



**The Impact of Budget Management and Expenditure Control on
Financial Transparency and Fund Utilization Efficiency- A Case
Study of Zhengzhou People's Hospital, China**

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**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
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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

Globally, with the rapid economic development and the increasing issue of an aging population, the demand for healthcare services continues to rise, leading to the continuous escalation of medical costs. Controlling healthcare expenses has become a major task in the healthcare reforms of many countries. In this context, improving hospital financial transparency and fund utilization efficiency through effective management practices has become a central issue in the reform of healthcare systems in various regions. The objective of this study were: 1) To examine the impact of budget management measures on financial transparency and fund utilization efficiency at Zhengzhou People's Hospital; 2) To examine the impact of expenditure control measures on financial transparency and fund utilization efficiency at Zhengzhou People's Hospital.

This study adopted a quantitative research approach, with the independent variables being 1) budget management, and 2) expenditure control, while the dependent variable was financial transparency and fund utilization efficiency at Zhengzhou People's Hospital. The study used a simple random sampling method, with 119 completed questionnaires, ensuring that the results were statistically significant and

fully reflected the relationship between budget management, expenditure control, and hospital financial performance.

The findings highlight that: 1) Budget management measures have an impact on improving financial transparency and fund utilization efficiency at Zhengzhou People's Hospital; 2) Expenditure control measures also have a positive impact on financial transparency and fund utilization efficiency. It was found that both budget management and expenditure control measures play a positive role in enhancing hospital financial transparency and fund utilization efficiency.

Recommendations include: optimizing the budget management system and strengthening the refinement and enforcement of expenditure control measures. By reinforcing budget management and expenditure control, Zhengzhou People's Hospital can not only enhance the transparency of its financial management but also optimize the efficiency of fund usage, ensuring the hospital's financial health and sustainable development. These management measures are crucial for the long-term development of the hospital and are worth further promotion and application.

Keywords: budget management, expenditure control, financial transparency, fund utilization efficiency

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Sun ZhuoRan

DECLARATION

I, Sun ZhuoRan, hereby declare that this Independent Study entitled “The Impact of Budget Management and Expenditure Control on Financial Transparency and Fund Utilization Efficiency - A Case Study of Zhengzhou People’s Hospital, China” is an original work and has never been submitted to any academic institution for a degree.

(Sun ZhuoRan)
July 16, 2025



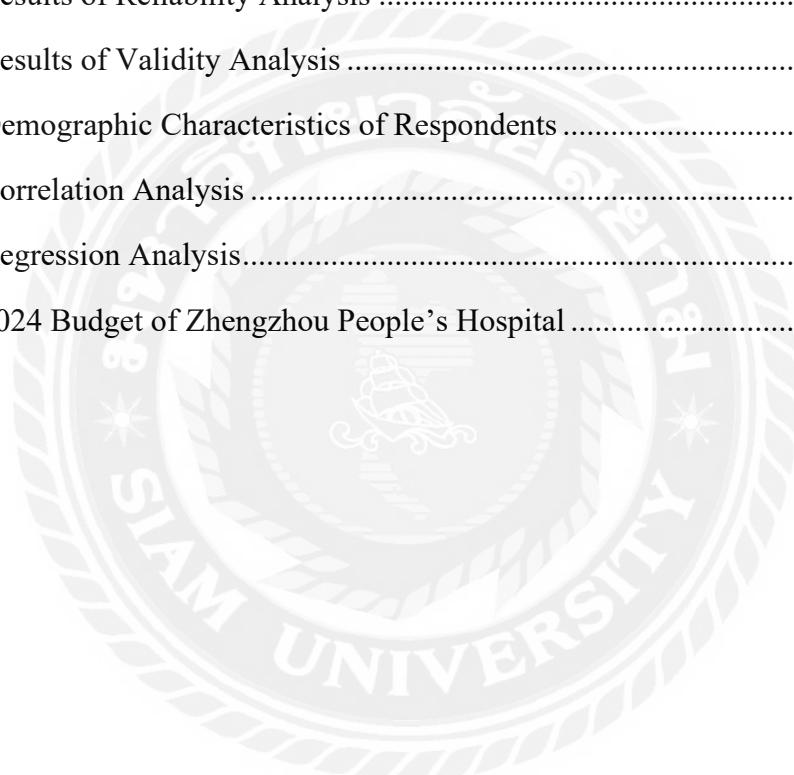
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Chapter 1 Introduction

1.1 Background of the Study

The healthcare industry is an indispensable and crucial component of modern society (Abbass et al., 2022). With the rapid economic development and social progress, the demand for medical services has steadily increased, placing mounting cost pressures on the healthcare sector. However, some public hospitals still face challenges regarding the transparency of their fund utilization and financial management. Issues such as inadequate budget management and lax expenditure controls result in inefficient use of resources, exacerbating the operational burdens of medical institutions. The control of healthcare costs requires not only the optimization of internal hospital management but also policy support and improvements in the external environment (Wackers et al., 2021).

As China's economy continues to develop and society progresses, the demand for medical services remains on the rise. However, the ever-increasing medical expenses have become a widespread issue for hospitals at all levels (Du et al., 2021). In recent years, the government has increased its investment in the healthcare sector, yet challenges persist due to uneven distribution of medical resources, limited fiscal support, and an overreliance on healthcare services, keeping medical costs at a high level. Research has shown that the scientific, standardized, and effective execution of budget management directly affects the cost control outcomes of hospitals (Ferreira et al., 2020). Proper budget management helps hospitals allocate funds better, optimize resource utilization, avoid unnecessary waste, and enhance financial efficiency (Ferreira et al., 2020). Xie et al. (2019) proposed that public hospitals should strengthen the supervision of budget execution and use variance analysis to ensure the effective utilization of budgeted funds. Similarly, Li et al. (2020) pointed out that hospitals should prepare budgets based on the actual needs of departments and projects, and establish performance-oriented budgeting mechanisms to ensure financial transparency and the efficient use of funds.

In addition to budget management, expenditure control is another critical aspect of financial management in hospitals (Huang et al., 2024). With the expansion of hospitals, especially in areas such as technological equipment upgrades and pharmaceutical procurement, hospitals face significant pressure on their spending. Studies indicate that a standardized expenditure control system plays a crucial role in enhancing financial transparency and the efficiency of fund utilization (Ding et al., 2020). In terms of expenditure management, hospitals should improve the effectiveness

of expenditure control by rationalizing expenditure classification, approval processes, and procurement management. Furthermore, hospitals should establish robust internal and external auditing mechanisms to ensure the transparency of fund usage.

In China, particularly in Zhengzhou, Henan Province, with the continuous economic development and population growth, the gap between the supply and demand for medical resources has become increasingly prominent (Zhang et al., 2023). Hospitals not only need to ensure the quality of medical services but also need to effectively reduce costs to improve their competitiveness and service capabilities (Ferreira & Marques, 2021). Therefore, how to effectively control medical costs and improve hospital financial management has become an urgent research issue.

Specifically, Zhengzhou People's Hospital, a Grade A tertiary hospital in Zhengzhou, Henan Province, faces several challenges in medical cost control and budget management. Although the hospital has implemented a series of budget management measures in recent years, issues such as financial management systems and irregular fund utilization still lead to waste and inefficient resource allocation. Therefore, under this context, studying the budget management and expenditure control measures at Zhengzhou People's Hospital, and exploring their role in enhancing financial transparency and the efficiency of fund utilization, is of significant theoretical and practical importance.

1.2 Questions of the Study

On the global stage, numerous scholars and institutions have conducted in-depth discussions on healthcare cost control, proposing a range of management models and solutions. For instance, in the United States, healthcare cost control largely relies on reforms in the healthcare insurance system and efficiency incentive mechanisms. Drawing from this experience, several hospitals in China have implemented measures such as budget management and cost control to enhance financial transparency and resource utilization efficiency.

In the Chinese research domain, scholars mainly focus on the cost structure of medical institutions, cost control methods, and the factors influencing these processes. Existing studies have shown that the rationality of budget management directly impacts the expenditure and control of medical costs, while also significantly affecting the financial transparency of hospitals. Meanwhile, in the public health sector, the financial settlement and expenditure management of hospitals at all levels have gained increasing attention. Hospitals in different regions have demonstrated varying degrees of

effectiveness in cost control in practice. Taking Zhengzhou People's Hospital as an example, the financial management challenges and dilemmas faced by the hospital during the process of public hospital reform urgently require systematic research within a scientific theoretical framework.

RQ1: What is the impact of budget management measures at Zhengzhou People's Hospital on financial transparency and fund utilization efficiency?

RQ2: What is the impact of expenditure control measures at Zhengzhou People's Hospital on financial transparency and fund utilization efficiency?

1.3 Objectives of the Study

Ob 1: To examine the impact of budget management measures on financial transparency and fund utilization efficiency at Zhengzhou People's Hospital.

Ob 2: To examine the impact of expenditure control measures on financial transparency and fund utilization efficiency at Zhengzhou People's Hospital.

1.4 Scope of the Study

This study aimed to explore how to improve financial transparency and the efficiency of the hospital use of funds through the analysis of the budget management and expenditure control measures of Zhengzhou People's Hospital. The research object was Zhengzhou People's Hospital, a large public comprehensive hospital with typical financial operation characteristics in central China. The study mainly targeted financial management personnel, department heads, and budget supervisors within the hospital. In addition, this study aimed to also provide theoretical support and practical basis for the financial management reform of public hospitals in China and promote the overall improvement of the hospital financial management level. The online questionnaire was designed and distributed on the we-chat group of Zhengzhou People's Hospital in China. A total of 119 questionnaires were collected in January 2025 for two weeks. Through analysis, it can not only provide practical guidance for the financial management of Zhengzhou People's Hospital, but also provide experience and reference for the management of other similar hospitals.

1.5 Significance of the Study

Theoretical Significance: By exploring the financial management and cost control problems of Zhengzhou People's Hospital, this study aims to enrich and perfect the

theoretical system in the field of medical economics and hospital management. Through the in-depth analysis of budget and expenditure management, the research provides systematic theoretical reference and practical guidance for medical cost control and fills the gap in the existing research. At the same time, the research explores the relationship between financial transparency and the efficiency of the use of funds, to provide basic data support for subsequent research.

Practical Significance: This study has a relatively high practical significance. The study of financial management and cost control in the context of Zhengzhou People's Hospital will provide practical solutions for hospitals to improve their financial transparency and the efficiency of using funds. Specifically, this study provides suggestions for policy makers, promote the deepening of medical reform and make the allocation of public health resources more reasonable. Meanwhile, it also provides reference for financial management and cost control in actual operation, so as to promote the sustainable and healthy development of hospitals.

1.6 Definition of Key Terms

Budget Management

Budget management refers to the process of formulating, executing, and monitoring budgets within an organization to ensure rational allocation and effective use of resources. At its core, it involves the creation of budgets, control during execution, and performance evaluations, all aimed at optimizing financial resource allocation and achieving financial objectives.

Expenditure Control

Expenditure control is the process of effectively overseeing and managing an organization's expenditures through the development and implementation of financial budgets, audits, and performance assessments. It ensures that expenditures align with budgetary guidelines and financial goals, thereby preventing resource wastage and enhancing the efficiency of fund utilization.

Financial Transparency

Financial transparency refers to the clarity, accuracy, and comprehensibility of financial information provided by an organization regarding its financial activities and reports. It enables stakeholders such as shareholders, managers, and government

entities to gain a true understanding of the organization's financial status. Financial transparency fosters public trust and ensures the rational use of funds.

Fund Utilization Efficiency

Fund utilization efficiency refers to the organization's ability to maximize its investment returns and performance under a set of financial constraints through the rational allocation and use of financial resources. Improving fund utilization efficiency means achieving optimal resource allocation and minimizing waste through informed decision-making and management strategies.



Chapter 2 Literature Review

This chapter aims to explore the relevant concepts of budget management, financial transparency, fund use efficiency and expenditure control, and to build a theoretical framework to provide theoretical support for the subsequent analysis. With the rapid development of the medical industry, hospitals are faced with huge challenges of fund management and cost control. How to improve the financial transparency and optimize the efficiency of the use of funds through effective budget management and expenditure control measures has become an important issue in the current management practice. Financial transparency is not only the key to enhancing public trust, but also the basis for ensuring the fair and reasonable distribution of medical resources. The improvement of the use efficiency of funds is directly related to the effective allocation and use of hospital funds, and then affects the overall operation efficiency of the hospital. As the core means to ensure the compliance of budget implementation, expenditure control plays an important role in improving the level of financial management and reducing unnecessary expenditure. This chapter deeply analyzes the relationship between these concepts and creates a systematic conceptual framework to lay the theoretical basis for the subsequent case analysis of Zhengzhou People's Hospital.

2.1 Budget Management

A review of relevant literature reveals the widespread application and research findings on budget management and cost control across various regions and organizations globally. Atuilik and Peregrino-Brimah (2019) identified issues such as funding shortages and opacity within budget management and control processes, recommending enhanced supervision and transparency in budget execution. Shu et al. (2023) explored how information technology can empower organizations, particularly in terms of digitized tools, to enhance the accuracy of budget planning and execution efficiency, especially in cost control. Ho (2018) underscored the pivotal role of political commitment and financial management capacity in the effectiveness of implementation. Matsoso et al. (2021) concluded that scientific budget management and stringent control could significantly improve the efficiency of financial resource usage, particularly in expenditure and procurement management. Olaf et al. (2019) proposed

the “Beyond Budgeting” model, which they argued could improve organizational flexibility and responsiveness, thereby optimizing budget control and cost management. Daumoser et al. (2018) examined its effects on budget control and financial transparency, recommending enhanced regulation of budget slack. Finally, Sageder and Feldbauer-Durstmüller (2019) pointed out that, in the context of globalization, budget management needs to accommodate regional differences, suggesting the adoption of flexible budgeting models to meet cross-cultural and regional challenges. Taken together, these studies emphasize that the scientific formulation of budgets, support from information technologies, well-established performance evaluation mechanisms, and flexibility in budgeting models are all critical to improving financial transparency and resource utilization efficiency. Additionally, issues such as budget slack and ethical controls are also important factors influencing budget effectiveness. Future research should delve deeper into how modern technologies can be integrated with global operations to address the challenges of budget management and enable more efficient cost control and financial management.

2.2 Expenditure Control

Control over medical expenditures is a core element in ensuring efficient use of funds. Hospital medical expenditures encompass a range of areas, including pharmaceutical procurement, medical equipment updates, and personnel costs, any of which, if uncontrolled, can severely impact the overall efficiency of financial resource usage in hospitals (Ismanov & Axmadaliev, 2021). If Zhengzhou People’s Hospital could strengthen its management of medical expenditure, it would significantly enhance the efficiency of fund utilization, reduce unnecessary spending, and ensure optimal resource allocation. The following aspects highlight how expenditure control plays a crucial role in improving the hospital’s fund utilization efficiency:

Precise Budget Control: Medical expenditures need to be budgeted precisely according to actual demand, with strict adherence to the budget during execution (Tranc et al., 2022). By managing various expenditures with precision, the hospital can avoid wastage of funds without compromising the quality of medical services, thereby enhancing fund utilization efficiency.

Optimization of Procurement and Contract Management: The procurement of medicines, medical equipment, and other materials constitutes a significant portion of hospital expenditures (Kourtis et al., 2021)). By optimizing procurement processes,

strictly controlling procurement prices, and selecting suppliers carefully, the hospital can reduce procurement costs and improve fund usage efficiency. For instance, the hospital could lower drug and equipment procurement costs through centralized purchasing and negotiations, thereby saving funds for investment in other critical areas.

Establishment of a Performance Management System: In controlling medical expenditures, a performance management system plays a vital role. By setting performance targets for various expenditures and comparing them with actual spending outcomes, the hospital can identify problems in expenditures and make timely adjustments. This method enables the hospital to better control the reasonableness of medical expenditures, thereby improving fund utilization.

Research on expenditure control and cost control has sparked several valuable discussions. Fiqri et al. (2023) explored the impact of internal control systems, using the COSO framework, on expenditure cycles, suggesting that effective expenditure control systems should align with the five core elements of internal control. Through quantitative analysis and case studies, their research found that well-implemented internal control systems could effectively improve the efficiency and effectiveness of expenditure cycles, thus enhancing overall financial management. Yang and Zhang (2018) analyzed the impact of air pollution on medical expenditures in China, finding that worsening air pollution significantly increased household medical expenses, illustrating the environmental factors' impact on healthcare costs. Hamza et al. (2024) explored how result-oriented budget formulation impacts expenditure control and sustainable development in local governments in Jordan, concluding that result-oriented budgeting enhances expenditure control transparency and promotes sustainable use of fiscal resources. Rahman et al. (2021) investigated the effects of regional budget revenue and expenditure management on local government financial management, finding a direct relationship between financial goal-setting and expenditure control. Appropriate budget control promotes sound fiscal management. These studies illustrate that expenditure and cost control depend not only on reasonable budget formulation but also on effective internal control mechanisms, external environmental factors, and innovative budgeting models. Future research could further explore how to integrate these factors into cost control practices across different regions and sectors to achieve more efficient fiscal management.

In summary, meticulous management of medical expenditures is crucial to improving the hospital's fund utilization efficiency. Through precise budget control,

optimized procurement management, and a robust performance management system, the hospital can not only ensure the effective use of funds but also improve overall operational efficiency and service quality through the rational allocation of resources.

2.3 Financial Transparency

Research on financial transparency and cost control has provided both theoretical and practical support for financial management in various organizations, particularly in enhancing budget execution efficiency, transparency, and fund usage effectiveness in both public and private sectors. The following reviews focus on financial transparency, cost control mechanisms, and auditing. Muslimin and Aprianto (2023) examined the effectiveness of regional financial transparency and accountability auditing mechanisms, focusing on the impact of the local government financial report (LKPD) auditing mechanism on financial transparency and accountability. They investigated how local governments could enhance financial transparency through audit mechanisms, particularly the WWTP opinion. Using a combination of quantitative analysis and case studies, their research found that although local governments made efforts in enhancing transparency and auditing mechanisms, there were still delays and shortcomings in the execution process, particularly regarding the supervision and feedback mechanisms for the use of government funds. This study emphasizes the close relationship between auditing mechanisms and local government financial transparency, recommending stronger audit independence and transparency to optimize financial management systems. Bidabad et al. (2019) focused on the banking industry's financial transparency, using regression analysis, revealed that higher financial transparency improved public trust in banks, reduced corruption, and enhanced cost control and risk management, and highlighted the reciprocal relationship between financial transparency and corporate governance and emphasized the role of information disclosure in improving financial transparency and cost control.

Wood and Grose (2022) explored the influence of campaign finance transparency on election outcomes and legislative behavior, particularly in public policy applications, and revealed the multidimensional impacts of financial transparency in public affairs, particularly in resource allocation and budget transparency.

In conclusion, financial transparency plays a wide-reaching and profound role across various sectors, including local government, banking, enterprises, and public affairs. Whether in strengthening cost control or enhancing resource utilization

efficiency, financial transparency is a key driver for standardized financial management and the effective use of funds. Improved disclosure and transparency not only increase trust among the public and investors but also help reduce corruption, optimize resource allocation, and enhance overall operational efficiency. To achieve greater financial transparency, multifaceted support is required, including improved auditing mechanisms, strengthened legal supervision, transparent information disclosure, and effective feedback and monitoring systems. Future research could explore how modern technologies, such as big data and artificial intelligence, can optimize financial transparency and cost control, particularly in a globalized context, ensuring a synergistic development of financial transparency and cost control.

2.4 Fund Utilization Efficiency

The efficiency of fund utilization is a crucial metric for assessing the rationality and effectiveness of hospital financial management (Naveed et al., 2021). For hospitals, fund utilization efficiency not only reflects how funds can maximize their potential benefits but also how expenditures are strategically controlled to achieve optimal resource allocation. Enhancing fund utilization efficiency not only aids in the rational distribution of hospital resources but also improves financial health, elevates service quality, and boosts patient satisfaction. In the realms of fund utilization and cost control, several scholars have examined the various factors influencing fund efficiency from diverse perspectives, encompassing corporate activities, government policies, financial instruments, and environmental regulations. Glosten et al. (2021) highlighted how ETF activities enhance information efficiency, reduce market liquidity risks, and optimize fund allocation. Similarly, Lv et al. (2024) explored how environmental policies foster technological innovation, boosting fund efficiency within a green economy. Their study demonstrated that stringent environmental regulations could direct funds toward innovation sectors, accelerating the development of green technologies and improving overall fund effectiveness. Economidou et al. (2024) reviewed the European Union's energy efficiency policies in the construction sector over the past five decades, revealing that these policies played a pivotal role not only in reducing energy waste but also in enhancing fund utilization within the sector.

In the natural resources market, Yan and Haroon (2023) emphasized the critical role of green banks and funds in the effective integration of private and public capital, which, by reducing risks and enhancing transparency, significantly improves fund efficiency in the green recovery. Nani and Ali (2020) introduced the electronic

procurement system as a new pathway for local governments to improve fiscal transparency and cost control, especially in curbing corruption and inefficiencies. Bourguignon and Yon (2018) further discussed how financial transparency influences social relations and union behaviors, suggesting that enhanced transparency boosts public trust in government policies, thus promoting more efficient resource allocation. Balakrishnan et al. (2019) revealed that companies with low financial transparency often resort to aggressive tax behaviors, where such opaque fund management not only escalates tax risks but also undermines cost control. Ameli et al. (2020) investigated the impact of climate finance transparency on institutional investor decisions, concluding that greater transparency effectively steers funds toward green projects, thus enhancing fund utilization efficiency. Overall, these studies underline the pivotal roles of financial transparency, technological innovation, policy support, and market mechanisms in improving fund utilization efficiency and optimizing cost control. Future research should further explore the interactions of these factors, particularly in the context of globalization and sustainable development, focusing on how cross-border cooperation and innovative financial instruments can further enhance fund allocation and cost control.

2.5 Overview of the Research Site

Zhengzhou People's Hospital, located at No. 33 Huanghe Road, Jinshui District, Zhengzhou, Henan Province, China, was founded in 1912 and originally known as Zhengzhou Fifth People's Hospital. It is a comprehensive tertiary Grade A hospital, serving as one of the key medical institutions in Zhengzhou. Beyond providing medical services to local residents, the hospital is responsible for a wide array of functions, including medical education, research, and public health. Over the years, Zhengzhou People's Hospital has become a major provider of healthcare services in Henan Province, continuously innovating in medical technology and facilities.

The hospital has gradually transitioned to electronic management, optimizing patient experience and improving the quality of healthcare. Due to the large volume of patients it serves annually, its daily operations involve substantial financial management and control. As such, how to effectively manage budgets and control expenditures, thereby enhancing financial transparency and fund utilization efficiency, is an important challenge the hospital faces.

This research chose Zhengzhou People's Hospital as the subject of study for several key reasons:

(1) Hospital Scale and Comprehensive Nature

As a comprehensive tertiary Grade A hospital, Zhengzhou People's Hospital faces numerous challenges related to budget management and expenditure control, encompassing various fields such as healthcare, research, and education. The complexity of its daily financial operations makes improving budget management and financial transparency crucial for optimizing fund utilization and enhancing service quality. Therefore, selecting a hospital with high managerial complexity and substantial financial flows allows for a clearer demonstration of the impact of budget management and expenditure control measures on financial transparency and fund utilization efficiency.

(2) Current Financial Management Challenges

With the ongoing development of the healthcare sector, particularly against the backdrop of ever-evolving insurance policies and fluctuating government funding, the hospital is under increasing financial pressure. The operation of Zhengzhou People's Hospital relies not only on government financial support but also on income from self-financing and social donations. As a result, efficiently managing budgets and controlling expenditures within this diverse funding structure to ensure financial transparency and optimal fund utilization is a critical issue the hospital must address.

(3) The Need for Reform and Innovation in Financial Management

With the ongoing reforms in the healthcare sector, particularly the increasing government financial input into the medical system, the management of Zhengzhou People's Hospital has come to realize that traditional financial management models are inadequate for adapting to the rapidly changing healthcare demands. Therefore, implementing effective budget management and expenditure control measures has become essential for maintaining the hospital's financial health, ensuring its sustainable development, and fulfilling its social responsibilities. This shift is crucial in supporting the hospital's ability to maintain service quality while improving financial transparency and fund utilization efficiency.

2.6 Theoretical Review

In the context of hospital financial management, particularly at Zhengzhou People's Hospital, two fundamental aspects that influence the efficiency and transparency of hospital finances are budget management and expenditure control. These two elements are not only pivotal in ensuring the optimal allocation and utilization of financial resources but are also central to achieving long-term sustainability and operational success (Matos et al., 2021). Theories surrounding these practices suggest that effective financial governance within hospitals hinges on well-structured budgeting processes and rigorous expenditure oversight. These practices not only aim to enhance operational transparency but also directly affect the efficiency of fund utilization and the hospital's capacity to meet its core objectives (Kourtis et al., 2021).

(1) The Impact of Budget Management

Budget management serves as the backbone of hospital financial planning and is the first line of defense in ensuring that funds are allocated appropriately across various hospital departments and activities. According to financial management theories, budgeting is a tool that helps organizations plan their financial activities, set clear goals, and evaluate financial performance over time (Abbass et al., 2022). In the hospital setting, this means that budget management plays a crucial role in forecasting and allocating resources to various critical areas, such as medical services, research, education, and administration.

The primary benefit of budget management is its ability to provide a scientific estimation of income and expenditure, ensuring that the hospital is neither over-resourced nor underfunded. By conducting comprehensive assessments of expected revenue from patient services, government grants, and other funding sources, hospitals can create realistic financial forecasts (Musiega et al., 2023). This forecast not only helps in meeting immediate operational needs but also ensures that the hospital's strategic plans align with its financial capacity. For example, at Zhengzhou People's Hospital, efficient budget management allows hospital leaders to foresee upcoming financial needs and make necessary adjustments in real-time.

Furthermore, budget transparency is a crucial element facilitated by proper budget management. Transparent budgeting processes allow the hospital to clearly delineate how funds are to be used across different departments. This transparency fosters

accountability and reduces the risk of financial mismanagement or misallocation of funds (Ferreira et al., 2020). According to agency theory, which examines the relationship between principals (e.g., government bodies or hospital boards) and agents (e.g., hospital administrators), the clear communication of budget plans ensures that those in charge are held accountable for their financial decisions. By setting clear guidelines and documenting spending decisions, the hospital's finances become less prone to opportunistic behavior or inefficient spending. As a result, public trust in the hospital's financial management increases, boosting the hospital's reputation and reinforcing its credibility.

Moreover, effective budget management ensures funding efficiency, which is crucial in resource-constrained environments like healthcare. Hospitals typically face the challenge of maximizing the value of limited resources, and budgeting helps to optimize the distribution of funds across various departments to achieve the hospital's goals (Abbass et al., 2022). This helps in maintaining operational sustainability by avoiding fiscal waste.

(2) The Role of Expenditure Control

While budget management lays the groundwork for financial planning, expenditure control focuses on the meticulous oversight of actual spending. Expenditure control aims to ensure that the funds allocated in the budget are utilized effectively and in alignment with hospital objectives. According to cost control theory, expenditure control is a critical mechanism for ensuring that the funds spent contribute to the desired outputs, without resulting in overspending or waste. In hospitals, where the cost of providing healthcare services is high, expenditure control mechanisms help ensure that limited financial resources are used for essential purposes only (Ferreira et al., 2020).

One of the most important functions of expenditure control is the elimination of waste. Hospitals often face high operational costs due to factors such as rising drug prices, increasing labor costs, and the need for expensive medical equipment. By rigorously monitoring and controlling expenditure, hospitals can identify unnecessary spending, prioritize essential services, and negotiate better terms with suppliers. This can be achieved through regular expenditure reviews, which analyze the necessity and impact of each cost item. These reviews often involve evaluating whether a particular expense directly contributes to the hospital's mission of delivering high-quality healthcare or if it can be reduced or eliminated.

Performance-based budgeting, a concept grounded in efficiency and effectiveness, plays a significant role in expenditure control. By linking financial allocations with performance outcomes, hospitals can ensure that spending is justified based on results. For example, hospitals may allocate a certain amount of funds to departments that demonstrate efficiency in delivering services, while scrutinizing and potentially reducing funds to those departments that fail to meet pre-established performance benchmarks (Ferreira et al., 2020). This creates a system where expenditures are closely aligned with hospital goals, encouraging cost-conscious decision-making at all levels of the organization.

Furthermore, strict expenditure audits are critical to ensure that funds are used in the most effective manner. Regular auditing, especially in areas like procurement, personnel, and equipment maintenance, prevents financial leaks and identifies areas for potential savings (Ferreira et al., 2020). Research in public administration emphasizes the role of financial audits in ensuring that hospital resources are used efficiently and that expenditures align with organizational priorities (Abbass et al., 2022). In Zhengzhou People's Hospital, this would mean monitoring not only the financial transactions but also scrutinizing the outcomes of spending decisions to determine if they contribute to improving the quality of patient care or the overall hospital infrastructure.

Waste in healthcare settings can take various forms. It may include unnecessary diagnostic tests, redundant administrative processes, underutilized equipment, inefficient procurement practices, and even avoidable hospital admissions due to inadequate primary care. These inefficiencies not only place a financial burden on the institution but also affect the overall quality and timeliness of patient care. Therefore, identifying and curbing waste is not just a financial concern but also a strategic move toward improving operational efficiency and patient outcomes. Expenditure control, therefore, is not only about cutting costs but also about maximizing the return on investment (ROI) for every dollar spent. By ensuring that the hospital's financial resources are carefully controlled, hospital administrators can achieve better fund utilization efficiency. This is particularly important in a healthcare setting, where the demand for services is constantly growing, and there is a need to balance cost containment with quality healthcare delivery.

2.7 Conceptual Framework

The conceptual framework of this study is shown in Figure 2.1.

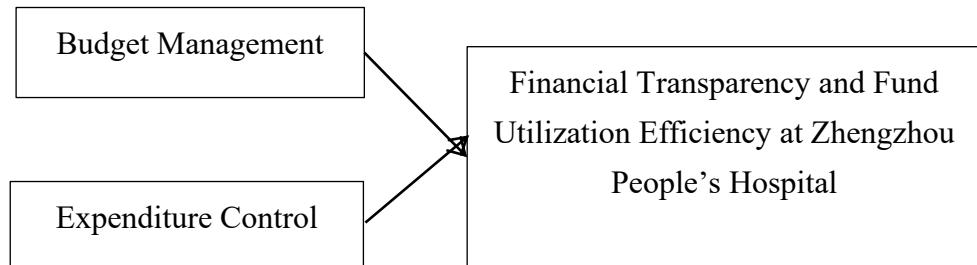


Figure 2.1 Conceptual Framework



Chapter 3 Research Methodology

3.1 Research Design

This study adopted a quantitative research approach, aiming to examine the impact of budget management and expenditure control measures on the financial transparency and fund utilization efficiency at Zhengzhou People's Hospital. A structured questionnaire was chosen as the primary data collection method, focusing on key variables, including budget management, expenditure control, financial transparency, and fund utilization efficiency. By employing Likert-scale questions in a structured format, the study collected respondents' perceptions and experiences. This method allowed for a comprehensive exploration of the relationships between independent variables (budget management, expenditure control) and dependent variables (financial transparency, fund utilization efficiency).

The design of the questionnaire was grounded in existing literature and theoretical frameworks, particularly research related to hospital financial management. Through statistical analysis of the collected data, the study assessed the role and effectiveness of budget management and expenditure control measures in improving the financial management level at Zhengzhou People's Hospital.

3.2 Population and Sample

The target population of this research included the staff from some departments within Zhengzhou People's Hospital, including financial management personnel, department heads, and budget supervisors within the hospital. The research object was Zhengzhou People's Hospital, a large public comprehensive hospital with typical financial operation characteristics in central China. The total number of participants was 119 individuals, all of whom are directly or indirectly involved in the hospital's financial management and processes.

The sample was selected through the simple random sampling, ensuring that every individual has an equal opportunity of being chosen, thus enhancing the

representativeness and generalizability of the results. With a sample size of 119, this study aims to ensure statistical significance while adequately reflecting the relationship between budget management, expenditure control, and hospital financial performance.

3.3 Hypothesis

Research hypotheses are proposed based on the analysis:

H1: Budget management measures have an impact on financial transparency and fund utilization efficiency at Zhengzhou People's Hospital.

H2: Expenditure control measures have a positive impact on financial transparency and fund utilization efficiency at Zhengzhou People's Hospital.

3.4 Research Instrument

The main research instrument for this study is a structured questionnaire, designed to collect data on budget management, expenditure control, and the effectiveness of financial management. The questionnaire consists of two sections:

Section One: Demographic Information

This section gathers basic information about the respondents, including their department, position, years of service at the hospital, and experience related to financial management.

Table 3.1 Demographic Information

Variables	Category
Gender	Male
	Female
Age	18-30 years old
	31-40 years old
	41-50 years old
	Over 51 years old

Department	clinical departments
	Medical technology departments
	Medical auxiliary department
	Administrative logistics
Work experience	1-5 years
	6-10 years
	Over 11 years

Part 2: Likert Scale questions: This part contains 30 questions for three research variables (budget management, expenditure control, financial transparency and efficiency of fund use), each variable contains 15 questions. Respondents were required to rate each statement on a 5-point Likert scale based on their own perception and experience, with options including “complete disconsent” to “full consent”.

Table 3.2 Budget Management Scale

No.	Statement
1	The hospital has a clear annual budget formulation process.
2	The hospital’s budget plan effectively supports its strategic goals.
3	The budget formulation process is transparent, and all relevant departments are involved.
4	The hospital’s budget management system ensures rational allocation of financial resources.
5	The hospital has a strict monitoring mechanism for budget execution, ensuring timely completion.
6	The hospital regularly adjusts the budget to accommodate financial changes and needs.
7	The budget formulation is based on actual departmental needs and revenue expectations.

8	The budget execution status is promptly reported and corrected when deviations from the budget are found.
9	There is a clear accountability system during budget execution, ensuring financial responsibilities are assigned to individuals.
10	The hospital's budget plan is sustainable, providing assurance for future financial needs.
11	The budget approval process is efficient, avoiding unnecessary delays and approval stages.
12	The transparency of the budget formulation and execution allows departments to clearly understand budget usage.
13	Any overspending or underspending during budget execution is promptly corrected.
14	The budget formulation fully considers the reasonableness and necessity of various expenditures.
15	The budget management system is fully supported and executed by the hospital's leadership.

Table 3.3 Expenditure Control Scale

No.	Statement
1	The hospital's expenditure control measures ensure all expenses strictly follow the budget.
2	The hospital has a clear expenditure approval process, requiring all expenses to undergo approval.

3	The hospital has a stringent monitoring mechanism for expenditures, enabling timely detection and correction of unreasonable spending.
4	Each expenditure in the hospital is subject to a clear financial review and approval process.
5	The hospital's expenditure control measures effectively prevent overspending.
6	The hospital tracks and analyzes expenditures monthly or quarterly to ensure they align with the budget plan.
7	The expenditure control mechanisms ensure the efficient use of funds, avoiding waste.
8	Expenditure control measures effectively reduce unnecessary spending.
9	The hospital regularly evaluates expenditure management and improves expenditure control strategies based on the results.
10	The hospital categorizes expenditures in detail to ensure that each expense has a clear purpose and supporting justification.
11	The finance department strictly enforces expenditure control, ensuring effective supervision of all expenditures.
12	All departments comply with and support the hospital's expenditure control measures.

13	The hospital's expenditure control measures ensure effective fund usage and prevent unreasonable financial expenditures.
14	The hospital's expenditure control can adapt flexibly to varying financial pressures and needs.
15	The hospital promptly rectifies unreasonable spending, avoiding waste and unnecessary financial burdens.

Table 3.4 Financial Transparency and Fund Utilization Efficiency Scale

No.	Statement
1	The hospital's financial reports are regularly published, ensuring relevant departments are aware of its financial status.
2	The hospital's financial management information is highly transparent for relevant personnel.
3	Reports on budget execution are timely and clear.
4	Financial transparency helps to enhance internal trust and cooperation within the hospital.
5	Improving financial transparency helps departments better understand fund usage.

6	<p>The hospital regularly publishes financial reports to staff, providing detailed data on fund usage.</p>
7	<p>The hospital's financial information is made public, improving external auditing and oversight effectiveness.</p>
8	<p>The hospital's financial reports clearly reflect details on income, expenditures, assets, and liabilities.</p>
9	<p>The hospital's fund usage is transparent, with each expenditure having clear explanations and approval bases.</p>
10	<p>The financial management department regularly reports to the hospital's leadership, explaining key data.</p>
11	<p>The openness of the hospital's financial data complies with government and industry standards, enhancing external supervision.</p>
12	<p>The hospital's high financial transparency allows internal personnel to easily track and verify fund usage.</p>
13	<p>Enhancing financial transparency strengthens the hospital's sense of social responsibility and increases public trust.</p>

14	The hospital conducts regular financial audits and publicly discloses audit results, ensuring financial transparency.
15	The hospital's financial management policies are clear and allow all employees to understand the financial decision-making process and its rationale.
16	The hospital effectively utilizes financial resources, ensuring efficient fund usage.
17	The efficiency of fund utilization supports the hospital's long-term development strategy.
18	The hospital allocates funds based on priority, ensuring that resources are concentrated in the most critical areas.
19	The hospital regularly evaluates fund utilization, ensuring maximum output from financial investments.
20	The hospital maintains a strict control mechanism over fund usage, avoiding inefficiencies and waste.

21	<p>The hospital optimizes fund allocation, ensuring resources are appropriately distributed to various departments and projects.</p>
22	<p>Through effective financial management, the hospital improves operational efficiency and reduces unnecessary costs.</p>
23	<p>The hospital's fund utilization efficiency continually improves, enabling it to address emerging challenges in hospital operations.</p>
24	<p>The hospital periodically analyzes fund usage efficiency and makes necessary adjustments based on the analysis.</p>
25	<p>The hospital flexibly adjusts fund utilization strategies to meet diverse needs and challenges.</p>
26	<p>The hospital's efficient fund utilization enhances its ability to deliver higher-quality medical services.</p>

27	<p>The high efficiency of fund usage improves overall operational performance, ensuring the hospital's financial health.</p>
28	<p>The hospital optimizes fund usage methods, ensuring the best input-output ratio for all expenditures.</p>
29	<p>Through cost-saving measures and efficient fund use, the hospital can allocate more resources to medical facilities and technological innovations.</p>
30	<p>The hospital's fund utilization efficiency is recognized by relevant departments and hospital management, with ongoing improvements.</p>

3.5 Reliability and Validity Analysis of the Scale

A pretest survey was conducted on 10-15 hospital staff (those not in the final sample) prior to the formal distribution of the questionnaire. The purpose of the pretest was to ensure the validity and reliability of the questionnaire. In this study, the scale used was comprehensively evaluated by reliability analysis and validity analysis, ensuring the reliability and validity of the measurement results.

The specific analysis results are presented in Table 3.5.

Table 3.5 Results of Reliability Analysis

Variable	Cronbach's Alpha	N of Items
Budget management	.921	15
Expenditure control	.914	15
Financial Transparency and Fund Utilization Efficiency	.893	30

The reliability analysis showed that Cronbach's Alpha of budget management was 0.921 for budget management, Cronbach's Alpha of expenditure control was 0.914, Cronbach's Alpha of financial transparency and fund utilization efficiency was 0.893, and Alpha values were above 0.8 for all variables, indicating the high internal consistency and reliability of each scale to effectively reflect the various constructs in the study.

The KMO test and Bartlett's spherical test are essential prerequisites for factor analysis to determine the scale's suitability and validity. These results, shown in Table 3.6.

Table 3.6 Results of Validity Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.897
Approx. Chi-Square	3442.232
Bartlett's Test of Sphericity	df
	114
	Sig.
	0.000

The results of the validity analysis showed a KMO value of 0.897, indicating that the sample data was suitable for factor analysis. The significance value of Bartlett's spherical test was 0.000, indicating that the correlation between the data was significant and the results of the factor analysis were reliable. Therefore, the results of reliability and validity analysis indicate that the scale used in this study has high measurement quality when measuring variables such as budget management, expenditure control, financial transparency and efficiency of fund use, and its research conclusions can be trusted.

3.6 Data Collection

Data collection was performed through the following steps: Questionnaire distribution: The questionnaire was distributed to the selected respondents in both online and paper form. Online questionnaires were distributed by email or hospital Intranet, while paper questionnaires were distributed according to the needs of the participants. Questionnaire filing: To minimize the impact on hospital working hours, the questionnaire was completed during non-working hours, and the survey period was expected to be two weeks. Informed consent: Before completing the questionnaire, all participants were informed about the purpose of the study, how their responses would be kept confidential, and how participation in the survey was completely voluntary. Participants signed an informed consent form before completing the questionnaire.

3.7 Data Analysis

After data collection, statistical analysis software (such as SPSS) was used to process and analyze the data. The specific analysis steps include:

Descriptive statistics: Descriptive statistical analysis of the demographic information of the respondents was performed by calculating the frequency distribution, mean and standard deviation.

Reliability test: Cronbach's Alpha coefficient was used for reliability test to ensure the internal consistency of the questionnaire. If the Cronbach's Alpha value is greater than 0.7, it indicates that the questionnaire scale has good reliability.

Correlation analysis: The relationship between budget management, expenditure control and financial transparency and fund efficiency were tested through correlation analysis.

Regression analysis: Multiple regression analysis was used to evaluate the impact of independent variables (budget management, expenditure control) on dependent variables (financial transparency and fund efficiency) to gain a deeper understanding of the role of budget management and expenditure control in improving the effectiveness of hospital financial management.

Chapter 4 Findings and Discussion

4.1 Findings

4.1.1 Demographic Characteristics of Respondents

To conduct an in-depth analysis of the financial management practices at Zhengzhou People's Hospital, it is essential to first understand the fundamental demographic characteristics of the sample. Table 4.1 outlines the basic demographic features of the 119 respondents in this survey.

Table 4.1 Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	65	54.60%
	Female	54	45.40%
Age	18-30 years	16	13.40%
	31-40 years	31	26.10%
	41-50 years	39	32.80%
	51 years and above	33	27.70%
Department	Clinical Departments	45	37.80%
	Medical		
	Technology Departments	25	21.00%
	Medical Support Departments		
Work Experience	1-5 years	23	19.30%
	6-10 years	41	34.50%
	Over 11 years	55	46.20%

The gender distribution among the respondents is fairly balanced, with 54.6% male respondents and 45.4% female respondents, ensuring that the views of both genders are adequately represented, thus mitigating any potential gender bias in the findings. In terms of age, the majority of respondents fall into the middle-aged categories, with employees aged between 31 and 50 years comprising 59.0% of the sample. This demographic is typically more experienced, holding substantial operational knowledge of the hospital's financial management, and thus their input holds significant value for the research.

Regarding departmental distribution, the largest proportion of respondents work in clinical departments (37.8%), followed by those in administrative and logistics (26.1%), and medical technology departments (21.0%). This suggests that personnel in these areas, either directly or indirectly involved in financial processes, contribute valuable perspectives on hospital budgeting. Lastly, 46.2% of the respondents have over 11 years of work experience, indicating a robust pool of seasoned professionals who can offer in-depth and reliable insights. Thus, the sample composition is reflective of the broader hospital staff and supports the representativeness and validity of the research data.

4.1.2 Correlation Analysis

The aim of the correlation analysis is to examine the relationships between independent variables (budget management and expenditure control) and the dependent variables (financial transparency and fund utilization efficiency). Pearson's correlation coefficient was used to assess relationships, and the results are presented in Table 4.2.

Table 4.2 Correlation Analysis

Variable	Budget Management	Expenditure Control	Financial Transparency and Fund Utilization Efficiency
Budget Management	1		

Expenditure Control	0.745**	1	
Financial Transparency and Fund Utilization Efficiency	0.632**	0.654**	1

***Note: $p < 0.01$**

The correlation analysis reveals significant positive relationships between budget management, expenditure control, and financial transparency and fund utilization efficiency. Table 4.2 presents the results of the correlation analysis, revealing statistically significant positive relationships among all examined variables. Budget management demonstrates a strong positive correlation with expenditure control ($r = 0.745$, $p < 0.01$). Both budget management and expenditure control show moderately strong positive correlations with the combined measure of Financial Transparency and Fund Utilization Efficiency, with coefficients of $r = 0.632$ ($p < 0.01$) and $r = 0.654$ ($p < 0.01$) respectively. All reported correlations are significant at the 0.01 level.

Similarly, expenditure control is strongly correlated with both financial transparency and fund utilization efficiency, with a coefficient of 0.654. This reinforces the framework that effective expenditure control plays a pivotal role in improving the transparency of financial operations and optimizing the use of hospital funds. Collectively, the results affirm the substantial impact that both budget management and expenditure control have on overall financial performance, underscoring their central role in improving the transparency and efficiency of hospital finances.

4.1.3 Regression Analysis

To further understand the impact of budget management and expenditure control on financial transparency and fund utilization efficiency, regression analysis was conducted. The results of the regression analysis are presented in Table 4.3.

Table 4.3 Regression Analysis

Variable	Standardized Beta Coefficient (β)	t-value	p-value
Budget Management	0.352	3.634	0.001

Expenditure Control	0.499	5.267	0
R ²	0.667		
F-value	58.43		0

*R² = 0.698, F (2, 397) = 351.89, p < 0.001

*Note: p < 0.01

The regression analysis shows that both budget management ($\beta = 0.352$, $p = 0.001$) and expenditure control ($\beta = 0.499$, $p = 0.000$) have significant positive impacts on financial transparency and fund utilization efficiency. Expenditure control has a stronger impact, suggesting that improvements in expenditure control more effectively enhance both transparency and efficiency. The model's R² value of 0.667 indicates that 66.7% of the variability in financial transparency and fund utilization efficiency can be explained by the two independent variables, demonstrating a good model fit. The F-value of 58.43 (with $p < 0.001$) further validates the overall significance of the regression model.

In conclusion, the results from both the correlation and regression analyses underline the crucial roles that budget management and expenditure control play in improving the financial transparency and fund utilization efficiency of Zhengzhou People's Hospital. The evidence suggests that optimizing these two aspects of financial management could substantially enhance the hospital's overall financial performance, ensuring that resources are used more effectively and efficiently.

4.2 Discussion

4.2.1 Overview of the 2024 Budget for Zhengzhou People's Hospital

The 2024 budget for Zhengzhou People's Hospital is meticulously aligned with the hospital's developmental needs, focusing primarily on ensuring a balance between income and expenditure. The aim is to enhance financial transparency and optimize fund utilization efficiency through effective budget management. The revenue budget is set at 311,332.7 million RMB, reflecting a 9.4% increase from 2023. This growth is largely attributed to an uptick in business income, driven by rising demand for medical services and an increase in government financial allocations.

Regarding the structure of income sources, general public budget revenue is projected at 32.17 million RMB, showing a 100% growth compared to 2023. However,

government fund revenue is set at zero, highlighting the hospital's reliance on business income and the general public budget rather than government funds. In terms of expenditure, the total budget is also 311,332.7 million RMB, with 99% allocated to basic expenditures and only 1% to project-based expenditures. This indicates that most resources are earmarked for sustaining daily operations, with a more cautious approach toward project spending. The fiscal allocation for project expenditures is set at 32.17 million RMB, reflecting an optimized usage of government budget funds. Notably, the budget for “three public expenditures” (official receptions, vehicles, and overseas visits) is zero, underscoring the hospital's strict control over administrative expenses.

Table 4.4 2024 Budget of Zhengzhou People's Hospital

Item	Budget Amount (million RMB)	Remarks
Total Income	311,332.70	An increase of 26,840.7 million RMB, up by 9.4% compared to 2023.
Income Sources		
General Public Budget	32.17	A 100% increase compared to 2023.
Government Fund Budget	0	No budget allocation.
Total Expenditure	311,332.70	An increase of 26,840.7 million RMB, up by 9.4% compared to 2023.
Expenditure Categories		
Basic Expenditure	308,115.70	Accounting for 99% of the total expenditure.
Project Expenditure	3,217.00	Accounting for 1% of the total expenditure.
Fiscal Allocation Income and Expenditure		

General Public Budget Income and Expenditure	3,217.00	A 100% increase compared to 2023.
Government Fund Income and Expenditure	0	No budget allocation.
General Public Budget Expenditure	3,217.00	All allocated to project expenditure, 100%.
General Public Budget Basic Expenditure	0	No budget allocation.
Three Public Expenditures	0	Same as 2023, zero budget.
Government Fund Expenditure	0	No government fund expenditure.
State-Owned Capital Management Budget Expenditure	0	No budget allocation.
Other Key Matters		
Administrative (Public Welfare) Unit Operation Expenses	155,648.00	Primarily for ensuring normal operation and fulfilling responsibilities.
Government Procurement Expenditure Budget	0	No budget allocation for government procurement.
Performance Target Setting	3,271.00	4 projects with performance indicators.
State-Owned Assets Utilization	36 vehicles, 209 sets of equipment	Essential for daily operations and technical services.
Special Transfer Payment Projects	0	No special transfer payment projects.

Further analysis reveals that there is no allocation for government fund or state-owned capital management in the 2024 budget, with funds largely relying on business income and public budget allocations. The administrative operation expenses for public welfare units are set at 155,648.0 million RMB, dedicated to ensuring the hospital's smooth functioning and its ability to deliver high-quality medical services. In accordance with requirements, the hospital has also outlined performance targets to better evaluate the effectiveness of project expenditures and improve fund utilization efficiency. Additionally, the hospital's fixed assets, such as official vehicles and medical equipment, are crucial for supporting daily operations and technical services. Despite the absence of special transfer payment projects, the hospital's financial status remains stable. Overall, the 2024 budget of Zhengzhou People's Hospital demonstrates a well-structured plan for income and expenditure, particularly in the effective use of government allocations and project expenditures. To ensure long-term financial health and sustainable development, it is recommended that the hospital maintain budget transparency, rigorously implement budget management, and strengthen oversight and performance evaluation of expenditure items to further enhance fund utilization efficiency.

4.2.2 The Role of Scientific Budget Management in Enhancing Financial Transparency

Scientific budget management can significantly enhance the financial transparency of hospitals through multiple dimensions. First and foremost, the budget formulation process promotes openness and sharing of information. By creating detailed budget plans and breaking them down into specific departments and projects, hospital management at all levels can clearly understand the sources and destinations of funds. This transparent flow of financial resources not only helps internal coordination among managers and staff but also enables the government, patients, and other stakeholders to gain a full understanding of the hospital's financial status, reducing information asymmetry. Zhengzhou People's Hospital has refined its budget allocation for medical, administrative, and logistical expenses, disclosing the criteria and standards for budget formulation. This allows all relevant parties to observe the specific usage of funds. Such transparent distribution and management of funds effectively enhance the hospital's image in the public and social domains, fostering increased trust in the hospital's financial management.

Moreover, scientific budget management strengthens transparency throughout the financial execution process. Through regular financial reports and the public release of financial information, hospitals can track the execution of their budgets in real time, adjusting for any budget deviations promptly. This mechanism of periodic reporting not only facilitates the disclosure of financial data but also provides stakeholders with channels for monitoring and feedback, thus boosting the overall transparency of the budget management process. For example, the hospital could use quarterly financial reports to showcase the differences between budgeted and actual expenditures, allowing stakeholders to fully grasp the specifics of fund usage. Simultaneously, the hospital's internal audit department can regularly review budget execution and make necessary corrections to expenditures that do not meet budgetary goals, preventing wasteful spending. In summary, scientific budget management, through standardized processes and transparent information disclosure, significantly enhances the hospital's financial transparency, ultimately increasing the trust and support of various social sectors in the hospital's financial management.

4.2.3 Medical Expenditure Management and Fund Utilization Efficiency

The long-term benefits of improving fund utilization efficiency extend far beyond merely reducing waste and cutting costs; they also include enhancing the hospital's capacity for sustainable development and innovation. When a hospital can control costs while simultaneously improving fund utilization efficiency, the funds saved can be reinvested in crucial areas such as infrastructure development, equipment upgrades, and technological innovations, thereby enhancing the hospital's overall competitive strength. Moreover, the improvement in fund utilization efficiency also boosts the hospital's credibility with the government, society, and patients, fostering a stronger sense of social responsibility and higher patient satisfaction.

By improving fund utilization efficiency, the hospital can better achieve financial sustainability. This not only enhances the hospital's operational effectiveness in the short term but also provides sufficient financial support for the hospital's long-term strategic development, enabling it to move towards its goal of delivering higher-quality medical services. In this way, fund utilization efficiency becomes a key driver in the hospital's capacity to address challenges, drive innovation, and continue offering exceptional healthcare services.

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

Summary 1: The Positive Impact of Budget Management Measures on Financial Transparency and Fund Utilization Efficiency at Zhengzhou People's Hospital

Budget management measures significantly enhanced both the financial transparency and fund utilization efficiency at Zhengzhou People's Hospital through scientifically structured financial planning and control. Initially, precise budget preparation and execution processes allowed the hospital to clearly disclose the usage of funds to stakeholders, thereby enhancing financial transparency. The hospital minimized resource wastage by meticulously categorizing budget items and implementing rigorous auditing procedures, ensuring the reasonable use of every single penny. Furthermore, performance evaluations and periodic financial reports in budget management made expenditures more transparent and traceable, providing a clearer foundation for financial decision-making, thus improving fund utilization efficiency. Overall, budget management not only optimized resource allocation but also ensured that the hospital's funds were used efficiently and systematically, which in turn bolstered the long-term sustainability of hospital operations.

Summary 2: The Positive Impact of Expenditure Control Measures on Financial Transparency and Fund Utilization Efficiency at Zhengzhou People's Hospital

Expenditure control measures, through precise expenditure planning and strict implementation, effectively improved the financial transparency and fund utilization efficiency at Zhengzhou People's Hospital. Specifically, the hospital ensured that the budget and actual expenditures aligned by strengthening management over various expenditures, such as medical material procurement and personnel costs, and rigorously controlling costs at every step, reducing unnecessary expenses. The implementation of expenditure control mechanisms also enhanced transparency and efficiency by conducting regular reviews and reports, enabling timely adjustments to unreasonable expenditures. Moreover, the integration of performance assessments with project expenditures further drove efficient allocation of funds, ensuring that each allocation achieved its maximum benefit. In conclusion, the effective implementation of

expenditure control measures enabled the hospital to direct funds more precisely toward critical areas, raising the overall level of financial management and service quality.

5.2 Recommendation

5.2.1 Optimizing the Budget Management System

To enhance the scientific nature and precision of budget management, Zhengzhou People's Hospital needed to further refine aspects such as budget preparation, execution monitoring, digital management, and budget evaluation. Initially, during the budget preparation stage, the hospital should have adopted a comprehensive budgeting approach, avoiding simplistic overall budgets. By customizing personalized budget plans based on the actual needs of departments, divisions, and projects, the hospital could ensure that every expenditure was carefully planned. Additionally, introducing a “zero-based budgeting” approach allowed for a fresh evaluation of each expenditure, preventing blind increases and resource wastage. Furthermore, the budgeting process should have followed a principle of multi-party participation, encouraging clinical departments, technical units, and other functional areas to contribute to budget formulation, thus more accurately predicting expenditure demands and ensuring the rationality and feasibility of the budget. Secondly, during the budget execution process, the hospital was advised to strengthen supervision of budget implementation, conducting regular variance analysis between actual spending and budgeted amounts, and making timely adjustments. Setting up a budget execution warning mechanism using modern technology could have provided real-time alerts for overspending or unreasonable expenditures, ensuring both compliance and effectiveness. To improve budget management efficiency, the hospital should have also introduced digital management tools, such as budgeting software and data analytics tools, which would enable real-time monitoring and intelligent decision support, improving both the accuracy of budgeting and execution. Lastly, refining budget evaluation and performance assessment mechanisms was crucial. The hospital needed to regularly evaluate the effectiveness of budget implementation, particularly focusing on major project expenditures, and establish a budget performance assessment system that linked budget execution to departmental performance. This would have heightened departmental accountability and driven continuous improvement in budget management.

5.2.2 Strengthening the Refinement and Enforcement of Expenditure Control Measures

To further enhance expenditure control efficiency and financial transparency, Zhengzhou People's Hospital required improvements in areas such as expenditure classification management, procurement management, audit supervision, and employee awareness cultivation. First and foremost, the hospital should have strictly classified expenditures, breaking them down into basic, project, and special expenditures, with tailored control strategies for each category. For instance, basic expenditures should have prioritized the maintenance of daily operations and infrastructure, while project expenditures needed to undergo strict approval processes to ensure the rationality of fund use. Moreover, for large expenditures, such as one-time procurements or equipment updates, the hospital should have strengthened the approval process and transparency to ensure that every large fund allocation underwent thorough evaluation. Secondly, in procurement management, the hospital should have introduced a competitive bidding system to ensure that bulk and equipment procurement processes were open, fair, and transparent, minimizing corruption and waste. Regular performance evaluations of suppliers should have been carried out, optimizing procurement decisions. Additionally, the hospital needed to establish a routine auditing system, especially for major expenditures and special funds, to ensure compliance with the budget and prevent misuse or loss of funds. In terms of external auditing, the hospital could have invited third-party auditing firms to conduct regular reviews, providing independent audit opinions that would help uncover potential issues and offer improvement suggestions. Finally, the hospital should have conducted regular training on expenditure control and financial management, aiming to enhance employees' financial awareness and reinforce the enforcement of cost control. Furthermore, establishing a traceability system for expenditure accountability would have held departments and individuals responsible for unreasonable expenditures, ensuring that each expenditure could be traced back to its responsible party, further improving both the transparency and effectiveness of expenditure control.

5.3 Further Study

This study explores the impact of budget management and expenditure control on the financial transparency and fund utilization efficiency at Zhengzhou People's Hospital through quantitative analysis, yielding certain research outcomes. However,

due to the complexity and multidimensional nature of hospital financial management, there remain areas that warrant further exploration and deepening. Below are several potential directions for future research, intended to complement and enhance the current study, and to help scholars, managers, and policymakers better understand and address the challenges in hospital financial management.

1. Longitudinal Research and Time-Series Analysis

This study relies on cross-sectional data, focusing only on the budget and financial data of 2024. However, given that budget management and expenditure control measures in hospitals typically have long-term implications, future research could consider utilizing longitudinal data for time-series analysis. By examining budget data across multiple years, researchers could explore the long-term effects of budget management and expenditure control on financial transparency and fund utilization efficiency.

For instance, tracking variations in the hospital's budget execution and fund utilization efficiency across different years would allow researchers to uncover long-term trends in budget management and expenditure control and their gradual influence on financial transparency. Additionally, a longitudinal approach could reveal whether financial transparency and fund utilization efficiency fluctuate significantly in response to policy changes or shifts in the hospital's operational environment, thereby providing a stronger foundation for the optimization of financial policies.

2. Comparative Study of Different Hospital Types

Zhengzhou People's Hospital, as a comprehensive Class III Grade A hospital, may exhibit budget management and expenditure control characteristics distinct from other types of hospitals. For example, community hospitals, secondary hospitals, and other local hospitals may face different challenges in their budget management and expenditure control measures. Future research could conduct a cross-sectional comparative analysis across various types of hospitals, exploring how factors such as hospital size, department structure, and funding sources influence the effectiveness of budget management and expenditure control.

Through such cross-hospital comparisons, researchers could offer valuable insights into best practices and experiences in budget management, expenditure control, and financial transparency. This would help hospital managers develop more tailored financial management strategies based on their specific characteristics. Particularly for

smaller and medium-sized hospitals, where resource limitations may make budget management and expenditure control more challenging, this area of research would be crucial for informing both policy-making and practical improvements.

3. More Detailed Budget Management Research

While this study has explored the overall impact of budget management on financial transparency and fund utilization efficiency, the specific roles of budget management across various dimensions remain worthy of further investigation. For example, the processes of budget preparation, execution oversight, budget flexibility in adjustment, and budget evaluation and feedback mechanisms may all exert different levels of influence on hospital financial transparency.

Future research could delve into the individual components of budget management from multiple levels of perspective, investigating how each aspect contributes to financial transparency and fund efficiency. For instance, whether the budget preparation phase sufficiently considers the funding needs of various departments, whether a scientifically sound budget adjustment mechanism is in place, and whether issues like information asymmetry or lack of supervision exist during budget execution. A deeper exploration of these details could unveil the underlying effects of budget management on hospital financial health, ultimately providing more precise recommendations for improving financial management practices.

4. Refining Expenditure Control and Strategy Optimization

Expenditure control, as a vital component of budget management, has been shown in this study to significantly impact financial transparency and fund utilization efficiency. However, how expenditure control measures are specifically implemented, and how different types of expenditure control strategies affect the hospital's overall financial status, remain areas that require further exploration.

Future studies could investigate expenditure control in greater detail, analyzing which strategies prove most effective in practice. For example, whether hospitals have adopted advanced procurement management systems to regulate the reasonableness of expenditures for medical equipment and pharmaceuticals, how well personnel costs are controlled, and whether administrative expenses are strictly approved and monitored in line with the budget. Optimizing these strategies not only improves financial transparency but also enhances fund utilization efficiency and mitigates financial risks.

Moreover, the cultural aspect of expenditure control should emerge as another important focus for future research. Expenditure control is not just about numerical constraints but reflects the internal culture of the hospital. Understanding how systems, training, and cultural development can encourage every employee to recognize the importance of reasonable spending, thereby creating an environment of shared responsibility and ongoing supervision, is a vital area for future study.

5. Qualitative Analysis of Financial Transparency and Fund Utilization Efficiency

This study primarily adopts a quantitative approach, but improvements in financial transparency and fund utilization efficiency are not solely numerical outcomes; they are also shaped by changes in management processes and organizational culture. Therefore, future research could incorporate qualitative analysis methods to explore the perceptions and attitudes of hospital employees, managers, and patients regarding financial transparency and fund utilization efficiency. These qualitative insights might reveal differences in how various stakeholders perceive and understand the budget management and expenditure control measures.

Conducting in-depth interviews or focus group discussions could help to uncover how internal hospital staff perceive financial transparency, particularly their understanding and acceptance of budget management and expenditure control measures. By complementing the quantitative data with qualitative findings, researchers would gain a more holistic view of the potential problems and challenges in hospital financial management, thus offering more practical and feasible recommendations for improvement.

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Appendix

Questionnaire

The questionnaire can be divided into two parts: personal information scale and variable information scale.

Part 1: Personal Information

Questionnaire number:		
Gender	Male	
	Female	
Age	18-30 years	
	31-40 years	
	41-50 years	
	51 years and above	
Department	Clinical Departments	
	Medical Technology Departments	
	Medical Support Departments	
	Administrative and Logistics	
Work Experience	1-5 years	
	6-10 years	
	Over 11 years	

Part 2: Variable Scale Design

Please indicate your level of agreement with each statement using the following scale:

Strongly Disagree (1)

Disagree (2)

Neutral (3)

Agree (4)

Strongly Agree (5)

Independent variable 1-Budget management						
No.	Problem statement	1	2	3	4	5
1	The hospital has a clear annual budget formulation process.	1	2	3	4	5
2	The hospital's budget plan effectively supports its strategic goals.	1	2	3	4	5
3	The budget formulation process is transparent, and all relevant departments are involved.	1	2	3	4	5
4	The hospital's budget management system ensures rational allocation of financial resources.	1	2	3	4	5

5	The hospital has a strict monitoring mechanism for budget execution, ensuring timely completion.	1	2	3	4	5
6	The hospital regularly adjusts the budget to accommodate financial changes and needs.	1	2	3	4	5
7	The budget formulation is based on actual departmental needs and revenue expectations.	1	2	3	4	5
8	The budget execution status is promptly reported and corrected when deviations from the budget are found.	1	2	3	4	5
9	There is a clear accountability system during budget execution, ensuring financial responsibilities are assigned to individuals.	1	2	3	4	5

10	The hospital's budget plan is sustainable, providing assurance for future financial needs.	1	2	3	4	5
11	The budget approval process is efficient, avoiding unnecessary delays and approval stages.	1	2	3	4	5
12	The transparency of the budget formulation and execution allows departments to clearly understand budget usage.	1	2	3	4	5
13	Any overspending or underspending during budget execution is promptly corrected.	1	2	3	4	5
14	The budget formulation fully considers the reasonableness and necessity of various expenditures.	1	2	3	4	5

15	The budget management system is fully supported and executed by the hospital's leadership.	1	2	3	4	5
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Independent variable 2-Expenditure control

No.	Problem statement	1	2	3	4	5
1	The hospital's expenditure control measures ensure all expenses strictly follow the budget.	1	2	3	4	5
2	The hospital has a clear expenditure approval process, requiring all expenses to undergo approval.	1	2	3	4	5
3	The hospital has a stringent monitoring mechanism for expenditures, enabling timely detection and correction of unreasonable spending.	1	2	3	4	5

4	Each expenditure in the hospital is subject to a clear financial review and approval process.	1	2	3	4	5
5	The hospital's expenditure control measures effectively prevent overspending.	1	2	3	4	5
6	The hospital tracks and analyzes expenditures monthly or quarterly to ensure they align with the budget plan.	1	2	3	4	5
7	The expenditure control mechanisms ensure the efficient use of funds, avoiding waste.	1	2	3	4	5
8	Expenditure control measures effectively reduce unnecessary spending.	1	2	3	4	5
9	The hospital regularly evaluates expenditure management and improves	1	2	3	4	5

	expenditure control strategies based on the results.					
10	The hospital categorizes expenditures in detail to ensure that each expense has a clear purpose and supporting justification.	1	2	3	4	5
11	The finance department strictly enforces expenditure control, ensuring effective supervision of all expenditures.	1	2	3	4	5
12	All departments comply with and support the hospital's expenditure control measures.	1	2	3	4	5
13	The hospital's expenditure control measures ensure effective fund usage and prevent unreasonable	1	2	3	4	5

	financial expenditures.					
14	The hospital's expenditure control can adapt flexibly to varying financial pressures and needs.	1	2	3	4	5
15	The hospital promptly rectifies unreasonable spending, avoiding waste and unnecessary financial burdens.	1	2	3	4	5

Dependent variables-financial transparency and funding utilization efficiency

No.	Problem statement	1	2	3	4	5
1	The hospital's financial reports are regularly published, ensuring relevant departments are aware of its financial status.	1	2	3	4	5
2	The hospital's financial management information is highly transparent	1	2	3	4	5

	for relevant personnel.					
3	Reports on budget execution are timely and clear.	1	2	3	4	5
4	Financial transparency helps to enhance internal trust and cooperation within the hospital.	1	2	3	4	5
5	Improving financial transparency helps departments better understand fund usage.	1	2	3	4	5
6	The hospital regularly publishes financial reports to staff, providing detailed data on fund usage.	1	2	3	4	5
7	The hospital's financial information is made public, improving external auditing and oversight effectiveness.	1	2	3	4	5

8	The hospital's financial reports clearly reflect details on income, expenditures, assets, and liabilities.	1	2	3	4	5
9	The hospital's fund usage is transparent, with each expenditure having clear explanations and approval bases.	1	2	3	4	5
10	The financial management department regularly reports to the hospital's leadership, explaining key data.	1	2	3	4	5
11	The openness of the hospital's financial data complies with government and industry standards, enhancing external supervision.	1	2	3	4	5
12	The hospital's high financial transparency allows internal personnel to easily	1	2	3	4	5

	track and verify fund usage.					
13	Enhancing financial transparency strengthens the hospital's sense of social responsibility and increases public trust.	1	2	3	4	5
14	The hospital conducts regular financial audits and publicly discloses audit results, ensuring financial transparency.	1	2	3	4	5
15	The hospital's financial management policies are clear and allow all employees to understand the financial decision-making process and its rationale.	1	2	3	4	5

16	The hospital effectively utilizes financial resources, ensuring efficient fund usage.	1	2	3	4	5
17	The efficiency of fund utilization supports the hospital's long-term development strategy.	1	2	3	4	5
18	The hospital allocates funds based on priority, ensuring that resources are concentrated in the most critical areas.	1	2	3	4	5
19	The hospital regularly evaluates fund utilization, ensuring maximum output from financial investments.	1	2	3	4	5
20	The hospital maintains a strict control mechanism over fund usage, avoiding inefficiencies and waste.	1	2	3	4	5

21	The hospital optimizes fund allocation, ensuring resources are appropriately distributed to various departments and projects.	1	2	3	4	5
22	Through effective financial management, the hospital improves operational efficiency and reduces unnecessary costs.	1	2	3	4	5
23	The hospital's fund utilization efficiency continually improves, enabling it to address emerging challenges in hospital operations.	1	2	3	4	5
24	The hospital periodically analyzes fund usage efficiency and makes necessary adjustments based on the analysis.	1	2	3	4	5

25	The hospital flexibly adjusts fund utilization strategies to meet diverse needs and challenges.	1	2	3	4	5
26	The hospital's efficient fund utilization enhances its ability to deliver higher-quality medical services.	1	2	3	4	5
27	The high efficiency of fund usage improves overall operational performance, ensuring the hospital's financial health.	1	2	3	4	5
28	The hospital optimizes fund usage methods, ensuring the best input-output ratio for all expenditures.	1	2	3	4	5
29	Through cost-saving measures and efficient fund use, the hospital can allocate more resources to medical facilities	1	2	3	4	5

	and technological innovations.					
30	The hospital's fund utilization efficiency is recognized by relevant departments and hospital management, with ongoing improvements.	1	2	3	4	5

Thank you for your participation!