Optimization of Resource Management Allocation for Enterprise Benefit Based on Macroeconomic Prediction Model

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Article

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Abstract: For an enterprise, the most critical aspect of development is resource management, which has a significant impact on all aspects of the enterprise. Therefore, enterprises must pay attention to resource management allocation, which can better promote the sustainable development of the enterprise and obtain optimal benefits. In the production and development of modern enterprises, the acquisition of benefits also involves the allocation of resources in enterprise management. This paper proposed a benefit optimization scheduling algorithm based on a macroeconomic prediction model under auction mechanism and a grid resource scheduling algorithm driven by a benefit function to allocate resources reasonably. This article used macroeconomic forecasting models to fully understand the resource needs of various departments and the resources held by enterprises, and rationally allocate various resources in various departments. This can improve the work efficiency of various departments, thereby reducing the cost of the enterprise, and achieving optimal benefits for the enterprise. The experimental results in this paper showed that the cost of resource management allocation for the benefit optimization scheduling algorithm and the grid resource scheduling algorithm based on the benefit function driven under the auction mechanism was 105.6 yuan and 46.8 yuan respectively when the task volume was 125 under the multi user environment. The time allocated for resource management was 36.6s and 18.9s respectively. It can be seen that the efficiency function driven grid resource scheduling algorithm had a lower cost and time for resource management allocation, so the efficiency function driven grid resource scheduling algorithm can achieve enterprise efficiency optimization.

Keywords: macroeconomic forecasting model; scheduling algorithm; enterprise benefit optimization; resource management

1. Introduction

In today's world, economic power is becoming increasingly powerful, and enterprises have become an indispensable force for national development. The resource management and allocation of an enterprise is an important component of an enterprise, and it is also the basis for optimizing enterprise benefits. In the process of national economic development, the importance of resources has also become increasingly prominent. Resources are the key to the progress of enterprises, as well as the key to improving their market competitiveness. They are also the key to the survival and development of enterprises. Resources are the support and guarantee for enterprises to carry out business activities. Optimal allocation of resources is a key way for enterprises to improve efficiency and enhance innovation capabilities. However, many enterprises have set unreasonable goals for resource management, which can lead to inefficient allocation of resources and seriously affect the efficiency of enterprises. Therefore, how to establish a reasonable resource management goal is the key to improving enterprise efficiency.

China is at an important stage of economic development, so many contradictions are gradually emerging in this process. The resource management system of Chinese enterprises at the macro level has multiple departmental problems, while many resource management departments have various

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contradictions such as their independence, excessive power, and too decentralization. In addition, there are currently many types of enterprises in China, and the relationship between output, learning, and research is not close. Therefore, the allocation of resources cannot achieve a long-term layout. Moreover, China has a low level of legal effectiveness in resource management, which cannot effectively promote the coordinated development of resources. Unclear rights and responsibilities of resource allocation entities lead to low efficiency in resource allocation and utilization.

2. Related Work

With the development of market economy, more and more enterprises begin to pursue higher economic benefits. Shanks Graeme believed that enterprise architecture brought benefits to the organization, and the organization was investing heavily in enterprise architecture initiatives. He focused on the service capabilities of enterprise architecture and developed and tested a new research model, emphasizing the importance of enterprise architecture in terms of enterprise benefits [1]. Muslih Mochamad aimed to study corporate risk management to improve corporate performance, using regression procedures to analyze data samples. The research results showed that the impact of enterprise risk management on enterprise performance was significant [2]. Turner Rodney investigated the benefits and costs of small and medium-sized enterprises. He conducted a web-based survey and found that small and medium-sized enterprises adopt project management practices to adapt to the size of the enterprise and obtain benefits [3]. Dang Hung Ngoc studied the impact of enterprise size, capital structure, and profitability on enterprise value. Based on the regression results of the generalized least squares method and structural path analysis, he detected that the size and profitability of enterprises were positively correlated with enterprise value, while capital structure was a factor that had a negative impact on enterprise value [4]. Hasan Najmul investigated key factors in evaluating enterprise resource planning and used structural equation modeling. The results indicate that the success factors after the implementation of structural equation modeling are important for assessing the overall impact of enterprise resource planning implementation, and the research results may be helpful for enterprise resource planning professionals and developers in other countries to implement enterprise resource planning in the future [5]. The scholars have conducted research on how to improve enterprise efficiency and found that enterprise efficiency is affected by various factors.

Essentially, resource allocation is a market behavior that optimizes production factors and achieves capital expansion with the assistance of market mechanisms [6]. On the one hand, the principle of marketization can provide trading tools and opportunities for enterprise resource allocation, and on the other hand, it can also bring benefits for efficiency optimization. Although the resource allocation of state-owned enterprises requires the guidance of the government, there are many problems with this administrative characteristic of enterprise restructuring. These issues are not conducive to the future operation of the enterprise, which would not only increase the cost of enterprise restructuring, but also may lead to business failure [7,8]. Enterprises should scientifically integrate diverse business capabilities, market share, and marketing technology based on improving their core competitiveness, appropriately retain their original competitive advantages, and establish complementary relationships to achieve the optimization of enterprise benefits.

3. Resource Management Allocation under Enterprise Benefit Optimization

In the context of China's accelerated construction of an innovative country, resource research is a very important issue in science, technology, and innovation. At the same time, every enterprise is a major participant in scientific and technological innovation. They need to conduct a profound analysis of their advantageous resources and development situation, fully utilize their development environment to bring many opportunities for efficiency optimization, and truly choose a suitable method for their own operation to reasonably allocate existing resources [9,10].

Enterprise resources include human resources, financial resources, information resources, technical resources, and market resources. Talent is the foundation of all resources, so talent resources are the most critical part of this indicator, which mainly reflects the technological strength and

development potential. Financial resources are fundamental to the economy, and without financial support, optimal allocation of financial resources cannot be achieved. The allocation effect is the actual result of the development of science and technology, and it is also the most intuitive reflection of the level of development of science and technology.

3.1. Current Situation of Resource Management and Allocation

(1) Enterprise Human Resource Management Allocation

Judging from the proportion of talent in the total population, there is still a certain gap between China and developed countries [11]. According to relevant surveys, China's total human resources are relatively small, which is a significant gap from economically developed countries, as well as from some developing countries and emerging industrialized countries. Therefore, the current shortage of frontline personnel in China has not been resolved. Both in terms of quantity and quality, talent needs to be improved.

The reason for China's talent shortage is that more than half of China's human resources are trained by the informal education system. Compared with the talents cultivated through formal education, their professional and technical level is still far from satisfactory, which is the main reason for the low overall quality and level of China's human resources. In recent years, a large proportion of China's talent has been flowing overseas. As Western developed countries have conducted more in-depth development of human resources, the demand for related talent has also become greater. Stimulated by the rich lives and wages of other countries, China's human resources have begun to flood into Western countries, resulting in a significant loss of China's human resources. In accordance with this development trend, China is still unable to maintain a balance between the outflow and inflow of human resources in a short period of time.

(2) Information resource management allocation

Although the country has spent enormous resources on research to obtain information resource data, these data are scattered among different departments and have not been published, leading to the fact that relevant institutions and enterprises in China cannot share them. This has resulted in a very serious waste of resources. Under such circumstances, the development of some enterprises has stagnated due to the lack of corresponding information resource support. Although financial and human resources are the foundation of enterprise survival, they cannot be separated from the support of information resources [12,13].

The deficiencies in the allocation of information resources include a lack of overall planning, high investment, high risks, and a lack of unified standards and norms [14]. However, due to the barriers existing in China's scientific and technological information resources, this has greatly affected the resource management allocation of Chinese enterprises, and the cost is also increasingly high. Finally, enterprises have been unable to improve their comprehensive competitiveness, and over time, the optimization of their efficiency has become slow. Enterprises in the eastern region not only receive strong support from the government, but also have a sense of technological upgrading. Enterprises in the western region receive relatively little capital and weak awareness, which results in lower productivity in the western region than in the eastern region.

(3) Financial resources

From the perspective of funding sources, the state invests much less in corporate funding than institutions such as research institutions and universities. From the perspective of enterprise size, funds are more invested in large and medium-sized enterprises, while investment in small and medium-sized enterprises is relatively small, so there is less interaction between small and medium-sized enterprises and the government [15]. Due to the influence of natural conditions and other factors, the economic development of the eastern region is better than that of the western region. Therefore, the country's economic investment in the east is much higher than that in the west. This has resulted in enterprises in the western region only relying on their own investment to summarize their experience. However, due to their own reasons, companies often encounter financing difficulties, unreasonable compensation and benefits, and other issues.

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Compared with small and medium-sized enterprises in the eastern region, small and medium-sized enterprises in the western region would develop slowly due to external reasons such as geography, policy environment, and internal reasons. This naturally leads to the instability of their own capital chain, which affects the overall allocation of resources by enterprises. In short, from the perspective of financial resources, the irrational structure of government investment and enterprise investment can lead to an uneven distribution of resources in the entire distribution system, thereby affecting the optimization of enterprise benefits [16,17].

3.2. Benefit Optimization Resource Management Allocation Algorithm Based on Macroeconomic Prediction Model

Whether it is national macroeconomic management or individual investment, it is necessary to predict the development trend of the economy. When forecasting and analyzing China's macro economy, it is generally based on mathematical models, using regression analysis and other means to analyze and predict relevant economic indicators. The artificial neural network is an intelligent bionic model based on physiology. It simulates the thinking abilities of the human brain, utilizing continuous learning, recollection, induction, and organization of a large number of individual cases to find something with certain regularity among them. This algorithm can achieve large-scale parallel computing.

Macroeconomic forecasting models play an important role in economic decision-making. At the government level, macroeconomic forecasting is an important basis for the country to formulate macroeconomic policies, formulate economic development plans, and conduct macroeconomic regulation. At the enterprise level, the judgment of macroeconomic trends is the primary prerequisite for enterprises to make operational decisions such as production, sales, and investment.

Grid resource scheduling is a very important method, which constructs a revenue function based on time, cost constraints, and user service quality to achieve effective scheduling of grid resources and meet different user needs. Based on the development needs of grid technology, this paper proposes two different scheduling algorithms.

(1) Optimal scheduling algorithm for benefit under auction mechanism

Auction mechanism is currently the most commonly used market based grid resource management and allocation model. The advantage of this model is that when buyers are uncertain about their bids, using this method has high flexibility and high bargaining efficiency. Auction is a good way to allocate resources when resource providers do not know how to value their resources. The efficiency optimization scheduling algorithm under the auction mechanism is relatively mature in theory and has a wide range of applications, and retains some basic characteristics of economic models, consistent with rational pricing in the market.

Since time and cost are the two most important factors that affect benefits, the benefit functions proposed in this paper include cost based benefit functions and time based benefit functions.

In a real economic environment, the optimization of enterprise performance is usually profit oriented. Profit margin is a relative measure that can be used to measure the profitability of an enterprise within a specific period of time. Profit margin can not only evaluate the profit objectives of an enterprise, but also compare the internal and various stages of operation and management of the enterprise. A higher profit margin indicates that the cost of obtaining revenue is lower and the profitability of the enterprise is higher.

The introduction of profit margins in grid scheduling allows for maximum efficiency when executing tasks:

$$B_{ij} = \sum_{k=1}^{n} P_i T_{ik} \quad (1)$$

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B_{ij} represents the revenue generated by resource i executing n jobs of user j, P_i represents the unit price determined by auction between resource i and user j, and T_{ik} represents the time taken by resource i to complete job k.

Since resources themselves need to pay a certain price when completing tasks submitted by users, the calculation function for resource loss is as follows:

$$C_{ij} = \sum_{k=1}^{n} A_i T_{ik} \quad (2)$$

C_{ij} represents the loss incurred by resource i in executing n jobs of user j, and A_i represents the loss per unit time of resource i. The benefits obtained by the resource after completing the job are as follows:

$$\Pr ofit(i,j) = \frac{B_{ij} - C_{ij}}{C_{ij}} \quad (3)$$

$\Pr ofit(i,j)$ represents the benefit value obtained by resource i in completing the job submitted by user j. The higher the value, the stronger the ability of resource to obtain benefits, and the greater the benefits obtained by resource. To sum up, the cost based benefit function is:

$$\Pr ofit(i,j)\_Cost = \frac{B_{ij} - C_{ij}}{C_{ij}} = \frac{\sum_{k=1}^{n} P_i T_{ik} - \sum_{k=1}^{n} A_i T_{ik}}{\sum_{k=1}^{n} A_i T_{ik}} \quad (4)$$

When a resource cannot meet the time and budget constraints proposed by the user, the benefit function is 0, which means that the job of user j cannot be executed on the resource. When the $\Pr ofit(i,j)\_Cost$ is larger, the user pays more, and the completion time is shorter, the resource efficiency is greater.

In the initial stage of grid applications, if more resource owners want to invest their resources in the grid, it is necessary to allow resource owners to obtain greater benefits while providing resources. When scheduling, using the benefit function, it can calculate the value of the benefit, and give priority to the users with the greatest benefit, so that users can obtain this resource. In this way, resource providers can obtain the maximum benefits and promote resource providers to provide more grid resources.

(2) Grid resource scheduling algorithm based on benefit function driven

The current grid resource scheduling algorithm is just a simple assumption, that is, users want to complete a task in the shortest time or at the lowest cost, but it does not consider that each user has their own needs. For example, users do not want to complete a task in the shortest time because it may cost a higher cost to obtain a high-performance resource, but users do not want to spend the least cost to complete a task because it may take a longer time to obtain a low-performing resource.

On this basis, an optimization algorithm based on time and cost constraints is proposed. By constructing a benefit function to achieve constraints on time and cost, users can achieve different choices of time and cost through customized constraints, thereby comprehensively reflecting different user needs and improving user satisfaction with resources.

When the user's preference for time or cost is not very clear, for example, the user does not want to spend the shortest time to complete the task. Because this may lead to greater expenditures, he wants to find a balance between time and cost, which means that he would prioritize the resources that spend the shortest time when the costs are the same. The benefit function relative to time is as follows:

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$$\Pr ofit(i,j)\_Time = \begin{cases} 0, Complete\_time \succ deadline \\ Complete\_time / deadline, Complete\_time \Leftarrow deadline \end{cases} \quad (5)$$

$Complete\_time$ is the predicted time spent by resource i executing user j's job, and $deadline$ is the user-defined maximum time limit for completing the job. The smaller the $Complete\_time$, the smaller the $\Pr ofit(i,j)\_Time$ value, and the shorter the time the user spends completing the job. The benefit function relative to cost is as follows:

$$\Pr ofit(i,j)\_Cost = \begin{cases} 0, Complete\_Cost \succ budget \\ Complete\_Cost / budget, Complete\_Cost \Leftarrow budget \end{cases} \quad (6)$$

When the price is lower or the completion time is shorter, the $\Pr ofit(i,j)\_Cost$ value is smaller, and the user can spend less money to complete the task, better meeting the user's demand for service quality, and the user's benefit value is greater. To sum up, the benefit function is defined as follows:

$$\Pr ofit(i,j) = \frac{1}{\left(\alpha^* \Pr ofit(i,j)\_Time + \beta^* \Pr ofit(i,j)\_Cost\right)} \quad (7)$$

α represents the user's constraint factor on time, and β represents the user's constraint factor on cost.

Realizing resource scheduling through dynamic optimization of time or cost alone cannot accurately reflect users' needs for time and cost. In resource scheduling, a dynamic user-defined scheduling algorithm based on time and cost is adopted to address users' requirements for constraints such as time and cost. Based on this, a benefit function is used to allocate the most valuable resources to users. This benefit function reflects the differences in time and cost among different users, and dynamically adjusts different scheduling algorithms based on user needs. This allows it to adapt to the needs of users, consistent with the principles of resource allocation in the actual economic market.

4. Shortcomings in Enterprise Resource Management Allocation and Comparative Experiments with Different Algorithms

4.1. Insufficient Allocation of Enterprise Resource Management

With the continuous development of society and economy, enterprises continuously increase their investment in resources to improve their competitiveness in the market. However, with the continuous development of enterprises, their business methods and production plans are constantly changing, so the type and quantity of resources required by enterprises would greatly change. In this case, if the resource management allocation and management personnel of the enterprise cannot make appropriate adjustments to it, it is likely to cause some departments of the enterprise to reduce their work efficiency and quality due to improper resource management allocation, leading to the failure to optimize the enterprise's benefits. In order to understand the shortcomings of enterprise resource management allocation, this article conducted a survey of 70 enterprises in a city.

(1) Lack of economic management talents and low work efficiency

Judging from the current business situation in China, there is a significant shortage of enterprise resource management personnel. In most Chinese enterprises, more emphasis is placed on the long-term development of financial and operational personnel, while ignoring the cultivation of resource management personnel. In the management process of modern enterprises, most enterprises judge the fate and growth of employees based on their loyalty, which has resulted in the loss of a large number of high-quality economic management personnel. Enterprises lack attention to resource

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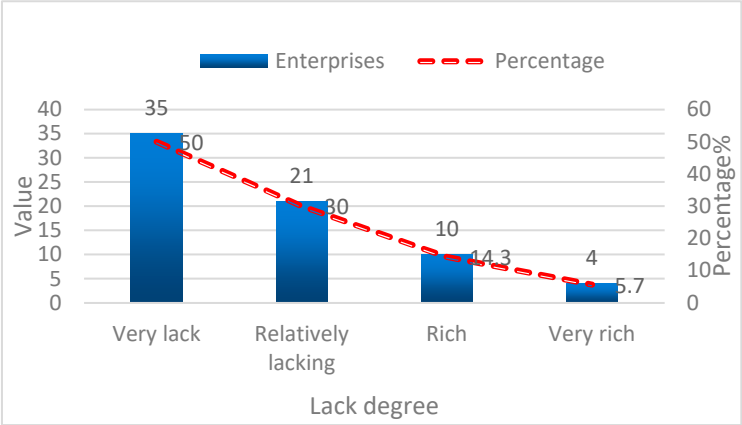
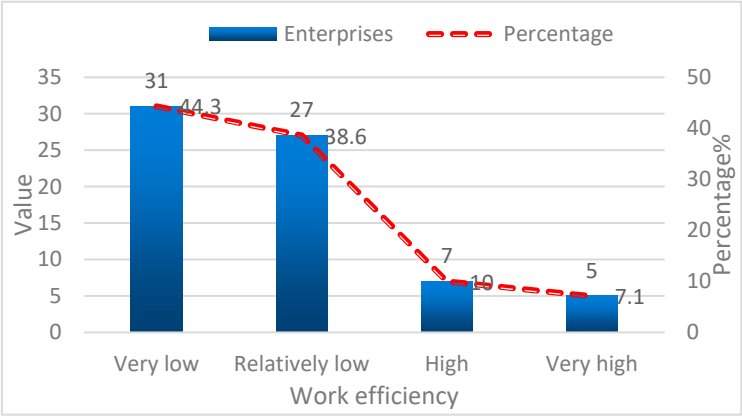
management talents, and there are shortcomings in the development of resource management talents, salary incentives, and other aspects, which have a negative impact on the optimization of enterprise benefits. The degree of talent shortage and work efficiency are shown in Figure 1:



(a) Degree of talent shortage



(b) Work efficiency

Figure 1. Talent shortage and work efficiency.

As shown in Figure 1, it can be seen from (a) that 35 enterprises believe that their resource management talents are very scarce, accounting for 50% of the total. There are 21 enterprises that believe that resource management talents are relatively lacking, accounting for 30% of the total. There are 10 enterprises that believe in rich resource management talents, accounting for 14.3%. Four enterprises believe that resource management talents are very rich, accounting for 5.7% of the total.

Through (b), it was found that 31 enterprises felt that their work efficiency in enterprise resource management was very low, accounting for 44.3% of the total. There are 27 enterprises that feel that the efficiency of resource management is relatively low, accounting for 38.6%. Seven enterprises feel that resource management is highly efficient, accounting for 10%.

Based on the strategic development goals of the enterprise, this article combines the market and resources to develop a resource management and allocation model that is consistent with the enterprise itself from aspects such as organizational form, management system, management methods, and operating mechanism. From the perspective of the enterprise, an internal communication platform can be established to ensure that the resources and management information of the enterprise can be quickly and accurately grasped by managers, thereby improving the efficiency of management. In the process of development, enterprises are mainly based on operating mechanisms such as self responsibility for profits and losses, independent operation, and self risk, although this provides a certain foundation for the development of enterprises. Due to the lack of a unified standard for the rational and efficient allocation of resources, there are unfair

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operations in the actual work of enterprises, which has a certain negative impact on the benefits generated by resource allocation.

(2) Blindness in the expansion of enterprise scale and lack of understanding of opportunity cost

Currently, many enterprise employees do not have a clear and effective positioning of their functions, which to some extent affects the development strategy of the enterprise. Failure to fully consider cost issues during expansion would reduce the management strength of the enterprise. Other enterprises expand to enhance their competitiveness in the market, resulting in an imbalance in the supply and demand of enterprise resources, which can have a relatively negative impact on the development of enterprises. This development approach can lead to negative compliance with the functions of the financial department. The degree of blindness in resource management allocation among 70 enterprises is shown in Table 1:

Table 1. Blindness in resource management allocation.

Blindness	Enterprises	Percentage
Very blind	38	54.3%
More blind	16	22.9%
Clear	11	15.7%
Very clear	5	7.1%

As shown in Table 1, there are 38 enterprises with very blind resource management allocation, accounting for 54.3% of the total. There are 16 enterprises with relatively blind resource management allocation, accounting for 22.9% of the total. There are 11 enterprises with clear resource management allocation, accounting for 15.7%, and 5 enterprises with very clear resource management allocation, accounting for 7.1%.

Opportunity cost is a very important concept in resource management, which plays a decisive role in the implementation of planned projects to some extent. In the process of development, when enterprises face resource constraints, in order to obtain profits, they need to abandon other purposes. When opportunity costs are low, the benefits of utilization outweigh the benefits of abandonment, which can improve the efficiency of utilization. At present, the relevant staff of many enterprises do not have a thorough understanding of opportunity cost, which leads to unscientific and unreasonable phenomena in allocating resources, and even in some cases, it can cause a waste of resources, which has brought great losses to the enterprise's economy. The level of understanding of opportunity costs by 70 enterprises is shown in Table 2:

Table 2. Understanding of opportunity costs.

Degree of understanding	Enterprises	Percentage
Very understanding	6	8.6%
Relatively understanding	7	10%
Do not understand	28	40%
Not at all	29	41.4%

As shown in Table 2, there are 6 enterprises that have a good understanding of opportunity costs, accounting for 8.6%, and 7 enterprises that have a good understanding of opportunity costs, accounting for 10%. There are 28 enterprises that do not know about opportunity costs, accounting for 40% of the total. There are 29 enterprises that do not know about opportunity costs, accounting for 41.4% of the total.

When allocating resources, enterprises should conduct a comprehensive analysis of various options. After comprehensively considering multiple factors, this article selects a relatively small opportunity cost for using resources. Generally, when determining the opportunity cost, it is necessary to consider the limited available resources to determine whether they are available.

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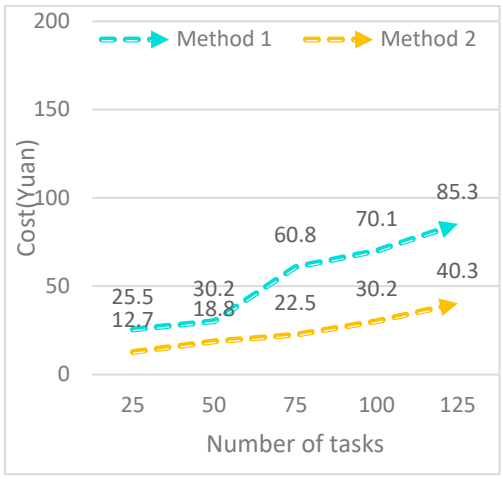
4.2. Comparison of Algorithms

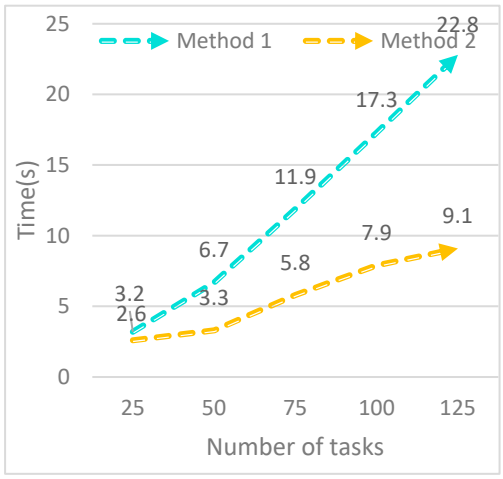
This article selects 125 tasks that require resource management allocation as experimental data. It compares the efficiency optimization scheduling algorithm (Method 1) under the auction mechanism with the grid resource scheduling algorithm (Method 2) driven by the efficiency function based on the completion time and cost of the task.

(1) Comparison of Enterprise Benefits under Single User and Multiple Tasks

Enterprise benefit comparison refers to the comparison of resource management allocation costs and runtime. In the same simulation environment, this article compares the benefit optimization scheduling algorithm based on the auction model with the grid resource scheduling algorithm based on the benefit function drive, as shown in Figure 2:



(a) Cost of resource management allocation by different methods



(b) Time of resource management allocation by different methods

Figure 2. Comparison of cost and time allocated for resource management in two methods under single user.

As shown in Figure 2, it can be concluded from (a) that under a single user scenario, when the task volume is 25, the resource management allocation costs for Method 1 and Method 2 are 25.5 yuan and 12.7 yuan, respectively; When the task volume is 50, the cost allocated for resource management of Method 1 and Method 2 is 30.2 yuan and 18.8 yuan respectively; When the task volume is 100, the cost allocated for resource management of Method 1 and Method 2 is 70.1 yuan and 30.2 yuan respectively; When the task volume is 125, the resource management allocation costs for Method 1 and Method 2 are 85.3 yuan and 40.3 yuan, respectively.

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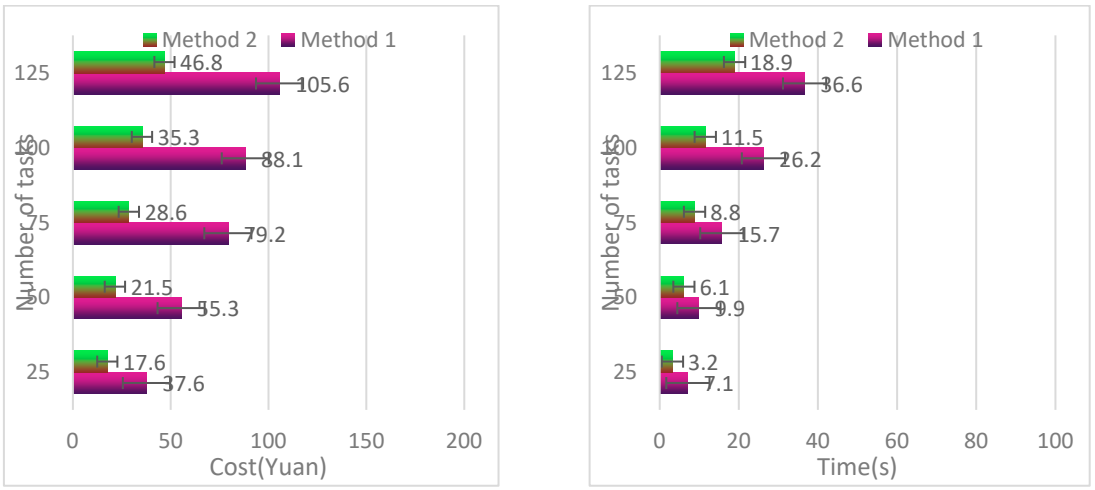
In (b), when the task volume is 25 for a single user, the resource management allocation time for Method 1 and Method 2 is 3.2 seconds and 2.6 seconds, respectively; When the task volume is 50, the time allocated for resource management in Method 1 and Method 2 is 6.7s and 3.3s respectively; When the task volume is 100, the time allocated for resource management in Method 1 and Method 2 is 17.3s and 7.9s respectively; When the task volume is 125, the time allocated for resource management in Method 1 and Method 2 is 22.8 seconds and 9.1 seconds, respectively.

Improving the quality of resource allocation through cost control can increase the training of talents and make reasonable use of existing employees; Retirees can be resettled through centralized management, and internal expenses and management standards can be effectively unified, thereby reducing labor costs to a certain extent. In addition, in the process of enterprise development, it is also necessary to combine the specific situation of the enterprise and make reasonable choices in financing methods, such as internal mining, indirect, and direct financing.

(2) Comparison of enterprise benefits under multi user and multi task

In the grid scheduling of multiple tasks for a single user, Method 2 reflects the different needs of users for time and cost, and it has better performance in terms of completion time and cost. In order to further demonstrate the advantages of method 2, this article would conduct experiments on both methods under multi user and multi task environments. When the number of tasks is fixed, Method 2 can bring more benefits to resource providers, help introduce more resources, and expand its application range. The comparison of the cost and time allocated for resource management in the two methods for multi user scenarios is shown in Figure 3:



(a) Cost Comparison

(b) Time Comparison

Figure 3. Comparison of cost and time for resource management allocation using two methods under multiple users.

As shown in Figure 3, in (a), it is learned that under multiple users, when the task volume is 25, the cost allocated for resource management for Method 1 and Method 2 is 37.6 yuan and 17.6 yuan, respectively; When the task volume is 75, the cost allocated for resource management of Method 1 and Method 2 is 79.2 yuan and 28.6 yuan respectively; When the task volume is 125, the resource management allocation costs for Method 1 and Method 2 are 105.6 yuan and 46.8 yuan, respectively.

It is found from (b) that in a multi user environment, when the task volume is 25, the resource management allocation time for Method 1 and Method 2 is 7.1 seconds and 3.2 seconds, respectively; When the task volume is 75, the time allocated for resource management in Method 1 and Method 2 is 15.7 seconds and 8.8 seconds respectively; When the task volume is 125, the time allocated for resource management in Method 1 and Method 2 is 36.6 seconds and 18.9 seconds, respectively.

Method 2 fully reflects the different needs of users in terms of time and cost. Experiments have proven that the proposed method 2 performs well in terms of time and cost, which is of great help in effectively utilizing resources, improving resource utilization, and optimizing enterprise benefits. In

summary, the research results of this article can form a dynamic resource scheduling model with strong responsiveness to user time and cost preferences. It can timely optimize resource management allocation based on user preferences. This new scheduling model plays a very important role in the balanced development of grid, and can ensure the sustained and effective development of enterprise benefits.

5. Conclusions

In the operation of an enterprise, it is necessary to scientifically establish a resource allocation system with management as the core in accordance with relevant policies. On the one hand, it can help the enterprise establish a complete resource awareness, and on the other hand, it can also enable the enterprise to proceed from the overall benefits. It is possible to optimize the allocation of resources and obtain the maximum profit at the minimum cost by introducing opportunity costs. In addition, this article established a resource allocation system with management as the core, which can not only integrate the resource allocation of various departments of the enterprise, but also carry out reasonable supervision and control over the resource allocation of each department, thereby having a strong impact on the core competitiveness and management efficiency of the enterprise. This can lead to an upward trend in both, thereby providing effective protection for the healthy development of enterprises. Effective management and planning of business processes can minimize the working capital of an enterprise. In addition, enterprises should reasonably integrate the management of financial resources, human resources, and information resources, improve management levels, and reduce management costs.

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Conflicts of Interest: There is no potential conflict of interest in our paper and all authors have seen the manuscript and approved to submit to your journal. We confirm that the content of the manuscript has not been published or submitted for publication elsewhere.

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