

## Retraction

# Retracted: Method for Controlling Economic Management Cost in Enterprises Based on Coase Theorem

### Security and Communication Networks

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

### References

- [1] Z. Li, Q. Hu, and J. Huo, "Method for Controlling Economic Management Cost in Enterprises Based on Coase Theorem," *Security and Communication Networks*, vol. 2022, Article ID 3913087, 12 pages, 2022.

## Research Article

# Method for Controlling Economic Management Cost in Enterprises Based on Coase Theorem

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In today's integrated economy, no country's economic development can be outside the international economic environment. After continuous and rapid development, China's economy has surpassed Japan's overall economic level and has become the second largest economic power in the world. But with the advent of the new normal economy in China, the economy has entered a stage of medium- and high-speed development, and business management and cost management of enterprises are also facing the transformation of strategies and systems. Every enterprise and company is trying its best to improve its own cost management system, business model, and cost management strategy. The development of science and technology and the advent of the era of information technology have gradually brought China's economic development into a green development track, which has put forward greater research topics for enterprise cost management. Therefore, the method for controlling economic management cost in enterprises based on the Coase theorem was proposed.

## 1. Introduction

With the continuous development of China's economy and the vigorous advancement of urbanization, the construction industry has ushered in a great opportunity for development and played a huge role in promoting the development of the national economy. Due to the increasingly fierce market competition environment, coupled with the characteristics of multiprojects, long fronts, and multifaceted construction companies, the profitability of the construction industry is getting lower. In this increasingly severe social environment, the key to the sustainable development of the construction industry is cost control [1]. In order to effectively improve the economic benefits of the construction industry, it is an indispensable means to comprehensively reduce corporate expenditures, improve management, and do a good job of cost control. This thesis mainly studies the cost control and management of engineering projects in the construction industry. Through in-depth analysis of the existing problems, related cost control and management theories are used

to analyze the cost control and management problems existing in the project implementation process, as well as the cost control problems, and propose improvement measures. Planning is the first step in cost control, which is the activity of recognizing and lowering corporate expenditures to boost profitability. Sustaining and profit maximization depend on preserving and reducing costs. Cost control aims to modify an operation via modifications and prediction, whereas cost management entails forecasting the economic operations of a firm or program. Fine and effective cost control and management methods can not only ensure the profit of the project but also control the completion time on the basis of ensuring quality. This is conducive to improving customer satisfaction with construction enterprises and is conducive to improving the overall competitiveness of the construction industry. Since the reform and opening-up, China's economy has developed rapidly, and all walks of life have grown vigorously. Before the reform and opening-up, the economic growth of enterprises was slow due to the planned economic system [2]. The reform and opening-up have revitalized

China's market economy and made the competition between enterprises more brutal. This has led to the disorderly development of many enterprises, the serious duplication of construction, the destruction of the environment, the overcapacity of various industries and the layoff of employees, and increased business risks. How the company develops and how it can mitigate risks and control costs are critical. We need to carry out systematic research and analysis on business management and cost management. Facing the current economic situation, we need to re-examine and recognize the cost control in the market economy and how to use financial analysis methods for cost control. Based on the current problems of enterprise cost management, we carry out targeted system research and propose corresponding solutions. The optimal management and control value of the financial cost of the enterprise is predicted in turn by the corresponding evaluation index system [3].

The rest of the structure is as follows: Section 2 describes the materials and methods; Section 3 shows the results of the enterprise's internal economy; Section 4 depicts the discussion part; Section 5 presents the conclusion.

## 2. Materials and Methods

Cost management is a key administrative technique for boosting competition and enhancing company outcomes. Cost-effectiveness is the primary goal of budgetary control, which, in reality, involves realizing the ideal balance between the expenses incurred and the outputs attained. Cost management is actually cost control, the purpose of which is to control cost expenditures, and the purpose of cost management is also to manage and control cost expenditures in the case of cost expenditures and to strengthen the supervision of costs [4]. The practice of organizing and regulating a company's operating expenses is known as cost management. In order to plan, anticipate, and manage costs are easier, it also involves gathering, evaluating, and summarizing financial information. The factors included in managing and controlling cost expenditures are cost variance, ROI stands for rate of return, utilizing checkpoints to monitor all expenditures, cost of supplies, employing modification control mechanisms, and cost of labor. Supervision and management are two systems in one process, so the understanding of cost management is that cost management and control need to be combined together, and cost expenditures should be made in accordance with prescribed standard conditions. Cost management is an important condition and implementation basis for cost reduction and profit for enterprises. Cost reduction will make products more affordable for people to purchase. Increased quantity of goods, efficiencies of large-scale manufacturing, increased income due to industrialization, and an overall increase in the standards of standard will result from this. If the costs are not controlled and managed, all business activities of the enterprise will be chaotic, and the use of various costs will greatly exceed the expected cost range, which will cause unnecessary losses to the enterprise [5]. Cost management can effectively reduce the amount of

cost used during production or operation. The current market economic conditions are to reduce the cost of products and increase the sales volume of products. The higher the sales volume is, the lower the cost of the product is. As product prices decrease, market competitiveness continues to increase, so cost management is the basis and important condition for an enterprise to conduct business activities.

- (1) Cost management can save unnecessary capital waste and reduce cost investment. The purpose of cost management is to reduce the cost investment of enterprises to a certain extent and reduce the use of costs. It is not just to reduce the purchase price of materials but to take the consumption of funds in the entire activity process, mainly in terms of human, material, financial, management costs, technical support, and other aspects of cost reduction. It is an act of saving various resources and an important basis for cost management [6].
- (2) Cost management can improve the planning of the company's economic development system and business model and enhance its profitability. If an enterprise's operating model and economic development concepts are not perfect and cannot guide the enterprise to develop and profit, the existence of the enterprise will have no meaning, and cost management can reduce the cost.
- (3) The business model and economic development system of the enterprise have been improved and improved. The practice of allocating and administering resources in a way that meets corporate overall design objectives is characterized as resource distribution. Allocating resources requires controlling physical assets like equipment to optimize the usage of delicate resources like intellectual resources. The growth of human resources can provide doors for raising everyone's standard of living in aggregate. This may be accomplished by enhancing the three factors that make up the Human Development Index (HDI), including raising per income levels, advancing in the education field, and lengthening the average lifespan. Only when the organizational structure of an enterprise is perfected, reasonable allocation and use will be made in the process of resource allocation and human resource use to enhance the profitability of the enterprise itself.

As the core element of management content, the construction and improvement of cost management should be strengthened. Cost planning, which computes expenses, has been a classic cost management technique in China. The arrival of modernized enterprises has improved and perfected the cost planning of Chinese enterprises. A series of cost systems, such as cost control, cost accounting, cost planning, and cost supervision, have been added to cost planning management to form the current cost management structure, as shown in Figure 1.

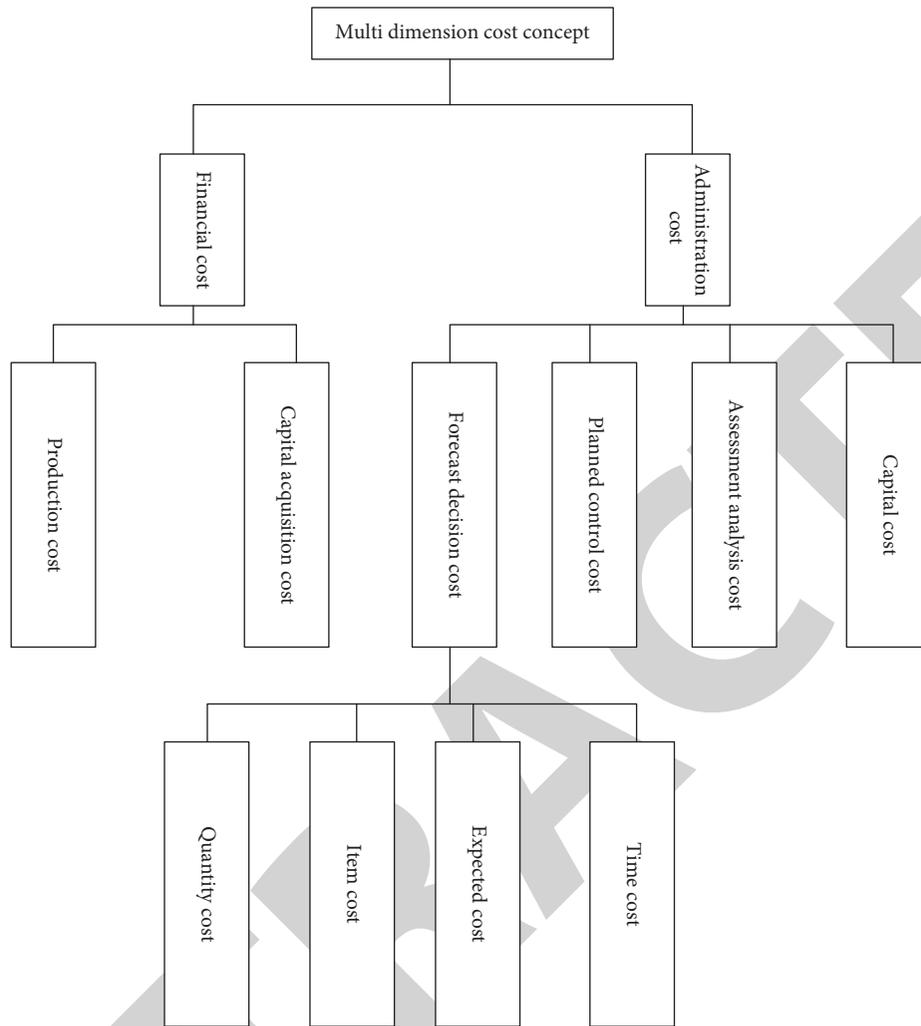


FIGURE 1: Economic management structure in the enterprise.

Economic management is the control over a group’s or an organization’s expenditures, supplies, revenue, and outlays. In emerging nations, economic management continues to be a significant issue. In these organizations, it allows for the best possible use of their limited resources and aids in attaining their objectives in the most effective way possible. No matter the research on cost management or the change in the economic system, the theory of cost management in China has made a breakthrough, and the cost management of each enterprise has entered a standardized and comprehensive cost management stage [7]. The research on cost management mainly focuses on the whole process of cost management control. Cost management is divided into several parts, and the index design of cost management is made at the same time. Cost management indicators include cost management objectives, cost budget, cost consumption, cost control plan, cost control measures implementation, cost management evaluation, and cost management report [8]. The purpose and result of cost management and control are reducing the production cost (product) of each project as much as possible and increasing the operating profit of the enterprise. The so-called cost management and control is to

use the minimum cost consumption to obtain the maximum profit, and the implementation of this process requires technical means and a standardized control system to control and support all activities of cost management and control [9].

Although the research of cost management theory has made a breakthrough, compared with foreign research theories, there are still many deficiencies in the research of cost management theory in China. Enterprise management is a concept that refers to contemporary enterprise resource planning (ERP) implementations that enable companies to handle crucial daily operations, including customer satisfaction, finance, inventory control, and human capital (CRM). The concept of enterprise management is relatively weak, which has a negative impact on the development of the whole enterprise and consumes a lot of enterprise costs. Therefore, driven by the new economic situation, the internal environment and market environment of enterprises have changed. Only by constantly improving the cost management theory and management concept and strengthening the construction of cost management system can the business development of Chinese enterprises

develop well and rapidly [10]. Therefore, combined with the theoretical basis of management, economics, finance, informatics, and other disciplines, based on the research results of scholars at home and abroad, we use the literature research method to analyze the current situation of cost management research and summarize the development stage of cost management [11]. Since it enables the investigator to evaluate the viability of inferences in the shape of a hypothesis prior to coming to any conclusions, an actual study is an essential technique for the comprehensive examination. An exploratory investigation is a method of looking into an issue that has not been properly examined or addressed before. It is often done to gain a deeper knowledge of the issue at hand, but it typically does not produce a definitive answer. This article makes a quantitative analysis of the theoretical research on cost management of Chinese enterprises using the empirical analysis method and summarizes the shortcomings of the theoretical research on cost management of Chinese enterprises. The cost management strategy of the enterprise is designed using normative research and exploratory research methods to fundamentally reduce the cost of the company [12].

### 3. Results

*3.1. Prediction Algorithm of Enterprise Internal Economy.* The development and application of technology in all aspects of people's life and modern social life have been inseparable from the development and use of information technology. However, in the embodiment of the technological development level of enterprises, the technological development level of various enterprises in China is still in a relatively backward stage, which has been unable to adapt to the current economic development mode. Therefore, the cost management technology of enterprises cannot be updated and improved, which is hindered by certain technological development factors. In order to improve the concept of cost management and strategic measures, cost management and control technology play a decisive role in the innovation of enterprise cost management technology. In order to develop and improve the technical level of cost management, it is necessary to constantly innovate and improve the technical level so that the cost management of the enterprise reflects the technical strategic measures and improves the operating profit of the company [13].

The forecast is made by the Coase theorem and Markowitz's financial system. In accordance with the Coase hypothesis, individual citizens (or businesses) are capable of negotiating a mutualistic, prosocial resolution in the context of market imperfections brought on by defects, provided that there are no costs implicated with the conflict resolution. In order to establish the optimum portfolio, Markowitz devised a method that enables investors to quantitatively balance out their appetite for risk and investment goals. Assuming that consumers are risk-averse, MPT favors a strategy with lesser incidence for a certain amount of return.

The theoretical basis is as follows:

- (1) When economic managers consider each economic management choice, it is based on the probability distribution of earnings within a certain position time.
- (2) The economic manager estimates the risk according to the expected rate of return.
- (3) The economic management decision of the economic manager is only based on the expected income and the expected risk.
- (4) At a certain level of risk, economic managers want the most profit, and correspondingly at a certain level of profit, economic managers want the least risk.

According to the above assumptions, Markowitz has established the calculation method and effective boundary theory of financial expected return and risk and established the mean-variance model of asset optimal allocation, which can be used to evaluate the overall performance of enterprise projects. Managers can use a mean-variance analysis as a technique to assist disperse risk throughout their portfolio. In it, the buyer calculates the risk of a commodity, which is represented by the "variance," and then contrasts it with the investment's probable yield. The objective of mean-variance maximization is to increase the return on an investment given its hazard. Consumers have accessibility to all the knowledge about the average return, variations, and conditional variance of shares or other commodities because markets operate effectively. Companies typically steer clear of unneeded chances due to their uncertainty. It can be expressed as follows:

$$\min \delta^2(R_p) = \sum \sum x_i X_j \text{cov}(R_i - R_j), \quad (1)$$

where  $R_p$  is the financial portfolio income,  $R_i$  is the enterprise project income,  $X_i$  and  $X_j$  are the economic management proportions,  $\delta^2(R_p)$  is the portfolio economic management variance (total portfolio risk), and  $\text{Cov}(R_i - R_j)$  is the covariance between the two projects. The model lays a foundation for the theory of modern enterprise economic management.

The model shows that under the limited conditions to solve the return rate of enterprises  $X_i$  to minimize the portfolio risk  $\delta^2(R_p)$ , it can be obtained through the Lagrangian objective function. Its economic significance lies in that the economic manager can determine an expected return in advance. The Lagrange multiplier technique in mathematics is a way to determine the localized maximal and minimal values of a variable that is subjected to equivalence requirements. The fundamental concept is to transform a limited issue into a format that still allows the equivalent analysis of an unrestricted situation to be used. Through the model, we can determine the economic management proportion of economic managers in each economic management project (such as a certain enterprise project or stock) so as to minimize the total economic management risk. Different expected returns have different minimum variance combinations, constituting the minimum variance set [14].

Although the first mock exam model provides a good tool for measuring the project risk and earnings accurately, the model involves calculating the covariance matrix of all assets. In the face of hundreds of optional assets, the complexity of the model restricts the practical application [15]. The establishment and operation of an enterprise are to obtain considerable economic benefits. In the process of creating economic profits, the most important thing for enterprise managers is marketing and cost reduction. Other management services are only to assist in marketing and cost-cutting activities to achieve better management efficiency and activity efficiency. Cost, as the basis and important guarantee of business development, is an essential cost factor for the survival and development of an enterprise. In the process of cost control, we should set up effective cost control indicators and measures and establish a perfect cost control management system. Jensen's alpha, sometimes referred to as Jensen's Performance Measure or ex-post alpha, is a measure of safety's anomalous appearance to its theoretically average return. It is a variation of the traditional alpha that relies on hypothetical outcomes as opposed to market indexes. Therefore, the Jensen index evaluation model is proposed [16]. The calculation formula is as follows:

$$J_i = R_{i,t} - [R_{f,t} + \beta_i(R_{m,t} - R_{f,t})], \quad (2)$$

where  $J_i$  is the Jensen's performance index;  $R_{m,t}$  is the rate of return of market economy management portfolio in  $t$  period;  $R_{i,t}$  is the rate of return of enterprise  $i$  project in  $t$  period;  $R_{f,t}$  is the risk-free rate of return in  $t$  period;  $\beta_i$  is the system risk of enterprise project economic management portfolio. A portfolio is a combination of capital instruments, such as securities, contracts, assets, monetary, and marketable securities, such as closed-end vehicles and exchange-traded vehicles (ETFs).

Jensen's index is an absolute performance index, which indicates the difference between the economic management portfolio yield of enterprise project and the market economic management portfolio yield under the same system risk level. When the value is greater than zero, it means that the performance of enterprise project is better than that of market economy management portfolio. When comparing enterprise projects A and B, the larger the Jensen index is, the better is [17]. Jensen model lays the theoretical foundation of enterprise project performance evaluation. However, when Jensen's index is used to evaluate the overall performance of enterprise projects, there is an implicit assumption that the unsystematic risks of enterprise projects have been completely dispersed through the economic management portfolio. Therefore, the model only reflects the relationship between return and system risk factors. If the enterprise project does not completely eliminate the nonsystem risk, Jensen's index may give the wrong information. Whereas exponential extrapolation needs several more datasets, the regression model may be conducted with as little as two positions. This is because additional information points are needed for exponential analysis in order to guarantee that the information fits into a U pattern. By calculating the differential among the mean asset returns and the

market returns of the uncertainty return through the overall portfolio beta, the Treynor ratio is determined.  $R_i$  is a symbol of the market's or asset's real return. Therefore, Treynor and Mazuy introduced the quadratic regression term into the model; Merton and Henriksson also proposed the double  $\beta$  value market model and further studied the stock selection ability of project managers and the time selection ability in the market application using the quadratic regression term and random variable term. The Treynor ratio is essentially a methodical risk-based risk-adjusted indicator of performance. It shows the value for money (ROI) for the level of risk taken by an investor, including individual stocks, investment account, or marketplace finance. Treynor is calculated as follows:

$$T_i = \frac{R_i - R_f}{\beta_i}, \quad (3)$$

where  $T_i$  is the Treynor performance index, which is the average rate of return of enterprise project  $i$  in the sample period, and  $f$  is the average risk-free rate of return in the sample period.  $R_i - R_f$  is the average risk premium of  $I$  enterprise project in the sample period. Treynor index indicates the risk-return relationship of each unit of coefficient risk. The evaluation method is to calculate the Treynor index of various enterprise projects and markets in the sample period and then compare them. The larger Treynor index means better performance [18]. The schematic diagram of  $T - M$  model is shown in Figure 2.

In the operation of the above model, because the Treynor index is a relative performance measurement method, Jensen's index is an absolute performance measurement method based on risk adjustment, which indicates the project manager's accurate judgment ability of securities price under the condition of the complete risk level. Treynor index and Jensen index, when evaluating the performance of enterprise projects, measure the risk with  $\beta$  coefficients, only considering the size of excess return. When measuring the performance of enterprise project economic management, the breadth and depth of enterprise project economic management combination must be considered at the same time. Therefore, in terms of the selection of the operation model, Treynor's index model is more objective in evaluating enterprise project performance, and the Jensen index model is better for measuring the difference in enterprise project actual income [19]. The choice of these two models depends on the type of enterprise project being evaluated. If the evaluated enterprise project belongs to the enterprise project with fully decentralized economic management, the U value of the economic management portfolio can better reflect the risk of the enterprise project, so Treynor's index model is a better choice. With the use of software, buyers may transact with one another immediately in a decentralized market as opposed to doing so through a regulated market. Independent platforms include online marketplaces that employ cryptocurrency or other forms of decentralized money. Further, we standardize the internal economic estimation process of the enterprise. The specific process is shown in Figure 3.

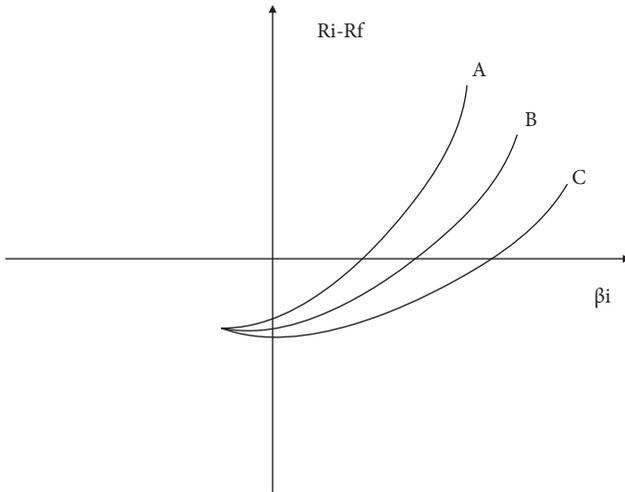


FIGURE 2: Schematic diagram of enterprise economic  $T - M$  model.

Initially, the assessment objective was determined, then the decision unit is used to calculate to get the input and output indicators through the collection of fund data. Next, we choose the Internet of Things model to get the result. Enterprise organization and its structure belong to the structural management elements of enterprises and are the foundation and support system of value chain management. As the functional management elements of value chain management, workflow (including business process and information flow) must be attached to the enterprise organization and its structure through certain means and ways to operate effectively. In addition, strict project audit is an important link to reducing the cost of ships. Some projects need to be investigated on-site and know well about the difficulty of the project and the problems to be solved. The prices of additional items and quoted items are different, sometimes reaching 2-3 times the price. Too large additional items will not only increase the cost but also prolong the repair period or find reasons for the factory to delay the repair period. The effective way to avoid additional items is to make efforts to prepare the repair list and try to be thoughtful and perfect. In the maintenance process, how to arrange all maintenance items scientifically and make quick responses to temporary addition and subtraction items depends on the supervisor's ability. Therefore, it is an important way to save the repair cost to improve the professional quality and work communication ability of the supervisor.

As the main management and control personnel of business activities, enterprise managers play a very important role in the development of enterprises. According to the market survey, most of the managers of enterprises in China have little understanding of the market concept, lack of strategic thinking in the process of making a business strategy, and lack of in-depth understanding of the concept of enterprise cost management. The advantages of enterprise cost management include increased operational effectiveness, modern technologies, lower costs, and acknowledgment of the success of acquisition. In the process of cost

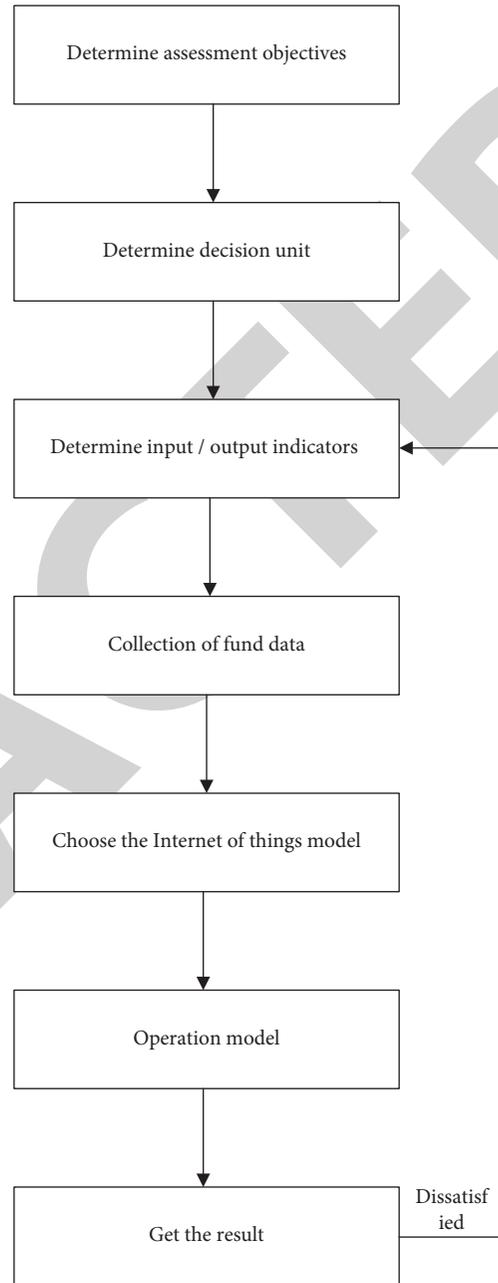


FIGURE 3: Prediction process of internal economy.

management and control innovation, managers do not have a correct understanding of the concept of cost strategy innovation, which hinders the cost management and control of the company. The company's cost is divided into fixed cost and variable cost. The quantity of merchandise generated determines the fluctuation in overhead expenses. Natural resources, labor, and fees are examples of variable expenses. Despite the level of manufacturing, fixed expenses stay constant. Leasing and property installments, coverage, and interest expense are examples of fixed expenses. Fixed cost is the cost that the company must pay in the process of production and operation, while variable cost generally refers to the increase or decrease of business cost, as well as

the payment of other things. Therefore, in the process of cost management and control innovation, we need to innovate from two aspects, namely, fixed cost management and variable cost management, and establish a perfect cost control innovation system and system construction and effectively reduce the cost of enterprises to achieve the company's cost management and control objectives and the company's overall operating profit objectives. We standardize the sales and management budget values as shown in Table 1.

The cost control information system serves the cost control and management of the whole enterprise. Its design is to establish a strategic cost control framework for the enterprise. The design of the cost control information system should be combined with the configuration of the company's existing electronic computer management system. For enterprises that have realized the internal computer network management, the design of the system can establish a subsystem that is connected with other subsystems and can realize the sharing of relevant cost information resources based on the existing internal network. At the same time, it is an information network composed of several subsystems. Its subsystems are distributed in different levels of management departments, and the terminals of the system are distributed to decision-makers, department heads, and departments with cost control tasks. For enterprises that have not yet formed a computer management system, the design of cost control information system can be considered together with the design of the whole operation management information system. The so-called cost measurement mode is a general concept, which refers to the theoretical expression and abstract generalization of the main characteristics of cost measurement in different cost management environments according to the system point of view. Therefore, the cost measurement model should be a dynamic and developing concept.

**3.2. Measurement Algorithm of Enterprise Financial Cost.** Solvency refers to the ability of an enterprise to repay debts (including principal and interest) as they fall due. Solvency analysis includes short-term solvency and long-term solvency.

The current ratio is the ratio of current assets to current liabilities. It shows how many current assets there are for every one yuan of current liabilities of an enterprise as a guarantee of repayment, which reflects the ability of an enterprise to repay current liabilities with current assets that can be converted into cash in a short period of time. If the current ratio of the enterprise is  $A$ , the current assets are  $B$  and the current liabilities are  $C$ ; the calculation formula is as follows:

$$A = T_i \sum \left( \frac{B}{C} \right) * 100\%. \quad (4)$$

The quick ratio refers to the ratio of quick assets to current liabilities. It is a measure of the ability of an enterprise's current assets to be immediately realized and used to repay current liabilities. Quick assets  $Z$  include monetary

TABLE 1: Cost budget.

Project	Amount of money
Selling expenses	25000
Salary of sales staff	10000
Advertising fee	10000
Freight	25000
Insurance premium	25000
Management expenses:	20000
Salary of management personnel	10000
Office expenses	4000
Business entertainment	1000
Staff training fee	1000
Insurance premium	4000
Expected cash expenditure for the whole year	45000
Quarterly average cash expenditure	1250

funds, short-term economic management, notes receivable, and accounts receivable that can be realized in a short time. The positive correlation of the ability to pay short assets is referred to as short-term investment management. An investment is considered temporary if it can be transferred and transformed into money within a year to cover a company's responsibilities. These resources include goods, debts, and money. If the frozen asset is  $E$ , the calculation formula is as follows:

$$Z = A \left( \frac{E}{C} \right) * 100\%. \quad (5)$$

Cash ratio  $Q$  refers to the ratio of cash assets to current liabilities. Cash asset  $R$  includes monetary capital, fair value measurement, and financial assets with changes included in current profit and loss. If the current liability is  $C'$ , the calculation formula is as follows:

$$\text{rate}Q = Z \left( \frac{R}{C'} \right) * 100\%. \quad (6)$$

Cash flow liability ratio  $S$  is the ratio of net operating cash flow to current liabilities of an enterprise in a certain period of time. It can reflect the ability of an enterprise to repay short-term liabilities in the current period from the perspective of cash flow. If the annual net operating cash flow of the enterprise is  $T$  and the year-end current liabilities are  $D$ , the specific calculation formula is as follows:

$$(1 - 4)S = \text{rate}Q \sum \frac{T}{D} * 100\%. \quad (7)$$

The equity ratio  $W$ , also known as the capital liability ratio, refers to the ratio of the total liabilities  $G$  of the enterprise to the total owner's equity  $H$ . The calculation formula is as follows:

$$W = \sum \left( \frac{G}{H} - S \right) * 100\%. \quad (8)$$

Operation ability refers to the effect of the allocation of internal human resources and means of production on the realization of financial objectives based on the constraints of the external market environment. The turnover rate of accounts receivable  $Y$  reflects the speed of realization of

accounts receivable and the level of management efficiency. Inventory turnover rate  $L$  is not only an important index to reflect the liquidity of enterprise assets but also a comprehensive index to measure the efficiency of inventory operation in each link of enterprise production and operation. The turnover rate of current assets  $K$  refers to the ratio between the net income of the main business and the average total current assets in a certain period of time. It is an important index to evaluate the asset utilization rate of an enterprise. The turnover rate of fixed assets refers to the number of turnover times of fixed assets or the sales revenue supported by every 1 yuan of fixed assets in an accounting year. Total asset turnover  $X$  refers to the ratio of the net business income to the average total assets of an enterprise in a certain period. The calculation formula is as follows:

$$\Delta\alpha = \sum \frac{(Y + X + K + L)}{W - 1}. \quad (9)$$

The research methods of using various statistical comprehensive indicators to reflect and study the general characteristics and quantitative relationship of social and economic phenomena are analyzed. Take the DuPont analysis as an example, which is also called DuPont analysis system. This method of analysis was first used by DuPont company in the United States, hence its name. It is a comprehensive analysis and evaluation method of the financial status and operation status of an enterprise by using the internal relationship between several major financial ratios.

The purpose of enterprise organizational structure reconstruction is to provide system maintenance and guarantee for business process reengineering and to pursue continuous improvement. The transformation of the business process inevitably requires the organizational structure of the company to change from the original straight-line management mode to the process management mode, from focusing on functions to focusing on value-added. Further, the characteristics of the organizational structure of the program are analyzed, and the specific characteristics of management steps are as follows:

- (1) The enterprise organization centers on the activity process rather than the functional department, and the cost control unit changes from the functional department to the process team (that is, the team composed of various functional personnel to complete a certain cost control work).
- (2) The activities of each department are parallelized rather than operated in sequence and managed in a team way.
- (3) The cost control work changes from simple to multifaceted; that is, the work changes from simple and detailed work to multifaceted work responsible for the whole process.
- (4) Employees change from controlled to appropriately authorized, and decision points are placed in the process of work and match with the responsibilities of the process team.
- (5) The organizational structure has changed from hierarchical to flat, and many responsibilities of managers have been transferred to process teams. There is no need for the middle manager to deliver information, and the responsibility of the senior manager has changed from supervision to guidance and support.
- (6) Based on the principle of system thinking, this article emphasizes that management is oriented to business process, and the audit and decision-making points of cost control are located at the place of business process execution so as to realize the transformation from functional management to business process management and improve the response speed to customers and market.
- (7) The focus of performance evaluation and compensation changes from activities to results, that is, to evaluate employees according to whether the results of work meet the objectives of the organization and whether the efficiency and quality meet the requirements.

The theory and method of enterprise value evaluation, strategic management, social relationship value, corporate finance, and performance evaluation system constitute the basic content of enterprise value management. The theory and method of enterprise value evaluation is the theoretical basis for the implementation of enterprise value management. It provides the goal and standard for enterprise strategic decision-making and defines the driving factors of enterprise value growth. The most important thing of strategic management is value creation, which has a great and long-term influence on the potential of value creation. There is a clear link between value creation and value promotion, as follows in Figure 4.

The enterprise value is calculated by discounting the free cash flow to investors according to the weighted average capital cost of the enterprise. If the cost of capital decreases, the value of the enterprise will increase, and the minimization of the cost of capital conforms to the strategic goal of maximizing the value of the enterprise. An effective management model generally has a complete performance evaluation system, which can ensure that all business activities are in line with the overall goal of value creation. Further, we establish the supplier evaluation files and related systems, and the specific steps are as follows:

- (1) Determine the criteria for supplier network optimization: the most basic indicators for supplier evaluation should include the following: technical level, fuel quality, supply capacity, price, geographical location, reputation assurance, after-sales service, lead time, relationship with port, and rapid response capacity. After the evaluation system is established, the relevant functional departments can regularly assess and count the suppliers.
- (2) Establish a strict purchasing system: establish a strict and perfect purchasing system, which can not only standardize the purchasing activities of enterprises,

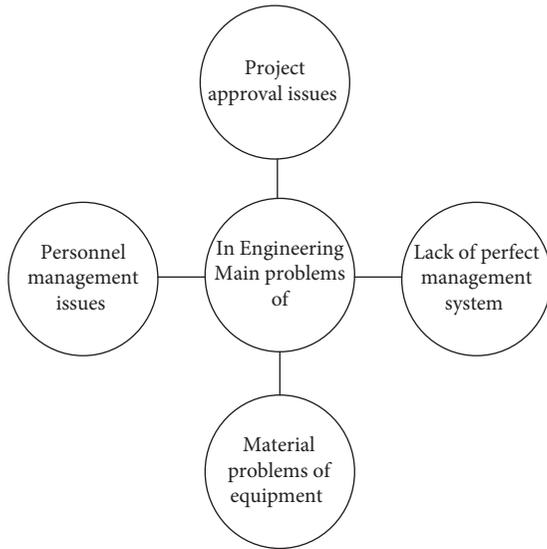


FIGURE 4: The relationship between value creation and value promotion.

improve efficiency, and put an end to the dispute between departments but also prevent the bad behaviors of purchasing personnel. The procurement system shall stipulate the procurement application, the approval authority of the authorizer, the procurement process, the responsibilities and relations of relevant departments, the provisions and methods of different specifications of procurement, the quotation and price approval, etc. For example, in the purchase system, it can be specified that the fuel to be purchased should be inquired, compared, and negotiated with the supplier, and then the selected supplier and its quotation should be filled in the purchase requisition. It can also be stipulated that more than three written quotations shall be attached to the procurement exceeding a certain amount for audit by the financial department or internal audit department.

- (3) Establish a complete supplier file and access system: the formal supplier of the enterprise shall establish a file, which shall include not only the number, contact details, and address but also payment terms, oil supply terms, oil supply period, quality rating, and bank account number. Each supplier's file can only be filed after strict review. The purchase of an enterprise must be selected from the suppliers that have been filed. The supplier files shall be updated regularly or irregularly and managed by a specially assigned person. At the same time, a supplier access system shall be established. Suppliers can only enter after joint assessment. If possible, they should go to the supplier's production site for assessment. Enterprises should establish strict assessment procedures and indicators and grade the assessment questions one by one. Only those who meet or exceed the scoring standards can become filing

suppliers. On the basis of investigation and understanding of suppliers, select a group of suppliers with strong production capacity, high technical level, scientific management, and thoughtful service as the formal suppliers of the enterprise.

- (4) Establish a price file and evaluation system: the purchasing department of an enterprise shall establish a price file for all purchased fuels. For the quotation of each batch of purchased raw materials, it shall first compare with the archived fuel prices and analyze the reasons for the price differences. If there is no special reason, in principle, the purchase price cannot exceed the price level in the file; otherwise, a detailed description shall be made. The price evaluation system shall be established and the price evaluation team shall be formed by relevant personnel. Regularly collect relevant supply price information to analyze and evaluate the existing price level, and evaluate and update the archived price file. Such a review may be conducted once a quarter or half a year, as the case may be.

#### 4. Discussion

The above model is a regression model. Under the condition that the data used meet the normal distribution, we need to test the self-correlation of the residual items in the regression. In regression analysis, if the variables used have the nature of time series, there may be self-correlation. When the degree of self-correlation is very high, although the regression coefficient of estimation is more accurate, the standard error of parameter estimation is underestimated (the *t*-test value is overestimated) because MSE (mean of square error) may seriously underestimate the degree of change of error term. Therefore, it is necessary to test whether there is self-correlation between the error items in the early and later stages. Whether the autocorrelation coefficient *P* is equal to zero is tested by the Durbin-Watson test. If *P* = 0, the error item has no self-correlation; if *P* ≠ 0, the error item has self-correlation. The statistics *D* can be obtained from the residual value calculated by the general least square linear regression, and two critical values *DL* and *Du* can be obtained by referring to the Durbin-Watson table. The inspection method is shown in Table 2.

It is assumed that the risks of the three financing portfolio schemes of the company are the same, and all of them can be accepted by the company. The combined cost of capital for these three funding portfolios can be calculated as follows:

The proportion of financing amount of various financing methods in scheme I is as follows:

Long-term loan:  $10000 \div 26000 = 38.46\%$

Enterprise income:  $12000 \div 26000 = 46.15\%$

Working capital:  $4000 \div 26000 = 15.38\%$

Comprehensive cost of capital:  $= 5\% \times 38.46\% + 15\% \times 46.15\% + 10\% \times 15.38\% = 10.37\%$

TABLE 2: Durbin-Watson table.

Assessment factors	Critical value
Positive correlation	0
No conclusion	D1
No self	A2
Negative correlation	D1
Negative correlation	A3
Self	T3

TABLE 3: Performance indicators of project capital control.

Project	Amount of money	Variable revenue as a percentage of sales revenue (%)
Operating revenue (10000 yuan)	230202	
Operating cost (10000 yuan)	157869	69
Business tax and surcharges (10000 yuan)	17600	7
Variable sales and management expenses (10000 yuan)	3816	13
Fixed sales and management expenses (10000 yuan)	25538	
Interest expense (10000 yuan)	241	
Asset impairment loss (10000 yuan)	1130	
Economic management income (10000 yuan)	126	
Operating profit (10000 yuan)	24617	
Nonoperating income (10000 yuan)	1645	
Nonoperating expenditure (10000 yuan)	344	
Loss on disposal of noncurrent assets (10000 yuan)	80	
Total profit (10000 yuan)	25917	
Income tax expense (10000 yuan)	4939	
Net profit (10000 yuan)	20978	

The proportion of financing amount of various financing methods in scheme II is as follows:

Long-term loan:  $5000 \div 26000 = 19.24\%$

Enterprise income:  $11000 \div 26000 = 42.31\%$

Working capital:  $10000 \div 26000 = 38.46\%$

Comprehensive cost of capital:  $= 6\% \times 19.24\% + 12\% \times 42.31\% + 9\% \times 38.46\% = 9.69\%$

The proportion of financing amount of various financing methods in scheme III is as follows:

Long-term loan:  $8000 \div 26000 = 30.77\%$

Enterprise income:  $7000 \div 26000 = 26.92\%$

Working capital:  $11000 \div 26000 = 42.31\%$

Comprehensive cost of capital:  $= 7\% \times 30.77\% + 20\% \times 26.92\% + 12\% \times 42.31\% = 12.62\%$

Through the comparison of scheme I, scheme II, and scheme III, it can be seen that the comprehensive capital cost of scheme II is the lowest, the financing combination of scheme II is the best financing combination, and scheme II is selected for financing; thus, the capital structure formed is the best capital structure. Based on this comparison of the economic management effect, the Kendall harmony coefficient can be used to test whether the ranking method of performance is reasonable or consistent for the performance of various enterprise projects in different periods and the same research period. After passing the Kendall concordance coefficient test, it can be only known that the ranking method of each enterprise project fund control performance

index is reasonable or consistent. According to this, the economic profit of the enterprise is calculated as shown in Table 3.

## 5. Conclusion

In today's market operation, the risk of enterprise cost management is ubiquitous and may occur at any time. If the cost management is not handled properly, it will lead to an increase in enterprise costs and the loss of financial operation. Enterprises need to take strategic measures to minimize the risk of operation and cost management. Compared with the western developed countries, the research of cost management and control in our country starts late. Most of the research on cost management and control is aimed at large-scale enterprises or listed companies. The cost management system of small and medium-sized enterprises is not so perfect, and some enterprises do not even have it at all. Therefore, we must attach great importance to this issue. Although the research of enterprise cost management in our country is just in the initial stage, there is a huge research space for the sustainable development of enterprises. It is of far-reaching significance to establish a perfect system of cost management to promote the rapid development of the market economy.

In the fierce market competition, enterprises cannot survive and develop without the development of technology, cost, marketing, internal management, and other aspects. Businesses must deal with the issues in this extremely competitive industry in a bid to expand.

Organizations now face a grow-or-die scenario due to fiercely competitive marketplaces, which has intensified and made the issue more serious. Facing the competition of many enterprises, cost advantage, service advantage, and brand advantage will become the key factors for the growth of enterprises, among which cost advantage is the most influential key link. Cost control is a systematic project, which needs the implementation of the enterprise management to make the concept of cost saving and cost reduction deeply rooted in the hearts of the people, and makes every employee consciously and actively carry out cost control. However, in reality, the cost control of enterprises is in self-management and a weak binding force. The management of business objectives is ineffective, which leads to the decline of corporate culture and cohesion. Many problems, such as insolvency, are mainly due to the lack of understanding of the management, failure to make a correct judgment on market changes, and failure to well position the market and effectively control costs because there is no good marketing model to increase revenue and no better solution for enterprises to get rid of business risks. The future of the enterprise is facing many difficulties, but marketing, cost control, and business innovation will be the cornerstone for the enterprise to rebuild its brilliance. Therefore, strengthening cost control will play an important role in the future operation and management of enterprises.

Procurement can be carried out by electronic information technology. Modern information technology and network technology are the technical basis of the value chain. The value chain should transfer not only the logistics and capital flow but also the information flow of customers. The competition in the modern social economy has been transformed from the competition between a single enterprise and a single enterprise into the competition between a value chain and a value chain. In order to succeed in the competition, the key point of all parties in the value chain is to realize the sharing and integration of information, which must rely on electronic information technology. With the rapid rise of the Internet, many enterprises use the Internet to carry out business activities. Companies can try to purchase fuel online.

Although the development of enterprises is facing many difficulties, we can evaluate the market and determine the development direction of enterprises through the analysis of the internal and external environment of enterprises. After the target is determined, in the cost management control, the internal system of the enterprise shall be supervised, the budget management and the target cost management shall be strengthened, the quota management shall be adopted for the production cost, and the enterprise cost and performance assessment shall be strictly implemented. It needs to fully seize the opportunity for market development, improve the supervision and management system of enterprises, and strengthen the operation of the internal management system. We should adhere to the path of innovation, change our ideas, and strengthen team management and corporate culture construction; only in this way can enterprises get rid of business difficulties as soon as possible and better promote

the vigorous development of enterprises in the direction of full of vitality.

## Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

## Conflicts of Interest

The authors declare that they have no conflicts of interest.

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