

Research Article

A Centralized Accounting Method of Enterprise Accounting Cost Based on Fourier Transform Algorithm

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With the rapid development of the economy, the challenges faced by enterprises are becoming more and more severe. In order to enhance the core competitiveness of enterprises themselves, enterprises pay more and more attention to accounting cost accounting. However, for a long time, enterprises have been using traditional accounting costing methods, which greatly hampered the development of enterprises. The Fourier transform (FT) algorithm is a commonly used information transformation method, which can simplify the complex cost accounting process. Based on this, this paper proposes a centralized cost accounting method for enterprise accounting based on FT algorithm, aiming to fundamentally change the traditional cost accounting thought. The article first analyzes and summarizes the general characteristics of cost accounting methods. Then, starting from the cost centralized accounting method, the paper optimizes the traditional cost accounting formula by using the FT algorithm and proposes a new accounting cost-centralized accounting formula based on the FT algorithm. Finally, starting from the reality and taking W company as the research object, the article focuses on analyzing the application of the centralized accounting method of accounting cost relying on the FT algorithm in the production and operation activities of the actual enterprise. After a series of experiments and analysis, we found that the centralized cost accounting method of enterprise accounting based on FT algorithm has a very high degree of fit with the actual situation, and the accuracy of cost accounting is as high as 70.01%. Moreover, in the process of enterprise cost analysis, the quality of accounting information of enterprises has been comprehensively improved by 31.9%. This fully shows that the centralized accounting method of enterprise accounting cost based on the FT algorithm can bring certain economic benefits to the enterprise and optimize the internal resource allocation of the enterprise.

1. Introduction

Enterprise cost is an important basis for enterprise development, which is also an important link in the process of enterprise development. Cost accounting can timely review the details of income and expenditure in the daily production and operation activities of an enterprise, but the cost accounting methods adopted by most enterprises are not suitable for the actual situation of the enterprise, which seriously affects the long-term development of the enterprise. At the same time, due to the complexity of accounting data, enterprises urgently need a simple and efficient cost accounting method. Deeply aware of this, this paper proposes a centralized accounting cost accounting method based on the FT algorithm, which aims to fundamentally

simplify the cost accounting process. In this process, the centralized accounting cost accounting method based on the FT algorithm can not only improve the cost management level of the enterprise but also optimize the resource allocation of all elements of the enterprise and fundamentally enhance the core competitiveness of the enterprise. Not only that, the centralized accounting method of enterprise accounting costs can further optimize the industrial structure of enterprises and promote the transformation and upgrading of enterprises and industries.

Accounting cost accounting is related to the long-term development of an enterprise, and a sound accounting cost accounting system is of great significance to an enterprise. Zhang pointed out that under the current enterprise accounting system, there are many drawbacks in the

accounting cost accounting system of production enterprises. To this end, he proposed a separate and centralized accounting cost accounting ideas and specific accounting methods. At the same time, he also suggested reforming the current accounting cost accounting system of production enterprises [1]. Cherednichenko et al. pointed out that the accounting problems of Chinese real estate enterprises mainly focus on income, cost, tax, and other aspects. To this end, he made an in-depth analysis of the accounting of real estate enterprises from these aspects, hoping to play a certain role in the improvement of China's real estate accounting system [2]. Grachev combined the idea of resource consumption with the method of auxiliary production allocation, aiming to promote the rationalization of enterprise accounting costing. At the same time, he also initially constructed a cost-benefit analysis model and discussed the feasibility of using the concept of resource consumption for accounting cost accounting [3]. Uyar pointed out that the implementation of centralized accounting system by enterprises can save accounting costs for enterprises and improve the efficiency of comprehensive management. At the same time, he also pointed out that if an enterprise wants to build a complete accounting centralized accounting system, it is necessary to continuously reduce accounting costs [4]. Pogorelov et al. pointed out that accounting costing is very important for enterprises. Therefore, he took enterprise accounting costing as the main research object, studied the main function and its problems, and analyzed the corresponding optimization strategies [5]. The above experts and scholars have analyzed the current situation and development of enterprise accounting costing from different angles, but the complex situation of accounting costing has not been fundamentally improved.

The FT algorithm can simplify complex problems, and many scholars have carried out research on it. Among them, in order to study the application of FT algorithm in the financial field, Xiao et al. conducted a statistical analysis on the data collected from the financial market. On this basis, he also established a differential equation model to describe the changes in the data [6]. Chen et al. pointed out that the FT algorithm can greatly reduce the computational complexity; however, a large amount of data is still needed to obtain accurate results. To avoid wasting time in data simulation, he derived a sparse FFT expression [7]. Lyons and Howard improved the SDFT algorithm based on real-time network. In the process, he analyzed the SDFT algorithm from both the frequency domain and the time domain. And, based on the analysis, he also proposed a new SDFT algorithm [8]. Wu et al. pointed out that there are many problems in the practical application of IFTA in holographic projection. Based on this, he proposed a HIFTA algorithm aimed at obtaining better image quality. After testing, his proposed algorithm can generate better quality images in the same time [9]. Pang et al. pointed out that the phase of the pattern is easily affected by light, so he proposed a new pattern reconstruction method. In the process of method research, he used the IFTA algorithm to reconstruct three-dimensional objects and then improved the stability of the phase. [10]. The above scholars have carried out very detailed

research on the FT algorithm and expanded to many new fields. But in the course of their research, they did not come up with a general approach.

Based on the FT algorithm, this paper proposes a new centralized accounting cost accounting method, which realizes the upgrading and adjustment of the traditional cost accounting method. During this process, after adopting the centralized accounting method of the FT algorithm, the material loss of the company was significantly reduced, and the loss of main materials was reduced to 0.28 kg. The centralized accounting method based on the FT algorithm proposed in this paper has a natural advantage in processing massive data, and the average time consumption is basically no more than 200 milliseconds, which fully reflects the superiority of the centralized cost accounting strategy in resource processing. Among them, in terms of product operation, enterprises are most likely to suffer losses, with a loss rate of 38.2%. At the same time, it can also be found that the centralized cost accounting method brings relatively large losses to enterprise assets, products, and channels, up to 31.9%. In terms of product supply, employees, etc., the centralized cost accounting method causes less losses, with a loss rate as low as 20.17%.

2. Accounting Cost Centralized Accounting Strategy

Enterprise accounting cost accounting is an important basis for enterprise accounting [11]. In the process of accounting costing, because the development status of enterprises is different at each stage, it is very important to choose an appropriate accounting costing strategy. At the same time, by carrying out accounting cost accounting, enterprises can optimize the allocation of resources and achieve powerful management and control of resources. Among them, the basic idea of enterprise accounting cost accounting is shown in Figure 1.

In the accounting costing process, the Fourier transform algorithm can regularize the complex costing problem and retain the important information [12]. At the same time, in this process, the FT algorithm also links cost optimization, cost management, and other links and is committed to improving the core competitiveness of enterprises.

2.1. Cost Accounting Method. Accounting cost accounting is mainly to review, summarize, and classify all costs in the production and operation activities of an enterprise [13, 14]. The accounting cost of the enterprise is equal to the expenditure consumed by the enterprise plus the expenditure not consumed by the enterprise. Among them, the unconsumed expenditure refers to the actual assets of the enterprise, and the consumed expenditure refers to the sum of the expenses and losses generated in the actual business activities of the enterprise [15]. Generally, accounting costing methods mainly include variety method, batch method, step-by-step method, and classification method. However, in actual business operations, cost accounting methods often show different characteristics at different stages.

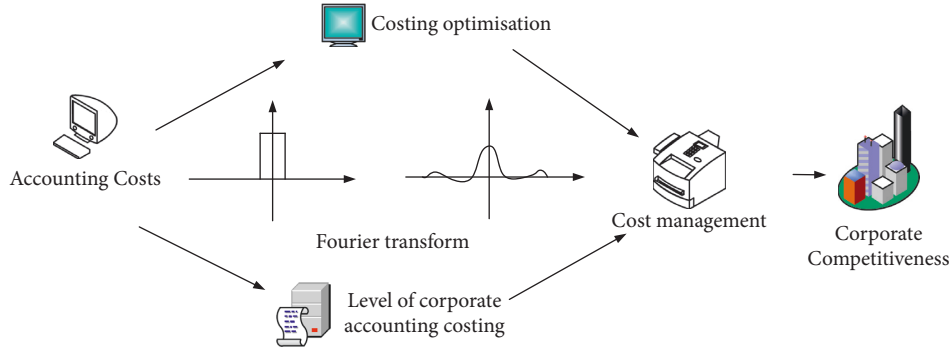


FIGURE 1: Basic idea of enterprise accounting cost accounting.

The so-called variety method is actually a cost accounting method that takes the different types of production materials in production and operation activities as the object. In this process, accountants generally open specific accounts according to the variety and conduct business cost analysis with the variety as the data object. The batch method is a cost accounting method for product batches [16]. The batch method is widely used in the actual production and operation activities of enterprises, mainly manifested in the opening of cost subaccounts with batches as the unit of measurement. And it is precisely because the calculation is carried out on a batch basis that this method generally does not involve double counting between finished products and semi-finished products. The step-by-step method, as the name suggests, is a calculation method that takes the production steps of the product as the accounting object. Taxonomy is a method in which product category is the object of cost calculation, expense calculation, and cost calculation. The above methods all occupy a certain share in the actual application process of accounting cost accounting, but the adoption of the methods should still be based on the actual situation of the enterprise.

At the same time, it is also found that the above methods still have certain shortcomings [17]. For example, in the process of financial approval of an enterprise, the financial institutions of most corporate departments integrate financial management and accounting, and the person in charge of the financial department is both a financial approver and an accountant. This kind of management method integrating dual functions and lack of mutual restraint between finance and accounting makes it possible for accounting fraud within the enterprise. At the same time, whether it is the variety method or the batch method, it will inevitably bring a lot of data redundancy, which brings certain challenges to accounting costing.

2.2. Fourier Transform Algorithm. Fourier transform is an integral transform method for analyzing data and processing information. Fourier transform is a basic operation in digital signal processing and is widely used in the field of representing and analyzing discrete time domain signals. In the process of accounting costing, people usually describe according to the time dimension, but as the amount of

information increases, the difficulty of measurement also increases geometrically. Therefore, there will inevitably be many mistakes in the cost accounting process. The Fourier transform offers the possibility for simplification of costing.

In the past corporate accounting process, accountants used to summarize corporate expenditures in chronological order. But as time goes by, people gradually find that cost accounting fluctuates with time, which brings greater difficulty to accounting. In the process of enterprise accounting cost accounting, Fourier transform can simplify the calculation process. Define the characteristic function:

$$P_L(e) = \int_{-\infty}^{+\infty} e^t p(x)^{\text{cost}} dt, \tag{1}$$

$$\gamma(\tau^\varepsilon - h) = \frac{1}{\omega} \int_{-\infty}^{+\infty} e^{h-\omega} \lim_{h \rightarrow 0} p^{xy} dx.$$

Among them, P_L is the return function of the direct production cost and the auxiliary production cost, which depicts the fluctuation of the basic production activities of the enterprise. $\gamma(\tau^\varepsilon - h)$ represents the cost density function in the time dimension. Since the actual return coefficient of the enterprise is not calculated in the accounting process, the above function can be approximately regarded as the transformation of the production cost of the enterprise in the Fourier space:

$$W_s = \int_{-\infty}^{+\infty} e^{mt} e^{-ej} gJ(u) du. \tag{2}$$

Assuming that the total cost incurred in the actual production and operation activities of the enterprise is D , then in the accounting process with a time span of t , the actual accounting cost of the enterprise is

$$\begin{aligned} D^i(X_0, K, J) &= r^{-jL} Q[(X_0 - K)^+] \\ &= r^{-jL} \int_0^{+\infty} (X_0 - K)^+ J(J_i) dX_0. \end{aligned} \tag{3}$$

Fourier transform and decompose the above equation:

$$\begin{aligned} D^i(X_0, K, J) &= r^{-jL} \int_0^{+\infty} X_0 J(J_i) dX_0 \\ &\quad - r^{-jL} K \int_0^{+\infty} X_0 J(J_i) dX_0. \end{aligned} \tag{4}$$

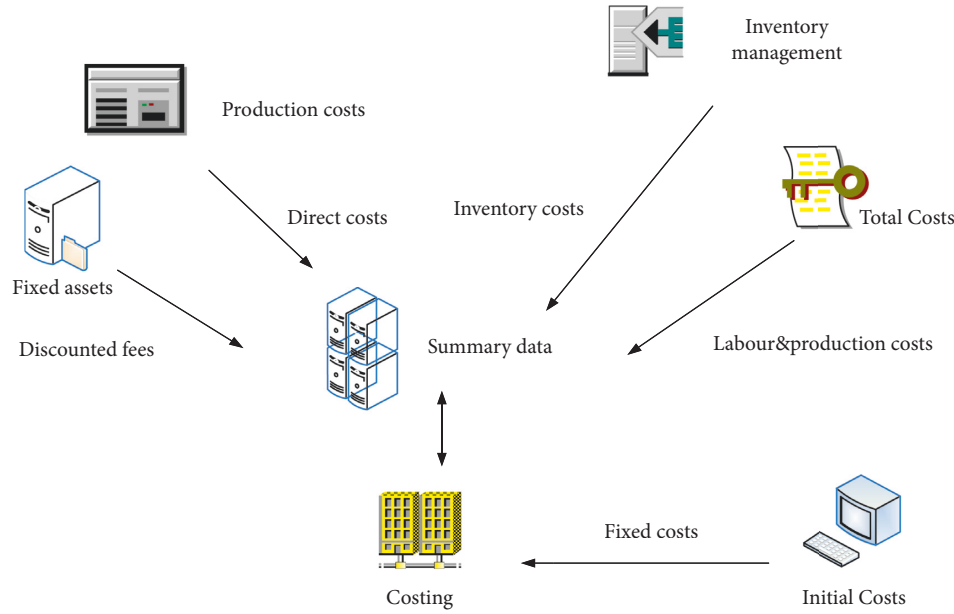


FIGURE 2: Schematic diagram of the centralized cost accounting process.

In this process, we transform the complex situation of enterprise costing into an integral operation with only addition and subtraction operations. However, in the actual process of enterprise accounting, the integral operation is still very complicated, so we use the Fourier transform to solve the above integral again:

$$\begin{aligned}
 & r^{-jL} \int_0^{+\infty} X_0 J(J_i) dX_0 - r^{-jL} K \int_0^{+\infty} X_0 J(J_i) dX_0 \\
 &= r^{-jL} \int_0^{+\infty} X_0 J(x) dX - r^{-jL} K \int_0^{+\infty} X_0 J(x) dX \quad (5) \\
 &= \int_0^{+\infty} e^{-jL} \int_0^{+\infty} e^{-jL} e^{-rx} (e^x - e^t) dx dt.
 \end{aligned}$$

For $\lim_{r \rightarrow +\infty} \int_0^{+\infty} e^{-jL} e^{-rx} (e^x - e^t) dx dt = 0$, it can be gotten:

$$D^i(x) = e^{-jL} \int_0^{+\infty} e^{-jL} (x) \frac{e^x - e^t}{e^x e^t} dx. \quad (6)$$

After obtaining the above formula, perform the inverse Fourier transform on $e^{-jL} \int_0^{+\infty} e^{-jL} (x) e^x - e^t / e^x e^t dx$:

$$C_h(x) = \frac{e^{-jL}}{\varphi} \int_0^{+\infty} D[e^{-jL} \varphi(v)] dv. \quad (7)$$

In this way, the converted enterprise costing calculation formula is basically obtained. However, since the above formula contains an indeterminate parameter ϕ , it affects the work efficiency of cost accounting to a certain extent. To this end, a production efficiency function is defined on the basis of the above formula, and the loss rate is used to evaluate the actual efficiency of enterprise costing:

$$\begin{aligned}
 Q_c &= \frac{e^{-jL}}{e} \int_{-\infty}^{+\infty} [qJ(x) e^{(c+v)x}] dx, \\
 M &= 1 - \frac{Q_c K}{D^i(x)}.
 \end{aligned} \quad (8)$$

Among them, Q_c represents the production efficiency function, which depicts the actual production and operation efficiency of the enterprise. M represents the loss rate in the business activities of the enterprise. In this process, the combination of the production and operation activities of the enterprise with the Fourier transform algorithm was initially realized, and the transformed enterprise accounting costing formula was basically obtained.

2.3. Centralized Accounting of Enterprise Accounting Costs.

By analyzing the converted accounting costing formula, it can be found that Fourier transform integrates the original disorganized costing into a centralized accounting method [18]. Moreover, in this transformation process, based on the excellent characteristics of Fourier transform, some new progress has been made in the centralized accounting method of accounting costs. The schematic diagram of the basic process of cost centralized accounting is shown in Figure 2.

In the process of centralized cost accounting, the cost accounting organization of an enterprise is often an important place to grasp all the cost information of the enterprise. By adopting the method of centralized cost accounting, enterprises can not only grasp all the information about the cost in time but also manage the cost flow in the production and operation activities in a centralized manner [19, 20]. In the past cost information recording process, it is often difficult for enterprises to form a final cost report due to the different units and storage media used by various departments. Under the centralized cost accounting method, the enterprise can realize the summarization and analysis of the cost data only by using the computer.

In a general sense, centralized cost accounting refers to the cost accounting of cost accounting work [21]. Under this accounting method, each department within the enterprise is generally only equipped with basic cost accounting

personnel. And these personnel do not have to be very skilled accounting personnel, they can be full-time or part-time personnel [22]. For these personnel, they only need to register the actual expenses of the business activities, fill in the original documents, and conduct preliminary review, sorting, and summarization of these original materials. On the basis of their data, the core department of enterprise cost accounting can obtain first-hand information in a timely manner and fully improve the efficiency of data utilization. With the development of economy, the process of enterprise cost accounting is closely integrated with cost management. Therefore, the process of cost accounting actually includes all aspects of cost management. Under the catalysis of the concept of centralized cost accounting, a centralized accounting system has gradually formed in most enterprises, which skillfully combines cost management, cost analysis, and cost supervision [23]. The centralized accounting structure of accounting costs is shown in Figure 3.

In the centralized accounting structure of accounting costs, the enterprise cost accounting process is becoming more standardized and systematic [24]. The emergence of the centralized accounting system of accounting costs regulates the cost approval and aggregation behavior of enterprises and avoids the abuse and misuse of costs. At the same time, the system further improves cost supervision and lays a solid foundation for the cost management of enterprises. Different from other cost accounting methods, the centralized cost accounting method realizes the centralized scheduling and management of resources. Under the joint action of the two, the company continues to improve the basic work, aiming to fundamentally improve the economic benefits of the company. In addition, the emergence of the centralized accounting method of accounting costs has also brought new economic growth points for enterprises, promoted enterprises to optimize cost resources, and constantly forced enterprises to change production factors.

With the support of the FT algorithm, the centralized accounting method of accounting costs continuously overcomes its inherent limitations. First, the centralized accounting of accounting costs based on the FT algorithm has reformed the centralized management system of enterprise accounting, realizing the combination of enterprise funds and finance [25]. In the process of combining, although the enterprise funds and financial management are still scattered, the centralized accounting system realizes the unification of the powers of the two to a certain extent. Second, the centralized accounting of accounting costs based on the FT algorithm realizes the internal circulation of enterprise funds. After the implementation of this method, although the funds of enterprises are still under the unified jurisdiction of the Ministry of Finance, the flow and approval of funds have become more transparent. At the same time, in this case, enterprises can more clearly understand the funds spent in each production link and accelerate the flow of funds within the enterprise [26]. Finally, the centralized accounting of accounting costs based on FT algorithm increases the authenticity of enterprise cost accounting to a certain extent. In this process, the centralized accounting of accounting costs has enabled the financing of funds among

various departments and indirectly improved the level of cost management in each department. Moreover, with the acceleration of financial integration, the level of economic development of enterprises themselves will also be improved.

At the same time, although the centralized cost accounting method based on the FT algorithm will hinder the enterprise department to obtain its own cost information to a certain extent, this method gives the core department of the enterprise the power to manage costs in a coordinated manner. Under the incentive of power, the enthusiasm of the core departments of the enterprise will be greatly mobilized, which will promote the formation of a healthy competition atmosphere within the enterprise. Moreover, on the basis of traditional cost accounting, the centralized accounting cost accounting method based on FT algorithm also connects cost supervision and review links, which will ensure the accuracy and authenticity of cost accounting to the greatest extent. However, in the actual production and operation activities of enterprises, due to the differences between enterprises, the theoretical method is always slightly separated from the actual itself.

3. Effectiveness of Centralized Accounting Cost Accounting Method Based on FT Algorithm

W Company is a toy-based enterprise, and it has been using traditional cost accounting methods. In the process of cost management, business operators rely on past experience. Under such a cost management method, the cost accounting method of the enterprise is also relatively arbitrary, and its costs are mainly divided into manufacturing costs and other costs. In terms of manufacturing cost, the company adopts the variety method as the main method of cost accounting. In the specific implementation process, W Company classifies and summarizes the actual costs in production and operation activities according to categories. However, due to the incompatibility between the cost accounting method and the cost management method of the enterprise, many wastes and losses have occurred in the actual production and operation activities of the enterprise.

In this case, in order to maintain the vested interests of the enterprise, the enterprise has to reform the cost accounting method. Taking into account the actual situation of the enterprise, the article proposes a centralized accounting method based on the FT algorithm, aiming to use this as an entry point to promote the reform of enterprise cost management and production and operation models. In this process, the material loss of the enterprise can well reflect the cost management strategy and production and operation of the enterprise. To this end, a brief summary and study of the material loss of the enterprise within two months was carried out, among which the material loss of the enterprise is shown in Table 1.

Table 1 shows that under the original cost accounting method, the main material loss of the enterprise is about 0.5 kg, and the auxiliary material loss also reaches 0.4 kg. In other words, for the enterprise, it consumes 0.016 kg for each finished product it produces. Moreover, for the defective

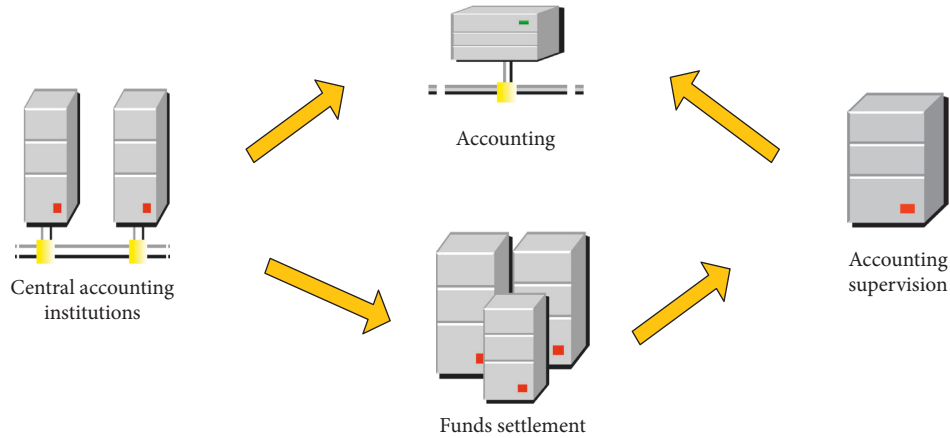


FIGURE 3: Centralized accounting structure for accounting costs.

TABLE 1: Enterprise material loss.

Name	Main material (kg)	Auxiliary materials (kg)	Spare materials (kg)
Before optimization	0.50	0.42	0.13
After optimization	0.28	0.39	0.11
Outgoing products	0.35	0.27	0.221
Lost products	0.45	0.25	0.178

products generated in the production process of the enterprise, the loss value has reached 0.25 kg. In contrast, after adopting the centralized accounting method of the FT algorithm, the material loss of the company was significantly reduced, and the loss of main materials was reduced to 0.28 kg.

In order to know the performance of the centralized accounting method based on the FT algorithm at different levels as much as possible, the article then conducts a comparative study on the actual production efficiency of enterprises using different cost accounting methods. Among them, the comparison of production efficiency of enterprises under different cost accounting methods is shown in Table 2.

The table shows that different costing methods will bring different production efficiency. Among them, in the case of traditional cost accounting, the company can complete 182 products on schedule by processing 200 products, which shows the efficiency of resource scheduling and cost management. In contrast, under the centralized accounting method based on the FT algorithm, the qualified production efficiency of the enterprise can reach 98%.

After a series of improvements to the enterprise cost accounting method, the purpose is to analyze its performance under different data volume information. In order to make the experimental results more objective, this paper takes the general method of cost accounting as an example to conduct the following experiments. In the experiment process, this paper studies the variety method (A), the step-by-step method (B), and the centralized accounting method based on the FT algorithm proposed in this paper on the Matlab platform. The time-consuming situation of different cost accounting methods is shown in Table 3.

The table shows that when faced with massive data information, different cost accounting methods have different performances. Among them, for the first two methods, they have more than 10240 MB of data, and the average time does not exceed 300 milliseconds. But when the amount of data processed exceeds 10240 MB, the time consumed by the above two methods directly exceeds 600 milliseconds. In contrast, the centralized accounting method based on the FT algorithm proposed in this paper has a natural advantage in processing massive data. The average time consumption is basically no more than 200 milliseconds, which fully reflects the superiority of the centralized cost accounting strategy in resource processing.

With the support of the FT algorithm, the centralized accounting method of enterprise accounting costs realizes the openness and transparency of cost management. Compared with the traditional cost accounting method, the centralized cost accounting method reconstructs the summary structure of the cost and realizes the further refinement of the cost accounting. At the same time, in this process, the centralized accounting method of accounting costs does not enlarge the scope of actual cost accounting, and it does not omit the corresponding enterprise costs. For W enterprise, the centralized accounting method of accounting cost relying on FT algorithm provides very important information support for enterprise resource management and strategic decision making, which greatly improves the efficiency of enterprise resource allocation and has laid a solid foundation for enterprises to enhance their core competitiveness.

3.1. Centralized Accounting Effect of Accounting Cost Based on FT Algorithm. Accuracy and Production Efficiency of Centralized Accounting Costs of Enterprise Accounting

TABLE 2: Comparison of enterprise production efficiency under different cost accounting methods.

	Orders	Before optimization	After optimization
Production efficiency	Order number	200	200
	Number of completed	182	196
	Number of unfinished	23	11
Completion rate	Qualified orders (%)	91	98

TABLE 3: Time consuming of different costing methods.

Data volume (MB)	Average time (A)	Average time (B)	Average time (Ours)	Average (ms)
1024	221	145	89	151.6
4096	276	211	101	196
10240	371	385	132	296
40960	701	611	180	497.3

Based on FT Algorithm: in the production and operation activities of enterprises, the accuracy of cost accounting is very important. In order to ensure the effectiveness of the centralized accounting method based on the FT algorithm proposed in the article, this article aims to analyze its utility in actual production and operation activities from the perspective of the accuracy of cost accounting. At the same time, in order to fully explore the changes in the production efficiency of enterprises under this method, the paper also studies this. Among them, the accuracy and production efficiency of the centralized accounting of enterprise accounting costs based on the FT algorithm are shown in Figure 4.

Figure 4 shows that in different periods, there are obvious differences in the accounting cost accounting of enterprises. In the early stage of cost accounting, due to the discontinuity between the centralized accounting method and the actual production and operation activities of the enterprise, the accounting accuracy of the early centralized cost accounting method was not particularly ideal, and the accuracy value was only 57.8%. With the passage of time, the centralized accounting method of enterprise accounting costs is getting closer and closer to the actual situation of the enterprise, so its accuracy has also risen from 66.2% to 70.01%. On the other hand, looking at the relationship between the centralized accounting method of enterprise accounting cost and enterprise productivity, it is found that the enterprise's production efficiency reaches its peak in the second stage, reaching 33.4%. However, in the third stage, the production efficiency of the enterprise dropped to 23.09%, which shows that the centralized accounting method based on the FT algorithm still has certain limitations in some aspects.

3.2. Enterprise Losses under Different Cost Accounting Methods. Enterprise cost accounting can optimize the flow of resources within the enterprise to the greatest extent and improve the utilization rate of internal resources. However, unreasonable cost accounting methods not only fail to improve the utilization rate but also may further lead to waste of resources and bring certain losses to the production

and operation activities of enterprises. Among them, the loss situation of enterprises under different cost accounting methods is shown in Figure 5.

Figure 5 shows that corporate losses have different performances in different links. Among them, in terms of product operation, enterprises are most likely to suffer losses, with a loss rate of 38.2%. At the same time, it can also be found that the centralized cost accounting method brings relatively large losses to enterprise assets, products, and channels, up to 31.9%. In terms of product supply, employees, etc., the centralized cost accounting method causes less losses, with a loss rate as low as 20.17%.

3.3. Cost Saving under the Centralized Accounting Method Based on FT Algorithm. In the process of enterprise cost accounting, the packaging, transportation, and labor costs of the enterprise can more intuitively reflect the level of enterprise cost management. In order to test the actual utility of the centralized cost accounting method based on the FT algorithm proposed in this paper, the article focuses on the analysis of the cost savings of enterprises under this method. The savings under the cost accounting method based on the FT algorithm are shown in Figure 6.

Figure 6 shows that the centralized cost accounting method based on the FT algorithm can effectively save the cost of the enterprise and improves the efficiency of the enterprise. In terms of packaging and labor costs, the cost accounting method proposed in the article can save up to 22.5% of enterprise costs and help enterprises achieve circular development. In terms of transportation cost, although it only saves 12.3% of the cost, it is also an effective use and optimization of resources for enterprises. Moreover, after the improvement of the cost accounting method, the enterprise can analyze the cost structure from multiple aspects, which is of great significance for the enterprise to improve the cost management level.

3.4. Quality of Enterprise Accounting Information under Different Links. In the process of cost accounting, enterprises often need to process massive data information, and the quality of accounting information directly determines

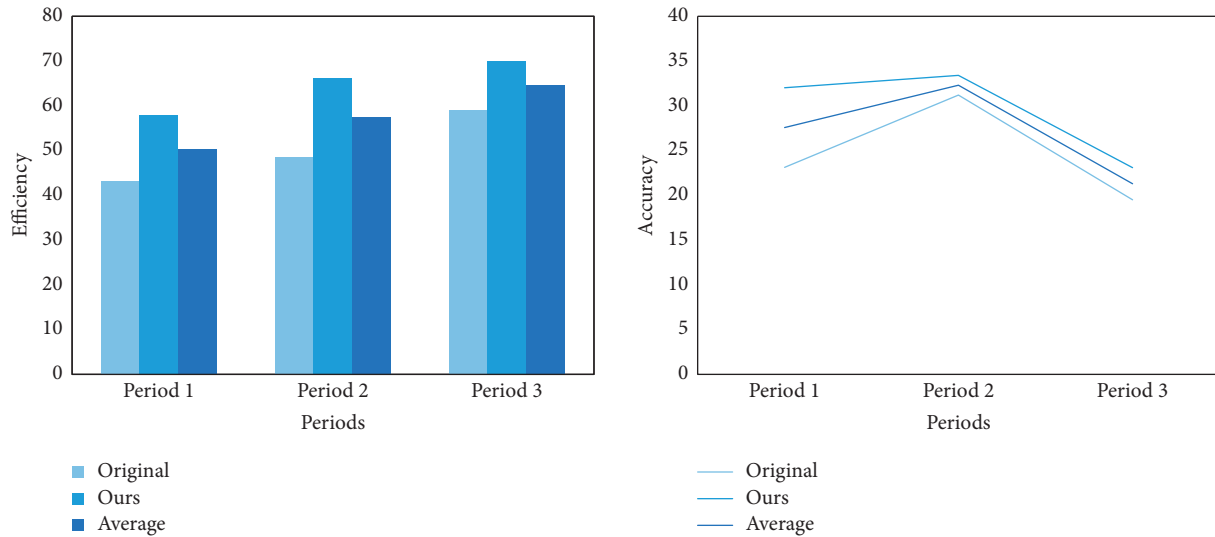


FIGURE 4: Accuracy and production efficiency of centralized accounting of enterprise accounting costs based on FT algorithm.

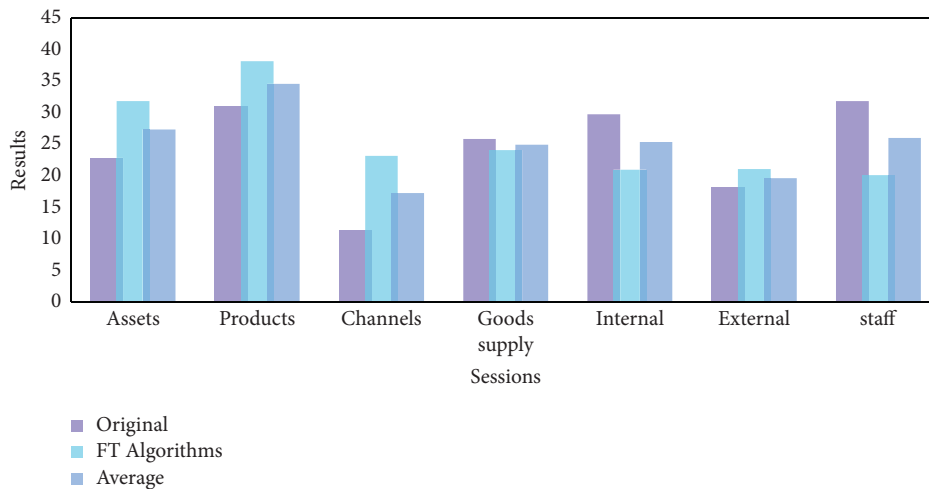


FIGURE 5: Enterprise losses under different cost accounting methods.

the success of cost accounting. In the process of cost accounting for W company, it is found that the quality of accounting information in different links is uneven. Therefore, this paper focuses on the analysis of the accounting information quality of the enterprise in the warehouse management and control, procurement, and other links. The specific situation of the enterprise accounting information quality in different links is shown in Figure 7.

Figure 7 shows that with the support of the centralized cost accounting method, the quality of accounting information of enterprises has generally been improved. Among

them, in the cost analysis link, the quality of accounting information of enterprises has increased by 31.9%. Through further analysis, we found that the centralized cost accounting method based on the FT algorithm can not only optimize inventory control but also improve the transparency of the logistics list and optimize the overall resource allocation of the enterprise. At the same time, although the cost centralized accounting method proposed in this paper performs poorly in some aspects, it does not affect its basic utility. Moreover, it is precisely because of the limitations of this method that this forces the realization of collaborative optimization within the enterprise.

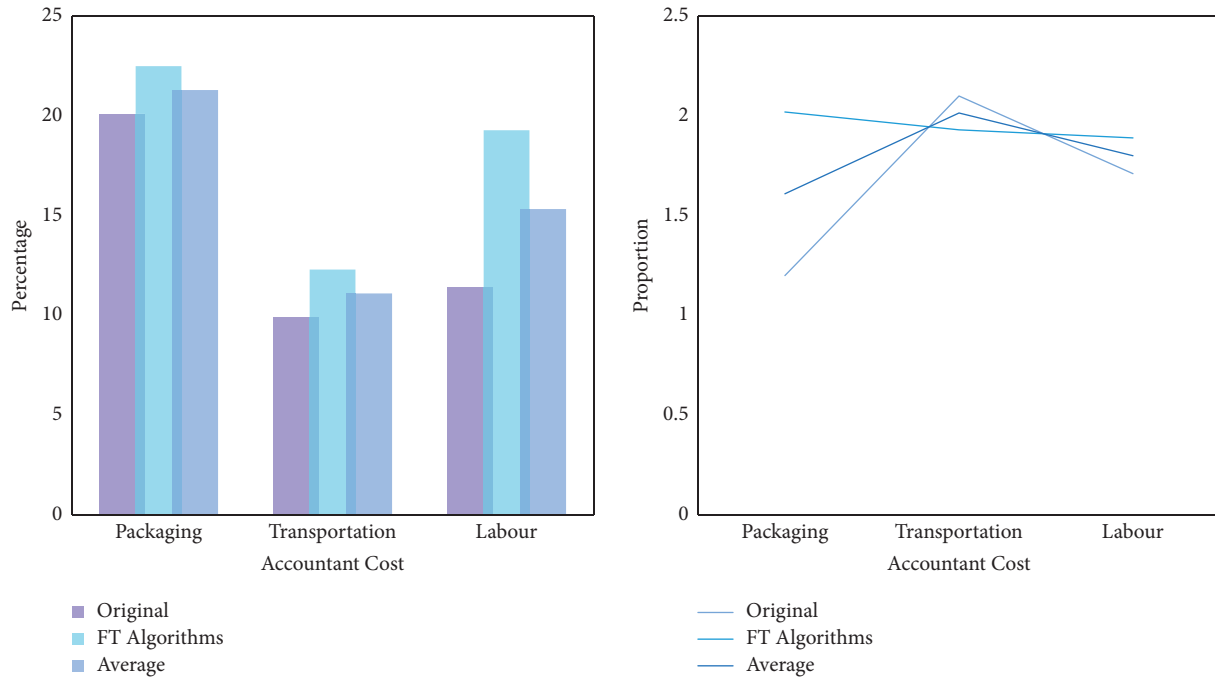


FIGURE 6: Savings under the cost accounting method based on the FT algorithm.

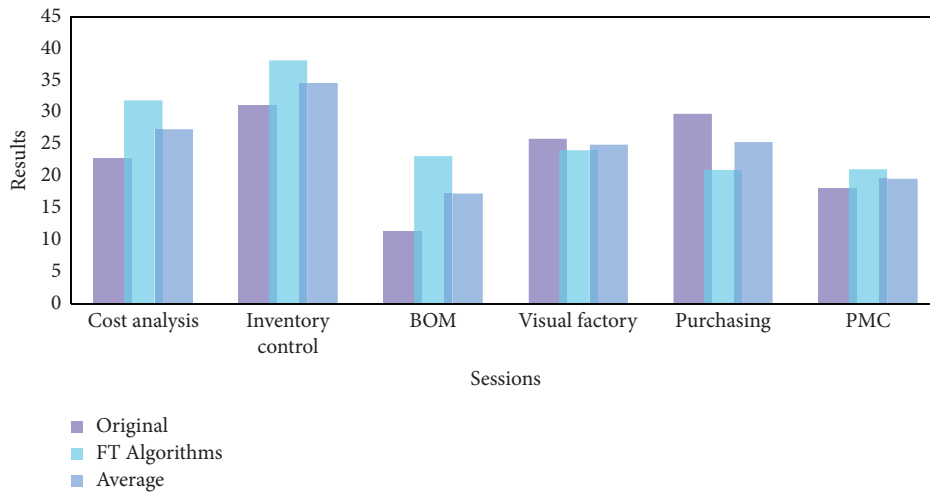


FIGURE 7: The quality of corporate accounting information under different links.

4. Conclusion

Enterprise cost accounting directly affects the daily production and operation activities and management of the enterprise. Therefore, promoting the cost accounting method to keep pace with the times is not only the needs of the enterprise itself but also the trend of the times. The article starts from the universal method of cost accounting, aiming to find the defects of traditional cost accounting based on the actual situation. On this basis, the article focuses on analyzing the advantages and disadvantages of cost accounting methods such as variety method and step method and then puts forward the concept of cost centralized accounting.

Under the guidance of this concept, the article introduces the FT algorithm into the cost centralized accounting method and integrates and proposes a centralized accounting cost accounting method based on the FT algorithm. Finally, from the actual situation, the article focuses on analyzing the shortcomings of W Company under the traditional cost accounting method. At the same time, in order to test the practical utility of the centralized accounting method of accounting cost based on FT algorithm, a series of experiments are carried out to analyze it. Experiments show that the centralized accounting method of accounting cost based on FT algorithm can improve the production efficiency of enterprises. But due to time reasons,

the article does not focus on analyzing the shortcomings of the centralized accounting method relying on the FT algorithm. In the future, the article will delve into the problems of this method and carefully re-optimize it.

Data Availability

The data used to support the findings of this study are available from the author upon request.

Conflicts of Interest

The author declares that there are no conflicts of interest.

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