Design of Financial Management System

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Abstract

Financial management systems are currently being used at several colleges. The university's use of the financial management system has led to the best outcomes possible in terms of developing financial plans, enhancing financial control, and enhancing the effectiveness of financial management. A university's sound and long-term growth is inextricably linked to scientific financial management practises. The use of financial management tools is a practical technique to raise the level of financial management given the rapid advancement of computer technology. The financial management system is integrated with computer network technology in the article. Data recording and data statistics presentation are specified as the primary functions of the system's financial management and accounting management components. The financial management system replaces the conventional manual financial mode and integrates the university's financial management with industrial informatization to realise the computerization of accounting. The results demonstrate that the changed system has greater average response times, data throughput per second, and requests per second than the traditional system that has not been modified, and the ratio is around 5% higher. This demonstrates how the financial management system created by computer network technology may have an impact on how the university is run.

Key: Design, Financial, Management, System, Enhancing, Effectiveness, long-term growth, inextricably.

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Introduction

A sophisticated information management system called data management is used to run contemporary universities. In businesses, government agencies, educational institutions, and other sectors, data management systems are frequently employed. It can enable the most cutting-edge

university management solutions, combine all internal and external information sources, and offer systematic management for decision-making, management, and assessment of company development by using IT and network technology. Among these, the financial management system is a crucial component that can forecast, make choices, and monitor finances.

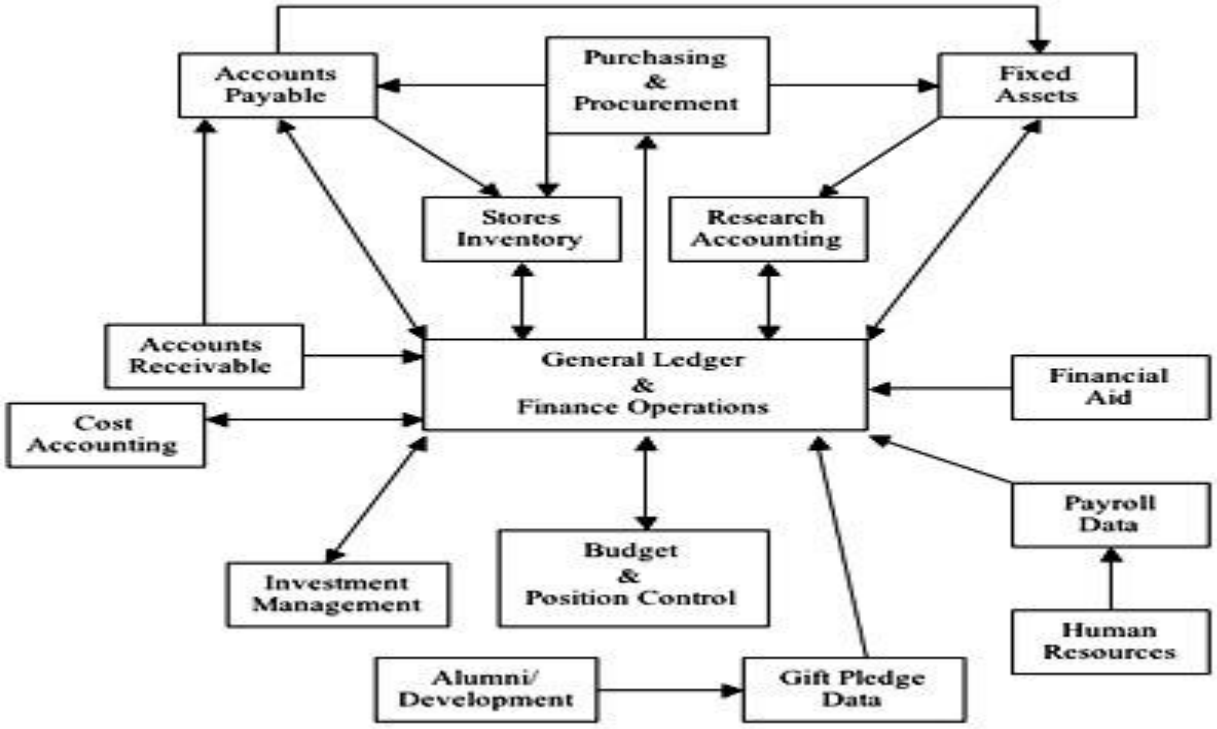

Fig.1: Design of Financial Management System Flow

And control the growth of the institution based on the distribution, statistical analysis, and information of the students, professors, and resources. All types of universities are now confronted by the challenge of the information tidal with the emergence of the "Internet Plus" era, and rivalry between universities is escalating. In addition to other areas, industry, education, and health care have all benefited greatly from the Internet. The institution has implemented a cutting-edge financial management system that enables effective administration and control of financial data. The quality and consistency of financial information must also be improved, as well as the efficiency of financial administration and management expenses.

Method of Financial Management System

The finance department is crucial to the growth of the university and is responsible for budgeting, managing, and analysing all facets of university operations [8, 9]. Additionally, the management of funds and cashiering for appropriations must fall under the purview of the financial department.

It is a pressing issue to employ the most recent, widely used computer technology and effective resources to construct an all-encompassing university financial management system that serves users in order to increase the level and efficiency of financial management [10, 11].

When the university adopts the financial management system, timely financial data interchange is realised, departmental collaboration is deepened, the university's financial management is enhanced, and the operation of the university is more streamlined and effective. It also carries the danger of hacking and has financial flaws. The financial management system's primary function is to perform this. As a result, while creating the revised system, the initial goal of system

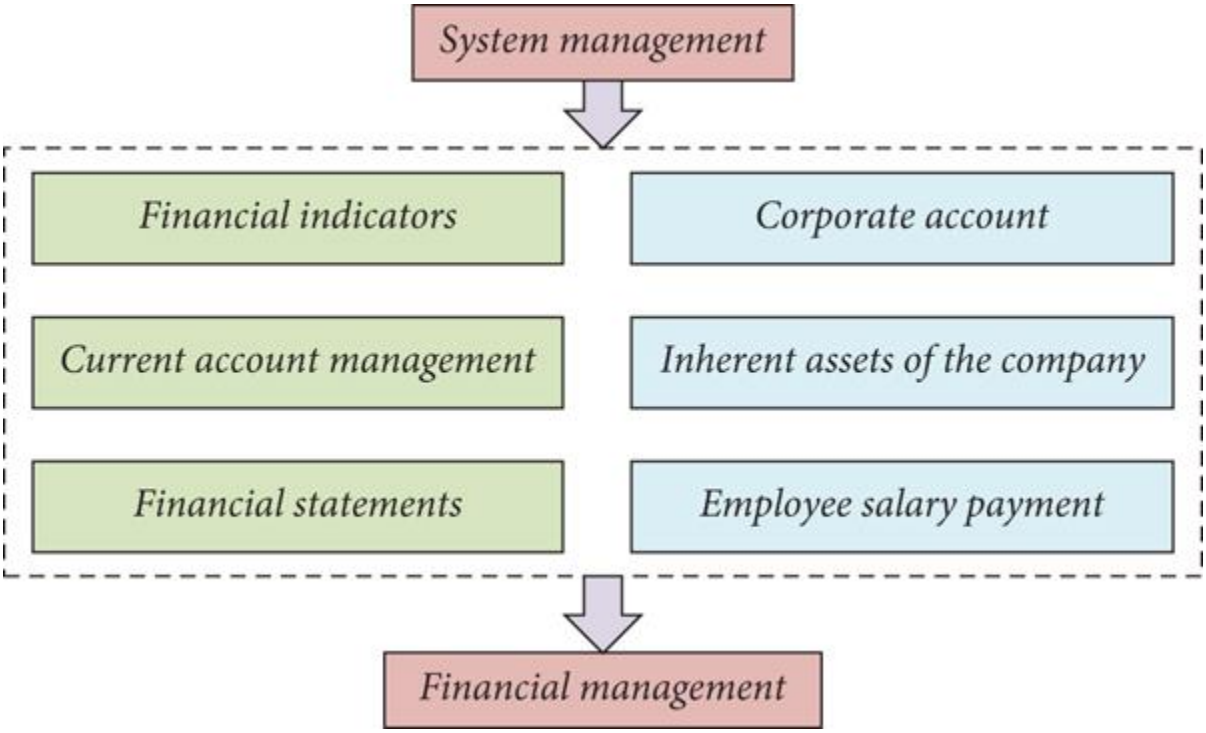

Fig.2: Design of Financial Management System Process

Development should be made clear in light of the university's actual requirements. The system's primary functions are next established in relation to the goal of system development, the primary function modules are split up with the function realisation at their core, and finally each function module is developed [12]. This system's initial independence and low coupling are shared by each module. So, the synchronous development mode may be used to accelerate the development process.

Implementation

Fig.3: Design of Financial Management System Cycle.

(1) Payroll accounting is a key component of financial management. Due to the fact that it encompasses the financial gains and losses of a full unit, payroll accounting is crucial. The criteria for accuracy are very high since there are numerous aspects that go into labour and because employee pay are directly incorporated in the financial budget. The salary management module's architecture enables creation of monthly salary reports for usage by employees, enhancing the effectiveness of salary management and maximising cost savings. The pay management module must perform the following duties from the perspective of its overall functions:

(1) staff management: input, edit, and remove employee basic data, including salary information; 2) payroll management: change the basic and variable salaries and produce the final payroll report; (3) salary adjustment—adjust working years, positions, and other information; (4) salary inquiry—provide salary information inquiries; and (5) salary adjustment—confirm the amount of pertinent subsidies.

System Performance

The financial system is tested 50 times, once before and once after the system enhancement. When the reaction time of the system is compared before and after an improvement, the traditional financial management system has an average response time of roughly 7 s and an unstable response time. Five fluctuations make up 10% of the entire test duration in the 50 test runs, and the fluctuation of the fluctuation is greater than 50%. After the computer network was transformed,

the system's typical reaction time was roughly 4.3 s. additionally, the reaction time is essentially steady during the test, and the fluctuation is basically stable at about 15%. It can be seen that the financial management system designed in this paper is better than the traditional system.

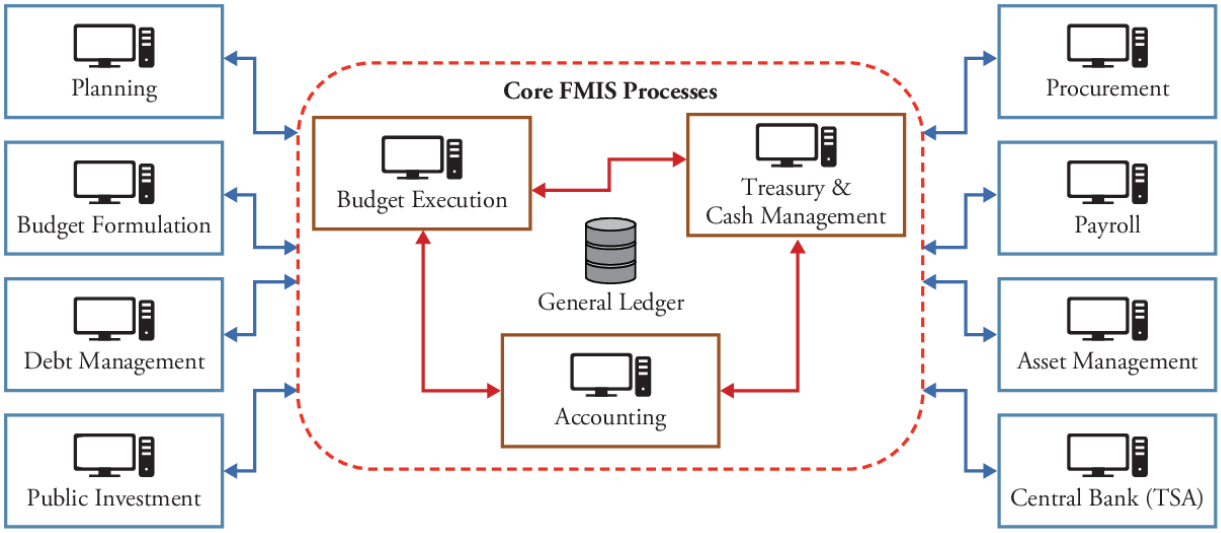

Fig.4: Design of Financial Management System Method

When network devices are completely setup on all ports and operating at the greatest wire speed possible for the ports, throughput serves as a limit indicator, or an indicator. The throughput of a switch, or the total of the bidirectional packet forwarding rates of all ports of the switch, is comparable to the traffic flow in and out of all the cities in the system, if the highway traffic system linking various cities is used as an example. The internal and external network port hardware of the network device, as well as the effectiveness of the programme algorithm, particularly the programme algorithm, are the key determinants of throughput size. For a device that needs to perform a large number of operations, the low efficiency of the algorithm greatly reduces the communication volume.

Conclusion

Chinese universities must work very hard to become more technologically advanced in the contemporary period where information technology is driving the industrial economy. Information may be swiftly sorted, analysed, and processed to provide material that is helpful to the institution. And to address this sort of issue is the financial management system developed and put into use in this study. This essay addresses the design and implementation of the system from the perspectives of associated theoretical technology, system requirement analysis, system design, and system test implementation. It begins with a background in software engineering and system analysis. Considering the state of the university's comprehensive financial management system,Operation

criteria that are realistic and adhere to the fundamental ideas of growing intellect and combining with revenue are presented. The functional components of the system are explained in depth in accordance with process management standards and university-specific features. There are, of course, certain drawbacks. The developed financial management system was not designed using more sophisticated design methodologies since it lacks some necessary functionality and some functions cannot be clearly specified. After that, by examining various company situations and data from financial management systems, comparing the compatibility and integration of different programs, improving the system service department, and making the system play a greater role.

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