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#### REVIEW

## **Application and Exploration of BPR Theory in Hospital Financial Management under Informatization**

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### ABSTRACT

In recent years, people's work and life have been unable to break away from the application of technology and information industry. However, the booming and huge influence of big data and information age has a greater impact on people. In this form, the traditional model of public hospitals has a huge collision with it, so it actively seeks a way out and actively develops it. In the subsequent development, it needs to abandon the financial management mode of inefficiency, energy consumption, etc., advanced financial management model to improve the financial management of public hospitals. This paper mainly studies the application and exploration of BPR theory in hospital financial management under the informationization. Firstly, it discusses and analyzes the BPR theory in detail. Secondly, it combines the status quo of public hospitals to reconstruct the information management financial management plan. Before and after the comparison, the application is applied to the daily financial management of the hospital according to the actual situation.

#### 1. Introduction

s far as the modern era is concerned, the ultimate development trend of any industry and field will be combined with advanced management concepts, and a new working model will be formed. The development of hospitals is no exception. It is always the responsibility of the hospital to save the lives and responsibilities. In addition, the hospital's managers should also plan the management of the hospital's operating system so that it can develop in a better direction. In the overall development process of the hospital, the most easily overlooked part is the financial management work. This paper will make a clear analysis of this problem. Through the analysis of BRP theory, combined with the current situation of public hospitals, it will further promote public hos-

pitals. The overall development of this paper has a guiding significance for the practical application of BPR theory in hospital financial management under informatization.

### 2. BPR Theory

BRP is the abbreviation of business process reorganization. It was jointly proposed by Michael Hammer and Jams Champy. In the 1990s, the theory reached the climax of application. In practical application, BRP theory mainly emphasizes business process as the main body of transformation. Its focus is on business process management and reorganization around business processes. The goal is to meet the actual needs of customers, and based on this, fundamental and thorough design and application, as well as the practicality of management tools, to max-

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imize the application of management models in various industries. Completely break the traditional organizational structure and create a new business model, which can be improved in many aspects such as service, cost and speed. <sup>[2]</sup> In the development of BPR theory, its focus is on business process management, and can accurately predict the resistance and risks that will be encountered in the implementation of its future work, and build a more complete development platform for its development. <sup>[3]</sup>

In recent years, the Chinese government has increased the medical reform of public hospitals in major cities. The goal is to "build a new mechanism and build a new pattern so that people can gain more sense of gains." This will break the public hospitals. The mechanism guarantees a sustainable new operation mechanism and a modern hospital management system, and changes the uneven distribution of resources in public hospitals. The concept of BPR theory is combined with resource integration and resource optimization to maximize the chain management system between hospitals and patients and suppliers. The purpose is to achieve significant results in terms of medical costs, and improve medical quality and medical service levels. As an important part of the hospital, financial management can not only improve the operational efficiency of the hospital, but also further improve the level of refined management.

# 3. The Case Analysis of Hospital Financial Management Work under the Information Management Mode

### 3.1 Management Mode of the Central Warehouse of the Hospital

Nowadays, the development of the national economy and the development of modern science and technology bring not only the material and spiritual satisfaction, but also the adverse effects on bio-physiology, which has led to an increase in the demand for medical and health technology in public hospitals. Not only that, the consumption of sanitary materials and medicines in public hospitals has increased sharply. For example, the expenditure on health materials is high. According to incomplete statistics, the expenditure on health materials of 116 medical institutions in a city in April-December 2017 is higher than that of 2016. The increase in December was 12.3%. Among them, the tertiary general hospitals increased by 18% yearon-year, and the secondary general hospitals increased by 17%. 116 medical institutions from April to December 2017,100 Yuan medical income (excluding drug income) consumed 36.24 Yuan of sanitary materials, and there is still a big gap between the target of 20 Yuan set by the National Health and Family Planning Commission. For hospitals, the central warehouse (including: drug library, health material library, general affairs warehouse) is required to manage different sanitary materials according to different responsibilities, and can link suppliers, financial departments and related departments to communicate effectively and timely. In this process, combined with the BPR theory, the overall efficiency of the hospital can be further improved, and the integration of business and finance can be realized as soon as possible.<sup>[4]</sup>

The process that the hospital's central warehouse has undergone before the management optimization work is mainly: the clinical department submits the relevant procurement plan according to the actual needs of its own department, which is sorted and integrated by the central warehouse, and after the confirmation, the supplier's choice is made, and then, Through the procurement center, the model and specifications of the purchased items are determined with the supplier, and the warehousing information is recorded in detail and accurately. At the end of the month, the data is sorted, and the invoices and forms are delivered to the finance department, and the financial department is At the end of the month, verify one by one and prepare corresponding accounting vouchers. Although the working system of the process is relatively complete, there are still obvious problems in the actual operation process. The problems are mainly manifested in two aspects. On the one hand, the hospital has high management requirements in terms of sanitary materials. At present, a relatively common problem in the inventory management of tertiary hospitals is that they have "contracted sales", which will lead to unrealistic warehouse and inventory data, which is not conducive to the management of the warehouse of the hospital, and at the same time, the inventory backlog has led to excessive capital investment; On the other hand, in recent years, with the continuous development of society, people gradually upgrade the expectations and requirements of the medical industry, and are affected by the environment and lifestyles, resulting in the continuous expansion of hospitals and the consumption of medical equipment. In the procurement process, the hospital does not allow the financial department to participate in the evaluation of economic benefits. Without comprehensive consideration of economic and social benefits, the number and variety of sanitary materials purchased by hospitals continue to grow, resulting in a large amount of warehouse management procurement and dispersal of funds.

In response to these problems, the hospital gradually applied the BPR theory under the informationization. After the completion of the management process reconstruc-

tion of the warehouse sanitary consumables, the hospital began to apply the information management platform, and the process has undergone a major transformation. First, combing The hospital cannot charge sanitary consumables, adjust according to the principle of meeting clinical needs and reduce procurement costs; strengthen the management of sanitary materials in the platform departments (such as supply rooms, operating rooms, etc.) and clinical departments, and conduct quality and cost demonstration on consumables used, and seek to reduce Cost route; organize medical staff in the hospital to carry out medical and nursing charge related policy training, so that clinical nurses do not overcharge when they enter the doctor's order, and do not miss it; some hospitals use the logistics management system, and set up the secondary library in the department, gradually Cancel the "Contracted Sales" mode. Most hospitals that have not yet been able to achieve full secondary library management will also strengthen the management of high-value consumables, and set up secondary warehouses in the departments with large usage (such as: central operating room) to ensure the use of high-value consumables. Tracking and control is available.

### 3.2 Expense Management of the Internal Scientific Research Department of the Hospital

With the development of the times, the advancement of science and technology, the needs of all aspects of people's lives have been comprehensively improved. For this reason, medical management and other related work also need to gradually optimize the overall state of its own development. Therefore, the corresponding research cost input is also comprehensively set. In the future development, how to apply scientifically and manage research funds is one of the important tasks of the hospital finance department. The data research of this paper is 2016; there are as many as 743 research projects within the hospital. Although the relevant expenses of medical research in China have been managed by relevant departments such as the Research Office at present, the Ministry of Finance still has an important management role in its actual working mode and overall development, and the simultaneous development of more than 700 scientific research projects is undoubted. Adding huge obstacles to financial management work.[5]

When the financial department conducts traditional forms of research funding management, the main work flow is: the hospital financial person in charge receives the medical research project and allocates the corresponding research costs, notifies the research office to allocate funds for autonomously, and funds the various projects. The

management carries out electronic and paper registration and registration. The paper reimbursement form needs to be reviewed, confirmed and signed by the various leadership levels within the hospital, and finally the procurement of experimental materials such as scientific reagents and configuration is completed, but in the workflow, there are also many problems. As far as this study is concerned, there are three main manifestations of the problem: First, the financial staff does not have budgetary control for the funds, and the general manager of each scientific research project is writing the project declaration. At the time, although the budget form will be filled out, in the subsequent actual work, it cannot be strictly carried out according to its plan, which makes the budget work formalized, and cannot strictly control the related expenses and make it seriously overspend; secondly, it wastes a lot of time. Research projects are generally carried out in hospitals, where the materials and equipment used can be borrowed from hospitals, but in the course of the work, they are purchased on their own, not only to a large extent, but also a series of demand approvals. It takes a minimum of one month. [6] Finally, the registration method is still mainly manual. As we all know, financial management needs to carry out report management, number verification, etc., but at this stage, the financial management of medical projects is still mainly manual, which reduces work efficiency and accuracy to a large extent.

In response to such problems, a good and effective solution can be obtained under the BPR theory under the application informationization. First of all, the hospital needs to construct a corresponding scientific research procurement system, and dock with the relevant systems of the research office and the central warehouse. The scientific research-related staff selects the required items on their platforms and generates orders. After the goods are accepted, a settlement statement is issued, and in the relevant management system for electronic approval, eliminating the leadership signing link, directly to the financial department for cashier audit. This kind of method can comprehensively improve the management efficiency of research funds to a large extent.

## 4. The Application of BPR Theory in Hospital Financial Management under Informatization

### 4.1 Implementation of the Application of the Budget Management Process

The comprehensive budget system was proposed in recent years and will be piloted in a three-level public hospital nationwide starting from 2018. It is expected to be applied

in the reform of the "Government Accounting System" in 2019. This kind of budget mechanism can comprehensively deepen the hospital as a whole. Development mainly refers to all activities that can involve the economy in the process of working in a hospital. All employees need to participate and implement a full-scale supervision system. This approach challenges the traditional financial management mode of the hospital to a large extent. As far as the current budget platform of the hospital is concerned, the overall process lacks budgetary expenditures, release and other related work links, and to a large extent lacks supervision and management of departmental budget execution work, and the formalization is too serious. Therefore, in the subsequent management applications, the process should be redefined and innovated. After further optimization of the process, the reorganization work can be combined with the relevant systems of accounting and form a comprehensive budget management system. [8] When making budgets, it should be based on the completion of the budget for the previous year and the operation of the hospital this year, and the requirements are very accurate, so that each service project has a precise budget and has strong operability. Combine various types of costs with the specific tasks of relevant departments, departments, and teams, and use the budget as the standard for cost control, giving full play to the constraint role of the budget in cost control. The hospital should strengthen cost control during the implementation of the annual budget. Reason analysis of the deviation between actual execution and budget, correcting unreasonable expenditures, and conducting budget analysis and performance evaluation at the end of the period, the optimized budget management process is integrated with the accounting cost accounting system to make the hospital financial management clearer and the data more accurate.

## 4.2 Resource Allocation to Improve Medical Environment and Optimize Hospital Operation Process

Nowadays, patients have higher requirements for their medical environment, family wards, super-advanced medical facilities, and garden-like hospital environments. This is probably the most ideal medical environment for patients. For such requirements, public hospitals must continue seeking development in innovation, improving the medical environment as much as possible to meet the needs of patients, thus greatly improving the patient's happiness index. However, for domestic public hospitals, it is far from the requirements in the above content. If you want to gradually complete its development, it is impossible to rely solely on the hospital's own strength.

Therefore, it is necessary to rationalize the allocation of resources. From the hospital perspective, public hospitals need to improve from the medical treatment process, medical services, medical environment, etc. For the financial department, optimize the allocation of funds according to the requirements of the hospital, and purchase medical equipment. Engineering construction and other aspects can follow the principle of seeking truth from facts, and sign specific and effective implementation plans with the cooperation units, which play a corresponding management and supervision role. Taking the hospital's comprehensive budget management system as the main body, the hospital's scientific research management, warehouse management, and manpower management are gradually optimized, and a flow chart of hospital operation management is drawn. Create an information management hospital operation management platform with information tools. The hospital operation management platform will break the management mode of the traditional financial department and monitor the whole process of hospital management. Through the data collection and analysis of the hospital operation management platform, it makes powerful decisions for the hospital's strategic plan and provides reasonable data for the allocation of funds, providing a scientific basis for the development of the hospi-

## 4.3 Strengthening the Risk Management and Control Function of the Hospital's Financial Department

Under the support of BPR theory, the relevant personnel and leadership of the hospital's financial management work gradually realized the identification of risk points in the financial department, the importance of risk management and control, and under the influence of BPR theory, operated the work [9]. The financial revenue and expenditure situation is the basis for strengthening the risk management and control of the hospital as a whole. It can compare the data analysis of medical services and medical consumption, and can provide a more correct business philosophy for the operation of the hospital, so that it can be gradually improved. Develop, correctly guide and help the hospital leadership's management behavior, and strengthen its basic management to a large extent, improve the overall economic benefits, and further improve and promote the development of public health care in public hospitals. In this application, first of all, the relevant financial personnel need to gradually strengthen the awareness of the risk points of the public hospital financial system, can accurately grasp the risk points, and build a more scientific and comprehensive risk management mechanism to

effectively prevent and resolve Relevant risks will eventually realize the gradual growth of the hospital. Secondly, risk management and control requires financial personnel to be realistic and follow the facts-based work principles to carry out corresponding scientific and reasonable work, and in the follow-up work, Enhance personal work skills and legal awareness, so that they can play their own functions to a greater extent, and provide greater help for hospital financial development.

### 5. Conclusion

In summary, applying the concept of BPR theory under informatization to the financial management of public hospitals can better optimize financial processes and standardize financial systems, effectively improve the level of financial management and work efficiency, optimize resource integration, and reduce Work intensity and work error rate can provide a basis for the overall development and harmonious economic development of the hospital. It is hoped that the research of this paper can further improve the financial management level of hospitals and provide important theoretical and practical value for the development of public hospitals.

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