

# Problems and Countermeasures of Comprehensive Budget Management in Drilling Enterprises

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**Abstract.** In response to the requirements of sustainable high-quality development, market-oriented competition, and the practical development challenges in the drilling market, this paper focuses on the fundamental content of a comprehensive budget management model. It briefly analyzes the main problems and prominent contradictions in the current budget management practices of drilling enterprises. The emphasis is placed on advocating a business-volume-oriented approach, using established standards and calculation methods as a basis, and establishing a robust and comprehensive budgeting system throughout the entire process. The goal is to effectively control drilling costs, optimize cost control systems, and enhance the level of budget management. This is intended to provide reliable support for promoting sustainable high-quality development of drilling enterprises in the market competition.

**Keywords:** Financial management; Budget management; Comprehensive budget management model.

## 1. Introduction

At present, sustainable and high-quality development has become the theme of economic development in the times. Petroleum engineering enterprises are facing the dual pressure of their own transformation and development and market disruption. As drilling enterprises, they must not only serve the exploration and development of oil fields, increase storage and production, but also bear the high cost and difficulty, and the difficulty of established business goals and tasks is increasing year by year. Faced with these difficulties and contradictions, this article explores new ideas and approaches for drilling cost management, improves and improves the comprehensive budget management model of drilling enterprises, fully utilizes the guidance and adjustment role of budget management in enterprise cost control, adopts effective measures to control drilling costs, promotes cost control measures optimization, and continuously improves cost budgeting level. This is particularly important for drilling companies to achieve sustainable and high-quality economic development in market competition.

## 2. Comprehensive Budget Management Model

The comprehensive budget management model mainly refers to the adoption of practical and effective prediction, control, adjustment, and guidance measures under the guidance of enterprise economic development strategic planning and goals, in order to provide reliable guarantees for promoting the orderly operation of enterprise management, the orderly implementation of business measures, the orderly realization of economic goals, and the orderly promotion of cost strategy [1, 2]. Comprehensive budget management mainly involves targeted, hierarchical, and phased analysis of the overall cost objectives of costs and expenses. Based on comprehensive analysis, prediction, decomposition, and adjustment of various economic activities, a target execution and control system that is in line with the enterprise's development strategy is formulated and promoted, aiming to achieve the enterprise's economic strategic development goals to the maximum extent.

### **3. The Key Role of Comprehensive Budget Management in Enterprise Cost Control**

Comprehensive budget management helps to reduce economic risks. Through careful financial planning and cost analysis, enterprises can better cope with external economic fluctuations and market uncertainty, enabling them to respond to economic challenges in a timely manner and adjust their strategies more flexibly to adapt to the constantly changing environment. Reduce the financial risks faced by enterprises and ensure financial stability. Comprehensive budget management promotes coordination among departments. In response to the special nature of operations in drilling enterprises that require year-round field work, through comprehensive budget management, enterprises can coordinate the goals and resources of different departments to ensure that there are no contradictions or conflicts between them. This coordination helps to improve overall efficiency, reduce costs, and ensure strategic consistency of the enterprise [3, 4].

### **4. Primary Issues and Prominent Contradictions in Budget Management of Drilling Enterprises**

In 2010, Bohai Drilling Company began to apply comprehensive budget management, which integrates and optimizes the allocation of enterprise resources through a budget management model that involves all aspects, processes, and personnel involved in the preparation and implementation, improving the operational efficiency of the enterprise, and becoming an important means to promote the realization of the enterprise's development strategy. After improvements in recent years, Bohai Drilling Company has fully utilized the guiding role of budget in cost management and control. However, there are still many problems and contradictions in budget management, which are highlighted in the following aspects.

#### **4.1 Inadequate implementation of budget management functions**

In recent years, Bohai Drilling Company has focused on the preparation and management of internal budgets, with internal budgeting as the main focus of process management and control. Cost expenses have been subdivided into 215 detailed items and allocated to various functional departments. The responsible department prepares the cost project budget under its jurisdiction, forming a departmental budget. The Financial Planning Management Center reviews the departmental budgets submitted by each department, summarizes them, and organizes the Budget Committee to repeatedly discuss and form the company's annual cost budget. However, during the execution process, various departments often prepare conservative data in order to make their budgets more flexible, which requires several reductions by the budget committee to form a more practical internal control budget, resulting in inadequate implementation of budget control functions.

#### **4.2 Budget preparation standards and norms are not unified**

Without standardized and unified budgeting norms, it is difficult to formulate a scientific and reasonable implementation plan for budgeting, and it is also difficult to form a scientific and operable budget execution indicator system. From the current reality of budget preparation, the problem of lack of norms and standards is quite prominent. Although a top-down and bottom-up budgeting process is adopted in the budget preparation process, the final formation of many budget indicators often results in deviation between the preparation indicator system and the actual operation indicator system due to the lack of standardized preparation basis and standards as support.

### **4.3 Financial budget deviates from business budget, resulting in deviation in budget execution**

From the current situation of enterprise budget preparation, in general, budget preparation is often based on previous years' work levels, and there is a lack of sufficient market research and analysis of the actual business volume of the enterprise, which can easily lead to a deviation between the business volume budget and the actual operation and technical aspects, making it difficult for the budget to meet the preparation expectations. In the process of financial budgeting, there is a lack of rational analysis of materials, quantity, and price. Due to the unreasonable integration of business and financial budgets, the comprehensive budget has not been achieved in all aspects, such as business volume, technical indicators, and resource optimization allocation.

### **4.4 Budget management information is still at a relatively low level**

Budgeting cannot be separated from a large amount of basic data as support, and the degree of information in budget management is still difficult to meet budget needs. Simply relying on existing information on the surface can easily lead to narrow budget preparation basis. In addition, the existing information management systems of enterprises often manage independently and form their own systems, with low integration, making it difficult to achieve data matching and sharing, which is extremely unfavorable for budget preparation and management [5, 6].

## **5. Constructing a Comprehensive Budget Management Model for Drilling Enterprises**

In response to the above issues, it is necessary to adhere to comprehensive budget management as an important gateway, classify budgets, improve and improve the budget preparation system throughout the entire process, comprehensive budget control system, and comprehensive budget information system at all nodes, and form a comprehensive budget management model for drilling enterprises with the characteristics of the drilling industry.

### **5.1 Adhere to the starting point of business volume budgeting and improve the budget control system throughout the entire project process**

Highlight the budgeting of production business volume. The marketing department fully coordinates the workload, implements indicators such as annual investment, estimated footage, and number of drilling holes in the construction area, and prepares an annual workload budget based on actual production capacity. Through analysis and statistics in recent years, budget items are divided into five categories, including business volume budget items, revenue items, expense items, asset items, and comparative items. At the same time, the main business, auxiliary business, and institutional parts are classified and compiled into budgets. Establish a standard cost quota for single wells in drilling enterprises, conduct comprehensive statistical analysis on drilling and completion, and calculate the cost quota for single wells by region, well type, and well type. By applying, supplementing, adjusting, and improving the quota consumption, we can achieve openness, transparency, and fairness in the cost assessment of single wells in drilling enterprises. Establish budget control throughout the entire project process, adhere to winning in advance, and propose bidding prices and suggestions for the construction team based on technical proposals, cost quotas, and Party A's credit status before bidding for the project. Adhere to strict control during the construction phase, strengthen comprehensive cost management, and strengthen daily operation analysis and warning. Adhere to post evaluation and analyze the project benefits and payment collection after the completion of project settlement, providing a basis for performance evaluation and accountability of loss projects.

## **5.2 Adhere to departmental budget management as the core, improve and improve the comprehensive budget management and control system**

Strengthen departmental budget functions. Adhere to the principle of "who is in charge, who is in charge of the budget, who is in charge of the approval, who is in charge of the procurement, who is in charge of the control", strengthen the budget management functions and responsibilities of business departments, effectively implement budget expenditure control to the source control department, move forward the budget management threshold, and comprehensively improve the level of budget management and control. Strengthen single well budget management. According to the principles of macro overall controllability and micro strengthened execution, we continuously strengthen and refine the single well budget management mode, implement the "Five to Construction Management Method" of "decomposing single well costs to positions, controlling processes to nodes, evaluating performance to individuals, summarizing and analyzing to teams, and disclosing results to all employees", making single well budgets an important basis for the overall budget of drilling enterprises. Highlight budget process control. Process control is the most important measure and means in the budget execution stage. To improve the quality of budget operation, it is crucial to establish four budget control barriers: cash flow barriers, budget warning barriers, internal control approval barriers, and analysis and assessment barriers, reflecting the rigid binding force of the budget.

## **5.3 Adhere to improving budget efficiency as the fundamental principle, and improve the budget information system at all nodes**

We should focus on the automation of budget preparation, information of settlement management, and sharing of data information, and establish a comprehensive node budget information system that includes various indicators such as internal budget, settlement management, single well accounting, and drilling indicator management of drilling enterprises as constituent elements. According to the characteristics of each budget project, it is necessary to analyze each node and establish a parameter system for budget preparation based on established business volume (indicators such as wells, footage, and drilling rig months) and value. Through information technology, automation of budget report preparation at all levels can be achieved. We need to focus on improving budget compliance, move settlement management forward to business departments, and establish a standardized internal cost review and settlement process to achieve simultaneous online and offline cost review. After the actual settlement information of expenses is collected and entered into the system, a budget execution analysis module should be established to achieve formalization and automation of budget analysis, and to achieve query, analysis, and sharing of expense settlement data. We need to integrate and improve the existing internal information systems of drilling enterprises, achieve horizontal and vertical management matching, data sharing, and information flow through effective links between each system, and effectively improve budget management and operational efficiency.

## **6. Conclusion**

Through the sound and improved comprehensive budget management model, business budgeting has been further strengthened, which is conducive to the formation of a budget preparation model based on business budgeting. The matching relationship between workload and income expenditure can be effectively matched, and the combination of value and business volume is more closely integrated during budget preparation. The scientific and practical nature of budget data has been greatly strengthened, and it is closer to the actual production and operation.

By applying the comprehensive budget management model. After comparing with the centralized accounting system, the setting of budget items was comprehensively considered and determined. On the basis of the centralized accounting cost account, it was further refined, which is more conducive to departmental division of labor management. Departmental expenses can achieve

a comprehensive closed-loop management mode of no duplication or omission, and each expenditure is strictly controlled within the budget item. Temporary new projects are managed through budget adjustment, Thus, the seriousness of the budget has been strengthened, and the comparability between the budget and actual expenditures has been better reflected, truly achieving comprehensive, full coverage, full process, and full node budget management, thus laying a solid budget support for enterprise target cost control and economic operation quality improvement.

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