledge and information technology skills, infusing new thinking and vitality into the university's financial management informatization.

(2) Prioritizing ongoing education for financial personnel is a crucial factor in implementing financial management informatization. The key to financial work is the staff members who make up the financial workflow. Each staff member diligently fulfills their duties in accordance with their job responsibilities, and the responsibilities are clearly defined and interconnected. The financial informatization system encourages financial personnel to transition from mechanical operations to comprehensive management, expanding the scope of work from traditional document verification and monetary calculations to accounting processing and online payments. This places higher demands on the competency of financial personnel. In the ongoing education of on-duty financial personnel, it is essential not to limit training to financial knowledge and legal regulations alone. It is equally important to enhance education in computer information knowledge, such as system operation, management, and maintenance, to improve proficiency in system operations. Only with knowledge of computer information-related technologies can financial personnel provide higher-quality financial services.

(3) Embracing the concept of lifelong learning is the ultimate goal in improving the quality of financial personnel. In the future, the advent of the era of artificial intelligence will have a significant impact on the employment landscape in the financial accounting industry. Financial robots are likely to replace humans in tasks such as document verification and voucher entry. Consequently, many grassroots financial workers may face the risk of unemployment. In the current environment, financial management informatization requires individuals to not confine their learning to financial expertise alone but to also understand and learn various advanced

technologies and practices. Over an extended period of work, financial personnel may easily become trapped in conventional thinking and rigid practices, which is detrimental. Therefore, financial personnel need to break free from these restrictive patterns, adhere to the concept of continuous learning and lifelong learning, cultivate agile logic, stimulate innovative thinking and creativity, enhance their adaptability and comprehensive capabilities, and be prepared to face various challenges that may arise in the future.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

This paper took the coupling theory and the process reengineering theory as the guiding ideas, and applies process reengineering to optimize the financial management information system of higher education institutions. Taking the school's characteristics and strategic development goals as the construction direction, a platform for sharing financial information resources is set up, and a new financial management information system is constructed based on the idea of "operation status - problem analysis - process optimization - process re-engineering", to complete the whole financial management information system. The research program was completed by building a new financial management information system based on the concept of "operation status - problem analysis - process optimization - process reconstruction". By analyzing the operation of the original financial information system of the target university, we can pinpoint the pain points and set up an accurate entry point for process reengineering, so as to optimize the financial system and improve the overall financial management capability of the university. The establishment of a financial management Informa ionization system in higher education institutions not only enables effective management of school funds, but also provides the necessary data support for the implementation of strategic objectives, and provides scientific feedback and evaluation of the operational effectiveness of projects. This will help schools to enhance their cost awareness and provide strong support for decision-making. Therefore, the improvement of the financial management information system, which is closely integrated with the internal control of universities, is an inevitable trend in the construction of financial management in universities, and can effectively promote the innovation of the overall management of universities and the formation of an orderly and benign development.

5.2 Recommendation for future study

Recommendations focus on practical steps for Leshan Normal University to enhance its financial management systems, taking into account the integration of interdepartmental data and the reengineering of processes identified as suboptimal. Future studies could delve into the application of emerging technologies such as

artificial intelligence and blockchain for financial data integrity and process automation.

Moreover, recognizing the limitations of this study, such as the scope of data or the specific context of Leshan Normal University, future research should consider a broader dataset and perhaps a comparative analysis across different institutions to validate the findings. It would also be beneficial to investigate the long-term impacts of the implemented recommendations on the university's financial management efficiency and effectiveness.

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