

CHAPTER 2

RELATED CONCEPTS AND THEORETICAL BASIS

2.1 Related concepts

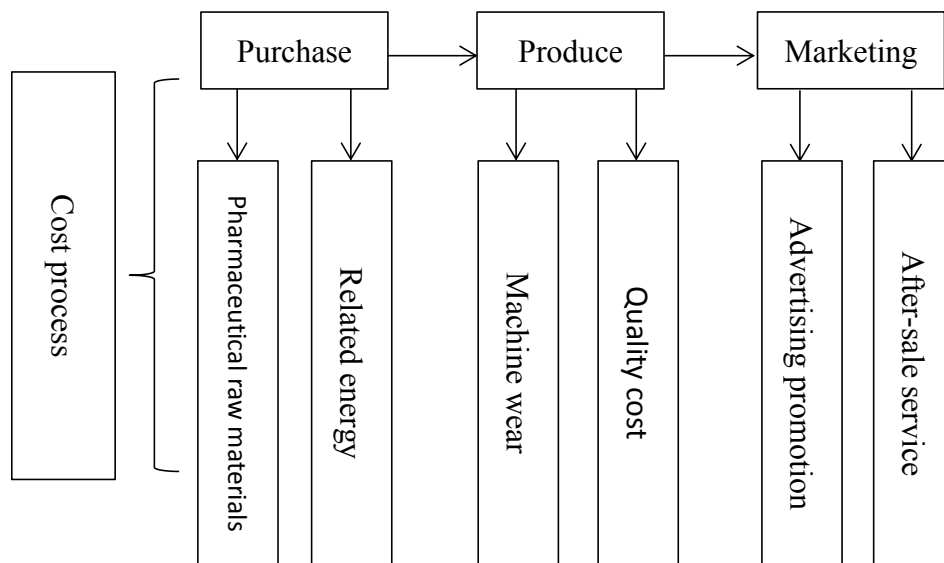
2.1.1 The concept of cost control

Cost control means that the main body exercising control is within the scope of power. Before the production, the management objectives and corresponding standards are formulated. In the production process, the actual costs are supervised according to the plans and standards, and the deviations are adjusted to ensure the goals. Cost control consists of "cost" and "control". The cost is the value that needs to be paid during the operation of the company. Control is the process of correcting and controlling. The scope of cost control involves a wide range, including the entire process of business management, including production costs, sales costs, research and development costs, human resources costs, quality costs and crisis costs. For the characteristics of their own companies, they can implement full-process cost control. According to the characteristics of the time flow and cost formation process of pharmaceutical distribution companies, they are divided into procurement cost control, production cost control, and marketing cost control.

Cost control is the practice of identifying and reducing business expenses to increase profits, and it starts with the budgeting process. A business owner compares actual results to the budget expectations, and if actual costs are higher than planned, management takes action. As an example, a company can obtain bids from other vendors that provide the same product or service, which can lower costs.

Because of the difference in the existence of enterprises, the control structure of their costs is also different. Sales-type enterprises mainly focus on the cost control of marketing, while logistics companies mainly focus on the cost control of the transport link, and the raw materials of large-scale pharmaceutical companies have large costs and are the main cost. From Figure 2-1, we can see the cost formation diagram of pharmaceutical companies. The enterprises studied in this article are pharmaceutical distribution companies. The main cost control points are the cost control of marketing, procurement and warehousing.

Figure 2-1 The cost of sale drug products forming diagram



2.1.2 Principle of Cost Control

(1) The principle of system control: System control is the process and result of the operation of the organization or the combination of dynamic and static cost control. A variance is defined as the difference between budgeted and actual results, and managers use variance analysis to identify critical areas that need change. Each month, a company should perform variance analysis on each revenue and expense account. Management can address the largest dollar amount variances first, since those accounts have the biggest impact on company results.

(2) The principle of differentiation: The management of cost control should adopt flexible and differentiated methods and means according to the needs of its cost control. For example, if a process and link of cost control indicators in a certain period is expected to have a large difference in practice, then it is necessary to pay special attention to and attach importance to the cost control of this link to find out the reasons.

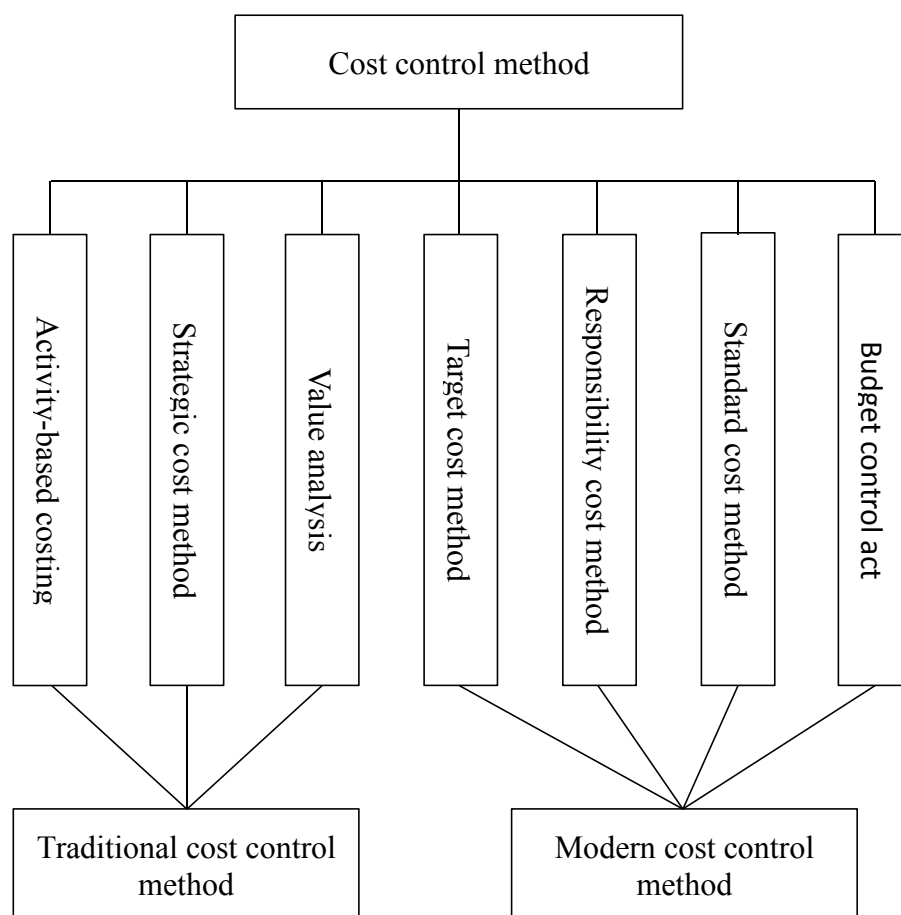
(3) Principle of economic efficiency: The important principle of cost control is to reduce consumption and increase the economic efficiency of enterprises. The evaluation of cost control economic benefit level shall adopt the principles of horizontal comparison and vertical comparison to ensure the scientificity of its cost control.

(4) The principle of timeliness: The cost control is time-bound. Scientific cost control must take timely cost control measures according to different stages of the company's business management to ensure the effectiveness of cost control. Many times miss the best period of cost control, it may cause huge losses.

2.1.3 Cost Control Methods

With the in-depth study of cost control theory and practice, cost control methods have also achieved unprecedented development and formed different methods. From Figure 2-2, we can see that the cost control method is summarized into traditional methods and modern methods. The traditional activity-based costing method refers to the practice of cost-control in Western developed countries that has not been innovated but has been directly followed and applied to the practice of cost control. It mainly includes activity-based costing, strategic analysis, and value analysis. The modern cost control method is the innovation of the original traditional cost control method or proposes a new cost control method, including the target cost method, the standard cost method and the budget control method. Enterprises generally adopt differentiated cost control methods based on their own actual conditions, and can adopt a single method or a combination of multiple methods.

Figure 2-2 The methods of cost control chart

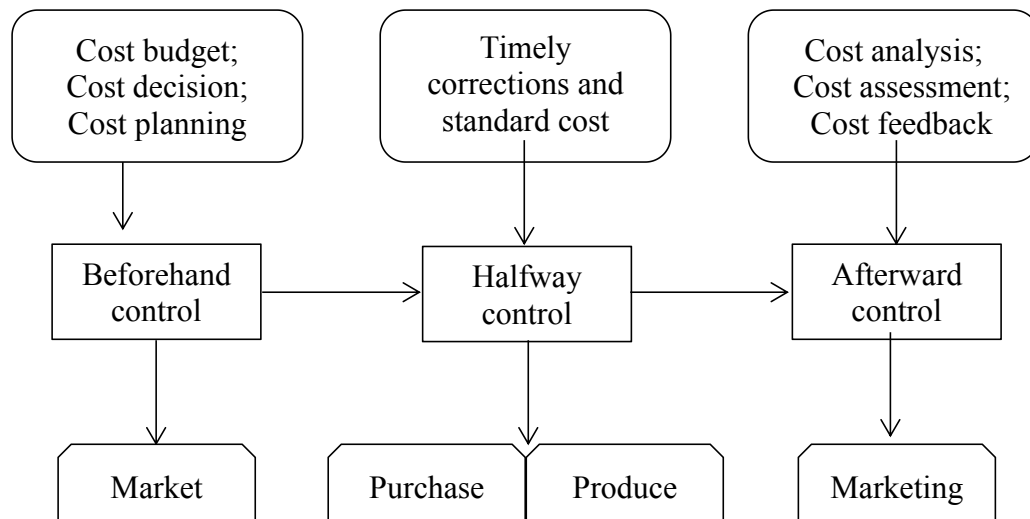


2.1.4 Cost Control Procedures

From Figure 2-3, we can see that the process of cost control is in the business process of market research, raw material procurement, product production, and product

marketing. Ex-ante control is the basis and key point in the cost control process, as well as the basis for formulating standardized costs; Intermediate cost control is the rectification of cost control, ensuring that the cost runs within the standard range; Post-event cost control is the analysis and feedback of pre-control and in-process control with cost control results.

Figure 2-3 Cost control program diagram



2.2 Theoretical basis

2.2.1 Constraint Theory

Constraint theory is the conclusion of the Israeli physicist Goldratt on the basis of researching and optimizing the production technology. It brings a new perspective to people's management. The production and operation of an enterprise are restricted by resources, and the maximum operating capacity is often determined by the shortest resource shortage. The theory of constraints (TOC) is a management paradigm that views any manageable system as being limited in achieving more of its goals by a very small number of constraints. There is always at least one constraint, and TOC uses a focusing process to identify the constraint and restructure the rest of the organization around it. TOC adopts the common idiom "a chain is no stronger than its weakest link". This means that processes, organizations, etc., are vulnerable because the weakest person or part can always damage or break them or at least adversely affect the outcome. Generally speaking, the constraints of the organization's operation come from two aspects: the constraints of internal resources and the constraints of external resources. Constraints on external resources or the environment are generally the same, and constraints on internal resources vary widely. The internal resources of manufacturing-based pharmaceutical companies mainly include production capacity, equipment carrying capacity, and staff working efficiency. The resource constraints of pharmaceutical distribution agency companies are mainly marketing capabilities, warehousing capabilities and related management capabilities. Constraint theory is based on bottleneck resources to set the company's

strategic objectives and business objectives mutually unified, to ensure that enterprises with a reasonable investment or control measures to achieve maximum efficiency, in fact, is a management philosophy and control methods.

The TOC distribution solution is effective when used to address a single link in the supply chain and more so across the entire system, even if that system comprises many different companies. The purpose of the TOC distribution solution is to establish a decisive competitive edge based on extraordinary availability by dramatically reducing the damages caused when the flow of goods is interrupted by shortages and surpluses.

For cost control, the constraint theory more scientifically clarified the company's business objectives, and objectively analyzed the current status of business cost control and cost control principles. Constraint theory believes that getting more profits is the ultimate goal of every company. It restricts the constraints that companies have in the pursuit of profits to become "bottleneck" or "constraints". This constraint is manifested in many aspects. Such as corporate resources, institutional aspects and market demand within the supply and demand chain. Enterprises need to gradually identify and eliminate these "bottleneck", so that the company's direction of improvement and improvement strategy clear, so as to achieve the company's profit goals effectively. In the internal pursuit of logistics balance, rather than the balance of production capacity, so that all aspects are synchronized with the bottleneck node, in order to achieve the shortest production cycle, reaching the maximum production and sales rate concept formed the core of the famous constraint theory.

2.2.2 Value Chain Theory

The value chain cost control theory was developed based on the value chain theory put forward by Michael Porter. It mainly refers to the scientific control of the costs of the internal value chain and external value chain in the business process of the company. Companies get the greatest return with the smallest investment. Value chain cost control content is mainly divided from two aspect, the value chain management level and the value chain management object are divided. The cost control of the value chain management level mainly includes the strategic level cost control, the management level cost control and the operation level cost control; and the value chain object cost control includes the supplier value chain cost control, the internal value chain cost control, the customer value chain cost control and competitor value chain cost control. On the basis of the value chain cost control theory, cost driver analysis is carried out. The motivations at the strategic level are mainly the causes of structure and execution, and the motivations at the operation level are the operational and resource drivers.

Through the interpretation of the concept and content of the value chain, we can see that the value chain cost control has the following characteristics: First: systemic, open and dynamic. Systematic mainly refers to the value chain cost control throughout the

entire process of business operations, the openness is the cost control department and the main body involved in the value chain, all clear in advance its cost control objectives and content, dynamic is the value chain Cost control is based on the company's objectives within different time periods to take dynamic control measures. Second, qualitative cost control is the control of the prior control period. It is mainly based on the company's development strategy and sets clear cost control objectives. The prescribed amount of objectives mainly refers to the cost control of the process and operation stages, with emphasis on the controllability of cost control and the refinement of indicators. Third, cost control across the boundaries of the original organization. Crossing the border is a cost control method that compares the cost control of the value chain with the cost control of the enterprise itself, and realizes the goal of the enterprise. It controls all the internal and external organizations of the enterprise value chain.

2.2.3 Cost Driver Theory

The cost driver theory is proposed in the book "Cost Planning and Control". He pointed out that the cost driver is the factor that influences or drives changes in the company's cost. The traditional cost driver theory has been the sole theory of cost control for many years, and it is believed that the business volume is the only factor affecting the cost change. With the complexity of the company's job process, the job is considered to be an important cost control link. That is the theory of job cost motivation. With the increasing role of strategic theory in the management of enterprises, the theory of strategic cost drivers emerged. Through combing the cost control theory, we can find that the traditional cost drivers, activity cost drivers, and strategic cost drivers are the three stages of cost driver development. They are the relationship between foundation, development, and sublimation. The development of the three stages of theory is not the theory of the next stage can replace the theory of the previous stage, but the result of the in-depth study of the theory of cost motivation is the result of diversification and differentiation based on the needs of practice. The medical enterprises studied in this article have the characteristics of liquidity. In the analysis of cost motivation theory, the sales department takes the traditional cost driver analysis as the main, and the circulation link mainly focuses on the analysis of the operating cost drivers.

2.2.4 Basic Competitive Strategy Theory

The basic competitive strategy was first put forward by Porter in his book "Strategy and Management". He pointed out that in order to meet the needs of market competition. It will adopt one or several organic combination of cost leadership strategy, differentiation strategy, and centralized strategy. Each company can use its own advantages and adopt appropriate strategic options based on the characteristics of its products and resources. The cost-leadership strategy is also a low-cost strategy. It refers to the products or services that the company produces in the course of its operations. Its operating costs are

much lower than those of its competitors. The cost leadership strategy ensures the company's ability to profit, and can use its price advantage to squeeze its competitors out of the market. Differentiating strategy is also called strategy innovation, which is based on the needs of the company's own development and adopts different management strategies for products, services, channels, prices and promotions. The centralization strategy is also called focusing strategy. It refers to the strategy that the company focuses its limited advantage resources on a product, a service object, or a market segment.

According to the types and characteristics of the basic competitive strategy theory, as X pharmaceutical companies, their capital and marketing capabilities are limited. Therefore, the agents' products must be differentiated, and they should be centralized in a certain market according to their different uses Strategy. and at the same time, in order to reduce the operating costs of the company, the cost-leadership strategy always runs through every link of the company's operations, so as to achieve both open-source and cost-saving.

2.3 Literature review

2.3.1 Foreign research status

The overseas cost management theory developed earlier and is now in the stage of strategic cost management. Scholars from different countries in management practice have continuously enriched the theory of strategic cost management and formed a complete theoretical framework.

Mukherjee (1988) elaborated the principles, methods and contents of cost management in his work. The standard cost is the reference point of cost management and must be scientifically formulated and continuously updated and changed. The budget cost is the cost prediction and estimation of the early stage of the company's operation. Alienation analysis means that cost control should be based on the different departments and companies, and takes objective, scientific and practical analysis.

Boukas and Liu (2003) the American strategic management expert based on the problem of cost control in The United States. In his paper, he first proposed the important role of corporate strategy in cost control. He believes that if companies want to formulate a scientific and reasonable cost control strategy. They must integrate the company's overall strategy into the company's cost control.

Sood, Vries, and Lakdawalla (2009) introduced an overall management philosophy in his book titled "Goals," designed to help organizations continue to achieve their goals.

Walter (2015) pointed out that cost management short-sighted behavior is one of the important reasons for cost management failure and difficult to control. This is the beginning of the introduction of strategic management thinking into cost management.

His proposed cost control and management is an important part of the company's strategic development.

Hooshang and Bchcshti (2004), an American accounting expert, first proposed the active cost management method for the source company's operation process in the country, and the hydro-power company tried it. With continuous practice and summary of the cost management law in the United States, by the late 1970s, the Operation cost management method, was used by most companies. The focus of its content and cost management is constantly innovating. There have been the basic operational cost management method, the management of post cost operation management method, and professional post cost operational management method, etc.

Dias (2009) elaborated in his work the application of standard cost theory in cost control, and proposed the fixed cost control method and plan cost control method.

Sturm, Austcoll, and Vernby (2007) suggest that purchasing is a fundamental function in the beverage control cycle. If this function is managed efficiently, then any hotel can attain quality beverage products at the minimum cost possible according to the company's financial objectives.

Geun, Jin, and Young (2013) pointed out that the virtual value chain and value chain should fully consider the processes and stages of business operations in cost control, and formulate standards for value chains and virtual value chains according to different stages and processes. Only in this way can science be developed. And effective cost control measures. The value chain is a key factor for enterprises to increase efficiency and enhance core competitiveness. Only by truly excavating the core cost control value chain of each enterprise and each department at different stages can the efficiency and effectiveness of cost control based on the value chain be guaranteed.

An early communicator of a similar concept was Mewes (1963) of Germany, who published a theory about power-oriented management (*Machtorientierte Führungstheorie*) and his *Engpasskonzentrierte Strategie* as more advanced bottleneck theories.

Hyunsoo, Minchcol, and Sora (2014) uses Porter's value chain theory to analyze the cost control. Although its practice and application are not satisfactory, this is an exploration of value chain theory in cost control theory.

Stefano and Timothy (2014) On the basis of previous research, the theory of virtual value chain is proposed. This is a significant improvement in the application of cost control in cost control.

Ji and Hou (2015) On the basis of previous research, the theory of virtual value chain is proposed. The application of virtual value chain in cost control has achieved

good results.

Wang, Guan, and Yin (2014). Logistics – a relatively new and young field of economics and human activity. Logistics covers activities such as information exchange, transport service, inventory management, warehousing, cargo handling and packaging. Every day logistics enterprise is considered as a complex process aimed at reducing overall costs. In terms of production growth, which led to a sharp increase in costs, entrepreneurs stopped on finding means to reduce the cost of the circulation. At the heart of successful logistics are the use of new information technologies and new approaches of transportation and warehousing activities. Many entrepreneurs are seeing the competitive advantages of new logistics systems and ways to implement them.

Liu and Rong(2013) analyzed the cost control data of a number of companies in the United States. For the first time, the theory of cost control responsibility system was proposed. The responsibility system plays a decisive role in cost changes and follows a certain rule with cost control.

Ben, Hazen, and Hanna (2014) proposed a cost-integration and systematic control decision model by quantifying the process and cost of the entire transportation, and formulated control criteria and optimal status for different periods and phases.

Through the study of foreign cost management, we can see that in the research of cost control theory, we mainly integrate strategic management theory, life cycle theory and standardized cost management theory into cost control management. The research methods mainly focus on the Operation cost management method, the standard cost management method, the value chain cost management method and the virtual value chain cost management flow in the cost control measures research is mainly the cost motivation measures, the key business cost control measures and the key Process control measures.

2.3.2 Domestic Research Status

Wang (2008) Southwestern University of Finance and Economics is an advanced university in cost control research, and also the first university to establish a cost control management research institute in the country. It proposes strategic cost control theories and methods in different areas. Its research results are cost the great contribution of control.

Zhang (2012), the main representative of academics of China's professional research cost control, etc. Under the advocacy and organization of these people, China established the China Cost Control Promotion Association in 1986. The Promotion Committee gathered well-known domestic scholars, professors, and experts. There are also business

leaders and government leaders. The meeting is held twice a year. The meeting is mainly based on the in-depth study of Western cost control management theories, and in combination with China's actual conditions, formulates a cost control theory that is in line with China's national conditions and guides China's objective practice. At the same time, the Chinese government has also established a project for cost control and has achieved outstanding results. A series of cost control methods have been proposed. The most representative one is the theory of variable cost control, the theory of monorail production, the dual rail production control theory and the cost of blending control theory and so on.

Wang (2014) based on domestic and foreign strategic management theory and organizational behavior theory, puts forward a strategy-oriented organizational reform cost control theory and organically integrates strategy, organization, and cost control.

Fang (2001) took the value chain as the starting point of the study, proposed a three-dimensional, four-dimensional and multidimensional cost control concept, and used this research as a new perspective for the actual application of different types of enterprises, and achieved certain results.

Armstrong (2002) To date, the principal strategies adopted by health administrations have been based on measures that are essentially economic, such as the regulation of drug prices and commercial margins, the review of public financing for specialty drugs, and the implementation of financial incentives to limit costs e.g. drug budgets or performance based payments

Zhao (2011) redoes and expands Porter's value chain theory, analyzes and refines the nodes of agents, suppliers, and competitors in the external value chain, and on this basis proposes a new type of value chain cost control method.

Mao and Wang (2013) analyzed how the standard cost method quantifies and influences different types of enterprises according to their size, industry characteristics, and strategic goals. This is the original standard cost method. The expansion and practice can also be called standard cost control or Chinese-style cost control.

Di and Weng (2013) studied the cost control of steel logistics, and put forward the inventory cost, the time cost and sales cost of the funds receivable, which are the main strategic starting points for the cost control of this type of company, and put forward the information-based, Storage, scientific results, marketing results, and cost control measures to minimize the receivables.

Zhang, Sun, and Huang (2014) Research Group, National Institute of Economic Research, National Development and Reform Commission, for the cost characteristics of pharmaceutical distribution companies, based on the original operating cost control,

developed a related index system, and evaluated the indicators with a fuzzy evaluation method. The important operational indicators and key indicators of key links are combined to formulate a cost control indicator system to improve business efficiency.

Sun (2014) and others took the form of a case to study the cost control of logistics companies. In logistics cost control, cost planning and strategic planning are the main nodes of the value chain. Controlling the main links of the cost control value chain is a cost. The main measures of control are also guarantees for the long-term profitability of the company.

Fan (2014) based on the analysis of the cost control of logistics enterprises of different scales, puts forward measures, methods and steps for scale cost control, and key nodes for scale control.

Zhang and Zhao (2014) systematically discussed the causes and measures of cost control in their works. They integrated strategic thinking and SWOT analysis into the analysis of causes of cost control and the formulation of measures, and based on the causes of enterprise cost control develops strategies.

It can be seen from the analysis of the status quo of domestic cost control research that the study of cost control theory mainly includes variable cost control theory, monorail production control theory, dual rail production control theory and hybrid cost control theory. The cost control methods are mainly value chain method, target value chain method, standard method, multidimensional cost control method and strategic value chain method. The cost control measures are mainly based on nodes, value chains, causes, standards and processes.

2.3.3 Review of Research Status at Home and Abroad

Through the analysis of the current research status of domestic and international research on cost control in the previous two sections, it can be seen that the proposed and formulated cost control theory is proposed by developed countries such as Europe and the United States and is at the forefront of theoretical research. The theoretical research on cost control in foreign countries is more in depth. The application of quantitative analysis models is more mature. Cost control methods vary according to different countries and different methods in the industry. Implementation strategies are also flourishing.

Our country entered the research field only in the later period of reform and opening up according to the needs of the enterprise and the market. The depth and breadth of its research is not enough. China's cost control theory has almost no basic theory of its own. All of them are based on the original foreign theories, and some are expanded, some are subdivided, and some are combined with the application of multiple theories. It can be

said that China is in the original cost control theory in innovation. In terms of research methods and tactics, it mainly adopts cost control methods and measures with Chinese characteristics according to China's national conditions and characteristics of enterprises.