THE USE OF FULL-COST REFINEMENT MANAGEMENT IN ENTERPRISE ECONOMIC MANAGEMENT

Yong-Cai*

- Hunan College of Finance and Economics, Changsha, Hunan, 410000, China.
- Email: 313486070@qq.com

Reception: 2 January 2024 | **Acceptance**: 26 January 2024 | **Publication**: 24 February 2024

Suggested citation:

Yong-Cai (2024). **The use of full-cost refinement management in enterprise economic management**. *3C TIC. Cuadernos de desarrollo aplicados a las TIC, 13*(1), 139-157. https://doi.org/10.17993/3ctic.2024.131.139-157

ABSTRACT

This paper firstly structures the control system to ensure that the full-cost refinement management has a basis and forms a closure in the management chain. Secondly, it enhances the project system management, solidifies all the nodes, puts the communication mechanism in front, and ensures the efficient synergy and reasonable division of labor while establishing the efficient management and communication mechanism, so that it is located in the full-cost refinement management. Finally, the AHP method is used to choose the implementation method of the information system, so as to adapt the full-cost refinement management to the needs of each level and realize the application of full-cost refinement management in the economic management of the enterprise. The final simulation results show that the consistency ratio calculations of the decision-making level management organization, the executive level management organization, the basic level production department, and the other learning and growth, CR are 0.017, 0.023, 0.031, and 0.013, respectively, which are all less than 0.1, and pass the consistency test and do not need to be adjusted. It shows that the results of the calculation of the stratified weight assessment of the full-cost refined management provide an effective guarantee for the economic management of the enterprise, and can be found to be unreasonable in the process of practice, and make timely adjustments to solve the problem.

KEYWORDS

Full-cost refinement management; enterprise economic management; communication mechanism; AHP approach

https://doi.org/10.17993/3ctic.2024.131.139-157

INDEX

https://doi.org/10.17993/3ctic.2024.131.139-157

1. INTRODUCTION

In the very competitive economic market, based on the cost control refinement management, is conducive to improving the cost control environment and promoting new development. Improving the efficiency of enterprise economic operation and management is a favorable condition for realizing the economic development goal, cost control refinement of economic management, focus on economic management objectives, under the management perspective, create operation and management environment [1-2]. Effective management system is to ensure that the basic conditions of standardized management of enterprises, and at this stage, enterprises in the cost control refinement of economic management, the lack of a sound system as a safeguard, resulting in the refinement of the management of the form of a nullity, still applying the sloppy management, cost control effect is very significant problems. For modern enterprises, the cost control refinement management economy focuses on the management of multi-faceted, cost control is the most important performance is arbitrary, easy to cause the phenomenon of cost control confusion, resulting in the construction of internal control of the enterprise is hindered [3].

Profit-oriented nature of every enterprise, in the complex market environment, based on the short-term economic benefits of the development of the layout, will affect the enterprise cost control refinement of economic management work. Affected by the planned economy, business leaders and financial personnel do not pay attention to cost management, only take into account the immediate interests, resulting in a lack of control consciousness [4]. From the strategic development level to start controlling costs, the need for enterprise cost control implementation of refined management, and effectively optimize the current cost control problems. In the enterprise cost control refinement economic management needs to increase the enterprise cost control refinement economic management efforts to promote its existence of the significance of the full play out, and promote the healthy development of enterprises [5-7].

Literature [8] There is a tendency for economic growth targets to expand from top to bottom across regions, which is explained by the decreasing level of capacity utilization by local firms. The government used hard constraint vocabulary when setting economic growth targets and intervened in the production capacity decisions of local firms, including strengthening private exchanges with local firms and liberalizing business policies for local firms. Empirical studies have found that the government is detrimental to the regional economy and the long-term development of regional firms. Literature [9] Water has complex cost factors and is considered a scarce commodity under a reduce-recycle-reuse system that employs a full cost recovery strategy. Single and multi-block pricing models were created and the effect of externalities were considered to analyze their impact on the cost of water production and payback periods were calculated. The results showed that the unit cost of potable and non-potable water was reduced by 34.04% and 43.13% with the use of multi-block pricing strategy. Literature [10] describes two different types of SOEs in China, i.e., SOEs in Chinese towns and cities and township and village enterprises in

https://doi.org/10.17993/3ctic.2024.131.139-157

Chinese villages, both of which are unique to China. Successful cases of TVEs and SOEs are compared and an in-depth analysis of capital and labor relations after the restructuring of SOEs is presented. Literature [11] examined how economic policy uncertainty affects firms' innovative capabilities in innovative cities, and obtained conclusions that differed from existing studies. The empirical analysis found some credible evidence that government investment in firms is incentivized in innovative cities. Literature [12] conducted an empirical study on the perspectives of 81 Romanian non-profit organizations on sustainable development. Five main sustainability factors were measured, namely talent, business model, operating model, strategy, and culture, through the success factor analysis of the multidimensional sustainability measurement system as a theoretical model. Literature [13] In the context of digital economy, strengthening the quality management of e-commerce enterprises can promote fair competition in the e-commerce market, and it is of great significance to enhance the brand rights and interests of e-commerce enterprises, and improve their core competitiveness. On this basis, the eco-network problem in enterprise quality management is discussed in the light of the actual situation in practical work. Literature [14] summarized the existing studies on initial public offerings of family-owned enterprises and reviewed the related studies at home and abroad. The new conceptual framework of Input-Process-Output is introduced to provide targeted policy interventions for the IPO process of private enterprises, which has important academic value and practical significance. Literature [15] explored the relationship between the internal elements of the enterprise and other business activities of the enterprise and external environmental factors, and qualitatively modeled the model using the impulse component weight map method to obtain predictive information about future development trends. The results of the study found that even when macroeconomic risks arise, being able to take positive measures on some of the indices can enhance the potential of enterprises' overseas investment to a greater extent.

In this paper, the full-cost refinement management is applied to the enterprise economic management design, firstly, through the structure of the control system, so that the enterprise's full-cost refinement management chain is more clear and visualized, and the management implementation is more in place. Secondly, the process communication mechanism is established to pull through the management of the various costs of the enterprise, solidify all the nodes, realize the real responsibility cost management information system, and take AHP as the design idea of the construct to achieve the purpose of decision-making mechanism refinement. Finally, the economic management upgrading and transformation process is designed for the new demand, and the demand collection is carried out at each level of the enterprise, and the operation management demand indexes are rearranged and summarized, so as to make the full-cost refinement management adapt to the demand of each level, and to realize the application of full-cost refinement management in the economic management of the enterprise. And through simulation experiments to its consistency test, and combined with the analysis of the economic benefits of an enterprise for six

https://doi.org/10.17993/3ctic.2024.131.139-157

years, to verify the feasibility and effectiveness of the full-cost refinement management.

2. FULL-COST REFINEMENT MANAGEMENT APPLICATION DESIGN

2.1. CONTROL SYSTEM ARCHITECTURE

The establishment of the control system needs to be safeguarded through a scientific and reasonable organizational structure, and it is necessary to clarify the lead department of the full-cost refinement control system, which is responsible for the full-cost budget issuance and execution assessment, and secondly, to set up a professional management team of the full-cost refinement control system to form a comprehensive and professional working group, which will focus on the preparation of the management system and guidelines, and the formulation of the assessment logic and bylaws. The organization can set up an auditing agency under it to carry out special supervision and rectification of problems found in the business to ensure that the full-cost refinement management is based on evidence and to form a closure in the management chain. Finally, from the ideological point of view, the company executives should firmly support the establishment of the structure of the full-cost refinement of the control system, and require the business departments to be unified in their thinking, attach great importance to and actively cooperate with the implementation of all kinds of cost management initiatives, and to give the lead department a larger assessment authority and incentive authority, and to form a fixed cycle of reporting decision-making mechanism. Only the enterprise organization as a solid guarantee, the establishment of the management structure of the full cost refinement control system management structure has the basis for stable development [16-18].

If you want to make the cost management of the enterprise effective, the main management aspects focused on the control level, combined with the cost data measurement, you can get the full cost data of the entire project, and then combined with the respective cost classification and special matters matching classification becomes the target cost of the project. Each plan to control the cost of decomposition to the various departments and related personnel, enterprises and regions to encourage the fine control of functional lines through certain assessment incentives, the contract is expected to be contracted for the decomposition of a good comprehensive contract planning work. Through the target contract plan to guide the project's full cycle of business development, to maintain the unity of opinion of each department and leadership of the enterprise, to realize the whole staff has a cost consciousness, the department of interoperability, in the project system through the establishment of the project as a unit of the full cost of the communication mechanism.

https://doi.org/10.17993/3ctic.2024.131.139-157

In the specific contract implementation process of a certain stage of the cost of the occurrence of tracking summary, continuous analysis and update the contract planning, to provide accurate guidance for the project's target cost, and then use the dynamic cost management process of all kinds of matters in the process of supervision and early warning, to achieve the dynamic process control based on the target cost, the cost of fine management control system management structure as shown in Figure 1.

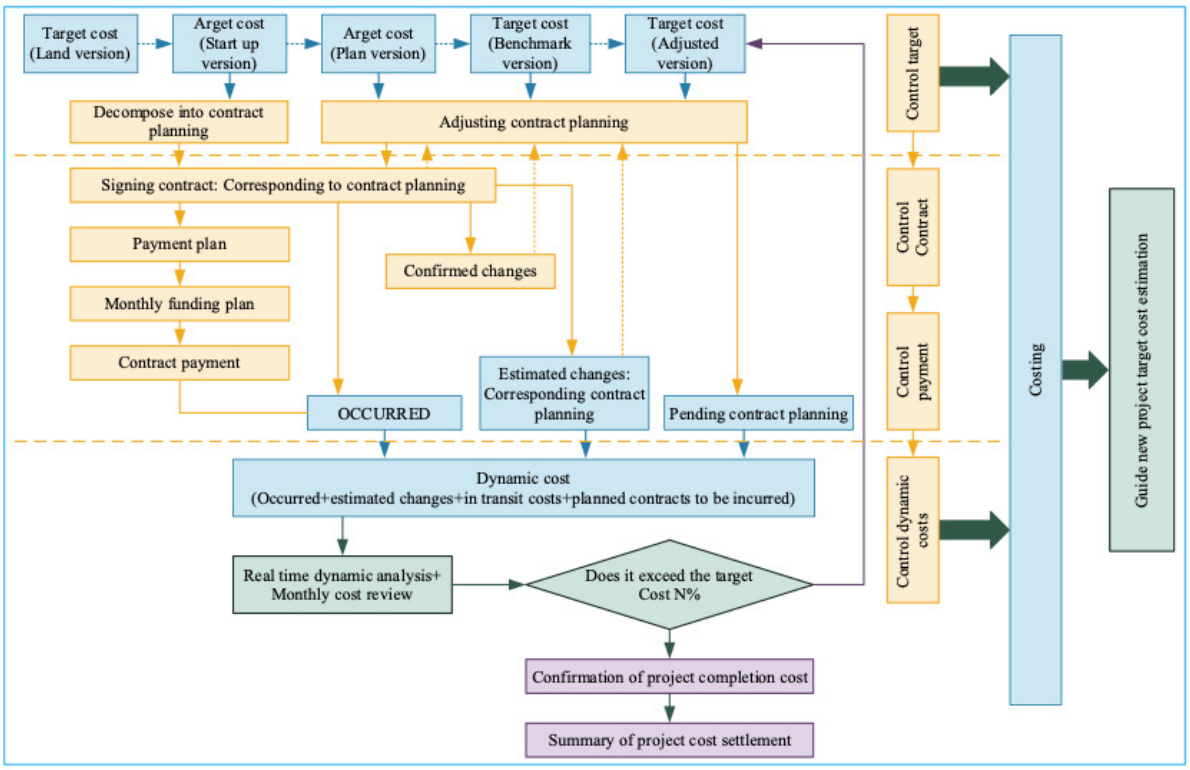

Figure 1. Management structure diagram of the whole cost refinement control system

The establishment of the full cost refinement control system structure can better organize all departments to carry out cost management work in accordance with business processes and operational nodes, so that the cost management chain of the enterprise is more clear and visualized, and the combination of operational nodes and dynamic cost management can be realized. Under the guarantee of orderly organization of the enterprise, it makes the execution of the control system smoother and the management execution more in place.

2.2. ESTABLISHMENT OF PROCESS COMMUNICATION MECHANISMS

Process communication mechanism to establish the main focus on the interdepartmental fuzzy space, the first need to enhance the project system management, project system members need to pull through the management of the enterprise's costs, communication mechanism needs to be landed at the project level, in the regional enterprise level by the functional line responsible for specific business

https://doi.org/10.17993/3ctic.2024.131.139-157

decisions and upward communication. The second need to form a cost control system process, the project since the beginning to the end of the whole process of node sorting, and then set up a specific timeline under the respective nodes, all the nodes solidified, the communication mechanism front. And in the establishment of efficient management and communication mechanisms to ensure efficient collaboration and rational division of labor, located in the cost of division of labor management, emphasizing the horizontal division of labor at the level of cost accounts and expense accounts, through the horizontal division of labor to clarify the cost of the main body of the responsibility to achieve the real responsibility of the cost management system. Adopting the structure of project system, the division of labor is shown in Table 1.

Table 1. Horizontal division of labor for project costing

Position	Main Responsible Subjects	Description of Main Duties
Project Responsible Person	Full Project Costs	Responsible for all project costs. Checking and supervising.
Project Cost Manager	Development Costs	Responsible person for development cost. Lead and responsible for the preparation of target cost and contract planning and dynamic cost monthly review. Statistics and early warning of marketing costs.
Project Marketing Manager	Marketing Costs	Responsible person for marketing expenses.
Project Finance Manager	Sectoral cost-sharing	Responsible for departmental cost sharing. Project budgeting. Project revenue analysis and tracking.

The horizontal division of labor should also focus on solving the four key divisions and synergies of the whole process cost management, i.e., cost and design, cost and contract, cost and engineering, and cost and finance. Cross synergy with different departments to form a scientific and integrated process communication mechanism is shown in Table 2.

https://doi.org/10.17993/3ctic.2024.131.139-157

Table 2. Horizontal division of costs among multiple sectors

Relationships	Collaboration Essentials	Collaboration Notes
Cost & Design	Development of target cost, implementation of limit design and management of design changes	Design provides corresponding planning and design target costs, and the design should be based on the company's established limit targets to guarantee the target costs.
Cost & Contracting	Preparation and execution of contract planning and coordination of procurement process	Contract planning is led by the contract department and corresponds with the cost accounts to clarify the target cost of the contract.
Cost & Engineering	Contract planning, visa management	Contract planning requires the participation of the engineering department to give advice on the division of project sections to facilitate the preparation of contract planning.
Cost & Finance	Cost accounts, cost accounting	The setup of cost accounts should consider the correspondence with the cost accounts of the financial system, not forcing complete consistency, but to clarify the correspondence.

Good communication mechanism can create more efficient management value for the enterprise, through the project system within the cross-complementary and the coordination of the management of each department, emphasizing the cost of interoperability, only the cost of connecting the line, so that each department knows each other the impact of cost implementation will make the company's cost control system work. After the management boundaries of each department are clearly defined, the division of responsibility for cost overruns will be clearer in the future, and the company will be able to better carry out cost review work.

2.3. COMPOSITION OF CONTROL INFORMATIONIZATION SYSTEM

The implementation of information technology system is a complex and heavy workload of the complete system project, which requires enterprises from the organization of human resources to support the work. If this work is not done properly, as professional skills level is not enough, with coordination is not effective, poor stress tolerance and other direct impact on the project schedule and the smooth implementation of the project. Decision-makers led by corporate management to set up a steering group, the group's main job is to make decisions on the general direction of information technology, to determine the scope and depth of the implementation of information technology. Each project department should set up a fixed position dedicated to the implementation of information technology with the implementation team to carry out the implementation of information technology, each project department as a representative of a person to collect demand for the implementation of the team, to be on-line as a representative of the system to

https://doi.org/10.17993/3ctic.2024.131.139-157

familiarize themselves with the operation of the system, a person will first lead a department will gradually expand the impact of the area to reduce the pressure of training.

Using the AHP method to select the implementation of information technology system, the goal of the demand, key factors and demand objects according to their interrelationships are divided into the target layer, guideline layer, program layer [19-20]. The drawn hierarchy is shown in Figure 2.

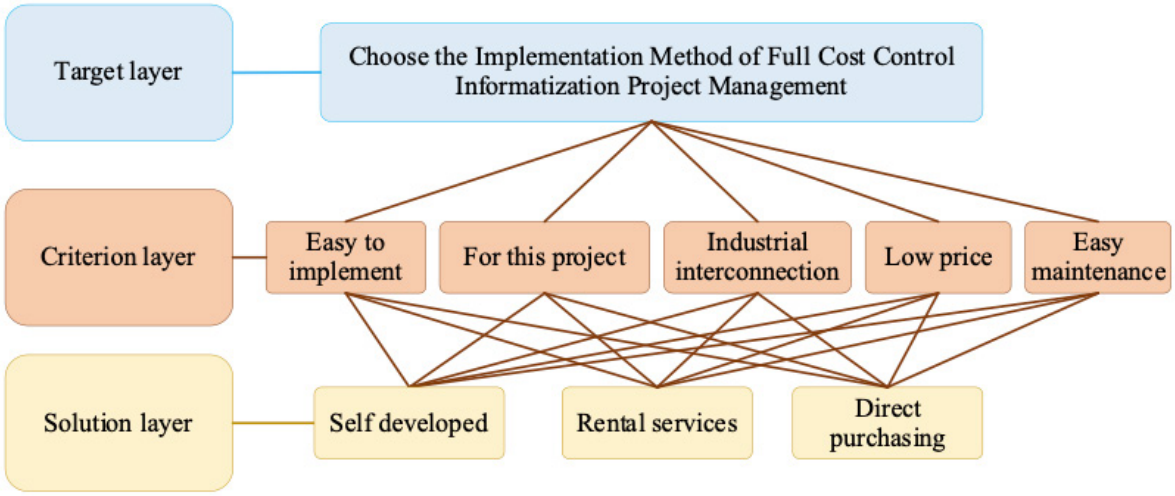

Figure 2. AHP model

For each pairwise comparison matrix, the largest eigenvalue and its corresponding eigenvector are calculated, and the consistency test is done by using the consistency index, random consistency index and consistency ratio. If the test passes, the eigenvectors are the weight vectors, if not, the pairwise comparison matrices need to be reconstructed. Finally, calculate the total ordering weight vector and do the consistency test, calculate the weight vector of the bottom layer to the top layer total ordering, and use the total ordering consistency ratio CR to do the test. The formula is as follows:

$$CR = \frac{a_1 CI_1 + a_2 CI_2 + \ldots + a_m CI_m}{a_1 RI_1 + a_2 RI_2 + \ldots + a_m RI_m} \quad (1)$$

In general $CR < 0.1$ means pass and the decision can be made according to the results expressed by the total ranking weight vector. Otherwise, the model needs to be reconsidered or the pairwise comparison matrices that have larger consistency ratios need to be reconstructed.

The judgment matrix is constructed using the target layer T and criterion layer M of the hierarchy, and its mathematical expression is as follows:

$$A = (a_{ij})_{n \times n} \quad (2)$$

https://doi.org/10.17993/3ctic.2024.131.139-157

Where a_{ij} denotes the difference in importance of A_i over A_j. If we set the importance of $A_k(k \in I, I = \{1,2,\ldots,n\})$ to be w_k, we have:

$$a_{ij} = w_i - w_j, i, j \in I \tag{3}$$

The judgment matrix constructed in hierarchical analysis is called the objection judgment matrix. If $\forall i, j \in I$ exists, $a_{if} = -a_{ji}, a_{ii} = 0$ holds. The purpose of constructing the judgment matrix in the hierarchical analysis method is to mathematize the thinking process of decision-making, and then derive the weight vector of each evaluation object from it for the purpose of decision-making.

The method of calculating the single-level weights and maximum eigenvalues according to the square root approximation is as follows:

$$M_i = \prod_{j=1}^{n} u_{ij}, i = 1,2,\ldots,n \tag{4}$$

$$\bar{W}_i = \sqrt[n]{M_i} \tag{5}$$

Normalizing $\bar{W}_i$ to W_i, W_i is the required eigenvector formula as follows:

$$W_i = \frac{\bar{W}_i}{\sum_{j=1}^{n} \bar{W}_j} \tag{6}$$

Since it is usually difficult to satisfy the consistency principle for the order construction of judgment matrices, test metrics were introduced in AHP to measure the consistency of judgment matrices, where:

$$CR = \frac{CI}{RI}, CI = \frac{\lambda_{\max} - n}{n - 1} \tag{7}$$

Where CI is the stochastic consistency index, a constant of statistical significance given that the inconsistent judgment matrix is acceptable when $CR < 0.1$. It can be seen that the smaller CR is, the better the consistency of the judgment matrix is, and when CR is equal to zero, the judgment matrix is perfectly consistent.

For each judgment matrix constructed from CR, the weight vector can be derived using the eigenvalue method:

$$w = \left(w_1, w_2, \ldots, w_n\right)^T \tag{8}$$

When A is a consistency matrix, $a_{ij} = w_i/w_j, i, j = 1,2,\ldots,n$, therefore it is most efficient to measure the consistency of the judgment matrix by the deviation of a_{ij} from w_i/w_j.

https://doi.org/10.17993/3ctic.2024.131.139-157

This can be derived from the maximum deviation value and the definition of the mean square deviation:

$$s = \max_{i,j} \left| a_{ij} - \frac{w_i}{w_j} \right| \tag{9}$$

$$\sigma = \frac{\sqrt{\sum_{i=1}^{n} \sum_{j=1}^{n} \left(a_{ij} - \frac{w_i}{w_j} \right)^2}}{n} \tag{10}$$

In the formula, the maximum deviation is s, and the mean square deviation is σ, which can be concluded that the consistency is better when the values of the maximum deviation and the mean square deviation are smaller. Then, summarizing the above consistency test results, the feature vector is derived as the weight vector, and the design idea of AHP as a construct is realized to achieve the purpose of decision-making mechanism refinement.

2.4. DESIGN OF MANAGEMENT EVALUATION INDICATORS

The main points of establishing layered indicators are process, planning and systematic, in order to increase the turnover of the enterprise, improve the utilization of assets and control a reasonable financial structure at the guideline level set two key indicators, which are the profitability of assets, asset turnover [21]. Satisfaction of the company's departments, increasing the share of the enterprise's business in the market, and the increase in market share are the main indicators of performance assessment at the management level. So that enterprises always maintain a strong market competitiveness continue to improve the quality of talent, thick and thin to provide potential power for future development. The analysis of evaluation indexes of each aspect of full-cost refinement management is shown in Table 3.

https://doi.org/10.17993/3ctic.2024.131.139-157

Table 3. Analysis of evaluation indicators for full-cost refinement management

Objective	Elements of Establishment	Relevant stratified indicators
Increase in operating income to reduce costs	Increase business turnover	Asset profitability
Improve asset management efficiency	Improve the efficiency of the comprehensive use of funds	Asset turnover ratio
Departments are satisfied with the management module	Increase employee satisfaction	Departmental satisfaction
Getting more business	Increase market share	Market share
Get more vendor resources	Increase resource utilization	Amount of resource accumulation
Product quality that exceeds customer expectations	Improve the quality of engineering	Quality product productivity
Understanding customer needs	Create a good reputation for the enterprise	Order fulfillment rate
Improve production office efficiency	Improve labor efficiency	Residual value rate
Optimize production business processes	Dynamic continuous process optimization	Business process optimization
Enrich the cultural life of the enterprise	Enhance the quality of cultural life	Enterprise personnel cohesion
Enhance employees' sense of identification with the company	Improve employee satisfaction	Employee adhesion to the company
Enhance labor skills through training	Improvement of personnel quality	Employee labor rate

2.5. UPGRADING PROCESS OF ENTERPRISE ECONOMIC MANAGEMENT

In the implementation process of full-cost refinement, a dynamic escalation project management method is adopted, and the construction project is sequentially divided into project preparation, demand solicitation, workflow routes, system architecture design, implementation preparation, implementation support, and later maintenance and upgrading phases, so that the key steps are found and focused on in the implementation sequence. By adopting the project management method of dynamic upgrading, the specific work of basic data entry can be carried out in different operation processes at the same time, and the timeframe for the implementation of full-cost refinement management is shortened to a large extent. Workflow refers to the automated network environment, the enterprise employees in various positions in accordance with the schedule and production, need to enter program data on the full-cost refinement management platform. Using the method of job flow can be categorized and organized for all the jobs in the enterprise, all the work is first qualitative in quantitative, standardized delivery of information, written materials and management of work tasks. Job process design, for the new needs to design the process of economic management upgrading and transformation is shown in Figure 3.

https://doi.org/10.17993/3ctic.2024.131.139-157

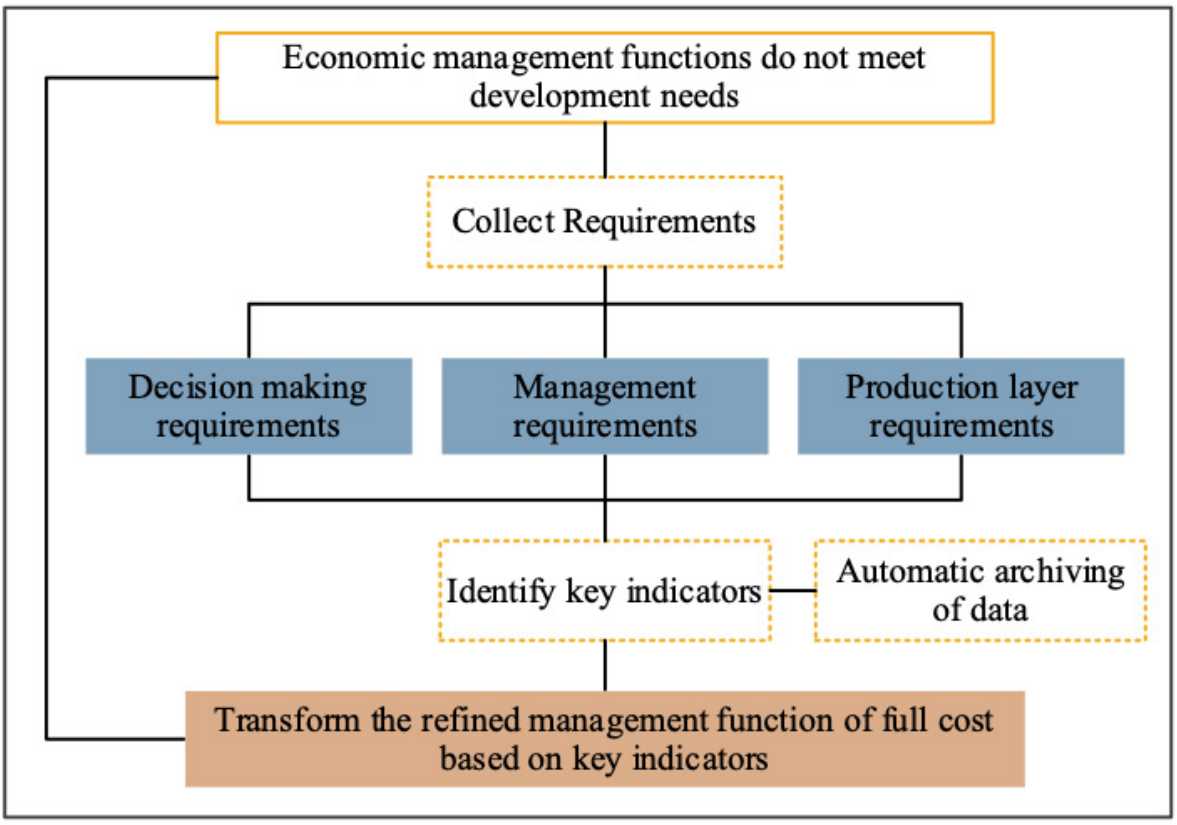

Figure 3. Full cost refinement management upgrade process

It collects demands from all levels of the enterprise, classifies, analyzes and decomposes all the work contents, separates the main work, rearranges and summarizes the demand indicators of operation management, so that the full-cost refinement management can adapt to the demands of all levels, and the process can be more easy to operate, so that it is easy to optimize and upgrade in the later stage of scale expansion. In line with the hierarchical management of the linear organizational structure of the enterprise, key indicators are selected after summarizing the indicators at each level through hierarchical weight calculation. Records of management lessons learned from each module are summarized and shared openly, and management work is optimized without interruption to meet the dynamic needs of enterprise economic management.

3. FULL-COST REFINEMENT MANAGEMENT SIMULATION EXPERIMENT ANALYSIS

3.1. VALIDATION OF THE CALCULATION OF HIERARCHICAL WEIGHTS FOR EVALUATION INDICATORS

In order to test the performance of full-cost refinement management, the total indicators of each layer of weight calculation, 10 directors randomly selected from the members of the board of directors of an enterprise, fill out a questionnaire, the results are shown in Table 4 below. The consistency ratio of the weights of the 2 design

https://doi.org/10.17993/3ctic.2024.131.139-157

indicators under the decision-making level management organization, calculated by the formula of this paper, is CR=0.017<0.1, which passes the test, indicating that the judgment matrix construction passes the consistency test and does not need to be adjusted. And the weight consistency ratio of the three design indicators under the executive level management organization is calculated as CR=0.023<0.1, which passes the test and also indicates that the judgment matrix construction passes the consistency test and does not need to be adjusted. While the weight set of the performance evaluation index system of the production department of the basic layer and the weight set of the performance evaluation index system of other learning and growth are calculated, the consistency ratio calculation results are CR=0.031<0.1 and CR=0.013<0.1 respectively, which indicates that it passes the consistency test and does not need to be adjusted. It shows that the results of the calculation of the stratified weight assessment of the full-cost refinement management provide an effective guarantee for the economic management of the enterprise, and it can find irrationality in the process of practice, and make adjustments to solve the problem in time.

Table 4. Indicators for the design of the tiered assessment system

Indicators	Not important	Slightly important	Important	Significantly important	Definitely important
Indicators for policymaking-level governing bodies	0	1	4	3	2
Indicators for executive management organizations	0	2	3	4	1
Indicators for the production department at the basic level	0	2	4	3	1
Other cultural management indicators	0	1	3	4	2

As can be seen from the table, all four indicators account for more than 90% of the votes for important and above, so all the indicators above important should be retained. Applying the pairwise comparison indicator scale of Table 4 to assign values to the importance, set unimportant as 1, slightly important as 3, important as 5, obviously important as 7, absolutely important as 9. If only important and above are counted, the weight of important is 0.24, obviously important is 0.33, and absolutely important is 0.43. The following calculates the weight value of each indicator as shown in Table 5.

https://doi.org/10.17993/3ctic.2024.131.139-157

Table 5. Weight Table of Hierarchical Evaluation Design Indicators

Index	Weight	Index		Index weight	
Weight value of indicators of leading institutions at decision-making level		265	Asset profitability	87	23
			Asset turnover ratio	83	22
Weight value of indicators of executive management institutions		236	Departmental satisfaction	420	99
			Market share	370	0.0873
			Amount of resource accumulation	340	782
Index Weight Value of Production Department in Basic Layer		225	Quality product productivity	280	63
			Order fulfillment rate	180	40
			Residual value rate	230	52
			Business process optimization	190	43
Weight values of other cultural management indicators		233	Enterprise personnel cohesion	170	39
			Employee adhesion to the company	190	44
			Employee labor rate	130	30

3.2. ANALYSIS OF THE BENEFITS OF ENTERPRISE ECONOMIC MANAGEMENT

This paper validates the economic management benefits of enterprises under the application of full-cost refinement management, and the experimental test object is a trade circulation enterprise that has achieved certain results, and investigates the operating profits of the enterprise. After the application of full-cost refinement management, the enterprise business volume has been stimulated by a certain promotion, income has been increased to a certain extent, Figure 4 shows the results of the enterprise business indicators during the six-year period.

https://doi.org/10.17993/3ctic.2024.131.139-157

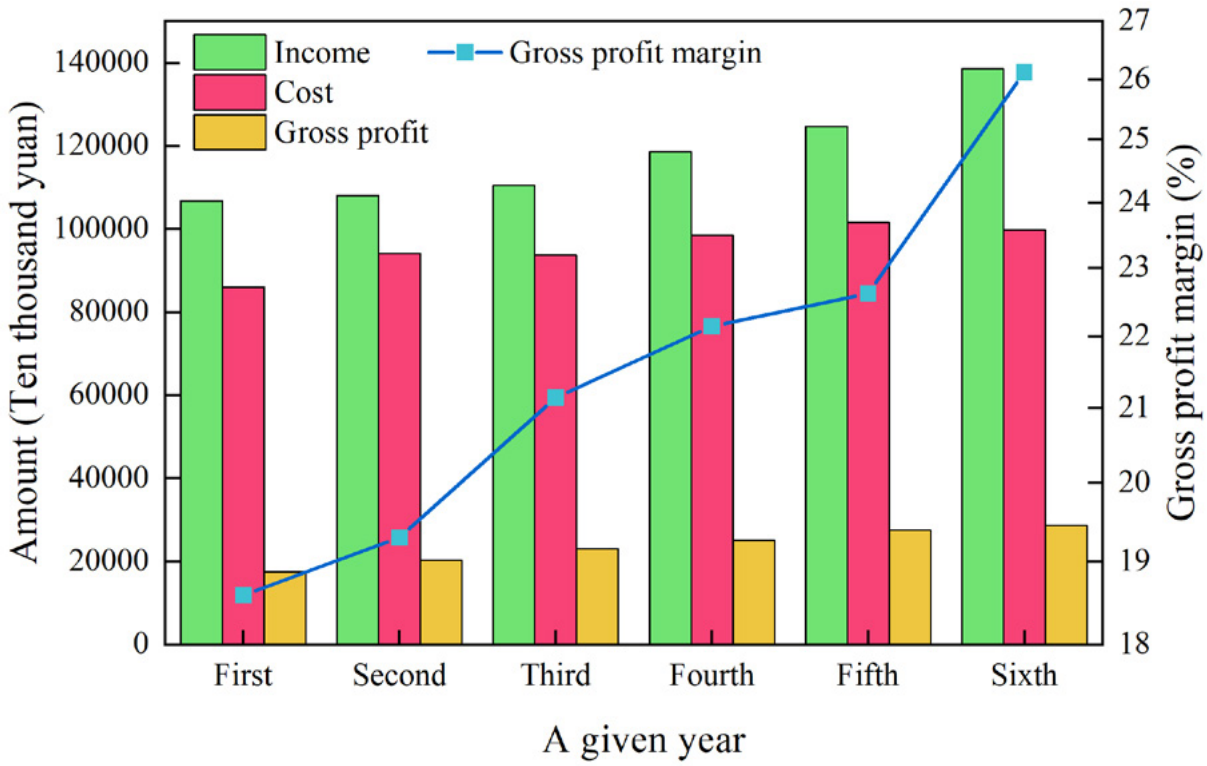

Figure 4. The results of business indicators in six years

As can be seen from the data in the figure, the enterprise operating efficiency increases year by year, the gross profit increases year by year, the enterprise economic efficiency continues to grow, compared to the first year, the 6th year than the gross profit increased by 7.49%, which indicates that for the enterprise profit growth, this paper is designed to help the enterprise economic management under the application of the full-cost refinement of the enterprise's economic management. And the operating income of the enterprise for 6 years, respectively, is 1067,668,100 Yuan, 1080,601,000 Yuan, 1104,603,000 Yuan, 118,524,100 Yuan, 124,642,750,000 Yuan, 138,507,400,000 Yuan, under the application of the full-cost refined management, the operating income in the 6th year has increased by 317,423,000 Yuan compared with the 1st year, which is an increase of 22.92%, with obvious economic benefits. The reason is that the full-cost refinement management based on the analysis of enterprise data hierarchy, the analysis of the relationship between the asset profitability, market share, production and operation efficiency, employee labor rate, in the process of enterprise development to give full play to the role of each other, which to a certain extent, to increase the operating income of the enterprise as well as the economic management of the favorable, and the development of the enterprise with the actual status quo.

4. CONCLUSION

This paper realizes the use of full-cost refinement management in enterprise economic management, through the structure of the control system, the management chain is more clear, visualization, so that the management implementation is more in

https://doi.org/10.17993/3ctic.2024.131.139-157

place, and the cost of the various pull-through management, to realize the real full-cost management information system. Secondly, the AHP method is used for the construction to achieve the purpose of decision-making mechanism refinement, and at the same time, demand collection is carried out for each level of the enterprise, and the economic management upgrading and transformation process is designed for the new demand, so as to make the full-cost refinement management adaptable to the needs of each level. The final simulation experiment results show that the weight consistency ratio CR of the decision-making level management organization is 0.017, the CR of the executive level management organization is 0.023, the CR of the production department of the basic level is 0.031, and the CR of the other learning and growth is 0.013, which are all less than 0.1, and have passed the consistency test. At the same time an enterprise economic management benefit analysis results show that in the use of full-cost refinement management, the enterprise economic benefits continue to grow, compared to the first year, the sixth year than the gross profit increased by 7.49%, which shows that for the enterprise profit growth, it can be shown that the full-cost refinement management of the enterprise's economic management to provide an effective guarantee, and the development of the actual status quo of the enterprise is in line with.

REFERENCES

(1) Gao, F., & Song, A. (2020). Fund Management Method of Ocean Shipping Enterprises Based on Cost Control Theory. *Journal of Coastal Research, 110*(SI), 291-294.

(2) Yang, H. (2020). Human resource management and labor relationship adjustment mechanism of port freight trade enterprises. *Journal of Coastal Research, 103*(SI), 629-633.

(3) Hechanova, M. R. M., Caringal-Go, F. J., Magsaysay, J., & Jowett, F. (2018). Implicit change leadership, change management, and affective commitment to change comparing academic institutions vs business enterprises. *The leadership and organization development journal*.

(4) Rachid, Y., & Lahmouchi, M. (2018). Internal control practices in a Moroccan public enterprise: a case study. *Asia Life Sciences*(1), 275-290.

(5) Ben, K. (2023). The economic and epistemic division of labour: on Philip Kitcher's The main enterprise of the world. *Journal of Philosophy of Education*(2), 2.

(6) Zhao, H. (2020). Can Confucian norms raise enterprise performance? Evidence from Chinese industrial enterprises. *European Journal of International Management, forthcoming*.

(7) Wu, J., Cai, W., & Song, Y. (2023). Determinants of social enterprise performance: the role of passion, competence, and organizational legitimacy. *Nonprofit Management and Leadership, 33*(4), 807-834.

(8) Chen, J., Chen, X., Hou, Q., & Hu, M. (2021). Haste doesn't bring success: top-down amplification of economic growth targets and enterprise overcapacity. *Journal of Corporate Finance, 70*.

(9) Awad, M. M. (2022). Urban water management with a full cost recovery policy: the impact of externalities on pricing. *Sustainability, 14*.

https://doi.org/10.17993/3ctic.2024.131.139-157

(10) Teemu, R. (2019). People, inc.? law, economic enterprise, and the development of inequality in China. *The American Journal of Comparative Law*(2), 2.

(11) Zhu, M., & Tao, Y. (2022). Economic policy uncertainty, entrepreneurial risk appetite, and corporation innovation in innovative cities – empirical evidence from the Shenzhen Special Economic Zone. *Management Decision*.

(12) Ceptureanu, S. I., Ceptureanu, E. G., & Murswieck, R. G. D. (2018). Perceptions of circular business models in SMEs. *Amfiteatru Economic, 20*(48), 310-324.

(13) Huo, D., Chen, Y., Hung, K., Ouyang, R., Sun, B., & Cai, Y. (2019). Quality management of e-business: a key node analysis of ecological network in digital economy by using artificial intelligence. *Journal for Economic Forecasting*.

(14) Carbone, E., Cirillo, A., Saggese, S., & Sarto, F. (2022). IPO in family business: a systematic review and directions for future research. *Journal of Family Business Strategy, 13*.

(15) Viacheslav, B., Il'Ichev, I. P., & Perk, O. N. (2020). External economic complex of enterprise: reserves forecasting of efficiency increase. *Metallurgist, 2017*(5), 9-16.

(16) Liao, S., & Liu, Z. (2022). Enterprise financial influencing factors and early warning based on decision tree model. *Scientific Programming*.

(17) Ryzhko, A. L. (2018). Causal Classification of enterprise business. *Management Science, 8*(1), 90-99.

(18) Tao, T., Tiantian, Z., Xiaoning, L., & Dajian, T. (2021). Entropy weight TOPSIS evaluation of enterprise internal control quality based on fuzzy matter-element model. *Journal of Intelligent and Fuzzy Systems*(1), 1-8.

(19) Chen, G., Zhang, J., Zhang, S., & Yan, B. (2021). Customer knowledge management competence evaluation of tourism enterprises based on AHP-fuzzy comprehensive evaluation method. *Journal of Intelligent and Fuzzy Systems*(7), 1-13.

(20) Wang, J., & Deng, X. (2020). Comprehensive economic benefit evaluation method of coastal enterprises based on AHP. *Journal of Coastal Research, 103*(sp1), 24.

(21) Kusz, D., Bk, I., B. Szczecińska, Wicki, L., & Kusz, B. (2022). Determinants of return-on-equity (ROE) of biogas plants operating in Poland. *Energies*.

https://doi.org/10.17993/3ctic.2024.131.139-157